

2025 CDP-ICLEI Track and States & Regions Questionnaire and Guidance

Version	Release/Revision date	Revision summary
1.0	Released: April 2, 2025	Publication of the CDP-ICLEI Track and States & Regions questionnaire reporting guidance
2.0	Released: April 17, 2025	Corrected question 1.5, "Change from Last Year." Added Table of Contents.

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Introduction to CDP's 2025 Disclosure Cycle

Welcome to CDP's 2025 online questionnaire. Cities are invited to respond to the Cities questionnaire through CDP-ICLEI Track. States and regions are invited to respond to the States and Regions questionnaire.

Since 2019, CDP and ICLEI have partnered to present one unified portal, CDP-ICLEI Track, for local government climate reporting for cities. All responding jurisdictions will only have to report once per year, on one platform. CDP will use this climate data to provide insights for cities, states and regional jurisdictions, allowing them to track their progress, benchmark their efforts with their peers and drive further action. City, state and regional data is analyzed and aggregated by organizations and relevant partners and initiatives including C40 Cities, Global Covenant of Mayors for Climate & Energy (GCoM), ICLEI, Race to Zero, Race to Resilience, RegionsAdapt and Science Based Targets Network. This makes for streamlined, simpler reporting, and stronger, standardized data.

We encourage all jurisdictions to answer as much of the questionnaire as possible. Please answer the questions comprehensively whilst also assessing the relevance of the information you provide.

More information on the Cities and States and Regions questionnaires can be found [here](#).

Preparing your response

You are able to report and track your response in the CDP Portal. CDP's Portal makes it easier to disclose, track progress, and access data and disclosure information. More information and guidance on the Portal and on 2025 disclosure timelines can be found [here](#) and at our [Help Center](#).

Note that it is your responsibility to verify the mandatory public disclosure requirements of any initiatives that you are a part of, and that you have attached any requested attachments you wish to include. CDP shall not be liable for any failure to do so.

Reporting Guidance

The following Reporting Guidance includes question-level details on the information requested and the required format. The Guidance is separated into the following elements to provide clarity around questions, terminology, and reporting requirements:

- *Questionnaire*: notes which questionnaire the question is a part of, and the pathway if it is on the Cities questionnaire (more information on CDP-ICLEI Track Pathways can be found in the Help [Center](#));
- *Question Dependencies*: notes where the appearance of the question depends on a response to a previous question;
- *Change from Last Year*: notes the degree of change from 2024
- *Example Response*: for select questions, this provides an example of a response that would include all information requested;
- *Explanation of Terms*: provides detailed definitions for specific terminology;
- *Additional Information*: for select questions, this provides optional contextual information and resources related to the given topic area;
- *GCoM Compliance Guidance*: additional guidance for cities disclosing to the Global Covenant of Mayors.

Please note that not all questions and columns are applicable to all Disclosers.

Scoring Methodology

The Scoring Methodology is designed to incentivize jurisdictions' transition towards resilience and net-zero through equitable environmental action. The scoring documents will become available on the [Scoring materials](#) section of the CDP website and in the portal:

Please note that for cities committed to Global Covenant of Mayors for Climate & Energy (GCoM), receiving CDP scores is separate from earning GCoM badges.

Additional Documentation

The following [Help Center](#) articles contain additional documentation.

Guidance on Reporting Science-Based Targets in the Cities and States and Regions questionnaires

Historical Cities, States and Regions Questionnaires and Guidance

Cities Questionnaire Pathways and Pathways Map

The 2025 Cities questionnaire is divided into three distinct pathways which streamline reporting, allowing local jurisdictions to find the most appropriate questionnaire for their local context. Responders will be recommended a pathway during the questionnaire activation process based on their response to three jurisdictional attributes: per capita emissions, population, and Human Development Index (HDI). This article provides more information on the methodology and a mapping of questions to the pathways.

Cities, States and Regions Questionnaire Changes Map

This provides an outline of key changes to the questions that comprise the questionnaires. Ensuring the Discloser reporting effort does not increase remains a priority consideration for the development of the 2025 questionnaires. The aim of changes is to ease reporting, improve data quality, and reflect best practice on climate action.

Cities, States and Regions: Frameworks, Projects and Initiatives

This provides an overview of the frameworks, projects, and initiatives the questionnaires are aligned with, and maps each question to the applicable framework, project, and/or initiative

- The 2025 Cities questionnaire is aligned with the reporting requirements of several frameworks and initiatives including the [Global Covenant of Mayors Common Reporting Framework \(CRF\)](#), [ICLEI initiatives](#), [C40 Cities](#), the [NetZeroCities Mission Cities](#), the [WWF One Planet Cities Challenge](#) and the [Union of the Baltic Cities \(UBC\) Sustainable Cities Commission](#).
- The 2025 States and Regions questionnaire is aligned with the reporting requirements of [RegionsAdapt](#) and the [Under2 Coalition](#).
- Both questionnaires are aligned with the UNFCCC's campaigns [Race to Resilience](#) and [Race to Zero](#), the [EU Mission on Adaptation to Climate Change](#), the [Science Based Targets Network](#), the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#), and the [Sustainable Development Goals](#).

Copy Forward

If you submitted a response to the 2024 questionnaire, your answers have been auto-populated into your 2025 questionnaire where possible. Please review the auto-populated answers carefully. It is your responsibility to ensure your answers are updated for the accuracy and completeness of your 2025 response. Attachments are not copied forward.

CDP's Accredited Solutions Providers

CDP partners with [leading environmental service providers](#) that can support cities, states and regions throughout all stages of the measurement, reporting and management of their climate and sustainability data and impacts. All CDP Accredited Solutions Providers have met specific accreditation criteria. Providers' expertise covers a wide range of environmental topics, including but not limited to renewable energy procurement, sustainability strategy, verification, collection, monitoring, and reporting of sustainability, CSR, and environmental data through integrated sustainability software applications, transition planning and emissions reduction initiatives.

Visit the [Accredited Solutions Provider directory](#) to search for the provider best able to support you, or contact partnerships@cdp.net to find out more.

Open Data Portal

The [Open Data Portal \(ODP\)](#) is an online data resource that allows the public to view all data publicly reported to CDP from cities, states and regions. The ODP contains data and visualizations of data from responses disclosed from the years 2015-2024.

Further Support and Resources

If you have any questions that are not answered in this Guidance or on our [website](#), or need help completing your response, please visit the [CDP Help Center](#) or get in touch with your regional contact:

Geographical region	Cities Contact	States and Regions Contact
Asia Pacific	citiesapac@cdp.net	statesandregionsapac@cdp.net
Europe	cities.europe@cdp.net	statesandregions.europe@cdp.net
UK, Africa, Middle East, Caucasus	citiesEMEA@cdp.net	statesandregionsemea@cdp.net
Latin America, Caribbean	reportecer@cdp.net	reportecer@cdp.net
North America	citiesna@cdp.net	statesandregionsna@cdp.net

Cities that are part of the ICLEI network can also email carbonn@iclei.org.

C40 Cities can also contact their regional director or reporting@c40.org.

GCoM Cities may find additional guidance on their disclosure [here](#).

Important notes for completing your disclosure

Accompanying symbols for GCoM Disclosers (Cities questionnaire only):

In 2024 GCoM published an updated version of the Common Reporting Framework (CRF) to introduce the Energy Access & Poverty Pillar and an additional simplified reporting level. This Simplified level makes it easier for local governments, such as those with low available resources and low data capacity, to comply with their commitment to GCoM. It prioritizes flexibility and ease of access for local governments over consistent, more complete, and comparable data at the global level, that local governments using the Complete reporting level contribute to.

GCoM cities need to select in question 1.2 which level they would like to report against. This will not change the questionnaire layout, meaning that cities will still see all GCoM questions. GCoM cities are welcome to report to as many datapoints as they want regardless of their selected CRF level.

Throughout the questionnaire:

- all Simplified level columns are marked with '^'.
- all additional Complete level questions are marked with '^'.

Cities reporting to the Simplified level need only answer columns marked '^', whereas cities reporting to the Complete level need to answer all columns marked '^' and '^'.

Add row tables: For dynamic table-based questions you will need to click the button 'Add row' in order to be presented with the applicable table.

Attachments: Throughout your response, where an attachment is requested there is the option to either provide this in an attachment-specific column or provide a URL link in a text column. If the attachment column is not available, there will be the option to upload a file into the 'Further Information' question 11.1 at the end of the questionnaire.

Acronyms: Avoid using bespoke internal acronyms unless required for your jurisdiction's response, in which case please provide their meaning to enable correct analysis and scoring (if applicable).

Blank responses: Leaving a response blank is interpreted as a non-disclosure. For numeric fields, values of zero (0) imply a measurement has been made, and the value is zero (0). For numeric fields where no measurement has been made, you may have the opportunity to report an explanation for this in subsequent columns. Alternatively you may provide explanations in the 'Further Information' section at the end of your disclosure. Leaving a response blank or entering a value of zero (0) may have scoring implications. See the [scoring methodology](#) for more details.

Character limits: The character limits noted in the reporting guidance and in the CDP Portal include spaces.

'Comment' columns: Some questions include a column labelled as 'Comment'. Note that providing information in these columns are not scored.

Consistency: CDP encourages a comprehensive and consistent response. Ensure there is no conflicting information in your responses, both within a question and across the questionnaire.

Data accuracy: CDP recognizes that there may be uncertainty linked to data – this can arise from data gaps, assumptions, metering/measurement constraints including equipment accuracy etc. CDP allows estimated data to be submitted. However, an emphasis is placed on reporting transparently, meaning a local government should always provide an explanation when its reported data is not accurate and detail the uncertainty (use the 'Please explain' or 'Comment' columns provided in the question, or the 'Further Information' section at the end of the questionnaire).

Data quality: To enhance data quality and support analysis, note that:

- Any quantifiable data must be reported in the units stated in the column/question.
- Numbers in your response must be reported in a way that matches the cultural setting selected. When inputted in the CDP Portal, numbers will be displayed in a format specific to the cultural setting selected. The cultural setting determines which decimal separator or group separator is used, i.e. a decimal point or comma.

Dropdown options ('Other, please specify'): Please select from the options provided whenever possible, and only select 'Other, please specify' when none of the listed options are appropriate. This greatly assists data analysis. If selecting 'Other, please specify', you must add a label into the text field provided that describes the option you are providing data for.

Further Information: At the end of the questionnaire in question 11.1, there is an opportunity to provide additional information or context that you feel is relevant to your response. This question is optional and not scored.

'Jurisdiction': All references to 'jurisdiction' throughout the questionnaire and guidance refer to the administrative boundary of the reporting government (as reported in question 1.2), and all residents, infrastructure, activities etc. within that boundary.

Personal Data: It is important that you do not include the name of any individual or any other personal data in your response.

Principles of true and fair reporting: CDP promotes relevant widely accepted reporting principles as adopted by the [Greenhouse Gas Protocol](#), and adapted from the [GHG Protocol Corporate Standard](#) for use by local governments, to ensure a true and fair account of their environmental data. These principles are as follows:

- **Relevance:** The reported GHG emissions shall appropriately reflect emissions occurring as a result of activities and consumption patterns of the local government. The inventory will also serve the decision-making needs of the local government, taking into consideration relevant local, subnational, and national regulations. The principle of relevance applies when selecting data sources and determining and prioritizing data collection improvements. Information is considered relevant if it contains the detail that users, both internal and external to the local government, need for their decision-making. When considering what to disclose, identify and report information that is likely to be of use and benefit to the audience requesting it.
- **Completeness:** Local governments shall account for all required emissions sources within the inventory boundary. Any exclusion of emission sources shall be justified and clearly explained. Notation keys shall be used when an emission source is excluded, and/or not occurring.
- **Consistency:** Emissions calculations shall be consistent in approach, boundaries, and methodology. Using consistent methodologies for calculating GHG emissions enables meaningful documentation of emission changes over time, trend analysis, and comparisons between local governments. Calculating emissions should follow the methodological approaches provided by the GPC. Any deviation from the preferred methodologies shall be disclosed and justified.

- Transparency: Activity data, emission sources, emission factors, and accounting methodologies require adequate documentation and disclosure to enable verification. The information should be sufficient to allow individuals outside of the inventory process to use the same source data and derive the same results. All exclusions shall be clearly identified, disclosed and justified.
- Accuracy: The calculation of GHG emissions shall not systematically overstate or understate actual GHG emissions. Accuracy should be sufficient enough to give decision makers and the public assurance of the integrity of the reported information. Uncertainties in the quantification process shall be reduced to the extent that it is possible and practical.
- Guidance on using principles: Within the requirements of this standard, a local government will need to make important decisions in terms of setting the inventory boundary, choosing calculation methods, deciding whether to include additional scope 3 sources, etc. Tradeoffs between the five principles above may be required based on the objectives or needs of the local government. For example, achieving a complete inventory may at times require using less accurate data. Over time, as both the accuracy and completeness of GHG data increase, the need for tradeoffs between these accounting principles will likely diminish.

'Reporting year': All references to 'reporting year' throughout the questionnaire, guidance and scoring methodology refer to the year in which the jurisdiction is reporting, i.e. 2025.

Acknowledgements

CDP would like to thank all entities that assisted in the development of 2025 Cities and States and Regions questionnaires.

Governance

(1.1) What language are you submitting your response in?

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Response Options

Select one of the following options:

- English
- Spanish
- Portuguese
- Japanese
- Chinese
- Other, please specify

(1.2) Provide details of your jurisdiction in the table below.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions: Columns 1-10

Connection to other frameworks

- [Cities only] GCoM: Adaptation, Mitigation, Energy Access and Poverty Pillars
- [Cities only] NetZeroCities - Mission Cities
- Race to Resilience
- Race to Zero
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Ecomobility Alliance
- Transformative Actions Program
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11

Response Options

1	2	3
Administrative boundary of reporting government	Next highest level of government	Next lowest level of government
Select from: • State / regional • City / Municipality • Consolidated city-county • County / Province • Federal district • Independent city / municipality • Independent province • Indigenous Nation • Intercommunality / Intermunicipality • Independent intercommunality • Local government area within a greater metropolitan area • Metropolitan area • Sovereign city-state • Special city / municipality • Sub-municipal district • Town • Other, please specify	Select from: • National • State / regional • City / Municipality • Consolidated city-county • County / Province • Federal district • Independent city/municipality • Independent province • Intercommunality / Intermunicipality • Independent intercommunality • Local government area within a greater metropolitan area • Metropolitan area • Sovereign city-state • Special city / municipality • Sub-municipal district • No higher level of government • Other, please specify	Select from: • City / Municipality • Consolidated city-county • County / Province • Federal district • Independent city / municipality • Independent province • Intercommunality / Intermunicipality • Independent intercommunality • Local government area within a greater metropolitan area • Metropolitan area • Sovereign city-state • Special city / municipality • Sub-municipal district • Town • No lower level of government • Other, please specify

4	5	6	7	8
Area of the jurisdiction boundary (in square km)	Percentage range of jurisdiction area that is natural or modified terrestrial, freshwater, coastal and/or marine ecosystem	Current (or most recent) population size	Population year	Projected population size
Numeric field	Select from: • <5% • 5-10% • 11-20% • 21-30% • 31-40% • 41-50% • 51-60% • 61-70% • 71-80% • 81-90% • 91-100% • I do not have this data	Numeric field	Select from: 2010-2025	Numeric field

9	10	11
Projected population year	Select the currency used for all financial information reported throughout your response	Select which Common Reporting Framework level you are reporting to^
Select from: 2026-2050	Select from: Appendix A - (Currency)	Select from: • CRF Complete level • CRF Simplified level

Requested Content

General

- Any further contextual information relevant to your response may be added to question 11.1.

Administrative boundary (column 1)

- Select the administrative boundary of your jurisdiction by selecting the most appropriate response from the drop-down options listed.

Next highest level of government (column 2)

- Select the next highest level of government. For example, if your administration is a county which is considered a legal subdivision of a state or regional government you may select the option 'State/regional' as the most appropriate.
- If none of the options represented reflect your jurisdiction's context please select 'Other, please specify' and input the next highest level of government. If there is no higher level of government then select the option 'No higher level of government'.

Next lowest level of government (column 3)

- Select the next lowest level of government. For example, if your administration is a municipality constituted of smaller local authorities you may select the option 'Sub-municipal district' as the most appropriate.
- If none of the options represented reflect your jurisdiction's context please select 'Other, please specify' and input the next lowest level of government. If there is no lower level of government then select the option 'No lower level of government'.

Area of the jurisdiction boundary (in square km) (column 4)

- Report the land area of your jurisdiction boundary reported in column 1 in km². We understand that some jurisdictions may prefer to use the imperial measurement system, however, to facilitate the comparison of data we request that all jurisdictions provide their land area in metric units. Common conversion factors and online tools for conversion are included in CDP's Technical Note "[Units of Measure Conversions](#)".

Percentage range of jurisdiction area that is natural or modified terrestrial, freshwater, coastal and/or marine ecosystem (column 5)

- Select the range that most accurately reflects the percentage of natural or modified terrestrial, freshwater, coastal and/or marine ecosystem, within the jurisdiction boundary reported in column 1, that contribute to human well-being, ecosystem services, resilience, and biodiversity benefits. If you do not know this figure, then select the option 'I do not have this data'.

Current (or most recent) population size (column 6) / Population year (column 7)

- Ideally, the population data reported here should be from the same year as your GHG emissions inventory reported in question 3.1.1 and 3.1.2/3/4.
- Provide the number of residents within your administrative boundary in column 6. Ensure that the figure is entered in a full format, for example, if the population is 1.87 million then enter 1870000.
- These columns may be used by data users to calculate the projected population in the target year of your emissions reduction targets (reported in 6.1.1).
- Your jurisdiction population data may be found in the following sources: [City Population](#), [UN data](#), [Global City Population Estimates \(GLA\)](#)

Projected population size (column 8) / Projected population year (column 9)

- Provide the projected number of residents within your administrative boundary. Where possible report a projection that is aligned with your jurisdiction's main emissions inventory and emissions reduction target. For example, if your jurisdiction has an emissions reduction target of 100% by the year 2050, please provide a projection for 2050.
- Ensure that the figure is entered in a full format, for example, if the population is 1.87 million then enter 1870000.
- These columns may be used by data users to calculate the projected population in the target year of your emissions reduction targets (reported in 6.1.1).

Select the currency used for all financial information reported throughout your response (column 10)

- The currency selected here will be used for all financial information throughout your response.
- This should be your preferred currency to report financial information and not necessarily the currency of your jurisdiction, as for some jurisdictions this may not be appropriate for estimating some project costs.

Select which Common Reporting Framework level you are reporting to (column 11)

- This column is only presented to GCoM jurisdictions. See the GCoM Guidance for further information.

Additional Information

Note for cities in the United Kingdom: Select from the drop-down menu of column 1 the administrative boundary of your local authority.

One-tier councils:

- If Combined Authority select 'Metropolitan Area'
- If Unitary Authority select 'Municipality'

Two-tier councils:

- If County Council select 'County/Province'
- If District Council select 'Local government area within a metropolitan area'

Explanation of terms

- Municipality: This is the most common form of local government and is responsible for administering areas often referred to as cities or towns.
- County / Province: Middle level administrative subdivision of a country/area.
- Federal district: Local government with the authority and responsibilities of all administrative levels below the national government. These heightened administrative powers are usually given to large or significant cities within a country/area, very often the capital city.
- Independent municipality: Local government with the authority and responsibilities of both a municipality as well as the next higher administrative level in the respective country/area. Exists in parallel to both municipalities and the next higher administrative level. We use the word independent when two bodies merge into a single one with both responsibilities and duties.
- Independent province: Province / County and at least one higher administrative level in the respective country/area. We use the word independent when two bodies merge into a single one with both responsibilities and duties.
- Indigenous Nation: The leadership of any community that self-identifies as an Indigenous community. Article 4 of the UN Declaration on the Rights of Indigenous Peoples states that: "Indigenous peoples, in exercising their right to self-determination, have the right to autonomy or self-government in matters relating to their internal and local affairs, as well as ways and means for financing their autonomous functions."
- Intercommunality / Intermunicipality: Administrative level for a cluster of municipalities in one geographic area. This form of government is responsible for many local issues of infrastructure and maintenance.
- Independent intercommunality: An Intercommunality which also has the authority and responsibilities equivalent to at least one higher administrative level in the respective country/area. Exists in parallel to both other intercommunalities and the next higher administrative level. We use the word independent when two bodies merge into a single one with both responsibilities and duties.
- Local government area within a greater metropolitan area: A sub-tier of local government responsible for local services not overseen by the executive governing body (e.g., the City of London local authority within the Greater London Authority).
- Metropolitan area: A region consisting of a densely populated urban core and its less-populated surrounding areas (e.g., an urban area closely linked economically and socially, such as a commuting catchment area).

- Sovereign city-state: A state consisting of a sovereign city and its dependencies (e.g., Singapore; Vatican City).
- Special municipality: Local government with the authority and responsibilities of all administrative levels below the national government. These heightened administrative powers are usually given to large or significant cities within a country/area, very often the capital city.
- Sub-municipal district: Further administrative subdivision of a Municipality or Special city / Federal district. They are occasionally present in very large cities and are responsible for many of the tasks assigned to municipalities in other parts of the country/area.
- Town: An area with defined boundaries and a local government which is usually larger than a village but smaller than a city.
- State / Regional: Top level administrative subdivision of a country/area.

GCoM guidance

CRF Complete and Simplified reporting levels

In 2024 GCoM published an updated version (version 7) of the Common Reporting Framework (CRF) which expands on Version 6, to introduce the Energy Access & Poverty Pillar and an additional simplified reporting level. The Simplified reporting level is introduced to make it easier for local governments, such as those with low available resources and low data capacity, to comply with their commitment to the GCoM. The Simplified reporting level prioritizes flexibility and ease of access for the local governments over consistent, more complete, and comparable data at the global level, that local governments using the Complete reporting level contribute to.

GCoM cities need to select in column 11 which level they would like to report against. Please note that this selection WILL NOT change the questionnaire layout, meaning that cities will see ALL GCoM questions and columns for Simplified and Complete level. GCoM cities are welcome to report to as many datapoints as they want regardless of their selected CRF level. For example, cities selecting the Simplified level can also report to Complete level data points.

Throughout the questionnaire, all Simplified level columns are marked with the '^' symbol while Complete level questions are marked with '^'. Cities reporting to the Simplified level need only answer columns marked '^', whereas cities reporting to the Complete level need to answer columns marked '^' AND '^'.

(1.3) Provide information on your jurisdiction's oversight of climate-related risks and opportunities and how these issues have impacted your jurisdiction's planning.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 2 and 3
- States and Regions

Connection to other frameworks

- TCFD: Governance (Disclosure A & B), Strategy (Disclosure A & B)
- NetZeroCities - Mission Cities
- Race to Zero
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13, SDG16, SDG17

Response Options

Please complete the following table:

Select the processes that reflect your jurisdiction's oversight of climate-related issues	Provide further details on your jurisdiction's oversight of climate-related issues	Describe how climate-related issues have impacted your jurisdiction's master/development planning	Describe how climate-related issues have impacted your jurisdiction's financial planning	Describe the risks to your jurisdiction related to the transition to a low-carbon economy
Select all that apply: Informing government on climate-related issues • Council (or equivalent) is informed by relevant departments, committees and/or subcommittees about climate-related issues • Relevant departments, committees and/or subcommittees are informed by management about climate-related issues Consideration of climate-related issues • Climate-related issues are considered by the government when undertaking plans and/or strategies • Climate-related issues are considered by the government when undertaking budgeting and/or major capital expenditures • Climate-related issues are considered by the government when undertaking risk management policies	Text field	Text field	Text field	Text field

Select the processes that reflect your jurisdiction's oversight of climate-related issues	Provide further details on your jurisdiction's oversight of climate-related issues	Describe how climate-related issues have impacted your jurisdiction's master/development planning	Describe how climate-related issues have impacted your jurisdiction's financial planning	Describe the risks to your jurisdiction related to the transition to a low-carbon economy
- Climate-related issues are considered by the government when setting performance objectives Climate-related responsibilities - Climate-related responsibilities are assigned to a committee(s) or a subcommittee(s) in the government - Climate-related responsibilities are assigned to management-level positions in the government Other/No processes - Other processes related to the oversight of climate-related issues, please specify - Currently no processes in place for the oversight of climate-related issues - Do not know of processes in place for the oversight of climate-related issues				

Requested Content

Select the processes that reflect your jurisdiction's oversight of climate-related issues (column 1)

- Select the processes implemented by your jurisdiction's government as it pertains to the oversight of climate-related issues.
- The drop-down options reflect different processes that are used to inform government on climate-related issues, factor climate-related issues in key decision making and assign responsibility for climate-related issues to those within government.
- Climate-related issues may include:
 - Climate risks and opportunities that may impact the jurisdiction
 - Initiatives to help address these climate risks and opportunities
 - Progress on climate goals and targets ([CPA, 2019](#))
- Note: this question does not need to be updated annually, providing the information reported previously is still relevant in the reporting year.

Provide further details on your jurisdiction's oversight of climate-related issues (column 2)

- Provide further information on the processes and frequency by which your government is informed about climate-related issues.
- This can include information on how the government considers climate-related issues when reviewing and guiding strategy, major plans of action, and master and development plans.
- Provide details on how your government oversees progress against goals and targets for addressing climate-related issues.

Describe how climate-related issues have impacted your jurisdiction's master/development planning (column 3)

- Describe how your jurisdiction's master/development planning has been influenced by climate-related risks and opportunities and the time horizon(s) it covers.
- Specify if this includes any climate change adaptation and mitigation activities.
- Include the most substantial strategic decision(s) to date that have been influenced by climate-related risks and opportunities.

Describe where and how climate-related issues have influenced your jurisdiction's financial planning/ budgeting (column 4)

- Climate-related issues can affect several important aspects of a government's financial position, both now and in the future. For example, climate-related issues may have implications for a government's capital expenditures.
- Provide details on how climate-related risks and opportunities have influenced your government's financial planning.
- You may consider including the impact on financial planning in the following areas:
 - Operating costs and revenues
 - Capital expenditures and capital allocation
 - Access to capital

Describe the risks to your jurisdiction related to the transition to a low-carbon economy (column 5)

- The Task Force for Climate-Related Financial Disclosures (TCFD) divides climate-related risks into two major categories: the risks related to the transition to a low-carbon economy and the risks related to the physical impacts of climate change.
- In this field you are requested to describe the broader transition risks your jurisdiction faces that are related to the transition to a low-carbon economy. In question 2.2 you will be requested to report on the physical impacts of climate change.
- Transition risks may include:
 - Current and emerging regulation: Policy developments that attempt to constrain actions that contribute to the adverse effects of climate change or policy developments that seek to promote adaptation to climate change.
 - Technology: All risks associated with technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system.
 - Legal: All climate-related litigation claims.
 - Market: All shifts in supply and demand for certain commodities, products, and services.
 - Reputation: All risks tied to changing community perceptions of a government's contribution to or detracting from the transition to a lower-carbon economy.

(1.4) Report how your jurisdiction assesses the wider environmental, social, and economic opportunities and benefits of climate action.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 2 and 3
- States and Regions

Connection to other frameworks

- TCFD: Strategy (Disclosure A)
- NetZeroCities - Mission Cities
- Race to Resilience
- Race to Zero
- *[States and Regions only]* RegionsAdapt
- C40 Leadership Standards
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG1, SDG10

Response Options

[*column/row appearance is dependent on selections in this question]

1	2	3
Does the jurisdiction assess the wider opportunities/benefits of climate action?	Outline how your jurisdiction assesses the impact of these wider opportunities/benefits*	Describe the wider opportunities/benefits of climate action the jurisdiction has identified*
Select from: • Yes, wider opportunities/benefits are assessed for all climate actions • Yes, wider opportunities/benefits are assessed for many climate actions • Yes, wider opportunities/benefits are assessed for some climate actions • Preparing to assess wider opportunities/benefits of all climate actions over the next year • Intending to assess wider opportunities/benefits of all climate actions in the next 2 years • Not intending to assess wider opportunities/benefits of any climate actions • Do not know • Other, please specify	Select all that apply: • Wider opportunities/benefits are considered at the action planning stage • Wider opportunities/benefits are considered at the action implementation stage • Wider opportunities/benefits are considered at the post-implementation monitoring and evaluation stage • Wider opportunities/benefits are quantitatively assessed • Wider opportunities/benefits are qualitatively assessed • Do not know	Text field

4	5	6
Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits	Outline how your jurisdiction quantifies the equitable and inclusive distribution of climate action*	Provide evidence and/or more details on the actions your jurisdiction is taking to ensure equitable and inclusive distribution of climate action
Select all that apply: • Yes, the jurisdiction is collecting disaggregated or spatial data to inform the design and/or monitor the implementation of climate actions • Yes, the jurisdiction is collecting disaggregated or spatial data on the impact of climate actions • Yes, the jurisdiction is engaging with frontline communities most impacted by climate change • Yes, the jurisdiction is designing or implementing climate actions that address the needs of frontline communities most impacted by climate change • Yes, the jurisdiction undertakes wider benefits and/or equity assessments for its climate actions • Yes, the jurisdiction is working to ensure climate actions align with UNDRIP and/or national laws pertaining to Indigenous rights • Yes, through other measures, please specify • No, but the jurisdiction is preparing to incorporate measures over the next year • No, but the jurisdiction is intending to incorporate measures in the next 2 years • No, and the jurisdiction is not intending to incorporate measures • Do not know	Text field	Text field

Requested Content

General

- Wider opportunities and benefits are beneficial outcomes from actions that are not directly related to climate action. Such opportunities and benefits include cleaner air, green job creation, public health benefits from active travel, and biodiversity improvement through expansion of green space. ([The co-benefits of climate action: Accelerating City-Level Ambition](#)).
- Jurisdictions should be considering and evaluating the positive or negative impacts of climate action on residents. The evaluation results can be qualitative or quantitative and the findings will differ depending on the type of climate action that is being implemented. These results can help inform and develop targeted policies that help remedy pre-existing injustices and avoid an inequitable distribution of benefits from climate actions.
- Find out how to do an equity assessment in C40's [Inclusive Planning Roadmap](#) published on the C40 Knowledge Hub.
- Find out more about analyzing the equity and inclusion aspects of your actions and measuring their equitable impacts via the [Actions Analysis tool](#) and [equitable impacts guidance and tools](#) on the C40 Knowledge Hub.
- Note: this question does not need to be updated annually, providing the information reported previously is still relevant in the reporting year.

Does the jurisdiction assess the wider opportunities/benefits of climate action? (column 1)

- Your selection will determine whether the column 'Outline how your jurisdiction quantifies the impact of these wider opportunities/benefits' will be presented.
- Indicate whether your jurisdiction assesses wider opportunities/benefits of climate actions and if so, is this assessment done for some, many or all climate actions.

Outline how your jurisdiction assesses the impact of these wider opportunities/benefits (column 2)

- This column is presented if a 'Yes' option is selected in column 1.
- Evaluating the impacts of wider opportunities/benefits can help build a strong case for climate actions, create buy-in from decision-makers and help prioritize those actions that will deliver the most benefits ([The co-benefits of climate action: Accelerating City-Level Ambition](#)).

- The [Urban Climate Action Impacts Framework](#) suggests indicators that can be used to measure co-benefits.
- Tools that can enable your jurisdiction to quantify co-benefits include: [C40 Benefits toolkit](#) and [Siemens City Performance Tool](#).
- If available, upload an attachment of your jurisdiction's analysis of wider opportunities/benefits associated with climate action.

Describe the wider opportunities/benefits of climate action the jurisdiction has identified (column 3)

- This column is presented if a 'Yes' option is selected in column 1.
- Describe the most significant climate-related opportunities the jurisdiction has identified over the short, medium, and long term.
- Include a description of how these opportunities and wider benefits have impacted your jurisdiction across environmental, social and economic contexts.

Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits (column 4)

- Climate actions should be designed to ensure that their benefits are equitably distributed across the population ([C40](#)).
- If your jurisdiction is ensuring equitable distribution of climate action impacts, select the measures your jurisdiction is taking. If your jurisdiction is not yet taking measures to ensure equitable distribution of climate action impacts, select whether they are in progress, intending to or not intending to do so.
- Any 'Yes, ...' selection drives the presentation of column 5 on how data is collected.
- The [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#) recognizes Indigenous self-determination and many associated rights. Federal-level policies may vary from country to country. Indigenous rights should be considered in all policies, including climate policies. For further reading on this topic, see the [Status of Tribes and Climate Change Report](#) (2021, US-focused) & [UNDRIP resources from the Assembly of First Nations](#) (Canada-focused). If your jurisdiction has processes in place for this, you may select 'Yes, the jurisdiction is working to ensure climate actions align with UNDRIP and/or national laws pertaining to Indigenous rights', and describe them in further detail in columns 5 and 6.

Outline how your jurisdiction quantifies equitable and inclusive distribution of climate action impacts (column 5)

- This column is presented if a 'Yes' option is selected in column 4.

- Explain the process of how and when data from your local community on equitable and inclusive climate action is quantified.
- Such data should enable the design and implementation of equitable and inclusive climate actions.

Provide evidence and/or more details on the actions your jurisdiction is taking to ensure equitable and inclusive climate action (column 6)

- Describe and/or give evidence of the measures your jurisdiction is taking that ensure inclusive and equitable distribution of climate action impacts.
- If you are reporting to C40 Cities, ensure you report at least two actions and specify the year in which each action took/is taking place.

Additional Information

Examples of how jurisdictions have taken findings from qualitative or quantitative equity assessments to address inequalities

Accra, Ghana: In 2021, following the launch of the Inclusive Climate Action (ICA) pilot in Accra, C40 provided support to the city to undertake a needs assessment to understand the nature of the relationship between the city administration and the informal waste sector, with the objective to:

- Assess the relationship between the informal sector and the city, leveraging existing work in the sector and highlighting opportunities that can support the goals of Accra's ICA pilot.
- Assess the needs, challenges, and barriers to informal sector engagement with the city of Accra – including an understanding of what is supported by policy and identifying how the pilot and future work of the city can enhance previous work done in the sector.

Three workshops and one focus group discussion were organised to engage informal waste sector workers and associated stakeholders on the one hand, and city team and associated stakeholders on the other hand – to identify existing gaps and challenges, elevate opportunities and enablers, and help understand what roles identifiable city, regional and national groups can play in strengthening the city's engagement with informal waste sector workers. The outcome of this process is a needs assessment report

which details the barriers to relationship building, and actions that the next phase of the ICA programme can take to deliver its ambitions.

The needs assessment and capacity building sessions have supported the creation of a safe space to facilitate city-informal waste sector interactions based on strategic objectives of relationship building for climate resilience. Additionally, the city is witnessing an enhanced understanding of the position of the informal waste sector in delivering inclusive climate action, and an enhanced understanding of the opportunities for strengthening city-informal waste sector collaboration. This work also informed the development of the 2022 [policy framework](#) to serve as a guide for policy development in Accra. This will reflect all the elements required for informed and inclusionary policies and will highlight the needs of the informal sector including safeguarded livelihoods, social protection, fair income, and awareness of issues around migration and gender. More information can be found [here](#).

Johannesburg, South Africa: Johannesburg conducted a quantitative economic and labor market assessment in collaboration with C40 Cities in 2022. Through the assessment the city identified opportunities to invest mitigation and adaptation actions outlined in the Climate Action Plan that support the transition from coal to renewable energy, which could create over 417,000 green jobs in the city by 2030. The report identified that female participation is lower in energy and transport sectors and suggested that the new jobs created should ensure opening more equitable opportunities for historically marginalized groups. The research also identified the risk of youth unemployment and unemployment of previously disadvantaged individuals could trigger negative impacts on Johannesburg's economy. The assessment outlines some policy recommendations to mitigate climate action implementation risk by suggesting workforce development or job placement programmes, equitable tax incentives and social safety net improvement. Reflecting on the findings that the energy and buildings sector offered the greatest potential for green jobs creation, the city has since initiated a Green Buildings Skills Training. This training will be rolled out to at least 55 municipal staff to empower them with the knowledge needed to improve compliance with the City's Green Building Policy. Improving the city's institutional capacity is a key step towards achieving the target for all new buildings to be net-zero carbon by 2030, as committed to in its Climate Action Plan. There is a special focus to ensure that female staff are equally represented in the training. More information can be found [here](#).

London, UK: The Mayor of London's Green New Deal, its green recovery programme aims to tackle the climate and ecological emergencies and improve air quality by doubling the size of London's green economy by 2030 to accelerate job creation for all. As part

of this effort the Mayor's Green New Deal Fund will allocate up to £10 million in its first year to support projects that help achieve this ambition. One such project is the recently launched Future Neighbourhoods 2030 project. To inform this project, the city commissioned climate vulnerability mapping that takes account of risk of heat exposure, air pollution, flooding, access to green spaces, as well as social characteristics such as age, unemployment and poverty rates cross London. Informed by this assessment, the city has identified 2-4 neighbourhoods & community initiatives within the highest risk areas that will receive £7.5m of the Fund through Future Neighbourhoods. With a thorough socio-economic and climate risk equity assessment continuing between 2021-2024, London is demonstrating how its climate actions are being designed in an inclusive way whilst considering a strong approach to deliver equitable distribution of impacts on its communities.

(1.5) Report on your engagement with other levels of government regarding your jurisdiction's climate action.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 2 and 3
- States and Regions

Connection to other frameworks

- *[Cities only]* NetZeroCities- Mission Cities
- Race to Zero
- Race to Resilience

- *[States and Regions only]* RegionsAdapt
- C40 Leadership Standards
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG17

Response Options

[*column/row appearance is dependent on selections in this question]

Climate component	Other types of governments engaged in the development, implementation and/or monitoring of component*	Outline the purpose of this engagement*	Comment
Select from: • Climate risk and vulnerability assessment • Community-wide GHG emissions inventory • Climate action plan • Climate mitigation target • Climate adaptation goal • Other, please specify • Not engaging with other levels of governments regarding climate action	Select all that apply: • National-level government • Indigenous peoples with overlapping or neighboring territory • State/Regional-level government • Higher level of government (not listed above) • Lower level of government • Other, please specify	Select all that apply: If national, state or higher level of government, or indigenous peoples • The development of this component is required by the national government (e.g., by law, regulation and/or agreement) • The development of this component is required by a higher-level of government that is not the national government (e.g., by law, regulation and/or agreement) • To facilitate the integration of this component into the Nationally Determined Contribution (NDC)	Text field

Climate component	Other types of governments engaged in the development, implementation and/or monitoring of component*	Outline the purpose of this engagement*	Comment
		• To facilitate the integration of this component into the National Adaptation Plan (NAP) • Progress tracking and/or updates associated with this component are shared with a higher-level of government (e.g., via a digital platform) • The method used to develop this component was required or recommended by a higher-level of government If any level of government • To collect data and/or feedback from other levels of government to inform its development • To facilitate information sharing across different levels of government • To facilitate capacity building across different levels of government • To facilitate the integration of this component into assessments and policy developed across different levels of government • Other, please specify	

[Add Row]

Requested Content

General

- Critical to achieving the credible, just, and ambitious commitments required to avoid a climate catastrophe is effective multilevel governance and coordination: collaboration, communication, and engagement among all levels of government (GCoM, 2021). This question is requesting information regarding your jurisdiction's engagement and coordination with other levels of government on key climate actions.
- Note: this question does not need to be updated annually, providing the information reported previously is still relevant in the reporting year.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Climate component (column 1)

- Select the climate action component for which you are reporting your engagement with other levels of government. The focus of this question is on engagement regarding key climate action assessments, plans and targets. However, engagement on other climate action areas can also be reported on by selecting 'Other, please specify' and indicating the applicable area in the text box that is presented.
- If 'Not engaging with other levels of governments regarding climate action' is selected, columns 2 and 3 will not be presented.

Outline the purpose of this engagement (column 3)

- This column is not presented if 'Not engaging with other levels of governments regarding climate action' is selected in column 1.
- Listed are common purposes as to why local and regional governments will engage with other levels of government (both horizontal and/or vertical) on climate action.
- This includes requirements placed upon local governments established by national governments, for example the requirements to create an emission inventory, or establish an emissions reduction target.
- This also includes engagement whose purpose is to facilitate integration of the local and regional governments' climate actions into Nationally Determined Contribution (NDC) and/or National Adaptation Plan (NAP) considerations.

- Other listed purposes address engagement whose purpose is to support progress tracking, data collection, information sharing and capacity building across the applicable levels of government.

Comment (column 4)

- If the development of a particular component is required by a higher level of government please provide the name of the law, regulation and/or agreement and where possible a link to the document.
- If a publicly accessible digital platform is in place to support engagement between different levels of governments and progress tracking, please provide a link to that platform.

Additional Information

Multilevel Climate Action Playbook for Local and Regional Governments

- The Multilevel Climate Action Playbook for Local and Regional Governments recommends key elements of an enabling environment that can weave climate ambition and action of local and regional governments into Party policy developments to accelerate vertically integrated NDC implementation and investment plans.

Vertically Integrated Measurement, Reporting, and Verification (MRV) systems

- Vertically Integrated Measurement, Reporting, and Verification (MRV) systems are an example of effective multi-level governance. While there are various approaches that can be used common purposes include supporting the monitoring of emissions and climate actions across levels of governments. The systems address communication, coordination, shared methods and responsibilities between two or more levels of government along various administrative tiers. Having a vertically integrated MRV system enables shared responsibilities, ideally with clearly defined roles for each level of government, with consideration of their respective (required) resources, objectives and mandates.
- To address these challenges, it is suggested that national governments integrate their national MRV system vertically with data and/or MRV systems of subnational governments in their country/area. Many national MRV systems do not include subnational governance bodies in any substantial way.

- The report Typical Challenges for Vertically Integrated Measurement, Reporting and Verification Systems of Greenhouse Gas Emissions provides an overview of the most common barriers and constraints for an effective implementation of a national vertically integrated MRV System. Included are recommendations on how these common barriers can be overcome in order to close the existing vertical gap in a more effective way (ICLEI, 2021).

(1.6) Report your jurisdiction's most significant examples of collaboration with government, business, and/or civil society on climate-related issues.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- Race to Zero
- Race to Resilience
- [States and Regions only] RegionsAdapt
- C40 Leadership Standards
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Transformative Actions Program

- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG17

Response Options

[*column/row appearance is dependent on selections in this question]

Primary entity collaborated with	Mechanisms used to collaborate*	Areas collaboration focused on*	Description of collaboration and any progress, if applicable*	Other entities collaborated with*
Select from: Government/Public body • National government • Regional government • Indigenous peoples with overlapping or neighboring territory • Neighboring local government • Local government within country/area • Local government outside of country/area • Public authority • Other, please specify	Select all that apply: Informational/Engagement • Collaborative initiative • City business partnership platform • Knowledge or data sharing • Capacity development • Convening industry groups • Trade union engagement • Multi-jurisdictional regional collaboratives • Reporting of climate and/or environmental data Economic • Labour market training initiatives • Economic development	Select all that apply: • Emissions reduction • Adaptation • Resilience • Energy • Transport (Mobility) • Waste • Building and Infrastructure • Industry • Agriculture • Finance • Forestry	Text field	Select all that apply: Government/Public body • National government • Regional government • Indigenous peoples with overlapping or neighboring territory • Neighboring local government • Local government within country/area • Local government outside of country/area • Public authority • Other, please specify

Primary entity collaborated with	Mechanisms used to collaborate*	Areas collaboration focused on*	Description of collaboration and any progress, if applicable*	Other entities collaborated with*
Civil society • Academia • Climate initiatives/networks • Residents/community groups • Vulnerable population groups • NGO and associations • Education sector • Faith-based organizations • Trade/labor unions • Other, please specify Business • Agriculture • Communication Services • Construction • Consumer Discretionary • Consumer Staples • Energy • Food & Beverage	• Entrepreneurship support programmes • Financing (investment) • Funding (grants) • Circular economy business model support • Cleaner production industry support • Procurement Technical • Technical assistance • Engineering and consulting procurement • Project implementation and management • Project delivery - Public Private Partnership • Project delivery - Build Operate Transfer • Project delivery - Build Operate Own Transfer Policy/Legislative	• Landscape and jurisdictional approaches • Ecosystem restoration • Food • Water • Public health • Natural environment • Social Services • Education • Inclusive climate action and/or equity • Other, please specify		Civil society • Academia • Climate initiatives/networks • Residents/community groups • Vulnerable population groups • NGO and associations • Education sector • Faith-based organizations • Trade/labor unions • Other, please specify Business • Agriculture • Communication Services • Construction • Consumer Discretionary • Consumer Staples • Energy • Food & Beverage • Financials

Primary entity collaborated with	Mechanisms used to collaborate*	Areas collaboration focused on*	Description of collaboration and any progress, if applicable*	Other entities collaborated with*
- Financials - Health Care - Industrials - Information Technology - Materials - Real Estate - Transport - Utilities - Waste - Industry trade group - Other, please specify No significant examples of collaboration to report - Intending to collaborate in the next year - Intending to collaborate in the next two years - Not intending to collaborate, please specify why - Other, please specify	- Policy and regulation development/ implementation - Climate action plan implementation - Nationally Determined Contribution (NDC) development/ implementation - Development of local/regional adaptation plans, National Adaptation Plans and/or National Adaptation Programmes of Action (NAPAs) - Reporting to the national Measurement, Reporting and Verification (MRV) system - Requirement to develop emissions inventory - Requirement to develop and implement emissions reduction target Other - Other, please specify			- Health Care - Industrials - Information Technology - Materials - Real Estate - Transport - Utilities - Waste - Industry trade group - Other, please specify

[Add Row]

Requested Content

General

- This question aims to understand how your jurisdiction collaborates with government or other public bodies, business, or civil society on climate-related issues.
- You are requested to report examples of your jurisdiction's most significant examples of collaboration with governments, businesses, and/or civil society on climate-related issues. If applicable, you may also report on the progress of this collaboration, and you may provide further examples of collaboration by adding additional rows.
- According to the UN, "A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level." (SDG Tracker)
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Primary entity collaborated with (column 1)

- Select the primary entity with which your jurisdiction has been collaborating on climate-related issues.
- If you have engaged with different entities for the specific example being reported, you will be able to report these in the column 'Other entities collaborated with'.
- If your jurisdiction has not yet collaborated with other entities on climate-related issues, select any option from the 'No significant examples of collaboration to report' group of options. If this selection is made you will not be presented with the subsequent columns 2 - 5.
- If you select the option 'Not intending to collaborate' please briefly explain in the text box presented why and what the barriers are to collaborating with your jurisdiction's partners.
- Note the following for clarification:
 - National and regional governments include governmental departments.
 - Public authorities are publicly funded bodies that deliver a service, such as a national health service, a public utility service, or a municipal waste management service.

- A trade/labor union is an organized association of workers in a trade, group of trades, or profession, formed to protect and further the workers' rights and interests.
- An industry trade group, or trade/business association, is an organization founded or funded by businesses that operate in a specific industry. They are often powerful lobbying groups, with analysis performed by InfluenceMap finding that they often conduct most of the effective climate policy engagement and lobbying in their respective regions, more so than individual businesses.

Additional Information

- Further information about developing successful collaborations between cities and private sector can be found in the City-Business Climate Alliance Guide.
- The CBCA Guide is designed for city governments who want to work with their local business community to address the challenges of climate change. The guide draws on the real-world examples of Helsinki, Boston, London and Paris to walk through the key steps and phases to establish a CBCA.

Example Response

For explanatory purposes, a sample answer to this question is included below.

Primary entity collaborated with	Mechanisms used to collaborate*	Areas collaboration focused on*	Description of collaboration and any progress, if applicable *	Other entities collaborated with*
Regional government	Collaborative initiative Knowledge or data sharing Capacity development	Emissions reduction Energy	We have been working closely with our regional government to scale up solar energy, coordinate action and share knowledge. We have been working together	Neighboring local government Residents

Primary entity collaborated with	Mechanisms used to collaborate*	Areas collaboration focused on*	Description of collaboration and any progress, if applicable *	Other entities collaborated with*
	Procurement Climate action plan implementation	Building and Infrastructure	on strategic energy planning which also involves our neighboring local government.	NGO and associations Energy

Climate Risk and Vulnerability Assessment

(2.1) Has a climate risk and vulnerability assessment been undertaken for your jurisdiction? If not, please indicate why.^

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar
- TCFD: Risk Management (Disclosure A)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Select one of the following options:

- Yes, a climate risk and vulnerability assessment has been undertaken
- No, but we are currently undertaking one and it will be complete in the next year
- No, but we are intending to undertake one in the next two years
- No, and we are not intending to undertake due to lack of financial capacity
- No, and we are not intending to undertake due to lack of expertise/technical capacity
- No, and we are not intending to undertake due to lack of financial capacity and expertise/technical capacity
- No, and we are not intending to undertake due to other higher priorities
- No, and we are not intending to undertake due to a reason not listed above, please specify

Requested Content

General

- Indicate whether your jurisdiction has undertaken a climate change risk or vulnerability assessment by selecting the most relevant option from the drop-down menu.
- A climate change risk and vulnerability assessment is used to determine the nature and extent of risks posed by climate change.
- This is done by analyzing potential future climate hazards and evaluating existing vulnerabilities to understand the seriousness of the potential impacts on people, assets, services, livelihoods and the environment.
- The assessment could be a standalone document, or part of a broader plan, but should ideally cover the full city boundary.
- Assessments undertaken at a different level to your jurisdiction boundary may be reported, e.g. if you are a city that uses a region-wide climate risk and vulnerability assessment. However, ensure the appropriate selections are made in 'Boundary of assessment relative to jurisdiction boundary' in 2.1.1.
- If your jurisdiction has not undertaken a climate change risk or vulnerability assessment, then select the appropriate 'No' option which indicates your jurisdiction's intention to conduct one.
- If you select 'Yes, a climate risk and vulnerability assessment has been undertaken' you will be presented with question 2.1.1.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Chapter 5, "Risk and Vulnerability Assessment" of the Common Reporting Framework, indicates that "Local governments shall prepare and submit a climate risk and vulnerability assessment within two years after committing to GCoM".

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM "Adaptation-Assessment badge". Please don't leave this question blank. If your RVA has been completed this year and is due to be published in 2025, you can select "Yes, a climate risk and vulnerability assessment has been undertaken".

Additional Information

Resources

Name	Description	Institution
<u>C40 Climate Change Risk Assessment Guidance</u>	A guidance document to help cities that are conducting a climate change risk assessment in line with Global Covenant of Mayors and C40 Cities requirements	C40 Cities
<u>C40 Climate Change Risk Assessment Screening Template</u>	Template that compares a city's climate risk assessment with C40 Climate Change Risk Assessment Guidance.	C40 Cities
<u>Vulnerability Analysis</u>	The Future We Don't Want data analysis calculates urban vulnerability to climate change, focusing on: Extreme heat, Heat and Poverty, Water availability, Food Security, Coastal Flooding and Sea level rise and Energy supply and Sea level rise.	The Future We Don't Want (C40 Cities, GCoM), Acclimatise, and the Urban Climate Change Research Network (UCCRN)
<u>Climate Risk and Adaptation Framework and Taxonomy (CRAFT)</u>	CRAFT is a standardized reporting framework that enables cities to perform robust and consistent reporting of local climate hazards and impacts, risk and vulnerability assessment, and adaptation planning and implementation.	C40 Cities
<u>Strengthening the Climate Resiliency of Cities and their Communities in Asia: Climate Risk and Vulnerability Assessment – Training Guide for Cities</u>	Resource pack for cities in Asia (available in English and Bahasa) providing a summary of key learnings from CDP's capacity-building program, with additional case studies and resources. It is intended as a training guide for cities on conducting their climate risk and vulnerability assessment.	CDP

<u>Urban Risk Assessments: Understanding Disaster and Climate Risk in Cities</u>	The Urban Risk Assessment moves towards a common, cost-effective approach for specifying where and how many people are vulnerable to natural hazards and identifying high-risk infrastructure.	World Bank
<u>Urban Adaptation Support Tool (UAST)</u>	The aim of the Urban Adaptation Support Tool (<u>UAST</u>) is to assist cities, towns and other local authorities in developing, implementing and monitoring climate change adaptation plans. See Section 3 for information on assessing climate change risks and vulnerabilities.	Climate-ADAPT (European Commission, European Environment Agency)

(2.1.1) Provide details on your climate risk and vulnerability assessment.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Columns 1-6
 - Pathway 2 and 3: Columns 1-7
- States and Regions

Question dependencies

This question is presented if 'Yes, a climate risk and vulnerability assessment has been undertaken' is selected in response to 2.1.

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar
- TCFD: Risk Management (Disclosure A, B, C)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG1, SDG11, SDG13

Response Options

1	2	3	4	5	6	7
Assessment attachment^	Assessment direct link^	Confirm attachment/link provided to assessment	Boundary of assessment relative to jurisdiction boundary^	Year of publication or approval	Factors considered in assessment	Please explain
Attachment function	Text field	Select from: • The assessment has been attached • The assessment can be accessed (unrestricted) on the link provided	Select from: • Same - covers entire jurisdiction and nothing else • Smaller - covers only part of the jurisdiction,	Numeric field	Select all that apply: • Assessment considers vulnerable populations • Assessment considers water security • Assessment considers nature	Text field

1	2	3	4	5	6	7
Assessment attachment^	Assessment direct link^	Confirm attachment/link provided to assessment	Boundary of assessment relative to jurisdiction boundary^	Year of publication or approval	Factors considered in assessment	Please explain
		- The assessment has been attached and can be accessed (unrestricted) on the link provided - Unable to provide an attachment and/or direct link to the assessment as it is not yet published - Unable to provide an attachment and/or direct link to the assessment	please explain exclusions - Larger - covers the whole jurisdiction and adjoining areas, please explain additions - Partial - covers part of the jurisdiction and adjoining areas, please explain exclusions/additions		- Assessment considers transition risks - Assessment includes a high-emissions scenario (i.e., RCP 8.5) - Assessment includes consultation with partners - Assessment includes sectors and/or urban systems - Identified hazards have been incorporated into the jurisdiction's overall risk management framework - A process has been established for prioritizing identified hazards - A process has been established to update the assessment at least every five years - None of the above - Other, please specify	

Requested Content

General

- For resources on climate risk and vulnerability assessments, see the reporting guidance for 2.1.

Assessment attachment (column 1) / Assessment direct link (column 2)

- If a climate risk and vulnerability assessment has been undertaken, please provide an attachment in column 1 and/or a direct link in column 2.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Confirm attachment/link provided to assessment (column 3)

- Select the appropriate option from the list of the presented options. For example, if you have attached the file in column 1 you will make the selection 'The assessment has been attached'.
 - If your assessment is integrated into another document, e.g. your Climate Action Plan, you may attach and/or provide a link to the other document and provide more details in the 'Please explain' column.
 - If your assessment is not available externally/confidential, select 'Unable to provide an attachment and/or direct link to the assessment'.
- Providing access to your jurisdiction's climate change risk and vulnerability assessment is a key item for multiple projects, initiatives and data users for assessment and validation purposes. The purpose of this column is to ensure that jurisdictions who have reported they have undertaken a climate risk and vulnerability assessment have provided access to the assessment or have indicated that they cannot.

Boundary of assessment relative to jurisdiction boundary (column 4)

- Indicate the boundary of your assessment relative to your jurisdiction's boundary (as reported in 1.2).

- If a boundary option other than 'Same (jurisdiction-wide) – covers entire jurisdiction and nothing else' is selected a text box will be presented. Please provide a brief justification of boundary additions/exclusions in comparison with your jurisdiction's boundary in the text box. If your risk assessment covers the entire jurisdiction and nothing else, you won't be requested to provide an explanation here. For example, if the boundary is smaller or larger indicate the population that is covered by the assessment if this is different from the population reported in 1.2.

Year of publication or approval (column 5)

- Please state the year that your climate change risk or vulnerability assessment was published or approved by the jurisdiction's government.

Factors considered in assessment (column 6)

- Select the applicable aspects addressed during the process of carrying out the risk or vulnerability assessment for your jurisdiction. Factors considered may include:
 - Vulnerable populations: This includes individuals or groups of people who are less able than the general population to anticipate, cope with, resist and recover from the impacts of disasters. Vulnerable populations may be described by race or ethnicity, culture, socio-economic status, geography, gender, disability, and age, or other characteristic, and may be disproportionately likely to be affected by climate hazards. Further information on this can be reported in column 7.
 - Vulnerable geographic areas: As exposure to climate hazards is highly influenced by geographical location indicate if vulnerable geographic areas in the jurisdiction were considered during the assessment. Further information on this can be reported in column 7.
 - Transition risks: Transition risks are risks related to the transition to a low-carbon economy. These risks can include changes in tax revenue mix and sources, resulting in decreased revenues for jurisdictions; costs to transition to lower emissions technology related to the pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations) etc. Further information on this can be reported in column 7.

Please explain (column 7)

- Describe the processes for prioritizing and managing climate hazards, including how decisions are made to mitigate, transfer, accept, or control those hazards.
- Describe if and how the processes for assessing and managing climate hazards are integrated into your jurisdiction's overall risk management processes.
- Provide any further information on your jurisdiction's climate change risk and vulnerability assessment. This can include information on the primary process or methodology used to undertake the risk and vulnerability assessment of your jurisdiction, or more information on factors considered in the assessment.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Chapter 5, "Risk and Vulnerability Assessment" of the Common Reporting Framework, indicates that RVA assessments shall include the following information:

- The boundary of assessment

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM "Adaptation-Assessment badge".

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Question columns	Simplified level requirements	Complete level requirements	Avoiding common mistakes
Assessment attachment^	Mandatory	Mandatory	If you choose to attach a CRVA, please ensure that the attachment is correct and accessible.
Assessment direct link^	Mandatory	Mandatory	If you choose to link a CRVA, please ensure that the link is correct and accessible.
The boundary of assessment relative to jurisdiction boundary^	Mandatory	Mandatory	If your boundary is anything other than 'Same - covers entire jurisdiction and nothing else', please ensure to provide an explanation as to the difference in boundary.
Year of publication or approval	Optional	Optional	
Factors considered in assessment	Optional	Optional	
Please explain	Optional	Optional	

Example Response

For explanatory purposes, a sample answer to this question is included below.

Assessment attachment ^	Assessment direct link^	Confirm attachment/link provided to assessment	Boundary of assessment relative to jurisdiction boundary^	Year of publication or approval	Factors considered in assessment	Please explain
[Attachment of climate risk and vulnerability assessment]		The assessment has been attached	Same - covers entire jurisdiction and nothing else	2020	Assessment considers vulnerable populations Assessment considers water security Assessment considers nature Assessment considers transition risks Assessment includes a high-emissions scenario Identified hazards have been incorporated into the jurisdiction's overall risk management framework	The assessment has identified the most frequent and severe hazards that will have the greatest impact on our city. The assessment takes into consideration historic trends, the current situation and future scenarios. The assessment considers the vulnerability of people and sectors and their capacity to adapt to the hazards. This includes an assessment of the number of people affected and the cost of damage with projections through to 2050.

Assessment attachment [^]	Assessment direct link [^]	Confirm attachment/link provided to assessment	Boundary of assessment relative to jurisdiction boundary [^]	Year of publication or approval	Factors considered in assessment	Please explain
					A process has been established for prioritizing identified hazards A process has been established to update the assessment at least every five years	

(2.2) Provide details on the most significant climate hazards faced by your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Columns 1-5
 - Pathway 2 and 3: Columns 1-10

- States and Regions: Columns 1-5, 7

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar
- TCFD: Strategy (Disclosure A & B), Metrics and targets (Disclosure A)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG1, SDG11, SDG13

Response Options

[Columns 2 -10 are only presented if a climate-related hazards is selected in column 1.]

1	2	3	4	5
Climate-related hazards^	Vulnerable population groups most exposed	Sectors most exposed^	Describe the impacts on vulnerable populations and sectors	Proportion of the population exposed to the hazard
Select from:	Select all that apply:	Select all that apply:	Text field	Select from:

1	2	3	4	5
Climate-related hazards^	Vulnerable population groups most exposed	Sectors most exposed^	Describe the impacts on vulnerable populations and sectors	Proportion of the population exposed to the hazard
• Heat stress • Extreme heat • Extreme cold • Snow and ice • Drought • Water stress • Increased water demand • Fire weather (risk of wildfires) • Urban flooding • River flooding • Coastal flooding (incl. sea level rise) • Other coastal events • Oceanic events • Hurricanes, cyclones, and/or typhoons • Extreme wind • Storm • Heavy precipitation • Mass movement	• Women and girls • Children and youth • Elderly • Indigenous peoples • Marginalized/minority communities • Vulnerable health groups • Low-income households • Outdoor workers • Frontline workers • Other, please specify • Do not know	• Agriculture • Forestry • Fishing • Mining and quarrying • Manufacturing • Electricity, gas, steam and air conditioning supply • Water supply • Sewerage, waste management and remediation activities • Waste management • Administrative and support service activities • Public administration and defence; compulsory social security • Conservation • Construction • Wholesale and retail trade; repair of motor vehicles and motorcycles • Transportation and storage • Accommodation and food service activities		• ≤ 10% • 11-20% • 21-30% • 31-40% • 41-50% • 51-60% • 61-70% • 71-80% • 81-90% • 91-100% • Data is not available

1	2	3	4	5
Climate-related hazards^	Vulnerable population groups most exposed	Sectors most exposed^	Describe the impacts on vulnerable populations and sectors	Proportion of the population exposed to the hazard
• Loss of green space/green cover • Soil degradation/erosion • Other forms of climate-induced landscape shift/degradation • Infectious disease • Biodiversity loss • Other, please specify • No significant climate-related hazards, please specify why		• Information and communication • Financial and insurance activities • Real estate activities • Professional, scientific and technical activities • Education • Human health and social work activities • Arts, entertainment and recreation • Other, please specify		

6	7	8	9	10
Current probability of hazard^	Current magnitude of impact of hazard^	Expected future change in hazard intensity	Expected future change in hazard frequency	Timeframe of expected future changes
Select from: • High • Medium High • Medium • Medium Low • Low • Do not know • Not expected to impact the jurisdiction within the next 5 years	Select from: • High • Medium High • Medium • Medium Low • Low • Do not know • Not expected to impact the jurisdiction within the next 5 years	Select from: • Increasing • Decreasing • None • Do not know • Not expected to happen in the future	Select from: • Increasing • Decreasing • None • Do not know • Not expected to happen in the future	Select from: • Short-term (by 2025) • Medium-term (2026-2050) • Long-term (after 2050) • Not known (not possible to define)

[Add Row]

Requested Content

General

- Please report your most significant physical climate-related hazards in this question.
- The hazards reported should be those which may pose inherently significant impacts to your jurisdiction regardless of whether your jurisdiction has taken action to reduce risk(s).
 - If actions have been taken to reduce these risks it is recommended that, where possible, jurisdictions report on this in 9.1.

- If you select the option 'No significant climate-related hazards, please specify why' you will not be presented with the subsequent columns in this question.
- For guidance on how to qualitatively evaluate the risks posed by various climate hazards please see [C40's Action Selection and Prioritisation \(ASAP\) Process Guide](#) (Pages 18-19). Additional resources for assessing climate hazards may be found in the reporting guidance for 2.1.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Climate-related hazards (column 1)

- Physical climate hazards are short-, medium-, or long-term climate events that have the potential to cause damage or harm to humans and natural systems. These include meteorological, climatological, hydrological, geophysical or biological events (C40).
- Indicate the climate hazards that your jurisdiction experiences either currently or in the future. It is only necessary to select the most significant hazards that your jurisdiction experiences.
- The list of climate hazards is not exhaustive. Select those which most capture the hazards your jurisdiction faces. Should the climate hazard your jurisdiction faces not fit under any listed, select 'Other, please specify' and enter the climate hazard into the text box presented. More details on the hazard may be provided in the 'Comment' column. The following guidance may help your selection:
 - Extreme heat; Extreme cold: includes (where relevant) extreme hot/cold days, heat/cold waves, and the urban heat island effect.
 - Water stress: refers to the ability, or lack thereof, to meet human and ecological demand for fresh water. Water stress hazards may include water availability, water quality, and the accessibility of water (i.e. whether people are able to make use of physically-available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things (based on the [CEO Water Mandate's](#) definition of water stress).
 - Urban flooding; River flooding; Coastal flooding: includes (where relevant) types of flooding such as groundwater flooding, pluvial (flash/surface flooding), tidal inundation and sea level rise.
 - Other coastal events: includes other hazards that impact the coast and coastal communities such as saltwater intrusion and coastal erosion.

- Extreme wind: includes extreme events such as tornados.
- Storm: includes violent atmospheric disturbances not classed as a hurricane, cyclone, or typhoon, such as rainstorms, tropical storms, thunder/lightning/electrical storms, squalls, sand/dust storms, blizzards, hailstorms, or snowstorms.
- Mass movement: includes hazards such as landslides, avalanches, rock falls, subsidence, or solifluction (mass movement related to freeze-thaw activity).
- Other forms of climate-induced landscape shift/degradation: includes ecosystem/region shifts, permafrost thawing, and desertification.
- Infectious disease: includes water-borne, vector-born, and air-borne diseases.
- You can only select and report on one hazard at a time, to select and report on further hazards you can select the 'Add row' button in the reporting system.

Vulnerable population groups most exposed (column 2)

- Select the vulnerable population groups that are expected to be most affected by future hazards. This information can help the local government in having a better understanding of the vulnerability dimension of risks and in prioritizing their adaptation actions.
- Vulnerable groups are local-context-bound and could include the options listed, though this list is not exhaustive. Should you wish to report a population group not listed select 'Other, please specify' and enter the name of the population group.
- There are different methodologies for assessing vulnerabilities at the level of local governments and they differ in terms of technical capacities and resources required, this can include Indicator-Based Vulnerability Assessments.
- Marginalized/minority communities may include refugees, asylum seekers, migrants and national minorities.
- Low-income households may include unemployed persons and persons living in sub-standard housing.

Sectors most exposed (column 3)

- Indicate the critical sectors in your jurisdiction that will be most affected by the corresponding climate hazard. This question aims to capture an overview of your jurisdiction's overall assessment of the sectors impacted by each climate hazard.

Describe the impacts on vulnerable populations and sector (column 4)

- Provide a brief description of the impacts on the vulnerable populations and sectors selected previously. For example, where data is available, please indicate the number of people from each vulnerable group most exposed to this hazard.

Proportion of the population exposed to the hazard (column 5)

- Based on your jurisdiction's total population, select the most applicable percentage range that represents the proportion potentially exposed to the hazard. It is acknowledged that this selection will, in many cases, be based upon an estimate.
- Where your jurisdiction does not have the data available to respond you can select the option 'Data is not available'.

Current probability of hazard (column 6)

- Indicate the probability of each climate hazard selected occurring within the next five years. If possible, this response should be based on the outcome of a risk or vulnerability assessment process.
- If your assessment process has not provided quantitative estimates of likelihood, please estimate using the qualitative descriptors provided:
 - High: Extremely likely that the hazard will occur (e.g., greater than 1 in 2 chance of occurrence over the next five years)
 - Medium high: Highly likely that the hazard will occur (e.g., between 1 in 2 and 1 in 20 chance of occurrence over the next five years)
 - Medium: Likely that the hazard will occur (e.g., between 1 in 20 and 1 in 200 chance of occurrence over the next five years)
 - Medium low: Somewhat likely that the hazard will occur (e.g., between 1 in 200 and 1 in 2,000 chance of occurrence over the next five years)
 - Low: Not likely that the hazard will occur (e.g., between 1 in 2,000 and 1 in 20,000 chance of occurrence over the next five years)

Current magnitude of impact of hazard (column 7)

- Indicate the potential impact of each climate hazard identified on your jurisdiction within the next five years. If possible, this response should be based on the outcome of a risk or vulnerability assessment process. If your assessment process has not provided quantitative estimates of level of impact, please estimate using the qualitative descriptors provided:
 - High: The hazard represents the highest level of potential concern for your jurisdiction. You anticipate that should it occur, the hazard would result in extremely serious impacts to your jurisdiction and catastrophic interruption to day-to-day life.
 - Medium high: The hazard represents a high level of potential concern for your jurisdiction. You anticipate that should it occur, the hazard would result in serious impacts to your jurisdiction and interruption to day-to-day life.
 - Medium: The hazard represents a medium level of potential concern for your jurisdiction. You anticipate that should it occur, the hazard would result in impacts to your jurisdiction, but that these would be moderately significant to day-to-day life.
 - Medium low: The hazard represents a lower level of potential concern for your jurisdiction. You anticipate that should it occur, the hazard would result in impacts to your jurisdiction, but that these would be less significant to day-to-day life.
 - Low: The hazard represents the lowest level of potential concern for your jurisdiction. You anticipate that should it occur, the hazard would result in impacts to your jurisdiction, but that these would be insignificant in day-to-day life.

Expected future change in hazard intensity (column 8)

- Indicate the future expected change in intensity of climate change hazards in your jurisdiction based on the following definitions:
 - Increasing: Future hazards will be more intense because of climate change
 - Decreasing: Future hazards will be less intense because of climate change
 - None: Climate change will have no effect on the intensity of hazards

Expected future change in hazard frequency (column 9)

- Indicate the future expected change in frequency of climate change hazards in your jurisdiction based on the following definitions:
 - Increasing: Climate change will cause the hazard to occur more frequently in the future
 - Decreasing: Climate change will cause the hazard to occur less frequently in the future
 - None: Climate change will have no effect on the frequency of hazards

Timeframe of expected future changes (column 10)

- Indicate the timescale at which changes to intensity and frequency of climate change hazards are expected to occur based on the following list of values:
 - Short-term – if you anticipate your jurisdiction will experience the changes to the frequency and intensity of the specified climate hazards by 2025.
 - Medium-term – if you anticipate your jurisdiction will experience the changes to the frequency and intensity of the specified climate hazards between 2026 and 2050.
 - Long-term – if you anticipate your jurisdiction will experience the changes to the frequency and intensity of the specified climate hazards after 2051.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Sections 5.2 “Climate Hazards” of the Common Reporting Framework indicates that local governments shall identify the most significant climate hazards faced by the community.

GCoM Required columns and common mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

At least one complete row of all mandatory columns must be answered to be compliant with the GCoM "adaptation assessment badge".

Please remember that "Do not know" is also a badge-eligible answer, for when a city has not experienced or observed climate hazards in the past or has no way of accurately reporting this information based on evidence or data.

Question Columns	Simplified level Requirements	Complete level Requirements
Climate-related hazards^	Mandatory	Mandatory
Vulnerable population groups most exposed	Recommended	Recommended
Sectors most exposed^	Mandatory	Mandatory
Describe the impacts on vulnerable populations and sectors	Recommended	Recommended
Proportion of the population exposed to the hazard	Optional	Optional
Current probability of hazard^	Mandatory	Mandatory
Current magnitude of impact of hazard^	Mandatory	Mandatory
Expected future change in hazard intensity	Optional	Optional
Expected future change in hazard frequency	Optional	Optional
Timeframe of expected future changes	Optional	Optional

Regional variations:

To comply with the Simplified level of reporting, Covenant of Mayors Europe signatories shall, in addition to meeting other Simplified level requirements of the CRF, report for at least one hazard:

- The expected future change in hazard intensity
- The expected future change in hazard frequency
- Timeframe of expected future changes

Explanation of Terms

- Physical climate hazard: Physical climate hazards are short-, medium-, or long-term climate events that have the potential to cause damage or harm to humans and natural systems. These include meteorological, climatological, hydrological, geophysical or biological events ().
- Impact: Impacts are the realized effects of climate hazards on lives; livelihoods; health and well-being; ecosystems and species; economic, social and cultural assets; services (including ecosystem services); and infrastructure. Impacts may be referred to as consequences or outcomes, and can be adverse or beneficial ().

(2.3) Identify and describe the most significant factors impacting on your jurisdiction's ability to adapt to climate change and indicate how those factors either support or challenge this ability.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- Race to Resilience
- [States and Regions only] RegionsAdapt
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities

- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Please complete the following table. You are able to add rows by using the “Add Row” button at the bottom of the table.

Factors that affect ability to adapt	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
Select from: • Access to basic services • Access to education • Access to healthcare • Access to mobility and transport services (e.g. walk paths, cycle infrastructure, roads, public transport) • Access to quality and relevant data • Budgetary capacity • Community engagement • Connectivity • Cost of living • Degradation, loss, and quality and quantity of green space and ecosystems • Economic diversity • Economic health • Environmental conditions	Select from: Challenges: • Significantly challenges • Moderately challenges • Somewhat challenges Supports: • Significantly supports • Moderately supports • Somewhat supports	Text field

Factors that affect ability to adapt	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
• Environmental regularization of land • Geography • Legal/Institutional constraints • Housing • Inequality • Informal activities • Infrastructure capacity • Infrastructure conditions / maintenance • Land use planning • Migration • Political engagement / transparency • Political stability • Poverty • Public health • Rapid urbanization • Resource availability • Safety and security • Technical capacity • Underemployment • Unemployment • Water security • Other, please specify		

Factors that affect ability to adapt	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
Do not know		

[Add Row]

Requested Content

General

- Adaptive capacity refers to the degree to which people and other organisms, assets, institutions, and sectors are able to adjust to potential damage, to take advantage of opportunities or to respond to consequences.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Factors that affect ability to adapt (column 1)

- Indicate the major factors that either support or challenge your jurisdiction's adaptive capacity.
- Note that you can select the same factor more than once if that factor both supports and challenges your jurisdiction's adaptive capacity. For example, a jurisdiction experiencing rapid migration may benefit from increased economic growth and human capital; however, this trend may also result in significant pressure on infrastructure services that may increase the risk of day-to-day service interruptions, thus weakening the jurisdiction's resilience to shock events.

Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction (column 2)

- Ensure two selections are made in this column or you will not be able to submit your response. Factors that support your adaptive capacity will be those that make adaptation easier, those that challenge will make it more difficult to adapt effectively.

Describe how the factor supports or challenges the adaptive capacity of your jurisdiction (column 3)

- In this column you may optionally provide a brief description of how each factor identified in the first field is supporting or challenging your jurisdiction's adaptive capacity.

Example Response

For explanatory purposes, a sample answer to this question is included below.

Factors that affect ability to adapt	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
Access to quality and relevant data	Significantly supports	We have access to high quality spatial data, for example of urban tree cover, drainage network and heat mapping which assists us with our adaptation actions.
Inequality	Moderately challenges	Socioeconomic inequality challenges our ability to adapt. For example, populations within our city living in poor quality housing are more exposed to certain climate hazards. Therefore, we are working on designing climate actions that address the frontline communities most impacted.

Factors that affect ability to adapt	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction
Budgetary capacity	Significantly challenges	Budget has not been specifically directed towards climate goals making it challenging to implement high-cost actions.
Community engagement	Significantly supports	The high level of engagement and involvement of our local community has been a powerful tool to adapt to climate change. Examples include local communities planting trees and expanding green areas in our city. In addition, we have a high level of awareness across our community when it comes to public preparedness for drills in response to severe climate hazards.
Rapid urbanization	Significantly challenges	Rapid urbanization, especially in high-risk areas, is presenting a significant challenge to climate adaptation.

Emissions Inventory

(3.1) Does your jurisdiction have a community-wide emissions inventory to report?^

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar
- TCFD: Metrics and Targets (Disclosure B)
- [Cities only] NetZeroCities - Mission Cities
- Race to Zero
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG11, SDG13

Response Options

Select from:

- Yes
- No, but we are currently undertaking one and it will be complete in the next year
- No, but we are intending to undertake one in the next two years
- No, and we are not intending to undertake due to lack of financial capacity
- No, and we are not intending to undertake due to lack of expertise/technical capacity
- No, and we are not intending to undertake due to lack of financial capacity and expertise/technical capacity
- No, and we are not intending to undertake due to other higher priorities
- No, and we are not intending to undertake due to a reason not listed above, please specify

Requested Content

General

- An emissions inventory enables jurisdictions to understand the emissions sources and effects of different activities. It allows jurisdictions to determine where to best direct mitigation efforts, create a strategy to reduce emissions, and track their progress. Emissions inventories are critical for tracking changes in overall GHG emissions and removals. Assessing and reporting progress toward mitigation goals should be carried out in conjunction with regularly developing and updating a GHG inventory.
- Jurisdictions can report their emissions regardless of which protocol or methodology they have used to develop their inventory.
- Community-wide (sometimes referred to as 'geographic', 'city-wide' and/or regional-wide) emissions inventories encompass emissions which are within a particular geopolitical region, over which local governments can exercise a degree of influence through the policies and regulations they implement.
- If your jurisdiction has undertaken a community-wide emissions inventory, select 'Yes'. Please also select 'Yes' if you have estimations you are able to report, and fill out the subsequent questions as applicable.

- The [Global Protocol for Community-Scale Greenhouse Gas Inventories](#) now includes [Supplemental Guidance for Forests and Trees](#), developed by WRI (World Resources Institute), ICLEI–Local Governments for Sustainability, and C40 Cities Climate Leadership Group. This guidance provides GHG inventory compilers with globally standardized, yet flexible, guidance for estimating GHG emissions and CO2 removals (collectively called GHG fluxes) associated specifically with forests and trees within the boundaries of cities, towns, counties, or other subnational jurisdictions (collectively called communities).

Additional Information

Resources

Name	Description	Institution
<u>Greenhouse Gas Emissions Tools and Datasets: Guide for Cities</u>	This guide gives cities an overview of greenhouse gas emissions-monitoring tools and datasets, to help them build their own emissions inventories.	CDP
<u>Global Protocol for Community-Scale GHG Emissions Inventories</u>	An accounting and reporting standard which provides guidance for cities on using emissions inventories to track progress.	Greenhouse Gas Protocol
<u>Supplemental Guidance for Forests and Trees</u>	The Global Protocol for Community-Scale Greenhouse Gas Inventories now includes Supplemental Guidance for Forests and Trees. This guidance provides GHG inventory compilers with globally standardized, yet flexible, guidance for estimating GHG emissions and CO2 removals (collectively called GHG fluxes) associated specifically with forests and trees within the boundaries of cities, towns, counties, or other subnational jurisdictions (collectively called communities).	WRI, ICLEI, C40 Cities
<u>Measuring GHG Emissions</u>	Tools and guidance on measuring GHG emissions.	C40 Cities

<u>Global Covenant of Mayors Online Training Course</u>	Provides foundational knowledge for getting started with GHG inventories, setting mitigation targets and developing climate action plans	GCoM
<u>GHG Emission Factors for Electricity Consumption</u>	In the context of EU and Global Covenant of Mayors for Climate and Energy, the JRC provides energy related GHG emission factors. This dataset provides updated Covenant of Mayors emission factors for national electricity consumption (also referred to as National and European Emission Factors for Electricity - NEEFE).	JRC, GCoM
<u>TOOL: City Inventory Reporting and Information System (CIRIS)</u>	City Inventory Reporting and Information System (CIRIS) is an accessible, easy-to-use and flexible Excel-based tool for managing and reporting city GHG inventory data.	C40 Cities
<u>TOOL: Clearpath</u>	Data management for energy and emissions data. GHG inventory calculations.	ICLEI USA
<u>TOOL: ClimateOS</u>	The ClimateOS platform provides a framework for emissions inventory development and city transitions.	ClimateView
<u>TOOL: SCATTER</u>	Provides activity and emissions data in CRF-ready format. Allows users to explore action pathways with estimated impacts on reaching emission-reduction targets.	Nottingham City Council: Anthesis Group
<u>TOOL: Data Portal for Cities</u>	Data Portal for Cities is an open data platform that helps communities fill critical information gaps by providing estimates of previously unavailable data drawn from national and regional sources.	GCoM & WRI
<u>TOOL: Google Environmental Insights Explorer (EIE)</u>	The Google Environmental Insights Explorer (EIE) provides cities with instant access to greenhouse gas emissions data, allowing local governments to develop data-based climate action plans and facilitate urban climate action based on science and evidence.	Google and GCoM

GCoM guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Section 3 "Greenhouse gas emissions inventory" of the Common Reporting Framework indicates that "Local governments shall submit their greenhouse gas emissions inventory to GCoM within two years upon joining GCoM. Every subsequent four years, a more recent greenhouse gas emissions inventory shall be submitted to GCoM. Greenhouse gas emission inventories shall cover a consecutive period of 12 months".

GCoM Required columns and common mistakes

To be compliant with the GCoM "Mitigation-Inventory badge" you must answer "Yes" and provide detailed emission reporting in question 3.1.3.

(3.1.1) Provide information on and an attachment (in spreadsheet format) /direct link to your main community-wide GHG emissions inventory.

Change From Last Year

No change

Question Dependencies

This question is presented if 'Yes' is selected in response to 3.1

Questionnaire

- Cities

- Pathway 1: Columns 1-12, 17
 - Pathway 2 and 3: Columns 1-17
- States and Regions: Columns 1-7, 10-12, 16-17

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar
- TCFD: Metrics and Targets (Disclosure B)
- [Cities only] NetZeroCities - Mission Cities
- Race to Zero
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG11, SDG13

Response Options

1	2	3	4	5	6
Main community-wide emissions inventory attachment (spreadsheet)^	URL link (with unrestricted access)^	Status of main community-wide inventory attachment and/or direct link	Year covered by main inventory^	Boundary of main inventory relative to jurisdiction boundary^	Population in year covered by main inventory
Attachment function	Text field	Select from: • The emissions inventory has been attached • The emissions inventory can be accessed (unrestricted) on the link provided • The emissions inventory has been attached and can be accessed (unrestricted) on the link provided • Unable to provide an attachment and/or direct link to my emissions inventory	Select from: • 2010 • 2011 • 2012 • 2013 • 2014 • 2015 • 2016 • 2017 • 2018 • 2019 • 2020 • 2021 • 2022 • 2023 • 2024 • 2025 • 2010/2011 • 2011/2012	Select from: • Same - covers entire jurisdiction and nothing else • Smaller - covers only parts of the jurisdiction, please explain exclusions • Larger - covers the whole jurisdiction and adjoining areas, please explain additions • Partial - covers part of the jurisdiction and adjoining areas, please explain exclusions/additions	Numeric field

1	2	3	4	5	6
Main community-wide emissions inventory attachment (spreadsheet)^	URL link (with unrestricted access)^	Status of main community-wide inventory attachment and/or direct link	Year covered by main inventory^	Boundary of main inventory relative to jurisdiction boundary^	Population in year covered by main inventory
			• 2012/2013 • 2013/2014 • 2014/2015 • 2015/2016 • 2016/2017 • 2017/2018 • 2018/2019 • 2019/2020 • 2020/2021 • 2021/2022 • 2022/2023 • 2023/2024 • 2024/2025		

7	8	9	10	11	12
Primary protocol/framework used to compile main inventory	GCOM: Primary protocol/framework used to compile main inventory^	Tool used to compile main inventory	Gases included in main inventory^	Primary source of emission factors**^	Source of global warming potential values
Select from: - Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) - Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) reported in the format of GCoM Common Reporting Framework (CRF) 1996 IPCC Guidelines for National Greenhouse Gas Inventories 2006 IPCC Guidelines for National Greenhouse Gas Inventories - U.S. Community Protocol for Accounting and	Select from: - Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) - Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC) reported in the format of GCoM Common Reporting Framework (CRF) 1996 IPCC Guidelines for National Greenhouse Gas Inventories	Select from: - Carbon Monitor Cities - CIRIS - CityInSight - CLIMAS Inventory Tool - ClimateView – ClimateOS - Crosswalk Labs - Data Portal for Cities - Ecospeed Region - Enersis Gaia Platform - European Energy Award Management Tool (CoME EASY) - Everimpact - FutureproofedCities - Google Environmental Insights Explorer - Government of Japan Ministry of Environment Manual (Japan) - ICLEI ClearPath	Select all that apply: - CO2 - CH4 - N2O - HFCs - PFCs - SF6 - NF3	Select from: - Default IPCC emission factors - Emission Factor Database (EFDB) - LCA (Life Cycle Assessment) emission factors - National/sub-national emission factors, please specify - Local emission factors, please specify - Do not know - Other, please specify	Select from: - IPCC Second Assessment Report (1995) - IPCC Third Assessment Report (2001) - IPCC Fourth Assessment Report (2007) - IPCC Fifth Assessment Report (2013) - IPCC Sixth Assessment Report (2021) - Do not know - Other, please specify

7	8	9	10	11	12
Primary protocol/framework used to compile main inventory	GCOM: Primary protocol/framework used to compile main inventory^	Tool used to compile main inventory	Gases included in main inventory^	Primary source of emission factors**^	Source of global warming potential values
Reporting of Greenhouse Gas Emissions (ICLEI USA) • International Emissions Analysis Protocol (ICLEI) • The Climate Registry General Reporting Protocol • U.S. EPA Greenhouse Gas Reporting Program (includes US EPA SIT tool, FLIGHT tool etc.) • EMEP/EEA air pollutant emissions inventory guidebook (EMEP CORINAIR emission inventory) • Regional or country/area specific methodology • Jurisdiction specific methodology • Other, please specify	• 2006 IPCC Guidelines for National Greenhouse Gas Inventories • U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (ICLEI USA) • International Emissions Analysis Protocol (ICLEI) • The Climate Registry General Reporting Protocol • U.S. EPA Greenhouse Gas Reporting Program (includes US EPA	• Kinesis CCAP City tool • Klimaschutz Planer • Low Emissions Analysis Platform (LEAP) • Municipal Energy and Emission Database MEED (Canada) • OpenGHGMap • Proxy Data Tool (ICLEI Africa) • SCATTER • SIGN-SMART (Indonesia) • Sistema de Estimativas de Emissões e Remoções de Gases de Efeito Estufa (SEEG) (Brazil) • Snapshot Tool (Australia) • US EPA Greenhouse Gas Inventory Tool (US)			

7	8	9	10	11	12
Primary protocol/framework used to compile main inventory	GCOM: Primary protocol/framework used to compile main inventory^	Tool used to compile main inventory	Gases included in main inventory^	Primary source of emission factors**^	Source of global warming potential values
	SIT tool, FLIGHT tool etc.) • EMEP/EEA air pollutant emissions inventory guidebook (EMEP CORINAIR emission inventory) • Regional or country/area specific methodology • Jurisdiction specific methodology • Other, please specify	• Consultancy-developed tool/process, please specify • Other regionally/ nationally developed tool/process, please specify • Internal tool/process • Do not know • Other, please specify			

13	14	15	16	17
Has the main inventory been audited/verified?	Overall level of data quality	Have any of the calculation methodologies and/or boundary used for this inventory changed when compared to the previously reported inventory?	Additional/historical inventories and other relevant attachments	Further documentation links and comments
Select from: • Yes, externally audited/ verified (third-party verification) • Yes, internally audited/verified (self-verification) • Yes, internally and externally audited / verified • No, not audited / verified • Other, please specify	Select all that apply: Activity data • High data quality • Medium data quality • Low data quality Emissions factors • High data quality • Medium data quality • Low data quality	Select from: • No changes to the methodology and/or boundary used when compared to the previously reported inventory • No changes to the methodology and/or boundary used as this is the jurisdictions first year reporting an emissions inventory • Yes, due to a change to the inventory boundary but this has not triggered a recalculation of historic emissions data • Yes, due to a change to the inventory boundary and this has triggered a recalculation of historic emissions data • Yes, due to changes in calculation methodology or improvements in data access and/or accuracy but this has not triggered a recalculation of historic emissions data • Yes, due to changes in calculation methodology or improvements in data access and/or accuracy and this has triggered a recalculation of historic emissions data • Other, please specify	Attachment function	Text

Requested Content

General

- Please report on your main community-wide emissions inventory – i.e. your most recent and complete inventory that represents the largest proportion of your community-wide emissions.
- You are able to add additional/historical inventories in a separate column, For example, if your jurisdiction has more than one community-wide emissions inventory for the period reported in column 4 which is significantly different (for example separate inventories that cover different sectors, use different methodologies, or include different greenhouse gases) an attachment or link can be provided in column 16/17.
- For information on greenhouse gas emissions-monitoring tools and datasets to aid in building your emissions inventories, please refer to CDP's [Greenhouse Gas Emissions Tools and Datasets: Guide for Cities](#). Further resources may be found in the reporting guidance for 3.1.

Main community-wide inventory attachment (spreadsheet) (column 1) / URL link (with unrestricted access) (column 2)

- Provide an attachment to your main emissions inventory in column 1 and/or a direct link in column 2.
- Attach or provide a link to your main inventory in spreadsheet format.
- If available, it is preferred that you attach a spreadsheet (i.e., excel) format of your emissions inventory.
- If you are providing a direct weblink to the emissions inventory, please ensure the emissions inventory can be accessed unrestricted on the link provided.
- Ensure that the emissions factors and activity data used to calculate the cities emissions are accessible within the attached/linked emissions inventory. If the emissions factors and activity data are not accessible within the attached/linked inventory, please attach them separately in column 16.

Status of main community-wide inventory attachment and/or direct link (column 3)

- Select the appropriate option from the list of the presented options. For example, if you have provided an accessible link to the file in column 2 you will make the selection 'The emissions inventory can be accessed (unrestricted) on the link provided'.

- If your inventory is not available externally, select 'Unable to provide an attachment and/or direct link to my emissions inventory'.
- Providing access to your jurisdiction's emissions inventory is a key item for multiple projects, initiatives and data users for assessment and validation purposes. The purpose of this column is to ensure that jurisdictions who have reported their inventories have provided access to the inventory or have indicated that they cannot.

Year covered by main inventory (column 4)

- Report the year of your latest community-wide inventory. This is the year covered by the emissions inventory and not the year of publication or the year when the assessment was made.

Boundary of main inventory relative to jurisdiction boundary (column 5)

- Indicate the boundary of your community-wide emissions inventory relative to your jurisdiction's boundary (as reported in 1.2).
- If your community-wide emissions inventory covers only part of the jurisdiction or covers the whole jurisdiction and adjoining areas outside of the jurisdiction boundary then use the explanation field presented to briefly describe which areas are excluded or additional areas included.

Population in year covered by main inventory (column 6)

- Provide your jurisdiction's population (the number of residents within the boundary of the emissions inventory) in the selected inventory year.
- Ensure that the population figure is entered in a full format, for example if the population is 1.87 million then enter 1870000.

Primary protocol/framework used to compile main inventory (column 7/8)

- Select the primary protocol/framework that you followed in measuring greenhouse gas emissions for your jurisdiction.
- A standard or protocol provides a framework and guidance on how to measure your jurisdiction's emissions and/or report your emissions inventory. This usually includes recommendations on defining the inventory boundary, which GHGs are included, sector-specific emissions accounting, as well as understanding the scopes and how to report emissions.

- For Cities, the selection made in this column can determine the emissions data questions (3.1.2, 3.1.3 or 3.1.4) that are presented. States and Regions will only see question 3.1.4.
- Note that all GCoM committed cities will be required to report their inventory based on the requirements of the GCoM Common Reporting Framework and will be presented with question 3.1.3
- By selecting the option 'GCoM Common Reporting Framework (CRF)' option you will be requested to report your emissions in the GCoM Common Reporting Framework format (question 3.1.3)
- By selecting the option 'Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)' you will be requested to report your emissions in the Global Protocol for Community Greenhouse Gas Emissions Inventories format (question 3.1.2)
- By selecting any other option than the above you will be requested to report your scope and sector emissions in line with the methodology used (questions 3.1.3, and 3.1.4)
- If the methodology used to develop the inventory is not presented in the list, then select 'Other, please specify' and provide the name and/or a brief description of the methodology used.

Tool used to compile main inventory (column 9)

- A GHG emissions accounting tool provides cities with the means to quantify their emissions. A tool usually performs calculations on input data provided by the city or on pre-populated data, and provides output emissions data that can be used for reporting and informing policy. It typically comes in the form of a spreadsheet, an interactive online platform, or software. CDP's [Greenhouse Gas Emissions Tools and Datasets: Guide for Cities](#) contains best practice recommendations for choosing the right GHG emissions tool or dataset for your inventory.
- Select the tool used to develop the emissions inventory from the list of tools provided. The list does not contain all tools that can be used and will be updated annually to reflect additional tools used by reporting jurisdictions.
 - If your emissions inventory is compiled using a tool/process developed by a consultancy that is not listed (either custom-made or a general product), you may select 'Consultancy-developed tool/process, please specify' and briefly state the tool/process in the text box presented.
 - If your emissions inventory is compiled using a tool/process developed by a regional or national jurisdiction that is not listed, you may select 'Other regionally/nationally developed tool/process, please specify' and briefly state the tool/process in the text box presented.

- If you compile your inventory internally using tools such as Excel or Microsoft PowerBI, you may select 'Internal tool/process'.
- If the tool used is not listed, please select 'Other, please specify' and provide the name of the tool in the text box that is presented.

Gases included in main inventory (column 10)

- Select the greenhouse gases included in your inventory. The list consists of the main gases as defined by the United Nations Framework Convention on Climate Change (UNFCCC): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), as well as nitrogen trifluoride (NF₃).

Primary source of emission factors (column 11)

- An emission factor converts activity data into GHG emissions data e.g. kg of CO₂e emitted per Liter of fuel consumed, kg of CO₂e emitted per kilometre travelled, etc. (GHG Protocol for Cities).

Source of global warming potential values (column 12)

- The global warming potential (GWP) is a factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO₂ (GHG Protocol for Cities).
- Select the IPCC Assessment Report from which the emissions factor values have been sourced for the main emissions inventory.

Has the main inventory been audited/verified? (column 13)

- Indicate if your inventory has been externally or internally verified and/or audited and if possible, please attach documentation as evidence of the audit/verification to column 16.
- Jurisdictions may choose to externally or internally verify or audit their emissions inventory to demonstrate that it has been developed in accordance with the requirements of the selected methodology and to provide assurance to users that it represents a faithful, true, and fair account of their jurisdiction's GHG emissions.

- While verification is often undertaken by an independent organization (third-party verification), this may not always be the case. Many jurisdictions interested in improving their emissions inventories may subject their information to internal verification by staff who are independent of the GHG accounting and reporting process (self-verification).
- Both types of verification should follow similar procedures and processes. For external stakeholders, third-party verification is likely to significantly increase the credibility of the GHG inventory.

Overall level of data quality (column 14)

- Jurisdictions are requested to evaluate and report the quality of both the activity data and the emission factors used across the inventory as a whole. Jurisdictions may have specific sub-sector data quality classifications, if so, please select the median classification option across all sub-sectors.
- Definitions on the three data quality classifications as they apply to activity data and emissions factors are:
 - High: Detailed activity data, Specific emission factors
 - Medium: Scaled activity data using robust assumptions, More general emission factors (i.e., national data)
 - Low: Highly modelled or uncertain activity data, Default emission factors (i.e., international data)
- For further information on evaluating and reporting the quality of both the activity data and the emission factors see Section 5.6 'Managing data quality and uncertainty' of the [Global Protocol for Community-Scale Greenhouse Gas Emission Inventories](#).

Have any of the calculation methodologies and/or boundary used for this inventory changed when compared to the previously reported inventory? (column 15)

- If your current emissions inventory that is being reported is based upon a different methodology and/or boundary than a previously reported inventory, please indicate this.
- If the changes are significant enough then it is recommended that the emissions for previous years are retroactively recalculated to reflect the changes.
- If this is the case, then please attach the updated historical emissions inventories where available in column 16. Please ensure the historical emissions inventory document(s) is complete and is attached in spreadsheet format.

Additional/historical inventories and other relevant attachments (column 16)

- Use this field to attach any additional or historical inventories, or other relevant attachments.
- You may also provide a direct link in column 17.

Further documentation links and comments (column 17)

- Report any additional information or documentation that may be required to provide further context to the main emissions inventory.
- Justify any exclusions of greenhouse gases from the inventory. For example, indicate if emissions from these gas(es) are insignificant or if certain gas(es) are not able to be measured.
- If you report that there has been a recalculation of historic emissions data, please report information on the reasons and impact of the recalculation and totals.
- States and Regions may report here any tools that have been used to calculate their inventory.
- If you are providing a direct link to additional/historical inventories, please ensure the inventory can be accessed unrestricted on the link provided.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 3.1 “GHG Accounting Principles” of the Common Reporting Framework indicates that local governments shall compile GHG inventories on a regular basis, to enable monitoring and tracking the impact of climate actions, also to ensure continuous improvement in data quality, resulting in a clearly defined inventory boundary, improved data sources and defined methodologies that shall be consistent through the years (e.g., clarify where there is an evolution, e.g. population growth), so that differences in the results between years reflect real differences in emissions and mitigation efforts by the local government and the city. Local governments may either provide an attachment of their GHG emissions inventory in column 1 or provide a link of their GHG emissions inventory in column 2.

Section 3.5 "Activity data and Emission factor" of the Common Reporting Framework indicates that in addition to GHG data, local governments reporting to the Complete level shall report activity data (in MWh, PJ, etc.) and emission factors for all sources of emissions, disaggregated by activity/fuel type. Reporting activity data and emissions factors for all sources of emissions, disaggregated by activity/fuel type is optional for cities reporting to the Simplified reporting level.

Section 3.5 "Activity data and Emission factors" indicates that local governments shall account for emissions of the following gases: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Under the Simplified reporting level, local governments shall account only for carbon dioxide (CO₂) while accounting for methane (CH₄) and nitrous oxide (N₂O) is optional.

Avoiding Common Mistakes

Simplified level[^]: Mandatory (also mandatory for Complete level)

Complete level^{^^}: Mandatory (mandatory only for Complete level)

Please remember that the attached supporting document or link shall include activity data (amount of fuel or electricity consumption) and emission factors (CO₂e per unit of fuel consumed) for all emissions reported in question 3.1.3 if your local government is reporting at the Complete level. An inventory without activity data breakdown and emission factors is not compliant with the inventory badge for the Complete level of reporting. You can find an example of the emission factor and activity data [here](#). Reporting activity data and emissions factors for all sources of emissions, disaggregated by activity/fuel type is optional for cities reporting to the Simplified reporting level.

Question columns	Simplified level Requirements	Complete level Requirements	Avoiding common mistakes
Main community-wide emissions inventory attachment (spreadsheet) [^]	Mandatory	Mandatory	If you choose to attach an inventory, please ensure that the correct attachment is included in your submission.

URL link (with unrestricted access)^	Mandatory	Mandatory	Make sure that the link is openly accessible (unrestricted) and leads to the correct inventory. Links that direct to a drive folder is often difficult to access for validators.
Status of main community-wide inventory attachment and/or direct link	Optional	Optional	
Year covered by main inventory^	Mandatory	Mandatory	Please note that the year covered by main inventory is the year when the data for the inventory was collected, not the year the inventory is reported.
Boundary of main inventory relative to jurisdiction boundary^	Mandatory	Mandatory	Choose the appropriate option. If the assessment boundary is different from "Same", please explain. Failing to justify a different boundary is not compliant.
Population in year covered by main inventory	Optional	Optional	Please note that the year covered by main inventory is the year when the data for the inventory was collected, not the year the inventory is reported.
GCOM: Primary protocol/framework used to compile main inventory	Optional	Optional	
Tool used to compile main inventory	Optional	Optional	
Gases included in main inventory^	Mandatory (only for CO2)	Mandatory	Local governments reporting at the Complete level shall account for emissions of the following gases: carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) to be compliant.

			Local governments reporting at the Simplified level shall account for emissions of the following gases: carbon dioxide (CO2)
Primary source of emission factors ^{^^}	Optional	Mandatory	
Source of global warming potential values	Optional	Optional	
Has the main inventory been audited/verified?	Optional	Optional	
Overall level of data quality	Optional	Optional	
Have any of the calculation methodologies and/or boundary used for this inventory changed when compared to the previously reported inventory?	Optional	Optional	
Additional/historical inventories and other relevant attachments	Optional	Optional	
Further documentation, links and comments	Optional	Optional	

Explanation of Terms

- Emissions inventory: an emissions inventory enables jurisdictions to understand the emissions sources and effects of different activities. It allows jurisdictions to determine where to best direct mitigation efforts, create a strategy to reduce emissions, and track their progress. Emissions inventories are critical for tracking changes in overall GHG emissions and removals.

- Emissions accounting protocol/framework: a standard or protocol that provides a framework and guidance on how to measure your city's emissions and/or report your emissions inventory. This usually includes recommendations on defining the inventory boundary, which GHGs are included, sector-specific emissions accounting, as well as understanding the scopes and how to report emissions (CDP [Greenhouse Gas Emissions Tools and Datasets: Guide for Cities](#)).
- Emissions accounting tool: provides cities with the means to quantify their emissions. A tool usually performs calculations on input data provided by the city or on pre-populated data, and provides output emissions data that can be used for reporting and informing policy. It typically comes in the form of a spreadsheet, an interactive online platform, or software (CDP [Greenhouse Gas Emissions Tools and Datasets: Guide for Cities](#)).

Example Response

For explanatory purposes, a sample answer to this question is included below.

1	2	3	4	5	6
Main community-wide emissions inventory attachment (spreadsheet) ^	URL link (with unrestricted access)^	Status of main community-wide inventory attachment and/or direct link	Year covered by main inventory ^	Boundary of main inventory relative to jurisdiction boundary^	Population in year covered by main inventory
[Attachment]		The emissions inventory has been attached	2021	Same – covers entire jurisdiction and nothing else	1,380,250

7	9	10	11	12
Primary protocol/framework used to compile main inventory	Tool used to compile main inventory	Gases included in main inventory^	Primary source of emission factors	Source of global warming potential values
Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC)	SCATTER	CO2 CH4 N2O HFCs PFCs SF6 NF3	National/sub-national emission factors, please specify	IPCC Sixth Assessment Report (2021)

13	14	15	16	17
Has the main inventory been audited/verified?	Overall level of data quality	Have any of the calculation methodologies and/or boundary used for this inventory changed when compared to the previously reported inventory?	Additional/historical inventories and other relevant attachments	Further documentation links and comments
Yes, externally audited/ verified (third-party verification)	Activity data-High data quality Emissions factors-High data quality	No changes to the methodology and/or boundary used when compared to the previously reported inventory	[Attachment – Scatter tool output report]	Our city has been tracking its emissions since 2002. We have been using the Scatter tool and have attached the output of the report in the previous field.

(3.1.2) Provide a breakdown of your community-wide emissions by scope. If the inventory has been developed using the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC) you will also be requested to provide a breakdown by sector.

Change From Last Year

No change

Question dependencies

This question is presented if you are reporting emissions in any format other than the format of the GCoM Common Reporting Framework (CRF)

- If you are reporting in any format other than the CRF, you will be presented with scopes 1, 2 and 3 (rows 1- 4)
- If you are reporting in the format of the GPC, you may also be presented with GPC defined sectors (rows 5 – 17)

Questionnaire

- Cities
 - Pathway 1: Rows 1-4 (Scope)
 - Pathway 2 and 3: Rows 1-17 (Complete question)

Connection to other frameworks

- TFCD: Metric and Targets (Disclosure B)
- [Cities only] NetZeroCities - Mission Cities
- Race to Zero
- ICLEI's GreenClimateCities

- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG13

Response Options

Please complete the following table. Please ensure all reported emissions data is in metric tonnes CO₂e.

0	1	2	3	4
Sector and/or scope	Emissions (metric tonnes CO ₂ e)	If you have no emissions to report, please select a notation key to explain why	Level of data quality for sector and scope	Comment
Total scope 1 emissions (excluding generation of grid-supplied energy)	Numeric field	Select from: • Not Occurring (NO) • Included Elsewhere (IE) • Not Estimated (NE) • Confidential (C)	Select all that apply: Activity Data • High data quality • Medium data quality • Low data quality Emissions factors • High data quality • Medium data quality • Low data quality	Text field
Scope 1 emissions from generation of grid-supplied energy	Numeric field	As above	As above	Text field

0	1	2	3	4
Sector and/or scope	Emissions (metric tonnes CO2e)	If you have no emissions to report, please select a notation key to explain why	Level of data quality for sector and scope	Comment
Total scope 2 emissions	Numeric field	As above	As above	Text field
Total scope 3 emissions	Numeric field	As above	As above	Text field

If the inventory has been developed using the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC):

Sector and/or scope	Emissions (metric tonnes CO2e)	If you have no emissions to report, please select a notation key to explain why	Level of data quality for sector and scope	Comment
Stationary Energy: energy use – scope 1	Numeric field	As above	As above	Text field
Stationary Energy: energy use – scope 2	Numeric field	As above	As above	As above
Stationary Energy: energy use – scope 3	Numeric field	As above	As above	Text field
Transportation – scope 1	Numeric field	As above	As above	Text field

Sector and/or scope	Emissions (metric tonnes CO2e)	If you have no emissions to report, please select a notation key to explain why	Level of data quality for sector and scope	Comment
Transportation – scope 2	Numeric field	As above	As above	Text field
Transportation – scope 3	Numeric field	As above	As above	Text field
Waste: waste generated within the city boundary – scope 1	Numeric field	As above	As above	Text field
Waste: waste generated within the city boundary – scope 3	Numeric field	As above	As above	Text field
Waste: waste generated outside the city boundary – scope 1	Numeric field	As above	As above	Text field
Industrial Processes and Product Use – scope 1	Numeric field	As above	As above	Text field
Agriculture, Forestry and Land Use – scope 1	Numeric field	As above	As above	Text field
TOTAL BASIC emissions	Numeric field	As above	As above	Text field
TOTAL BASIC+ emissions	Numeric field	As above	As above	Text field

Requested Content

General

- If reporting in the format of the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC) you will be requested to report the breakdown by sector and scope. If reporting in any other format you will only be requested to report the breakdown by scope in this question and to provide a breakdown of your community-wide emissions by sector in question 3.1.4.
- BASIC emissions: Includes scope 1 and scope 2 emissions from stationary energy and transportation, as well as scope 1 and scope 3 emissions from waste.
- BASIC+ emissions: Includes BASIC emissions plus emissions from IPPU and AFOLU and transboundary transportation (scope 3 'energy use' and 'transportation').
- All emissions should be reported in metric tons of CO₂e. Common conversion factors are included in the Technical Note "[Units of Measure Conversions](#)".

Emissions (metric tonnes CO₂e) (column 1)

- For each sector and scope please report the quantity of emissions in metric tonnes CO₂e.
- If there are no emissions occurring within your jurisdiction relating to a specific sector/scope, please indicate this with a 0.
- Ensure that the reported emissions apply to the 12-month reporting period as previously reported in question 3.1.1.
- For further information on the accounting and reporting requirements see the [Global Protocol for Community-Scale Greenhouse Gas Emission Inventories](#).

Notation keys (column 2)

- Notation keys may be used to accommodate limitations in data availability and differences in emission sources between jurisdictions.
- Where notation keys are used, an accompanying explanation should be provided in the field 'Comment' to explain any excluded sources, identify any emissions covered under an ETS and to provide any other comments.
- The following are the descriptions on how to use the notation keys:

- "NO" (not occurring): An activity or process does not occur or exist within the jurisdiction. This notation key may also be used for insignificant sources.
- "IE" (included elsewhere): GHG emissions for this activity are estimated and presented in another category in the same inventory, stating where it is added. This notation key may be used where it is difficult to disaggregate data into multiple sub-sectors. A justification must be provided when using this notation and you must also indicate in which subsector the emissions were integrated.
- "NE" (not estimated): GHG emissions occur but have not been estimated or reported, with a justification why. This notation is not allowed for mandatory sectors (even if a justification is provided). You should provide a rough estimate (i.e. downscale emissions from national data based on population) or use the notation key "NO" if these emissions are considered insignificant.
- "C" (confidential): GHG emissions which could lead to the disclosure of confidential information, and as such are not reported publicly.

Level of data quality for sector and scope (column 3)

- Jurisdictions are requested to evaluate and report the quality of both the activity data and the emission factors used for each applicable sector and scope.
- Definitions on the three data quality classifications as they apply to activity data and emissions factors are:
 - High (H): Detailed activity data, Specific emission factors
 - Medium (M): Modelled activity data using robust assumptions, More general emission factors
 - Low (L): Highly-modelled or uncertain activity data, Default emission factors
- For further information on evaluating and reporting the quality of both the activity data and the emission factors see Section 5.6 'Managing data quality and uncertainty' of the [Global Protocol for Community-Scale Greenhouse Gas Emission Inventories](#).

(3.1.3) Provide a breakdown of your community-wide emissions in the format of the Common Reporting Framework.

Change From Last Year

No change

Question dependencies

This question is presented if you have indicated your jurisdiction is reporting its emissions in the format of the GCoM Common Reporting Framework (CRF) or your jurisdiction is participating in the Global Covenant of Mayors.

Questionnaire

- Cities
 - Pathway 1: Rows 30 and 31 (Total generation of grid-supplied energy, Total emissions)
 - Pathway 2 and 3: Rows 1-31 (Complete question)

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar
- TFCD: Metric and Targets (Disclosure B)
- [Cities only] NetZeroCities - Mission Cities
- Race to Zero
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG13

Response Options

Please complete the following table. Please ensure all reported emissions data is in metric tonnes CO2e.

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Stationary energy > Residential buildings^^	Numeric field	Select from: • Not Occurring (NO) • Included Elsewhere (IE) • Not Estimated (NE)	Numeric field	Select from: • Not Occurring (NO) • Included Elsewhere (IE) • Not Estimated (NE)	Numeric field	Select from: • Not Occurring (NO) • Included Elsewhere (IE) • Not Estimated (NE) • Confidential (C)	Text field

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
		Confidential (C)		Confidential (C)			
Stationary energy > Commercial buildings & facilities^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Stationary energy > Institutional	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
buildings and facilities^^							
Stationary energy > Industrial buildings & facilities^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Stationary energy > Agriculture	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Stationary energy > Fugitive emissions^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Total Stationary Energy^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Transportation > On-road^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Transportation > Rail^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Transportation > Waterborne navigation^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Transportation > Aviation^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Transportation > Off-road^^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Total Transport^	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above
Waste > Solid waste disposal^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Waste > Biological treatment^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Waste > Incineration and open burning^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Waste > Wastewater^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Total Waste	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
IPPU > Industrial process	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
IPPU > Product use	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Total IPPU	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
AFOLU > Livestock	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
AFOLU > Land use	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
AFOLU > Other AFOLU	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Total AFOLU	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Generation of grid-supplied energy > Electricity-only generation^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Generation of grid-supplied energy > CHP generation^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Generation of grid-supplied energy > Heat/cold generation^^	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Generation of grid-supplied energy > Local renewable generation	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above
Total generation of grid-supplied energy	Same as above	Same as above	Not applicable for this sub-sector	Not applicable for this sub-sector	Same as above	Same as above	Same as above

0	1	2	3	4	5	6	7
Sectors and sub-sectors	Direct emissions (metric tonnes CO2e)^	If you have no direct emissions to report, please select a notation key to explain why^	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling (metric tonnes CO2e)^	If you have no indirect emissions to report, please select a notation key to explain why^	Emissions occurring outside the jurisdiction boundary as a result of in-jurisdiction activities (metric tonnes CO2e)	If you have no emissions to report that are occurring outside the jurisdiction boundary as a result of in-jurisdiction activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments^
Total Emissions (excluding generation of grid-supplied energy)	Same as above	Same as above	Numeric field	Select from: • Not Occurring • Included Elsewhere • Not Estimated • Confidential	Numeric field	Select from: • Not Occurring • Included Elsewhere • Not Estimated • Confidential	Same as above

Requested Content

General

- In the 2025 disclosure cycle, the data to this question will need to be copied from last year using Copy Forward, or if updated, it will need to be inputted manually. If this poses a challenge for you, please raise a ticket on the [CDP Help Center](#).
- All emissions should be reported in metric tons of CO₂e. Common conversion factors are included in the Technical Note "[Units of Measure Conversions](#)".

Emissions data (columns 1, 3, 5)

- For each sector and sub-sector please report the quantity of direct and indirect emissions in metric tonnes CO₂e.
- If there are no emissions occurring within your jurisdiction relating to a specific sector/subsector, please indicate this with a 0.
- Ensure that the reported emissions apply to the 12-month reporting period as previously reported in question 3.1.1.
- Offsets purchased from outside the geographic boundary should be separately reported and not "netted" or deducted from the reported inventory results.
- Row 'Total Stationary Energy': Please ensure that this value is the sum of the stationary energy sub-sectors values reported above.
- Row 'Transportation > Rail': Rail transport includes metro.
- Row 'Total Transport': Please ensure that this value is the sum of the transport sub-sectors values reported above.
- Row 'Total Waste': Please ensure that this value is the sum of the waste sub-sectors values reported above.
- Row 'Total AFOLU': Please ensure that this value is the sum of the AFOLU sub-sectors values reported above.
- Row 'Total generation of grid-supplied energy': Please ensure that this value is the sum of the generation of grid-supplied energy sub-sectors values reported above.

Notation keys (columns 2, 4, 6)

- Notation keys may be used to accommodate limitations in data availability and differences in emission sources between local governments.

- Where notation keys are used, an accompanying explanation shall be provided in the field 'Please explain for any excluded sources, identify any emissions covered under an ETS and provide any other comments'.
- The following are the descriptions on how to use the notation keys:
 - "NO" (not occurring): An activity or process does not occur or exist within the jurisdiction. This notation key may also be used for insignificant sources.
 - "IE" (included elsewhere): GHG emissions for this activity are estimated and presented in another category in the same inventory, stating where it is added. This notation key may be used where it is difficult to disaggregate data into multiple sub-sectors. A justification must be provided when using this notation and you must also indicate in which subsector the emissions were integrated.
 - "NE" (not estimated): GHG emissions occur but have not been estimated or reported, with a justification why. This notation is not allowed for mandatory sectors (even if a justification is provided). You should provide a rough estimate (i.e. downscale emissions from national data based on population) or use the notation key "NO" if these emissions are considered insignificant.
 - "C" (confidential): GHG emissions which could lead to the disclosure of confidential information, and as such are not reported publicly.

GCoM guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 3.1, 3.2 and 3.3 "GHG Accounting Principles": Local governments reporting to the Complete level shall consider all three categories of emission sources (stationary, transportation, and waste) and report all emissions that are significant while disaggregating emissions sources. Local governments reporting to the Simplified level are not obliged to report for waste nor disaggregate emissions for stationary and transportation emission sources.

Notation keys: Notation keys may be used to accommodate limitations in data availability and differences in emission sources between local governments. Where the notation key 'IE' is used, local governments reporting to the Complete level must provide an

accompanying explanation. Providing an explanation for 'IE' is optional for local governments reporting to the Simplified reporting level.

The following are the descriptions on how to use the notation keys:

- "NO" (not occurring): An activity or process does not occur or exist within the city. This notation key may also be used for insignificant sources.
- "IE" (included elsewhere): GHG emissions for this activity are estimated and presented in another category in the same inventory, stating where it is added. This notation key may be used where it is difficult to disaggregate data into multiple sub-sectors.
- "NE" (not estimated): GHG emissions occur but have not been estimated or reported, with a justification why.
- "C" (confidential): GHG emissions which could lead to the disclosure of confidential information, and as such are not reported publicly.

Avoiding Common Mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Important common mistakes:

1. Reporting "0" in mandatory emissions is not compliant. Please use an appropriate notation key: "IE" (included elsewhere), "NO" (not occurring), or "NE" (not estimated).
2. Please only use "NE" (not estimated) when GHG emissions occur but have not been estimated or reported. It is used to mark where improvement can be made in future years. The use of "NE" is not compliant with the GCoM "inventory badge". If the emission is not estimated because the emission from this subsector is very scarce or rare, please use "NO" (not occurring). For example, if emissions from water-born transport is a minor source within city A, the city should use notation key NO for the direct and indirect emission for water-born transport emissions.

3. If GHG emissions are estimated and presented in another category in the same inventory, please use “IE” (included elsewhere) along with a justification. Failing to provide a justification is not compliant for cities reporting to the Complete level.

You can find all required emissions estimations in the following table. Please don't leave any blank or forget justifications when using notation keys.

Sectors and sub-sectors	Simplified level Direct emissions Requirements	Simplified level Indirect emissions Requirements	Complete level Direct emissions Requirements	Complete level Indirect emissions Requirements
Stationary energy>Residential buildings^^	Recommended	Recommended	Mandatory	Mandatory
Stationary energy>Commercial building and facilities^^	Recommended	Recommended	Mandatory	Mandatory
Stationary energy>Institutional buildings and facilities^^	Recommended	Recommended	Mandatory	Mandatory
Stationary energy>Industrial buildings and facilities^^	Recommended	Recommended	Mandatory	Mandatory
Stationary energy>Agriculture	Optional	Optional	Recommended	Recommended
Stationary energy>Fugitive emissions^^	Optional	Optional	Mandatory	Mandatory
Total Stationary Energy^	Mandatory	Mandatory	Optional	Optional
Transportation>On-road^^	Recommended	Recommended	Mandatory	Mandatory
Transportation>Rail^^	Recommended	Recommended	Mandatory	Mandatory

Transportation>Waterborne navigation^^	Optional	Optional	Mandatory	Mandatory
Transportation>Aviation^^	Optional	Optional	Mandatory	Mandatory
Transportation>Off-road^^	Optional	Optional	Mandatory	Mandatory
Total Transport^	Mandatory	Mandatory	Optional	Optional
Waste>Solid waste disposal^^	Optional	Optional	Mandatory	NA
Waste>Biological treatment^^	Optional	Optional	Mandatory	NA
Waste>Incineration and open burning^^	Optional	Optional	Mandatory	NA
Waste>Wastewater^^	Optional	Optional	Mandatory	NA
Total Waste	Optional	Optional	Optional	Optional
Total IPPU	Optional	Optional	Optional	Optional
Total AFOLU	Optional	Optional	Optional	Optional
Generation of grid-supplied energy > Electricity-only generation^^	Optional	Optional	Mandatory	Optional
Generation of grid-supplied energy > CHP generation^^	Optional	Optional	Mandatory	Optional
Generation of grid-supplied energy > Heat/cold generation^^	Optional	Optional	Mandatory	Optional

Generation of grid supplied energy > Local renewable generation	Optional	Optional	Optional	Optional
Total generation of grid-supplied energy	Optional	Optional	Optional	Optional
Total Emissions (excluding generation of grid-supplied energy)	Optional	Optional	Optional	Optional

Regional variations:

To comply with the Simplified level of reporting, Covenant of Mayors Europe signatories shall, in addition to meeting other Simplified level requirements of the CRF, report:

- Activity data on local renewable energy production (MWh). To be reported in the inventory attachment.

(3.1.4) Provide a breakdown of your community-wide emissions by sector.

Change From Last Year

No change

Question Dependencies

For Cities, this question is presented if you are reporting your emissions in any format other than the format of the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC) or GCoM Common Reporting Framework (CRF). For States and Regions, this question is presented if 'Yes' is selected in response to 3.1.

Questionnaire

- Cities: Pathway 2 and 3
- States and Regions

Connection to other frameworks

- TFCD: Metric and Targets (Disclosure B)
- [Cities only] NetZeroCities - Mission Cities
- Race to Zero
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG13

Response Options

Please complete the following table. You are able to add rows by using the “Add Row” button at the bottom of the table. Please ensure all reported emissions data is in metric tonnes CO2e.

Sector	Sub-sector	Scope	Emissions (metric tonnes CO2e)	Comment
Select from: If IPCC: • Energy	Select from: • All applicable sub-sectors per methodology	Select from: • Scope 1 • Scope 2 • Scope 3	Numeric field	Text field

Sector	Sub-sector	Scope	Emissions (metric tonnes CO2e)	Comment
- Industrial processes and product use (IPPU) - Agriculture, Forestry and other land use (AFOLU) - Waste - Other, please specify If US Community Protocol Sources: - Built environment - Transportation and other mobile sources - Solid waste - Wastewater and water - Agricultural livestock - Forest Land and Trees - Upstream impacts of community-wide activities - Other, please specify All other methodologies - Stationary Energy - Transportation - Waste - Other, please specify	- Sub-sector classification not applicable - Stationary energy (buildings) - Residential buildings - Public buildings - Commercial buildings - Industrial buildings - Transportation - Road - Rail - Aviation - Livestock - Land use - Waste - Wastewater - Other, please specify	- Scope 1 and 2 - Total figure - Scope classification not applicable		

[Add Row]

Requested Content

General

- All emissions should be reported in metric tonnes of CO₂e. Common conversion factors are included in the Technical Note ["Units of Measure Conversions"](#).
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Sector and Sub-sector (column 1 and 2)

- The emissions sectors presented are dependent upon the previously selected methodology that was reported as being used to develop the emissions inventory. Use the 'Add row' function to report the emissions breakdown using multiple sectors, sub-sectors, and scopes.
- The purpose of this question is to learn more about how your jurisdiction breaks down emissions, which can be valuable information for comparative understanding between jurisdictions. Please note that this question is flexible to accommodate many of the different kinds of categories used by jurisdictions.

Scope (column 3)

- If the reported emissions are categorized by scope, please report the applicable scope:
 - Scope 1: GHG emissions from sources located within the jurisdiction boundary.
 - Scope 2: GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the jurisdiction boundary.
 - Scope 3: All other GHG emissions that occur outside the jurisdiction boundary as a result of activities taking place within the jurisdiction boundary.

Emissions (metric tonnes CO₂e) (column 4)

- For each source, please report the quantity of emissions in metric tonnes CO₂e. Ensure that the reported emissions apply to the 12-month reporting period as previously reported in Question 3.1.1.

Comment (column 5)

- Indicate if you do not have the full breakdown of your jurisdiction's emissions or if the emissions being reported are an estimation e.g., downscale from national level or utilization of proxy data.

(3.2) Does your jurisdiction have a consumption-based emissions inventory to measure emissions from consumption of goods and services? The consumption-based approach captures direct and lifecycle GHG emissions of goods and services and allocates GHG emissions to the final consumers, rather than to the producers.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- [Cities only] NetZeroCities - Mission Cities
- C40 Leadership Standards
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Ecomobility Alliance Sustainable Development Goals: SDG13

Response Options

[*column/row appearance is dependent on selections in this question]

Does your jurisdiction have a consumption-based emissions inventory?	Attach your consumption-based inventory, along with any supporting documents *	Provide an overview of your consumption-based inventory, including URL links if applicable, along with any supporting methods/calculations*
Select from: • Yes, our jurisdiction has a consumption-based emissions inventory to measure emissions from consumption of goods and services • No, but development of a consumption-based emissions inventory is in progress and will be reported next year • No, but intending to develop and report a consumption-based emissions inventory in the next 2 years • No, and we are not intending to develop and report one in the next 2 years due to lack of financial capacity • No, and we are not intending to develop and report one in the next 2 years due to lack of expertise/technical capacity • No, and we are not intending to develop and report one in the next 2 years due to lack of financial capacity and expertise/technical capacity • No, and we are not intending to develop and report one in the next 2 years due to other higher priorities	Attachment function	Text field

Does your jurisdiction have a consumption-based emissions inventory?	Attach your consumption-based inventory, along with any supporting documents *	Provide an overview of your consumption-based inventory, including URL links if applicable, along with any supporting methods/calculations*
No, and we are not intending to develop and report one in the next 2 years due to a reason not listed above, please specify		

Requested Content

General

- Consumption-based greenhouse gas accounting is an alternative to the sector and scope approach to measuring community-wide emissions. Consumption-based greenhouse gas accounting focuses on the consumption of goods and services (such as food, clothing, electronic equipment, etc.) by residents of the jurisdiction, and GHG emissions are reported by consumption category rather than GHG emission source category.

Does your jurisdiction have a consumption-based emissions inventory? (column 1)

- Report whether your jurisdiction has a consumption-based inventory, and if not select the most applicable option that reflects your jurisdiction's intentions to develop and report one.

Attach your consumption-based inventory, along with any supporting documents (column 2) / Provide an overview of your consumption-based inventory, including URL links if applicable, along with any supporting methods/calculations (column 3)

- These columns are presented if you select 'Yes' to having a consumption-based inventory.
- Attach your consumption-based inventory in column 2, and/or provide an accessible URL link in column 3.

- Use column 3 to provide a brief outline of the information contained within your consumption-based inventory:
 - Describe the main conclusions or findings of the inventory, including the total GHG emissions for your jurisdiction, the sectors covered (e.g. food consumption, food waste), the methods and tools used to calculate your inventory (e.g. Clearpath, Cool Food Pro), as well as the sector that has the biggest contribution to GHG emissions.
 - You could state how total GHG emissions derived from a consumption-based methodology compares to alternative production-based calculations of emissions.

Additional Information

Resources

Name	Description	Institution
<u>Cutting GHG emissions from consumption: Indicators are tools for action</u>	This report specifically focuses on how cities can source data on urban consumption and use actionable data indicators (ADI) to plan and measure actions designed to cut consumption-based emissions. It is available to download in English, Spanish, French, Portuguese and Mandarin.	C40 Cities
<u>Consumption-based GHG Emissions of C40 Cities</u>	This report presents the methodology and results of a study investigating the consumption-based greenhouse gas emissions (GHG) from 79 cities, in order to understand the ability of cities to contribute to GHG emissions reductions beyond their city boundaries.	C40 Cities
<u>PAS 2070: Specification for the assessment of greenhouse gas emissions of a city. Direct plus supply chain and consumption-based methodologies</u>	PAS 2070 aims to provide a robust and transparent method for consistent, comparable and relevant quantification, attribution and reporting of city-scale GHG emissions - both direct (from sources within the city boundary) as well as indirect (from goods and services that are produced outside the city boundary for consumption and/or use within the city boundary).	British Standards Institution
<u>Estimating consumption-based greenhouse gas emissions at the city scale</u>	This guide for local governments describes when and how to use a consumption-based emissions inventory	Stockholm Environment Institute

(3.3) Do you have an emissions inventory for your government operations to report?

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Connection to other frameworks

- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

Response Options

Select from:

- Yes
- No

Requested Content

General

- The questions in this section refer to emissions associated with your government operations (sometimes referred to as 'corporate' or 'municipal') emissions. The majority of emissions from government operations are a subset of community emissions, typically ranging from 3–7% of total jurisdiction-wide emissions.

- Although this is a relatively small fraction of the jurisdiction's emissions, it clearly shows that local governments must use their influence over operations that are not under their direct control (e.g., improving the energy performance of private buildings through the municipal building code).
- Select 'Yes' to indicate that you have a greenhouse gas (GHG) emissions inventory for your local government operations to report.
- A local government operations emissions inventory accounts for emissions from operations, activities and facilities that governments own or operate, including those from municipal fleets or buildings, or from waste management services provided by the municipality to the community (GPC).
- For more information on the difference between Government and Community emissions inventories, please see the following documents:
 - Local Government Operations Protocol (LGOP) for the Quantification and Reporting of Greenhouse Gas Emissions Inventories (Version 1.1) (a collaboration between The California Air Resources Board, The California Climate Action Registry, The Climate Registry, and ICLEI)
 - International Local Government GHG Emissions Analysis Protocol (IEAP) developed by ICLEI
 - Appendix B in the Global Protocol for Community-scale Greenhouse Gas Emission Inventories (WRI, C40 and ICLEI).

(3.3.1) Attach your government operations emissions inventory and report the following information regarding this inventory.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Question Dependencies

This question is presented if 'Yes' is selected in response to 3.3

Connection to other frameworks

- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

Response Options

Please complete the following table. The table is displayed over several rows for readability.

1	2	3	4	5	6
Government operations emissions inventory attachment	Government operations emissions inventory link	Year covered by inventory	Boundary	Gases included in the inventory	Primary protocol
Attachment column	Text field	Select from: • 2010 • 2011 • 2012 • 2013 • 2014 • 2015 • 2016 • 2017	Select from: • Departments, entities or companies over which operational control is exercised • Departments, entities or companies over which financial control is exercised • Other, please specify	Select all that apply: • CO2 • CH4 • N2O • HFCs • PFCs • SF6	Select from: • Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40, ICLEI) • Local Government Operations Protocol (ICLEI USA, The Climate Registry, California Climate

1	2	3	4	5	6
Government operations emissions inventory attachment	Government operations emissions inventory link	Year covered by inventory	Boundary	Gases included in the inventory	Primary protocol
		• 2018 • 2019 • 2020 • 2021 • 2022 • 2023 • 2024 • 2025 • 2010/2011 • 2011/2012 • 2012/2013 • 2013/2014 • 2014/2015 • 2015/2016 • 2016/2017 • 2017/2018 • 2018/2019 • 2019/2020 • 2020/2021 • 2021/2022 • 2022/2023 • 2023/2024		• NF3	• Action Registry, California Air Resources Board) • 2006 IPCC Guidelines for National Greenhouse Gas Inventories • Greenhouse Gas Protocol: Public Sector Standard • International Emissions Analysis Protocol (ICLEI) • ISO 14064 • Australian National Greenhouse and Energy Reporting (Measurement) Determination; • Own methodology used to calculate emissions from government operations • National Carbon Offset Standard (NCOS) • UK Government Environmental Reporting Guidelines • Other, please specify

1	2	3	4	5	6
Government operations emissions inventory attachment	Government operations emissions inventory link	Year covered by inventory	Boundary	Gases included in the inventory	Primary protocol
		2024/2025			

7	8	9
Emissions sources included	Has the inventory been audited/verified?	Comment
Select all that apply: - Airport(s) - Buildings - Buses - Electricity generation - Electricity transmission and distribution - Employee commuting - Incineration of waste - Landfills - Local trains - Maritime port - Municipal vehicle fleet - Regional trains	Select from: - Yes, externally audited / verified (third-party verification) - Yes, internally audited / verified (self-verification) - Yes, internally and externally audited / verified - No, not audited / verified - Other, please specify	Text field

7	8	9
Emissions sources included	Has the inventory been audited/verified?	Comment
• Roads / highways • Street lighting and traffic signals • Subway / underground • Thermal energy • Waste collection • Wastewater treatment • Water supply • Employee commuting (scope 3) • Employee business travel (scope 3) • Emissions from contracted services (scope 3) • Upstream production of materials and fuels (scope 3) • Upstream and downstream transportation of materials and fuels (scope 3) • Waste related emission sources (scope 3) • Other, please specify		

Requested Content

Government operations emissions inventory attachment (column 1) / Government operations emissions inventory link (column 2)

- Use these fields to provide an attachment or direct link to your government operations emissions inventory.
- If you are providing a direct weblink to the emissions inventory, please ensure the emissions inventory can be accessed unrestricted on the link provided.

Year covered by inventory (column 3)

- Report the year of your latest government operations emissions inventory. This is the year covered by the emissions inventory and not the year of publication or the year when the assessment was made.

Boundary (column 4)

- The options allow for emissions to be captured from a ranging set of institutions, from government departments to quasi-governmental authorities, public corporations and special purpose vehicles.
- Further guidance on the suitability of these different methods is available in the [Local Government Operations Protocol](#), the [WRI/WBCSD GHG Protocol](#), and [Appendix B of the Global Protocol for Community Scale Greenhouse Gas Emissions Inventories](#).
- If none of the listed options describes your boundary, please select “Other, please specify” from the drop-down list. You will then be provided with a text box in which to describe your boundary.

Gases included in emissions inventory (column 5)

- Select the greenhouse gases included in your inventory. The list consists of the main gases as defined by the [United Nations Framework Convention on Climate Change](#) (UNFCCC): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), as well as nitrogen trifluoride (NF₃).

Primary protocol (column 6)

- Please select the methodology on which you base the majority of your calculations. The system will only let you select one methodology. If you do not see your chosen methodology reflected in the list please select “Other, please specify” and describe your methodology.

Emissions sources included (column 7)

- Select the sources of emissions that are included in the inventory. This includes the fuel that is consumed (converted to end-use energy) directly by your jurisdiction’s government – referring to Scope 1 emissions. Scope 1 emissions are all direct GHG emissions sources owned or operated by the municipal government. This fuel could be used in combustion in owned or controlled boilers, furnaces, vehicles, etc.

- If Scope 3 emissions are also calculated the select the Scope 3 emissions sources included in this calculation, these sources include '(Scope 3)' at the end.

Has the inventory been audited/verified? (column 8)

- Indicate if your inventory has been externally or internally verified and/or audited. If you have documentation that can be used as evidence of the audit/verification, please attach this to question 11.1 and indicate that you have done so in the 'Comment' column.
- Jurisdictions may choose to externally or internally verify or audit their emissions inventory to demonstrate that it has been developed in accordance with the requirements of the selected methodology and to provide assurance to users that it represents a faithful, true, and fair account of their GHG emissions.
- While verification is often undertaken by an independent organization (third-party verification), this may not always be the case. Many jurisdictions interested in improving their emissions inventories may subject their information to internal verification by staff who are independent of the GHG accounting and reporting process (self-verification).
- Both types of verification should follow similar procedures and processes. For external stakeholders, third-party verification is likely to significantly increase the credibility of the GHG inventory.

(3.3.2) Report your government operations emissions in metric tonnes CO₂e.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Question Dependencies

This question only appears if you select 'Yes' in response to 3.3

Connection to other frameworks

- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

Response Options

Please complete the following table:

Total scope 1 emissions (metric tonnes CO2e)	Total scope 2 emissions (metric tonnes CO2e)	Total scope 3 emissions (metric tonnes CO2e)	Comment
Numeric field	Numeric field	Numeric field	Text field

Requested Content

General

- Report your total scope 1, scope 2 and scope 3 emissions in metric tonnes CO2e. Where you do not have this data leave the applicable fields blank.
- Scope 1 emissions are all direct GHG emissions sources owned or operated by the government.
- Scope 2 emissions are indirect emissions as a result of electricity, steam, heating, or cooling that has been purchased or acquired by the government.

- Scope 3 emissions are all other indirect emissions not covered in scope 2, such as emissions resulting from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity (e.g., employee commuting and business travel), outsourced activities, waste disposal, etc.

Comment (column 4)

- Provide any further relevant detail on the emissions reported and explain any inconsistencies or gaps in data.

Sectoral Data

GCoM Energy Access and Poverty Pillar (EAPP) (applicable to GCoM cities only)

CDP-ICLEI Track is aligned with the complete set of reporting requirements of the Global Covenant of Mayors Energy Access and Poverty Pillar (EAPP) in the Common Reporting Framework. See the [Global Covenant of Mayors Common Reporting Framework webpage](#) for the most up to date information on the Energy Access and Poverty Pillar.

The energy questions in Section 4 (4.1, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.2, 4.3, 4.4) have been designed to align with the reporting requirements of multiple projects and/or initiatives, principally the 'Assessment' phase of the Energy Access and Poverty Pillar. The 'Plan' phase elements can be reported in questions 8.1/8.1.1, and in 9.1/9.2 (in two final columns GCoM cities will be requested to indicate if any actions reported address energy-related issues and the related indicators), while the 'Target' elements are addressed in question 7.1.

GCoM jurisdictions are required to report to at least one indicator from their GCoM Regional/National Covenant's chosen energy attribute. These attributes are:

- Secure energy
- Sustainable energy

- Affordable energy

The below table indicates the different attributes, their related indicators (of which at least one must be reported to), and the CDP-ICLEI Track questions that collect data on that indicator. Please check which questions you have to report to based on the attribute selected for your region (for Japanese and Korean cities, please use the GCOM Japan National Covenant and GCOM Korea National Covenant, respectively).

Attribute	GCoM Regional/National Covenants	CDP-ICLEI Track question number and associated GCoM EAPP Indicator(s)
Sustainable Energy	• East Asia - Japan National Covenant • Latin America & the Caribbean Regional Covenant • Middle East & North Africa Regional Covenant • East Asia - Korea National Covenant • East Asia Regional Covenant	4.1 • Energy consumption from renewable energy sources 4.1.1 • No associated EAPP indicator 4.1.2 • Source mix of thermal energy (heating and cooling) consumed within local boundary 4.1.3 • Installed capacity of renewable energy sources within local boundary • Total energy generated from renewable energy sources within local boundary 4.1.4 • No associated EAPP indicator 4.2 • Percentage of households within the municipality with access to clean cooking fuels and technologies
Affordable Energy	• Eastern Europe & Central Asia Regional Covenant • European Union & Western Europe Regional Covenant • North America Regional Covenant	4.3 • Percentage of households or population within the city boundary that spending up to X% of income on energy service

	• East Asia - Korea National Covenant • Oceania Regional Covenant	
Secure Energy	• South Asia Regional Covenant • Southeast Asia Regional Covenant • Sub Saharan Africa Regional Covenant • East Asia Regional Covenant	4.4 • Percentage of municipality population or households with access to electricity • Average duration of available electricity • Average yearly energy consumption per capita

(4.1) Report the following information regarding your jurisdiction-wide energy consumption.

Change From Last Year

No change

Question Dependencies

Columns 1 and 4 are only presented to certain jurisdictions as detailed in the Requested Content below. The selections made in column 4 will determine the presentation of questions 4.1.1, 4.1.2, 4.1.3 and 4.1.4.

Questionnaire

- Cities
 - Pathway 1 and 2: Columns 2, 3, 5 and 6
 - Pathway 3: Columns 2 – 6.
 - Column 1 is only presented to GCoM jurisdictions

- States and Regions

Connection to other frameworks

- GCoM: Energy Access and Poverty Pillar
- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] Under2 Coalition
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG 7, SDG 12

Response Options

1	2	3	4	5	6
Indicate the energy-related assessments that have been undertaken for your jurisdiction ^{***}	Total energy consumption (MWh)	Total energy consumption from renewable energy sources (MWh) [^]	Indicate the energy data for which you can report a fuel/technology mix ^{^*}	Add relevant attachments regarding your energy-related assessments and/or energy consumption [^]	Please explain and add any relevant URL links regarding your energy-related assessments and/or energy consumption [^]
Select all that apply: • Assessment that considers sustainable energy	Numeric field	Numeric field	Select all that apply: • Electricity consumption mix data (presents question 3.1a)	Attachment function	Text field

1	2	3	4	5	6
Indicate the energy-related assessments that have been undertaken for your jurisdiction ^{^**}	Total energy consumption (MWh)	Total energy consumption from renewable energy sources (MWh) [^]	Indicate the energy data for which you can report a fuel/technology mix ^{^*}	Add relevant attachments regarding your energy-related assessments and/or energy consumption [^]	Please explain and add any relevant URL links regarding your energy-related assessments and/or energy consumption [^]
• Assessment that considers energy security • Assessment that considers affordable energy • No energy-related assessment has been undertaken • Other, please specify			• Thermal (heating and cooling) consumption mix data (presents question 3.1b) • Energy generation mix data (presents question 3.1c) • Sector energy consumption breakdown data (presents question 3.1d^{***}) • Unable to report mix		

*Please note this column is only presented to jurisdictions that meet the following criteria:

- GCoM jurisdictions, participants in C40 Cities, ICLEI GreenClimateCities, 100% Renewables Cities and Regions Network, and NetZeroCities Initiative

Responding to Cities Questionnaire Pathway 3

^{**} Please note this column is only presented to GCoM jurisdictions

***Please note this option is only presented to C40 Cities, 100% Renewables Cities and Regions Network jurisdictions, WWF OPCC, and NetZeroCities Initiative jurisdictions.

Requested Content

Indicate the energy-related assessments that have been undertaken for your jurisdiction (column 1)

- This column is only presented to GCoM jurisdictions.
- An energy assessment analyses the current energy access and energy poverty conditions of the municipality considering three key energy attributes:
 - Secure energy
 - Sustainable energy
 - Affordable energy
- An energy assessment is not the same as an energy plan. An energy plan captures the intentions and concrete policies and measures foreseen to increase access to secure, affordable and sustainable energy in the community and within the boundaries of the local government. An energy plan is forward-looking and built from the assessment of the current energy-related issues. Such an energy-related plan (either standalone or integrated as part of a wider climate action plan) may be reported in 8.1 and 8.1.1.

Total energy consumption (MWh) (column 2)

- Total energy consumption includes electricity use, direct combustion for heating/cooling in buildings and industrial processes, and direct combustion for transport (REN21 [Renewables in Cities Global Status Report](#)).
- You are requested to report on the total annual jurisdiction-wide energy consumption in MWh.
- If your data is in a unit that is not MWh, please ensure it is converted to enable data comparability. Should you require guidance on converting the value to MWh, please see the CDP Technical Note [Conversion of fuel data to MWh](#).

Total energy consumption from renewable energy sources (MWh) (column 3)

- You are requested to report on the total annual jurisdiction-wide energy consumption from renewable energy sources in MWh. This reflects a portion of your total energy consumption reported in column 3, and should not exceed the figure reported in column 2.
- Renewable energy can be defined as energy derived from sunlight, wind, geothermal processes, biomass, and water (including hydropower, oceanic/tidal energy) ([ICLEI](#)).
- If your data is in a unit that is not MWh, please ensure it is converted to enable data comparability. Should you require guidance on converting the value to MWh, please see the CDP Technical Note [Conversion of fuel data to MWh](#).

Indicate the energy data for which you can report a fuel/technology mix (column 4)

- This column is only presented to jurisdictions that meet the following criteria:
 - GCoM jurisdictions, participants in C40 Cities, ICLEI GreenClimateCities, 100% Renewables Cities and Regions Network, and the NetZeroCities Initiative

Responding to Cities Questionnaire Pathway 3

- States and Regions
- Your selection in this column will determine the presentation of questions 4.1.1, 4.1.2, 4.1.3, and 4.1.4. The option that determines the selection of 4.1.4 is only presented to jurisdictions that are part of C40 Cities, 100% Renewables Cities and Regions Network, and the NetZeroCities Initiative. States and Regions only see the option that determines the presentation of 4.1.3.

Add relevant attachments regarding your energy-related assessments and/or energy consumption (column 5)

- Please include any attachment(s) regarding energy-related assessments that have been undertaken for your jurisdiction.

Please explain and add any relevant URL links regarding your energy-related assessments and/or energy consumption (column 6)

- Please include link(s) regarding energy-related assessments that have been undertaken for your jurisdiction.

- Please provide any additional contextual information regarding the energy consumption data reported in columns 2 and 3.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 7: Energy Access and Poverty Assessment:

The energy access and energy poverty assessment shall provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

The energy access and energy poverty assessment is framed by indicators for which local governments are invited to collect and provide information as below for the “Energy Access and Poverty Pillar”

GCoM reporting cities that have selected 'Source mix of thermal energy (heating and cooling) consumed in your city' as an indicator for the regional attribute of 'Sustainable Energy' must select the option 'Thermal (heating and cooling) consumption mix data' in column 4 to be presented with the appropriate question 4.1.2.

GCoM reporting cities that have selected either 'Installed capacity of renewable energy sources within local boundary' and/or 'Total energy generated from renewable energy sources within local boundary' as indicator(s) for the regional attribute of 'Sustainable Energy' must select the option 'Energy generation mix data' in column 4 to be presented with the appropriate question 4.1.3.

Sustainable Energy Indicators

- Energy consumption from renewable energy sources (question 4.1 column 3), or;
- Source mix of thermal energy (heating and cooling) consumed within local boundary (question 4.1 column 4 and question 4.1.2), or
- Installed capacity of renewable energy sources within local boundary (question 4.1 column 4 and question 4.1.3 column 1) or;

- Total energy generated from renewable energy source within local boundary (question 4.1 column 4 and question 4.1.3 column 3), or;
- Percentage of households within the municipality with access to clean cooking fuels and technologies (question 4.2 column 1)

Energy consumption from renewable energy sources

This indicator refers to the energy consumption from renewable energy sources and is to be reported as Megawatt-hour (MWh). The local authority could include reference to power purchase agreements (PPAs) or other schemes used to purchase green electricity used within the municipality boundary.

Energy-related Assessments

Local governments shall prepare and submit an energy access and energy poverty assessment within two years after committing to the GCoM. The assessment shall analyse the energy access and energy poverty conditions of the municipality considering three key energy attributes:

- Secure energy
- Sustainable energy
- Affordable energy

An energy assessment is not the same as an energy plan. An energy plan captures the intentions and concrete policies and measures foreseen to increase access to secure, affordable and sustainable energy in the community and within the boundaries of the local government. An energy plan is forward-looking and built from the assessment of the current energy-related issues. Such an energy-related plan (either standalone or integrated as part of a wider climate action plan) may be reported in 8.1 and 8.1.1.

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM '*Energy Access and Poverty Pillar*'.

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Question columns	Simplified level Requirements	Complete level Requirements	Avoiding common mistakes
Indicate the energy-related assessments that have been undertaken for your jurisdiction^**	Mandatory	Mandatory	Please make a selection based on your regions' selected energy attribute.
Total energy consumption (MWh)	Optional	Optional	
Total energy consumption from renewable energy sources (MWh)^	Mandatory (if you have selected the indicator of 'Energy consumption from renewable energy sources' for the regional attribute of Sustainable Energy)	Mandatory (if you have selected the indicator of 'Energy consumption from renewable energy sources' for the regional attribute of Sustainable Energy)	Please report the total energy consumption from the renewable energy sources in a numeric value with the metric unit of Megawatt-hour (MWh) if your Regions' selected energy attribute is Sustainable Energy and you have chosen the mandatory indicator of 'Energy consumption from renewable energy sources' to report against. If you do not have renewable energy consumption, please report "0".
Indicate the energy data for which you can report a fuel/technology mix^*	Mandatory (if you have selected one of the following mandatory indicators to report against for the regional attribute of Sustainable Energy:	Mandatory (if you have selected one of the following mandatory indicators to report against for the regional attribute of Sustainable Energy:	For the mandatory indicator of 'Source mix of thermal energy (heating and cooling) consumed within local boundary' please select the option: Thermal (heating and cooling) consumption mix data (presents question 4.1.2), where you may report against this indicator in question 4.1.2.

	a. Source mix of thermal energy (heating and cooling) consumed within local boundary b. Installed capacity of renewable energy sources within local boundary c. Total energy generated from renewable energy sources within local boundary)	Source mix of thermal energy (heating and cooling) consumed within local boundary Installed capacity of renewable energy sources within local boundary Total energy generated from renewable energy sources within local boundary)	For the mandatory indicators of 'Installed capacity of renewable energy sources within local boundary' and 'Total energy generated from renewable energy sources within local boundary', please select the option: Energy generation mix data (presents question 4.1.3), where you may report against these indicators in question 4.1.3.
Add relevant attachments regarding your energy-related assessments and/or energy consumption^	Mandatory	Mandatory	All local governments must provide an attachment of their EAPP Assessments (if you have no attachment, please provide a link in the next column).
Please explain and add any relevant URL links regarding your energy-related assessments and/or energy consumption^	Mandatory	Mandatory	All local governments must provide a link of their EAPP Assessments (if you do not have a link, please provide an attachment in the previous column).

Explanation of Terms

- Renewable energy / renewable source: energy that is derived from sunlight, wind, geothermal processes, biomass, and water (including hydropower, oceanic/tidal energy) ([ICLEI](#)).

(4.1.1) Report the total electricity consumption in MWh and the energy mix used for electricity consumption in your jurisdiction.

Change From Last Year

No change

Question Dependencies

This question is presented to cities that are shown column 4 'Indicate the energy data for which you can report a fuel/technology mix' in question 4.1, and select the option 'Electricity consumption mix data'.

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG 7, SDG 12

Response Options

Please complete the following table.

1	2	3	4	5	6
Total annual jurisdiction-wide electricity consumption in MWh	Data source used to provide percentage breakdown of consumption by energy type	Percentage of total consumption from coal (%)	Percentage of total consumption from gas (%)	Percentage of total consumption from oil (%)	Percentage of total consumption from nuclear (%)
Numeric field	Select from: • Jurisdiction-level data • Utility-level data • Regional/State-level data • National-level data • Other data source(s), please specify	Percentage field	Percentage field	Percentage field	Percentage field

7	8	9	10	11	12
Percentage of total consumption from hydropower (%)	Percentage of total consumption from bioenergy (biomass and biofuels) (%)	Percentage of total consumption from wind (%)	Percentage of total consumption from geothermal (%)	Percentage of total consumption from solar (%)	Percentage of total consumption from waste to energy (excluding biomass component) (%)
Percentage field	Percentage field	Percentage field	Percentage field	Percentage field	Percentage field

13	14	15	16	17	18
Percentage of total consumption from wave (%)	Percentage of total consumption from tidal (%)	Percentage of total consumption from other renewable sources (%)	Percentage of total consumption from other non-renewable sources (%)	Year data applies to	Comment
Percentage field	Percentage field	Percentage field	Percentage field	Select from: 2010-2025	Text field

Requested Content

General

- In column 1 you are requested to report on the total annual jurisdiction-wide electricity consumption in MWh.
- If your data is in a unit that is not MWh, please convert it as this will enable data comparability. Should you require guidance on converting the value to MWh please see the CDP Technical Note: [Conversion of fuel data to MWh](#).

- In column 2, select the applicable source of data you will use to report the percentage breakdown of electricity consumption data by source. This breakdown should represent the average energy mix of the electricity grid(s) that provides electricity for the jurisdiction's consumption.
 - It is preferred that the percentage breakdown you report represents the breakdown of all electricity consumed within the boundary of your jurisdiction. Where this is the case select 'Jurisdiction-level data'.
 - Where jurisdiction-level data is not available cities can report the breakdown of energy based on regional/state-, national- or utility-level data.
 - The option 'Regional/State-level data' can also include any other higher levels below national level, including at the county or province level if applicable.
 - If multiple sources of data are used, then please select the primary source and in the 'Comment' field report the various data sources used.
- If available, please provide a link to a webpage or report where this data can be accessed in the 'Comment' field.
- Please complete all relevant 'Percentage of total consumption from...' fields where data is available (columns 3 – 16). Where data is unavailable the field can be left blank. Where no electricity is consumed from that source, please enter 0 in the field. The percentage values inputted should add up to 100%.

Additional Information

Resources

- Further support and guidance on clean energy can be found on [C40's Knowledge Hub](#).
- Further information on the development of renewable energy across jurisdictions, using the most up-to-date information and data available, can be found in REN21's [Renewables in Cities Global Status Report](#).

(4.1.2) Report the total thermal (heating/cooling) energy consumption in MWh and the energy mix used for thermal (heating/cooling) source mix breakdown for energy consumption in your jurisdiction.

Change From Last Year

No change

Question Dependencies

This question is presented to cities that are shown column 4 'Indicate the energy data for which you can report a fuel/technology mix' in question 4.1, and select the option 'Thermal (heating and cooling) consumption mix data'.

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- GCoM: Energy Access and Poverty Pillar (Sustainable Energy)
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG7, SDG12

Response Options

Please complete the following table.

1	2	3	4	5	6
Total annual jurisdiction-wide thermal consumption in MWh ^	Data source used to provide percentage breakdown of consumption by energy type	Percentage of total consumption from coal (%)^	Percentage of total consumption from gas (%)^	Percentage of total consumption from oil (%)^	Percentage of total consumption from nuclear (%)^
Numeric field	Select from: • Jurisdiction-level data • Utility-level data • Regional/State- level data • National-level data • Other data source(s), please specify	Percentage field	Percentage field	Percentage field	Percentage field

7	8	9	10	11	12
Percentage of total consumption from non-renewable electricity (%)^	Percentage of total consumption from renewable electricity (%)^	Percentage of total consumption from non-renewable electricity (%)^	Percentage of total consumption from renewable electricity (%)^	Percentage of total consumption from non-renewable electricity (%)^	Percentage of total consumption from renewable electricity (%)^
Percentage field	Percentage field	Percentage field	Percentage field	Percentage field	Percentage field

13	14	15	16	17
Percentage of total consumption from non-renewable electricity (%)^	Percentage of total consumption from other renewable sources (%)^	Percentage of total consumption from other non-renewable sources (%)^	Year data applies to	Comment
Percentage field	Percentage field	Percentage field	Select from: 2010-2025	Text field

Requested Content

General

- In column 1 you are requested to report on the total annual jurisdiction-wide thermal (heating/cooling) energy consumption in MWh.
- If your data is in a unit that is not MWh, please convert it as this will enable data comparability. Should you require guidance on converting the value to MWh please see the CDP Technical Note: [Conversion of fuel data to MWh](#).
- In column 2, select the applicable source of data you will use to report the percentage breakdown of thermal consumption data by source.
 - It is preferred that the percentage breakdown you report represents the breakdown of all thermal energy consumed within the boundary of your jurisdiction. Where this is the case select 'Jurisdiction-level data'.
 - Where jurisdiction-level data is not available cities can report the breakdown of thermal energy based on regional/state-, national- or utility-level data.
 - The option 'Regional/State-level data' can also include any other higher levels below national level, including at the county or province level if applicable.
 - If multiple sources of data are used, then please select the primary source and in the 'Comment' field report the various data sources used.

- If available, please provide a link to a webpage or report where this data can be accessed in the 'Comment' field.
- Please complete all relevant 'Percentage of total consumption from...' fields where data is available (columns 3 – 15). Where data is unavailable the field can be left blank. Where no thermal energy is consumed from that source, please enter 0 in the field. The percentage values inputted should add up to 100%.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

The energy access and energy poverty assessment shall provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

The energy access and energy poverty assessment is framed by indicators for which local governments are invited to collect and provide information as below for the “Energy Access and Poverty Pillar”:

Sustainable Energy Indicators:

- Energy consumption from renewable energy sources (question 4.1 column 3), or;
- Source mix of thermal energy (heating and cooling) consumed within local boundary (question 4.1 column 4 and question 3.1b), or
- Installed capacity of renewable energy sources within local boundary (question 4.1 column 4 and question 4.1.3 column 1) or;
- Total energy generated from renewable energy source within local boundary (question 4.1 column 4 and question 4.1.3 column 3), or;
- Percentage of households within the municipality with access to clean cooking fuels and technologies (question 4.2 column 1)

Source mix of thermal energy (heating and cooling) consumed in your city

This indicator refers to the energy mix for total thermal (heating/cooling) energy consumed in the city and should be reported as 'Percentage (%) per thermal energy source'. It measures the share of the energy mix for each of the following: Coal, Gas, Oil, Bioenergy (Biomass and Biofuels), Geothermal, Solar (Thermal), Waste to energy, etc.

GCoM cities that have selected 'Source mix of thermal energy (heating and cooling) consumed in your city' as an indicator for the regional attribute of 'Sustainable Energy' must provide data in column 1 and for any existing thermal energy sources of their jurisdiction in columns 3-15.

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM *"Energy Access and Poverty Pillar"*.

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Question columns	Simplified level Requirements	Complete level Requirements	Avoiding common mistakes
Total annual jurisdiction-wide thermal consumption in MWh^	Mandatory	Mandatory	Please report the total thermal consumption in numeric value. If you do not have thermal consumption, please report "0".
Data source used to provide percentage breakdown of consumption by energy type	Optional	Optional	

At least one column from column 3 to 15: Percentage of energy consumption from a fuel type^	Mandatory (provide a value for all existing sources of energy consumption)	Mandatory (provide a value for all existing sources of energy consumption)	Please indicate the thermal energy mix by reporting thermal energy consumption percentage of relevant fuel types if you have selected to report against the indicator of 'Source mix of thermal energy (heating and cooling) consumed within local boundary' for the regional attribute of Sustainable Energy.
Year data applies to	Optional	Optional	
Comment	Optional	Optional	

Additional Information

Resources

- Further support and guidance on clean energy can be found on [C40's Knowledge Hub](#).
- Further information on the development of renewable energy across jurisdictions, using the most up-to-date information and data available, can be found in REN21's [Renewables in Cities Global Status Report](#).

(4.1.3) For each type of renewable energy within the jurisdiction boundary, report the installed capacity (MW) and annual generation (MWh).

Change From Last Year

No change

Question Dependencies

This question is presented to jurisdictions that are shown column 4 'Indicate the energy data for which you can report a fuel/technology mix' in question 4.1, and select the option 'Energy generation mix data'.

Questionnaire

- Cities: Pathway 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Energy Access and Poverty Pillar (Sustainable Energy)
- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] Under2 Coalition
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG7, SDG12

Response Options

Please complete the following table.

0	1	2	3	4	5	6
Energy Source	Installed capacity (MW)^	If you have no installed capacity data to report, please select a notation key to explain why^	Annual generation (MWh)^	If you have no generation data to report, please select a notation key to explain why^	Year data applies to	Comment
Solar PV	Numeric field	Select from: • Not Occurring (NO) • Not Estimated (NE) • Confidential (C)	Numeric field	Select from: • Not Occurring (NO) • Not Estimated (NE) • Confidential (C)	Select from: Drop-down list: 2010-2025	Text field
Solar thermal	As above	As above	As above	As above	As above	As above
Hydropower	As above	As above	As above	As above	As above	As above
Wind	As above	As above	As above	As above	As above	As above
Bioenergy (Biomass and Biofuels)	As above	As above	As above	As above	As above	As above
Geothermal	As above	As above	As above	As above	As above	As above
Other	As above	As above	As above	As above	As above	As above

Requested Content

General

- The goal of this question is to get a better understanding of the installation of renewable energy across key areas, and the contribution of these installations at the jurisdiction-wide scale in absolute figures.
- In column 0 common sources of renewable energy are listed. Please indicate in the field 'Installed capacity (MW)' the MW capacity of renewable energy installed within the jurisdiction boundary, and in the field 'Annual generation (MWh)' the amount in MWh generated annually.
- If the energy source is not applicable in your electricity grid, please enter 0. Select an appropriate notation key in columns 2 and 4 to explain why there is no installed capacity or generation data to report.
- You can report in the 'Comment' field any other additional relevant information about the type of renewable energy that is installed within the jurisdiction boundary.

Notation keys (columns 2 and 4)

- Select an appropriate notation key to explain why there is no installed capacity or generation data to report.
- Notation keys may be used to accommodate limitations in data availability and differences in installed capacity across energy sources.
- Where notation keys are used, an accompanying explanation may be provided in the 'Comment' column.
- The following are the descriptions on how to use the notation keys:
 - "NO" (not occurring): This energy source is not installed within the jurisdiction. This notation key may also be used for insignificant sources.
 - "NE" (not estimated): This energy source is installed but has not been estimated or reported. A justification for why not may be provided in the 'Comment' column.
 - "C" (confidential): Reporting the installed capacity of this energy source could lead to the disclosure of confidential information, and as such is not reported publicly.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

The energy access and energy poverty assessment shall provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

The energy access and energy poverty assessment is framed by indicators for which local governments are invited to collect and provide information as below for the “Energy Access and Poverty Pillar”:

Sustainable Energy Indicators:

- Energy consumption from renewable energy sources (question 4.1 column 3), or;
- Source mix of thermal energy (heating and cooling) consumed within local boundary (question 4.1, column 4 and question 4.1.2), or
- Installed capacity of renewable energy sources within local boundary (question 4.1, column 4 and question 4.1.3 column 1) or;
- Total energy generated from renewable energy source within local boundary (question 4.1, column 4 and question 4.1.3 column 3), or;
- Percentage of households within the municipality with access to clean cooking fuels and technologies (question 4.2 column 1)

Total energy generated from renewable energy source within local boundary

This indicator refers to the total energy generated from renewable energy sources within the local boundary disaggregated per type of technology (wind, hydro, solar photovoltaic, solar thermal, etc.) be reported as Megawatt-hour (MWh).

Installed capacity of renewable energy within local boundary

This indicator refers to the installed capacity of renewable energy within the local boundary disaggregated per type of technology (wind, hydro, solar photovoltaic, solar thermal, etc) and should be reported as Megawatt (MW).

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM " *Energy Access and Poverty Pillar*" if you are reporting against mandatory indicators 'Installed capacity of renewable energy sources within local boundary' or 'Total energy generated from renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Question columns	Simplified level Requirements	Complete level Requirements	Avoiding common mistakes
Installed capacity (MW)^	Mandatory (if you have selected to report against the indicator of 'Installed capacity of renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.)	Mandatory (if you have selected to report against the indicator of 'Installed capacity of renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.)	Please report the installed capacity of different renewable energy sources in column 1 if you have selected to report against the indicator of 'Installed capacity of renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.
If you have no installed capacity data to report, please select a notation key to explain why^	Mandatory	Mandatory	
Annual generation (MWh)^	Mandatory (if you have selected to report against the indicator of 'Total energy generated from renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.)	Mandatory (if you have selected to report against the indicator of 'Total energy generated from renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.)	Please report the annual renewable energy generation per energy sources in column 3 if you have selected to report against the indicator of 'Total energy generated from renewable energy sources within local boundary' for the regional attribute of Sustainable Energy.

		attribute of Sustainable Energy.)	
If you have no generation data to report, please select a notation key to explain why^	Mandatory	Mandatory	
Year data applies to	Optional	Optional	
Comment	Optional	Optional	

Additional Information

Resources

- Further support and guidance on renewable energy generation can be found on [C40's Knowledge Hub](#).
- Further information on the development of renewable energy across jurisdictions, using the most up-to-date information and data available, can be found in REN21's [Renewables in Cities Global Status Report](#).

(4.1.4) Report the total jurisdiction-wide annual electricity and heating and cooling consumption for each sector listed and for your government operations.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Question Dependencies

This question is presented to cities that are shown column 4 'Indicate the energy data for which you can report a fuel/technology mix' in question 4.1, and are shown and select the option 'Sector energy consumption breakdown data'.

Connection to other frameworks

- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG7, SDG12

Response Options

Please complete the following table.

0	1	2	3	4
Sector	Electricity consumption (MWh)	Heating and cooling consumption (MWh)	Year data applies to	Comment
Household/residential sector (Buildings)	Numeric field	Numeric field	Select from: Drop-down list: 2010-2025	Text field
Commercial sector	As above	As above	As above	As above

0	1	2	3	4
Sector	Electricity consumption (MWh)	Heating and cooling consumption (MWh)	Year data applies to	Comment
Industrial sector	As above	As above	As above	As above
Agricultural sector	As above	As above	As above	As above
Transport sector	As above	As above	As above	As above
Government operations	As above	As above	As above	As above

Requested Content

General

- Use this question to disclose a sector-based breakdown of your jurisdiction's electricity and heating/cooling consumption.
- 'Government operations' refers to municipally owned operations, including municipally owned buildings.

(4.2) Report the percentage of households within the jurisdiction with access to clean cooking fuels and technologies.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Question Dependencies

This question is only presented to GCoM jurisdictions and members of the 100% Renewables Cities and Regions Network.

Connection to other frameworks

- GCoM: Energy Access and Poverty Pillar (Sustainable Energy)
- Race to Resilience
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG7, SDG12

Response Options

[*column/row appearance is dependent on selections in this question]

Percentage of households within the jurisdiction with access to clean cooking fuels and technologies^	Data source*	Year data applies to*	Comment
Select from: • <10% • 10-29% • 30-49% • 50-74% • >75% • Not estimated	Select from: • Jurisdiction-level data • Regional/State-level data • National-level data • Other data source, please specify	Select from: 2010-2025	Text field

Requested Content

General

- Clean cooking fuels and technologies can be defined as those that attain the fine particulate matter (PM_{2.5}) and carbon monoxide (CO) levels recommended in the [WHO global air quality guidelines \(2021\)](#). For further information, please see the [World Health Organization definitions](#).
- In column 2, select the applicable source of data you will use to report the percentage breakdown of thermal consumption data by source.
 - It is preferred that the percentage breakdown you report represents the breakdown of all thermal energy consumed within the boundary of your jurisdiction. Where this is the case select 'Jurisdiction-level data'.
 - Where jurisdiction-level data is not available cities can report the breakdown of thermal energy based on regional/state-, national- or utility-level data.
 - The option 'Regional/State-level data' can also include any other higher levels below national level, including at the county or province level if applicable.
 - If multiple sources of data are used, then please select the primary source and in the 'Comment' field report the various data sources used.
- If 'Not estimated' is selected in column 1, columns 2 and 3 will not be presented.
- If available, please provide a link to a webpage or report where this data can be accessed in the 'Comment' field.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

The energy access and energy poverty assessment shall provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

The energy access and energy poverty assessment is framed by indicators for which local governments are invited to collect and provide information as below for the “Energy Access and Poverty Pillar”:

- Energy consumption from renewable energy sources (question 4.1 column 3), or;
- Source mix of thermal energy (heating and cooling) consumed within local boundary (question 4.1, column 4 and question 4.1.2), or
- Installed capacity of renewable energy sources within local boundary (question 4.1, column 4 and question 4.1.3 column 1) or;
- Total energy generated from renewable energy source within local boundary (question 4.1, column 4 and question 4.1.3 column 3), or;

Percentage of households within the municipality with access to clean cooking fuels and technologies (question 4.2 column 1)

This indicator refers to the share of household access within your jurisdiction to clean cooking fuels and technologies. For a complete definition of clean cooking fuels and technologies please refer to WHO definitions accessible at:

- <https://www.who.int/tools/clean-household-energy-solutions-toolkit/module-7-defining-clean>
- <https://www.who.int/data/gho/data/themes/air-pollution/household-air-pollution>

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM "*Energy Access and Poverty Pillar*".

Simplified level[^]: Mandatory (also mandatory for Complete level)

Complete level^{^^}: Mandatory (mandatory only for Complete level)

Mandatory columns	Simplified level requirements	Complete level requirements	Avoiding Common mistakes
Percentage of households within the jurisdiction with access to clean cooking fuels and technologies [^]	Mandatory	Mandatory	Please select the percentage of households with access to clean cooking fuels and technologies if you have selected to report against the indicator of 'Percentage of households within the municipality with access to clean cooking' for the regional attribute of Sustainable Energy for both Simplified and Complete levels.

(4.3) How many households within the jurisdiction boundary face energy poverty? Select the threshold used for energy poverty in your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 2 and 3

Connection to other frameworks

- [Cities only] GCoM: Energy Access and Poverty Pillar (Affordable Energy)
- [Cities only] NetZeroCities – Mission Cities
- Race to Resilience
- ICLEI's GreenClimateCities
- 100% Renewable Energy Campaign
- Ecomobility Alliance
- Sustainable Development Goals: SDG1, SDG7

Response Options

[*column/row appearance is dependent on selections in this question]

Indicator used to estimate energy poverty^	Percentage of households or total population within the jurisdiction boundary that face energy poverty**	Threshold used for energy poverty**	Comment
Select from: - Percentage of households within the jurisdiction boundary that face energy poverty - Percentage of total population within the jurisdiction boundary that face energy poverty - Energy poverty not estimated	Percentage field	Select from: - Up to 5% of income spent on energy services - Up to 10% of income spent on energy services - Up to 15% of income spent on energy services - Up to 20% or more of income spent on energy services - Other, please specify	Text field

Requested Content

General

- Addressing energy access and energy poverty are important elements for the sustainable development, resilience, and well-being of cities and local governments.
- A common indicator for measuring energy poverty is the share of households' income spent on energy services and is the primary indicator used in the context of this question.
- If the measure used for energy poverty is not defined by the percentage of income spent on energy services and cannot be converted to this measure then please select 'Other, please specify' and report the threshold that is used.

- Definitions of energy poverty vary by jurisdiction; in this question you are requested to report based on the share of households' income spent on energy services. However, if this is not possible you may use the definition that is most applicable in the context of your jurisdiction and to describe this definition in the field 'Comment'.
- If the term 'energy poverty', as used in the context of this question, is not the term used in your jurisdiction, please report to this question in the context of the term that is used. For example, this could include other related terminology including 'fuel poverty' and 'energy precariousness'. If this is applicable to your jurisdiction, please provide the term used in the field 'Comment'. Examples of definitions of energy poverty are provided in the 'Explanation of Terms'.
- If 'Energy poverty not estimated' is selected in column 1, columns 2 and 3 will not be presented.

Comment (column 4)

- Please report any additional information relating to the values reported in this question, including information on sources or methodologies used to determine the reported values.
- For example, this can include further information on the definition and methodology used by your jurisdiction. This can also include details on the scope, for example if this figure applies only to energy use taking place in homes or also includes transport related energy use and energy use in non-domestic work contexts.

Explanation of Terms

Examples of energy poverty definitions

- Energy poverty is defined as "a situation where a household or an individual is unable to afford basic energy services (heating, cooling, lighting, mobility and power) to guarantee a decent standard of living due to a combination of low-income, high-energy expenditure and low energy efficiency of their homes" (European Commission, Citizens' Energy Forum 2016)
- Energy poverty is defined by Day et al. (2016) as 'an inability to realize essential capabilities as a direct or indirect result of insufficient access to affordable, reliable and safe energy services, and taking into account available reasonable alternative means of realizing these capabilities.'

- In England, fuel poverty is measured using the Low-Income High Costs (LIHC) indicator. Under the LIHC indicator, a household is considered to be fuel poor if they have required fuel costs that are above average (the national median level) and were they to spend that amount, they would be left with a residual income below the official poverty line.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

The energy access and energy poverty assessment shall provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

The energy access and energy poverty assessment is framed by indicators for which local governments are invited to collect and provide information as below for the “Energy Access and Poverty Pillar”:

Affordable Energy Indicator:

- Percentage of households or population within the city boundary that spending up to X% of income on energy service

This indicator measures the share of population facing energy poverty based on the threshold identified by the municipality. The Municipality can provide additional information if available. The threshold used for energy poverty is:

- Percentage (%) of income spent on energy services
- Up to 5% of income spent on energy services
- Up to 10% of income spent on energy services
- Up to 15% of income spent on energy services
- Up to 20% or more of income spent on energy services

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM “*Energy Access and Poverty Pillar*”.

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Mandatory columns	Simplified level requirements	Complete level requirements	Avoiding Common mistakes
Indicator used to quantify estimate energy poverty^	Mandatory	Mandatory	Please select an indicator to report energy poverty if you have selected to report against the indicator of 'Percentage of households or population within the city boundary that spending up to X% of income on energy service' for the regional attribute of Affordable energy for both Simplified and Complete levels.
Percentage of households or total population within the jurisdiction boundary that face energy poverty*^	Mandatory	Mandatory	Please report the energy poverty situation according to the indicator selected in column 1 for both Simplified and Complete levels.
Threshold used for energy poverty*^	Mandatory	Mandatory	Please report the threshold used to define the energy poverty for both Simplified and Complete levels.

(4.4) Report the following information on access to secure energy for your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Question Dependencies

This question is only presented to GCoM jurisdictions and members of the 100% Renewables Cities and Regions Network.

Connection to other frameworks

- GCoM: Energy Access and Poverty Pillar (Secure Energy)
- Race to Resilience
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Sustainable Development Goals: SDG7, SDG12

Response Options

[*column/row appearance is dependent on selections in this question]

0	1	2	3	4	5
Indicator	Data availability [^]	Indicator ^{*^}	Response value ^{*^}	Year data applies to [*]	Comment
Percentage of population or	Select from: • Data available to report • Not estimated	Select from: • Percentage of jurisdiction population with access to electricity (%)	Numeric field	Select from: 2010-2025	Text field

0	1	2	3	4	5
Indicator	Data availability [^]	Indicator* [^]	Response value* [^]	Year data applies to*	Comment
households with access to electricity	Confidential	Percentage of households with access to electricity (%)			
Average duration of available electricity	Select from: - Data available to report - Not estimated - Confidential	Select from: - Number of hours electricity is available per day (hours/day) - Number of hours electricity is available per week (hours/week) - Number of hours electricity is available per year (hours/year) - Number of days electricity is available per year (days/year)	Numeric field	Select from: 2015-2025	Text field
Average yearly final energy consumption per capita	Select from: - Data available to report - Not estimated - Confidential	Select from: - kWh/year/person - Tonne of oil equivalent (TOE)/person	Numeric field	Select from: 2015-2025	Text field

Requested Content

General

- The goal of this question is to get a better understanding of the access to secure energy across your jurisdiction.

- Percentage of population or households with access to electricity refers to the energy supply that is guaranteed and available when needed in the required quantities.
- Average duration of available electricity refers to the average length of time during which electricity is available for use.
- Average yearly final energy consumption per capita refers to the average yearly energy consumption per capita as a relative factor that allows the understanding of the technological and socioeconomic growth that allows an uninterrupted connection to a secure electricity grid.
- If 'Not estimated' or 'Confidential' are selected in column 1, columns 2, 3 and 4 will not be presented.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

The energy access and energy poverty assessment **shall** provide information on the energy attribute(s) deemed most relevant by each Regional and National Covenant. Region- and country-specific attributes will be made available through regionalized versions of the Common Reporting Framework and communicated by Regional/National Covenant helpdesks.

Secure Energy Indicators:

- Percentage of municipality population or households with access to electricity
- Average duration of available electricity
- Average yearly energy consumption per capita

Percentage of municipality population or households with access to electricity

This indicator refers to the energy supply that is guaranteed and available when needed in the required quantities. Signatories could detail percentage % of on-grid and % off-grid electricity access. This indicator should be reported either as 'Percentage [%] of households with access to electricity' or 'Percentage [%] of jurisdiction population with access to electricity'.

Average duration of available electricity

This indicator refers to the average length of time during which electricity is available (or inversely, unavailable) for use. This indicator should be reported either as 'Number of hours electricity is available per day (hours/day)' or 'Number of hours electricity is available per week (hours/week)' or 'Number of hours electricity is available per year (hours/year)' or 'Number of days per year electricity is available (days/year)'.

Average yearly energy consumption per capita

This indicator refers to the average yearly energy consumption per capita is a relative factor that allows the understanding of the technological and socioeconomic growth that allows an uninterrupted connection to a secure electricity grid. This indicator should be reported either as 'kWh/year/person' or 'Tonne of oil equivalent (TOE) /person'.

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM "Energy Access and Poverty Pillar".

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Mandatory columns	Simplified level requirements	Complete level requirements	Avoiding Common mistakes
Indicator^	Mandatory	Mandatory	Please make sure that at least one indicator is chosen from this column for both Simplified and Complete levels if you are reporting against the attribute of Secure Energy.
Response value^	Mandatory	Mandatory	Please provide a value according to the indicator selected in column 2 "Indicator" for both Simplified and Complete levels.

(4.5) Report your jurisdiction's passenger and/or freight mode share data.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Rows 1-13, and 24 (Passenger mode share)
 - Pathway 2 and 3: Rows 1-24 (Passenger and Freight mode share)
- States and Regions: Rows 1-3, and 24 (Passenger mode share)

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG9, SDG11

Response Options

[*column/row appearance is dependent on selections in this question]

	Mode share data	Response
1	Passenger mode share data to report	Select from:

	Mode share data	Response
		• Passenger mode share as share of trips (%) (passenger mode share rows presented) • Passenger mode share as share of vehicle distance travelled (%) (passenger mode share rows presented) • Jurisdiction does not have passenger mode share data
2	Passenger mode share: Walking (%) *	Percentage field
3	Passenger mode share: Cycling (%) *	Percentage field
4	Passenger mode share: Micromobility (including e-scooters) (%) *	Percentage field
5	Passenger mode share: Buses (including Bus Rapid Transit) (%) *	Percentage field
6	Passenger mode share: Rail/Metro/Tram (%) *	Percentage field
7	Passenger mode share: Ferries/River boats (%) *	Percentage field
8	Passenger mode share: Taxis or shared vehicles (e.g. hire vehicles) (%) *	Percentage field
9	Passenger mode share: Private motorized transport (%) *	Percentage field
10	Passenger mode share: Informal/paratransit/popular transit systems (%) *	Percentage field

	Mode share data	Response
11	Passenger mode share: Other (%) *	Percentage field
12	Year passenger mode share data applies to*	Select from: 2010-2025
13	Total passenger mode share reported (%) *	Auto-calculated field (expected value 100)

	Mode share data	Response
14	Freight mode share data to report	Select from: - Freight mode share as share of trips (%) (freight mode share rows presented) - Freight mode share as share of vehicle distance travelled (%) (freight mode share rows presented) - Jurisdiction does not have mode share data for freight transport
15	Freight mode share: Motorcycle / Two wheeler (%) *	Percentage field
16	Freight mode share: Light Goods Vehicles (LGV) (%) *	Percentage field
17	Freight mode share: Medium Goods vehicles (MGV) (%) *	Percentage field

	Mode share data	Response
18	Freight mode share: Heavy Goods vehicles (HGV) (%) *	Percentage field
19	Freight mode share: Rail (%) *	Percentage field
20	Freight mode share: Inland water transport (%) *	Percentage field
21	Freight mode share: Other (%) *	Percentage field
22	Year freight mode share data applies to*	Select from: 2010-2025
23	Total freight mode share reported (%) *	Auto-calculated field (expected value 100)

	Comment
24	Text field

Requested Content

General

- Modal share can be defined as the share of people using a particular mode of transport (including cycling and walking) within the overall transport usage of an urban area. Modal share can be calculated for passenger and freight (logistics) transport based on different units, such as number of trips, volume, weight, passenger-km or tonne-km (Source: EEA, 2013)
- In the field 'Mode share data to report' indicate whether your jurisdiction has the data to report mode share for passenger and/or freight transport. This will determine presentation of subsequent columns:
 - Passenger mode share fields (columns 2 – 13) are only presented if the option 'Passenger mode share as share of trips (%)' or 'Passenger mode share as share of vehicle distance travelled (%)' is selected in column 1.
 - Freight mode share fields (columns 15 – 23) are only presented if the option 'Freight mode share as share of trips (%)' or 'Freight mode share as share of vehicle distance travelled (%)' is selected in column 14.
 - If no selection is made or only the option 'Jurisdiction does not have passenger mode share data/mode share data for freight transport' is selected, then only the field 'Comment' is presented.
- Where no trips are made for a particular mode type, or if a mode type is not relevant in your jurisdiction, then please enter 0 in the applicable field.
- The fields 'Total passenger mode share reported' and 'Total freight mode share reported' are auto-calculated. Please ensure that the value of these fields is equal to 100.
- In the field 'Comment' you can report the source of mode share data, for example specifying if the reported mode share data is based on city-level, regional-level or national-level data. Reported data is not required to meet any predefined level of data accuracy for the reported data however to facilitate data analysis, users are requested to report, if possible, if the data is considered to be of high, medium or low data accuracy.
- Electrical vehicles (EVs) are included in the appropriate modal share you are reporting – e.g. private electric cars may be reported within 'Private motorized transport'; electrified buses may be reported within 'Buses (including Bus Rapid Transit)'.

Passenger mode share

- The passenger mode share columns are shown if options other than 'Jurisdiction does not have passenger mode share data' are selected:
 - Micromobility (including e-scooters): refers to a range of small, lightweight devices operating at speeds typically below 25 km/h and is ideal for trips up to 10km. It includes scooters, bicycles, skateboards, cargo bikes and rickshaws. For further information see the Institute for Transportation and Development Policy's resource on '[Defining Micromobility](#)'. If you included travel by bicycle in the previous field ('Passenger mode share: Cycling'), then please exclude it from this field.
 - Buses (including Bus Rapid Transit): refers to your jurisdiction's public fleet of buses or publicly procured bus services. Private coach travel can be reported under 'Private motorized transport'. Bus services and systems that are characterized by individual entrepreneurship and emerge in response to a lack of institutional public transport may be reported under 'Informal/paratransit/popular transit systems'.
 - Taxis or shared vehicles (e.g. hire vehicles): refers to vehicles licensed to transport passengers and are often highly regulated.
 - Informal/paratransit/popular transit systems: characterized by individual entrepreneurship, most often by the absence of subsidies and public intervention, and by a commercial operation that is primarily profit-driven. The type of service proposed by informal transport providers generally emerges spontaneously to meet mobility needs that are not met by the public transport offer ([MobiliseYourCity – Understanding Paratransit](#)). This includes, but is not limited to, ojeoks, tuk-tuks, jeepneys, matatus, danfos, dala dalas, boda bodas, minibus taxis, and colectivos ([Global Network for Popular Transportation](#)).
- You can use the field 'Comment' to specify the metric used for calculating the mode share value (i.e., percentage of trips, percentage of tonnage, percentage of vkt or tonne-km or any alternative approach used) and the method used to calculate the values reported, for example indicating if this includes all trips made within the jurisdiction, if it applies to all day or peak travel times etc.

Freight mode share

- The freight mode share columns are shown if options other than 'Jurisdiction does not have freight mode share data' are selected.
- Classification of Light Goods Vehicles (LGV), Medium Goods Vehicles (MGV) and Heavy Goods Vehicles (HGV) vary globally based on vehicle size, gross vehicle weight, horsepower, number of axles and a wide range of other local factors.
- This information is generally made publicly available by the relevant authority within the country/area/region, for example [UK guidance](#).
- Please report based on the classification system applicable to your country/area/region. If unknown the classification below can be used when reporting:
 - LGV: Gross Vehicle Weight (GVW) <3.5 tonnes
 - MGV: Gross Vehicle Weight (GVW) 3.5t-12 tonnes
 - HGV: Gross Vehicle Weight (GVW) >12 tonnes
 - Rail: Includes train, metro and tram

(4.6) Report the total emissions, fleet size and number of vehicle types for the following modes of transport.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Connection to other frameworks

- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Ecomobility Alliance Sustainable Development Goals: SDG3, SDG9, SDG11

Response Options

Please complete the following table. **Please ensure all reported emissions data is in metric tonnes CO2e.**

Mode of transport	Private vehicles	Buses	Municipal fleet (government owned vehicles excluding buses)	Freight vehicles	Taxis/Transport Network Companies/ Carshares	Comment
Annual emissions from transport mode (metric tonnes CO2e)	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field
Total fleet size per mode	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field
Electric fleet size per mode	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field
Hybrid electric vehicle fleet size per mode	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field
Plug in hybrid electric vehicle fleet size per mode	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field
Hydrogen fleet size per mode	Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Text field

Requested Content

General

- Data is requested on the following modes of transport:
 - Private vehicles: road motor vehicles other than a moped or a motorcycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver).
 - Buses
 - Municipal fleet: includes sedans, special use vehicles like police cars and vans etc, and excludes buses.
 - Freight vehicles: road vehicles designed, exclusively or primarily, to carry goods. Included are:
 - Light goods road vehicles with a gross vehicle weight of not more than 3,500 kg, designed exclusively or primarily, to carry goods, e.g. vans and pick-ups;
 - Heavy goods road vehicles with a gross vehicle weight above 3,500 kg, designed, exclusively or primarily, to carry goods;
 - Road tractors;
 - Agricultural tractors permitted to use roads open to public traffic.
 - Taxis/Transport network companies/Carshares
- If you don't have data for these modes of transport, please explain this in the field 'Comment'.
- In row 1, report the annual emissions data for each mode of transport. All emissions should be reported in metric tons of CO₂e. Common conversion factors are included in the Technical Note "[Units of Measure Conversions](#)".
- In row 2, report the total fleet size for each mode of transport.
- In rows 3 – 6, report the vehicle types for each mode of transport.

(4.7) Report the following waste-related data for your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Row 1
 - Pathway 2 and 3: Row 1 - Row 9
- States and Regions: Row 1

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG6, SDG11, SDG12

Response Options

[*column/row appearance is dependent on selections in this question]

	0	1	2	3	4
	Waste-related data area (unit)	Data availability	Response (in unit specified)*	Year data applies to*	Comment
Row 1	Total amount of solid waste generated (tonnes/year)	Select from: • Reporting jurisdiction-level data • Reporting state/regional data scaled to jurisdiction-level • Reporting national data scaled to jurisdiction-level • This data is not available to report • Other, please specify	Numeric field	Numeric field	Text field
2	Percentage of the total solid waste generated that is utilized for waste to energy (%)	As above	Numeric field	Numeric field	Text field
3	Percentage of the total solid waste generated that is diverted away from landfill and incineration (%)	As above	Numeric field	Numeric field	Text field
4	Percentage of the diverted solid waste generated that is recycled (%)	As above	Numeric field	Numeric field	Text field
5	Percentage of the diverted solid waste generated that is reused (%)	As above	Numeric field	Numeric field	Text field

	0	1	2	3	4
	Waste-related data area (unit)	Data availability	Response (in unit specified)*	Year data applies to*	Comment
6	Percentage of waste collected where separation at source is taking place (%)	As above	Numeric field	Numeric field	Text field
7	Total annual amount of food waste produced in the jurisdiction (tonnes/year)	As above	Numeric field	Numeric field	Text field
8	Volume of wastewater produced within the jurisdiction boundary (megalitres/year)	As above	Numeric field	Numeric field	Text field
9	Percentage of wastewater safely treated to at least secondary level (%)	As above	Numeric field	Numeric field	Text field

Requested Content

General

- Minimizing waste generation and maximizing waste recycling is central to the concept of circular economy. However, the total amount of produced materials currently recycled is estimated to be low (based on academic literature). Understanding how waste is generated, collected and recycled will put jurisdictions and other relevant parties in a better position to identify how to tackle the issues they face for key waste streams, such as metals, e-waste and plastics.

Data availability (column 1)

- Report the applicable source of data you will use to report the breakdowns of waste-related data.
- It is preferred that the data you report represents that sourced at a jurisdiction-level.
- Where jurisdictional-level data is not available, you may report the breakdown of waste-related data based on scaled state-/regional- or national-level data.
- If you select the option 'This data is not available to report' for a waste-related data area, you will not be presented with column 2 'Response (in unit specified)' or column 3 'Year data applies to'. Optionally you may provide further context on why this data is not available or the support you may require collecting this data in the column 'Comment'.

Total amount of solid waste generated (tonnes/year) (row 1)

- Total solid waste generated is the total amount of solid waste (both hazardous and non-hazardous) generated in the jurisdiction during the most recent reporting year for which data is available.
- Municipal Solid Waste (MSW) includes waste originating from households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings). It also includes bulky waste (e.g., old furniture, mattresses) and waste from selected municipal services, e.g., waste from park and garden maintenance, waste from street cleaning services (street sweepings, the content of litter containers, market cleansing waste), if managed as waste (UN SDG12 [Indicator Guidance](#)).
- In the column 'Comment' you are invited to report information on who is providing the solid waste collection service in your jurisdiction i.e., is it local authority and/or contractor(s).
- If available, attach a waste composition analysis and a sectoral breakdown of solid waste collected (residential, commercial, industrial, construction and demolition waste etc.)
- Worldwide, waste generated per person per day averages 0.74 kilogram but ranges widely, from 0.11 to 4.54 kilograms. Though they only account for 16 percent of the world's population, high-income countries generate about 34 percent, or 683 million tonnes, of the world's waste ([World Bank](#)).
- Using this data from the World Bank, for a population size of 5,000, the minimum total amount of solid waste generated would be 200.75 tonnes per year. As a result, please note that your annual total amount of solid waste generated should not be below 200 tonnes.

Percentage of the total solid waste generated that is utilized for waste to energy (%) (row 2)

- Incineration and anaerobic digestion represent two existing types of MSW waste-to-energy facilities, and as alternatives to landfilling. Anaerobic digestion is applicable only to organic materials found in MSW, whereas incineration works for all combustible materials. Both require prior separation of recyclables to achieve optimal resource recovery and can produce electricity, heat, or both. ([US Department of Energy](#); [US EIA](#))
- Additionally, when MSW is disposed of in landfills, it generates biogas, which is mostly comprised of methane and carbon dioxide. When captured, this gas can be converted to power, heat, and/or other product. ([US Department of Energy](#))
- This indicator may be calculated as the solid waste utilized for the above as a proportion of total solid waste generated, not including waste transferred to landfill or incineration where energy is not utilized, or where waste is recycled or reused (according to the definitions in the guidance below for rows 4 and 5).

Percentage of the total solid waste generated that is diverted away from landfill and incineration (%) (row 3)

- For the purposes of this indicator, total solid waste diverted away from landfill and incineration can be calculated as the total amount of solid waste generated minus that transferred to landfill or incineration, as a proportion of the total solid waste generated.

Percentage of the diverted solid waste generated that is recycled (%) (row 4)

- For the purposes of this indicator, recycling can be defined as any reprocessing of waste material that diverts it from the waste stream, except for reuse as fuel or reuse according to the definition below (see the guidance for row 5). (UN SDG12 [Indicator Guidance](#)).
- Note that recycling includes co-digestion/anaerobic digestion and composting/aerobic process, but not controlled combustion (incineration) or land application.
- This indicator may thus be calculated as the quantity of material recycled (according to the above definition) in the jurisdiction plus quantities exported for recycling out of total waste generated in the jurisdiction, minus material imported intended for recycling (material recycled + material exported for recycling – material imported for recycling) / total waste generated). (UN SDG12 [Indicator Guidance](#)).

- If your jurisdiction uses a different definition the data can still be reported. You are requested to provide the definition used in the field 'Comment'.
- If recycling takes place in the informal sector and does not enter formal channels, your jurisdiction can estimate the size of the informal recycling sector to account for all the recycling in the jurisdiction. You may explain this in the field 'Comment'.

Percentage of the diverted solid waste generated that is reused (%) (row 5)

- For the purposes of this indicator, reuse of waste means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived ([Eurostat](#)).
- If your jurisdiction uses a different definition the data can still be reported. You are requested to provide the definition used in the field 'Comment'.

Explanation of Terms

- Landfill: A landfill is defined as a discrete area of land or excavation that receives waste. A landfill may also receive other types of non-hazardous wastes, such as commercial solid waste, non-hazardous sludge, conditionally exempt small quantity generator waste, and industrial non-hazardous solid waste ().
- Incineration: Incineration is a thermal waste treatment technique that can be understood as a controlled combustion process with the primary objective of volume reduction and energy recovery from the waste stream (, 2019).
- Source separation: Source separation of MSW mentioned refers to the waste sorting at the generated place before transportation, whose purpose is to reduce waste generation better, recovery of available resources, and hazardous waste disposal (Tai et al., 2011; Zhang et al., 2019). One example of source separation (also called curb side separation) is separation done by individual citizens who collect newspapers, bottles, cans, and garbage separately and place them at the curb for collection.
- Food waste: Methods to quantify food waste range from quantification methods such as direct weighing to more complex methods as waste composition analysis where food waste must be separated from other material in order to be measured. Similarly, the data could be gathered in different ways. After data is collected from a sample of food waste producing units, and/or from physical samples, then they need to be scaled up to estimate the total amount of food waste generated. Guidance on the different methods, the sampling, and on approaches for scaling up data are available here:

- Estimating food waste at the city level
- Scaling up data
- Milan Urban Food Policy Pact Monitoring Framework

(4.8) Report on how climate change impacts health outcomes and health services in your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Columns 1-3, 7
 - Pathway 2 and 3: Columns 1-7
- States and Regions

Connection to other frameworks

- Race to Resilience
- [States and Regions only] RegionsAdapt
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG3, SDG11, SDG13

Response Options

Please complete the following table. The table is displayed over several rows for readability. You are able to add rows by using the “Add Row” button at the bottom of the table.

1	2	3
Health area affected by climate change	Identify the climate hazard(s) that most significantly impact the selected health area	Identify the health issues driven by the selected climate hazard(s)
Select from: • Health outcomes • Health systems • Areas outside the health sector • The jurisdiction is not yet able to measure climate change related health impacts, please explain • Do not know	Select all that apply: • Heat stress • Extreme heat • Extreme cold • Snow and ice • Drought • Water stress • Increased water demand • Fire weather (risk of wildfires) • Urban flooding • River flooding • Coastal flooding (incl. sea level rise) • Other coastal events • Oceanic events • Hurricanes, cyclones, and/or typhoons • Extreme wind • Storm • Heavy precipitation • Mass movement • Loss of green space/green cover	Select all that apply: • Heat-related illnesses • Cold-related illnesses • Vector-borne infections and illnesses • Water-borne infections and illnesses • Food-borne infections and illnesses • Exacerbation of non-communicable disease symptoms - respiratory disease • Exacerbation of non-communicable disease symptoms - cardiovascular disease • Exacerbation of non-communicable disease symptoms - other • Mental health impacts • Emotional and/or spiritual health impacts • Direct physical injuries and deaths due to extreme weather events • Food & nutrition security • Disruption to water, sanitation, and wastewater service provision and service accessibility

1	2	3
Health area affected by climate change	Identify the climate hazard(s) that most significantly impact the selected health area	Identify the health issues driven by the selected climate hazard(s)
	• Infectious disease • Soil degradation/erosion • Other forms of climate-induced landscape shift/degradation • Biodiversity loss • Other, please specify	• Disruption to health service provision and service accessibility • Overwhelming of health service provision due to increased demand • Damage/destruction to health infrastructure and technology, including access modes • Disruption of health-related services • Other, please specify

4	5	6	7
Timeframe of impact	Identify which vulnerable populations are affected by the selected health issue(s)	What factors affect your jurisdiction's ability to address the selected health issues	Comment
Select from: • Short-term (by 2025) • Medium-term (2026-2050) • Long-term (after 2050) • Not known (not possible to define)	Select all that apply: • Women and girls • Children and youth • Elderly • Indigenous peoples • Marginalized / minority communities	Select all that apply: • Lack of financial capacity • Lack of expertise/technical capacity • Lack of financial capacity and expertise/technical capacity • Lack of political priority	Text field

4	5	6	7
Timeframe of impact	Identify which vulnerable populations are affected by the selected health issue(s)	What factors affect your jurisdiction's ability to address the selected health issues	Comment
	• Vulnerable health groups • Low-income households • Outdoor workers • Frontline workers • Other, please specify • Do not know	• No factors affect the jurisdiction's ability to address health issues • Other, please specify	

[Add Row]

Requested Content

General

- This question identifies the impact of climate change on your jurisdiction's health systems and the health outcomes of its residents. This information can be used to guide health-related climate change adaptation and is also used to inform progress on jurisdiction-level climate change adaptation for health in the annual report published by the Lancet Countdown: [Tracking Progress on Health and Climate Change](#).
- There is not yet a systematic way or methodology to collect this data. Therefore, the response can be based on both quantitative statistics as well as qualitative observations. It does not have to be published.
- You are able to add rows for each climate hazard or health issue you are reporting on using the "Add Row" button.
- See the [WHO Urban Health Initiative case study on Accra and Kathmandu](#) for more information and examples on how to enable cities to include health in policymaking.

- There are several tools and resources cities can use to calculate the health impact of climate hazards and actions. See the Additional Information section below.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Health areas affected by climate change (column 1)

- You may select from the following options:
 - Health Outcomes: the changes in an individual's or community's health, both physical and mental which can be attributed to climate change.
 - Health System: e.g., service provision, infrastructure and technologies. The effects of climate change on health systems, defined as: (i) all the activities whose primary purpose is to promote, restore and/or maintain health; (ii) the people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people's legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.
 - Areas Outside the Health System: the effects of climate change on activities and sectors other than the health system that, directly or indirectly, affect health outcomes (e.g. agriculture, water and sanitation, transport, power generation, built environment).
- If your jurisdiction is not yet able to measure climate change related health impacts or does not know the health areas affected by climate change, select the relevant options and explain your selection in the column 'Comment'.

Identify the climate hazard(s) that most significantly impact the selected health area (column 2)

- Select the physical climate hazard(s) that most closely reflects that which impacts your selected health area.
- This list is not exhaustive. Should the climate hazard that impacts the selected health area not fit under any listed, select 'Other, please specify' and enter the climate hazard into the text box presented.
- The following guidance may help your selection:
 - Extreme heat; Extreme cold: includes (where relevant) extreme hot/cold days, heat/cold waves, and the urban heat island effect.

- Water stress: refers to the ability, or lack thereof, to meet human and ecological demand for fresh water. Water stress hazards may include water availability, water quality, and the accessibility of water (i.e. whether people are able to make use of physically-available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things (based on the CEO Water Mandate's definition of water stress).
- Urban flooding; River flooding; Coastal flooding: includes (where relevant) types of flooding such as groundwater flooding, pluvial (flash/surface flooding), tidal inundation and sea level rise.
- Other coastal events: includes other hazards that impact the coast and coastal communities such as saltwater intrusion and coastal erosion.
- Extreme wind: includes extreme events such as tornados.
- Storm: includes violent atmospheric disturbances not classed as a hurricane, cyclone, or typhoon, such as rainstorms, tropical storms, thunder/lightning/electrical storms, squalls, sand/dust storms, blizzards, hailstorms, or snowstorms.
- Mass movement: includes hazards such as landslides, avalanches, rock falls, subsidence, or solifluction (mass movement related to freeze-thaw activity).
- Other forms of climate-induced landscape shift/degradation: includes ecosystem/region shifts, permafrost thawing, and desertification.
- Infectious disease: includes water-borne, vector-born, and air-borne diseases.

Identify the health issues driven by the selected climate hazard(s) (column 3)

- The following examples may help your selection.
 - Individual and community health outcomes:
 - Heat-related illnesses: e.g., heat exhaustion, heat stroke, heat cramps.
 - Cold-related illnesses: e.g., hypothermia, frostbite.
 - Vector-borne infections and illnesses: e.g., malaria, dengue, Lyme disease, tick-born encephalitis.
 - Water-borne infections and illnesses: e.g., typhoid fever, E coli, cholera, legionella, diarrhoeal diseases.
 - Food-borne infections and illnesses: e.g., typhoid fever, E coli, salmonella, Norovirus, diarrhoeal diseases.
 - Exacerbation of non-communicable disease symptoms - respiratory disease: e.g., asthma, chronic obstructive pulmonary disease (COPD), respiratory infections.

- Exacerbation of non-communicable disease symptoms – cardiovascular disease: e.g., coronary heart disease, stroke, aortic disease, high blood pressure.
- Exacerbation of non-communicable disease symptoms – other, please specify: e.g., diabetes, chronic kidney disease, cancer.
- Mental health impacts: e.g., depression, anxiety, exacerbation of pre-existing mental health conditions.
- Emotional and/or spiritual health impacts: e.g., disruption to land-based practices which are important for holistic health.
- Health services and systems:
 - Food & Nutrition Security: e.g., lack of access/decreased availability to food and subsequent malnourishment.
 - Disruption to water, sanitation, and wastewater service provision and service accessibility: e.g., lack of access/decreased availability of fresh, potable water.
 - Disruption to health service provision and service accessibility: e.g., decreased or lack of access to health services such as health clinics, hospitals, etc.
 - Damage/destruction to health infrastructure and technology, including access modes: e.g., roads, electricity, communications, emergency/ambulatory response, laboratories, pharmacies.
 - Disruption of health-related services: e.g., services other than medical, including supervisory, protective, and preventative services laboratories, pharmacies.

Timeframe of impact (column 4)

- Indicate the timescale at which the impact is expected to occur based on the following list of values:
 - Short-term – if you anticipate your jurisdiction will experience the changes to the impact of health issues driven by climate change by 2025.
 - Medium-term – if you anticipate your jurisdiction will experience the changes to the impact of health issues driven by climate change between 2026 and 2050.
 - Long-term – if you anticipate your jurisdiction will experience the changes to the impact of health issues driven by climate change after 2051.

Identify which vulnerable populations are affected by the selected health issue(s) (column 5)

- Select the vulnerable population groups that are expected to be most affected by the selected health issue. This information can help jurisdictions have a better understanding of the vulnerability dimension of risks and in prioritizing their actions.
- Vulnerable groups are local-context-bound and could include the options listed, though this list is not exhaustive. Should you wish to report a population group not listed select 'Other, please specify' and enter the name of the population group.
- There are different methodologies for assessing vulnerabilities at the jurisdictional level, and they differ in terms of technical capacities and resources required. An example might be Indicator-Based Vulnerability Assessments.
- Marginalized/minority communities may include refugees, asylum seekers, migrants and national minorities.
- Low-income households may include unemployed persons and persons living in sub-standard housing.

Comment (column 7)

- You can use the field 'Comment' to provide information on the approach and/or methodology used to determine the health impact of climate change in the jurisdiction.
- Report any further information to explain the impact of climate change on health outcomes and the health system in your jurisdiction. For example, health or climate hazard concerns or further details on the impact of climate change on health in your jurisdiction that is not covered.

Additional Information

Resources

Name	Description	Institution
<u>Health Economic Assessment Tool (HEAT)</u>	Health Economic Assessment Tool (HEAT) for walking and cycling by WHO: the HEAT estimates the value of reduced mortality that results from specified amounts of walking or cycling.	World Health Organization
<u>Cities Rapid Assessment Framework for Transformation (CRAFT) Tool</u>	CRAFT is a tool for assessing the climate change mitigation and health impacts of environmental policies.	C40 Cities

<u>Carbon Reduction Benefits on Health (CaRBonH)</u>	CaRBonH is a calculation tool that allows quantification of the physical and economic consequences for human health achieved through improvements in country/area-level air quality from domestic carbon reductions.	World Health Organization
<u>AirQ+</u>	AirQ+: is a tool for health risk assessment of air pollution.	World Health Organization

(4.9) Report the following air pollution data for the jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Ecomobility Alliance
- Sustainable Development Goals: SDG3, SDG11

Response Options

[*column/row appearance is dependent on selections in this question]

Air pollution metric	Value*	Number of air quality monitoring stations measuring this pollutant in your jurisdiction*	Year data was collected *	Weblink to air pollution data from monitoring site(s)*	Comment
Select from: • Particulate Matter PM2.5 concentration (annual average) level (ug/m3) • NO2 concentration (annual average) level (ug/m3) • Number of days exceeding air quality guidelines/standards (times/year) • Other air pollution metric, please specify • No air pollution data to report	Numeric field	Numeric field	Numeric field	Text field	Text field

[Add Row]

Requested Content

General

- Outdoor air pollution is a major environmental health problem affecting everyone in low-, middle-, and high-income countries/areas. Ambient (outdoor) air pollution in both cities and rural areas was estimated to cause 4.2 million premature deaths worldwide per year in 2016; this mortality is due to exposure to fine particulate matter of 2.5 microns or less in diameter (PM2.5), which cause cardiovascular and respiratory disease, and cancers ([WHO, 2021](#)).
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Air pollution metric (column 1)

- Number of days exceeding air quality guidelines/standards (times/year). Methodologies cities can use to measure days exceeding air quality guidelines/standards include:
 - WHO Air Quality Guidelines 2021: The updated guidelines state that annual average concentrations of PM_{2.5} should not exceed 5 µg/m³, while 24-hour average exposures should not exceed 15 µg/m³ more than 3 - 4 days per year. For Nitrogen dioxide (NO₂) annual average concentrations should not exceed 10 µg/m³ and 25 µg/m³ 24-hour mean ([C40 Knowledge Hub](#)).
 - Air Quality Index (AQI) Standard. The AQI runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern. For example, an AQI value of 50 or below represents good air quality, while an AQI value over 300 represents hazardous air quality. Click [here](#) for more information on how to use the AQI.
- If data is not available, select 'No air pollution data to report' and specify why and what support is required to measure in the comment field. If 'No air pollution data to report' is selected in column 1, columns 2, 4 and 5 will not be presented.
- In case air pollution metric data is collected on the regional/state/federal level, provide the value available to you and explain in the comment field where this is collected from.

Value (column 2)

- This column is not presented when the option 'No air pollution data to report' is selected in column 1.
- PM_{2.5} and NO₂ concentrations: report the value in micrograms per cubic meter of air (ug/m³)
- Number of days exceeding air quality guidelines/standards (times/year): report the number of days per year that exceeds the guidelines or standards used in the jurisdiction to calculate air pollution.
- If the jurisdiction has multiple air quality monitoring stations, the value should be the average across all stations.

Number of air quality monitoring stations measuring this pollutant in your city (column 3)

- This column is presented when PM_{2.5}, NO₂ or 'Other air pollution metric, please specify' is selected in column 1.
- Provide the number of air quality monitoring stations (Reference Grade, Lower-cost and/or Passive/Integrated) within your jurisdiction that are measuring air pollution levels for the air pollutant selected in column 1.

Year the data was collected (column 4)

- This column is not presented when the option 'No air pollution data to report' is selected in column 1.
- Provide the year in which the data indicated in column 1 was collected.

Weblink to air pollution data from monitoring site(s) (column 5)

- This column is not presented when the option 'No air pollution data to report' is selected in column 1.
- If available, please provide a link to a website or publicly available report where monitoring locations and monitor-specific information can be found. This can include low-cost sensors and reference grade monitors either deployed by the jurisdiction or external stakeholders (universities, national/federal agencies, non-profits, etc.) For example: [London Air](#).

Comment (column 6)

- You may use the 'Comment' field to:
 - Specify the methodology/guidelines/standard used to calculate the air pollution metric;
 - Specify details of the source(s) of the pollutant, and how this is measured/monitored.

(4.10) Provide details of the household access to water, sanitation services and water consumption in your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- Race to Resilience
- [States and Regions only] RegionsAdapt
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG6

Response Options

[*column/row appearance is dependent on selections in this question]

Data availability	Percentage of households with access to safely managed drinking water services*	Percentage of households with access to safely managed sanitation services*	Household water consumption (litres/capita/day)*	Comment
Select all that apply: • Data is available for the percentage of households with access to safely managed drinking water services • Data is available for the percentage of households with access to safely managed sanitation services • Data is available for the average household water consumption in litres per capita per day • None of the above data is available to report	Percentage field	Percentage field	Numeric field	Text field

Requested Content

General

- This question requests data on the availability and sustainable management of water and sanitation for all. Access to water and sanitation is a human right, and according to the World Health Organization (WHO), between 50 and 100 litres of water per person per day are needed to ensure that most basic needs are met ([UN](#)). Whereby some jurisdictions will need to focus on increasing household access to water, others will need to focus on reducing water consumption to conserve this resource.

Data availability (column 1)

- Please indicate the data your jurisdiction has to report as it pertains to the percentage of households with access to safely managed drinking water services, the percentage of households with access to safely managed sanitation services and/or water consumption per capita per day. Your selection will determine which of the subsequent columns are presented.

Percentage of households with access to safely managed drinking water services (column 2)

- This column is not presented if 'None of the above data is available to report' is selected in column 1.
- This figure is the percentage of households within the jurisdiction who have clean drinkable water available, either directly within their home, or accessible within a short distance, no further than 200 meters from the home.
- WHO/UNICEF defines a safely managed drinking water as an improved water source that is accessible on premises, available when needed and free from faecal and priority chemical contamination. Improved water sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water.

Percentage of households with access to safely managed sanitation services (column 3)

- This column is not presented if 'None of the above data is available to report' is selected in column 1.
- This figure is the percentage of households within the jurisdiction that have access to safely managed sanitation facilities, and at least basic handwashing facilities.

- “A safely managed sanitation facility is one where excreta is safely disposed of in situ or treated off-site. A basic handwashing facility is defined as a device to contain, transport or regulate the flow of water to facilitate handwashing with soap and water in the household” ([SDG Tracker](#)).

Household water consumption (litres/capita/day) (column 4)

- This column is not presented if ‘None of the above data is available to report’ is selected in column 1.
- Report the water consumption per capita of people whose homes have a water connection to the jurisdiction’s network.
- Water consumption in this question refers to drinking, cooking, washing, sanitation and other domestic uses.
- This data can usually be obtained from the utility agency supplying your jurisdiction’s network.

Comment (column 5)

- Report whether (and to what extent) your jurisdiction addresses gender inequalities in water, sanitation and hygiene.
- If known, provide water consumption forecasts and the number of years the estimate is for.
- If you do not have data on water and sanitation, you can use the ‘Comment’ field to explain why.

(4.11) What percentage of your population is food insecure and/or lives in a food desert?

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Sustainable Development Goals: SDG2

Response Option

[*column/row appearance is dependent on selections in this question]

Data availability	Percentage of population that is food insecure*	Percentage of population that lives in a food desert*	Comment
Select all that apply: • Data available for the percentage of population that is food insecure • Data available for the percentage of population that lives in a food desert • No data available for the percentage of population that is food insecure/lives in a food desert	Percentage field	Percentage field	Text field

Requested Content

Data availability (column 1)

- Indicate whether your jurisdiction has data to report for the percentage of population that is food insecure and/or the percentage of population lives in a food desert.
- Your selection will determine the presentation of columns 2 and 3.

Percentage of population that is food insecure (column 2)

- This column is not presented if 'No data is available' is selected in column 1.
- Report the percentage of jurisdiction population that is food insecure as defined by the Sustainable Development Goals (SDG) indicators for monitoring Target 2.1 "End Hunger": a) the prevalence of undernourishment; and/or b) the prevalence of moderate or severe food insecurity based on the Food Insecurity Experience Scale ([FAO](#)).
- While some jurisdictions may have their own definition of local food insecurity and are encouraged to share their definition, the Food Insecurity Experience Scale indicator provides internationally comparable estimates of the proportion of the population facing moderate or severe difficulties in accessing food. The Food Insecurity Experience Scale produces a measure of the severity of food insecurity experienced by individuals or households, based on direct interviews. More information on this indicator can be found at [FAO-WFP et al The State of Food Security and Nutrition in the World 2019](#) or at [MUFPP indicator 18](#).

Percentage of population that lives in a food desert (column 3)

- This column is not presented if 'No data is available' is selected in column 1.
- Report the percentage of jurisdiction population living in a food desert
- Food deserts are geographic areas where residents' access to food is restricted or non-existent due to the absence or low density of "food entry points" within a practical travelling distance (FAO, 2017).
- The USDA defines food deserts as a geographic area where at least 500 people or 33% of the population located more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket or large grocery store ([USDA, 2012](#)).

Comment (column 4)

- You can use the 'Comment' field to provide information on the definition and methodology used to calculate food insecurity and food deserts.
- If you do not have data on food insecurity and/or food deserts, you can use the 'Comment' field to explain why.

(4.12) Report the total quantity of food that is procured (in tonnes) for government-owned and/or operated facilities (including municipal facilities, schools, hospitals, youth centers, shelters, public canteens, prisons etc.). If available, please provide a breakdown per food group.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- Sustainable Development Goals: SDG2, SDG12

Response Options

Please complete the following table.

Total quantity of food procured (tonnes)	Breakdown of procured food by food group	Year data applies to	Comment
Numeric field	Text field and attachment function	Numeric field	Text field

Requested Content

General

- Food public procurement relates to both the purchasing of (raw) food and the contracting out of catering services fully or in parts by public authorities. It applies to different settings and venues such as hospitals, care homes, armed forces, prisons, canteens in governmental buildings, and education settings including universities and public schools. This will differ in each jurisdiction based upon their individual situation.
- For more information on collecting this information from suppliers, see WRI's 'Cool Food Pledge'. The [Cool Food Pledge](https://files.wri.org/d8/s3fs-public/tracking-progress-toward-cool-food-pledge.pdf) is a global initiative that helps food providers advance one important consumption-focused solution: selling delicious dishes with smaller climate footprints. The Cool Food Pledge helps signatories commit to a science-based pledge for food-related GHG emissions reduction, track the climate impact of the food they serve, develop plans to shift their offerings in a consumer-friendly way, and promote their achievements as leaders in a growing movement. Signatories come from various sectors, including companies, restaurants, jurisdiction governments, universities, schools, and hospitals. (HYPERLINK "<https://files.wri.org/d8/s3fs-public/tracking-progress-toward-cool-food-pledge.pdf>"WRI Cool Food Pledge technical note))

Total quantity of food procured (column 1)

- Report the total quantity of food procured in tonnes per year by municipal public bodies or by catering services fully or in part contracted out by your jurisdiction. Common conversion factors are included in the Technical Note "[Units of Measure Conversions](#)".

- Items to be considered might include the meals served by the jurisdiction and in public facilities, meals served/food provided through assistance programmes, meals sold in public facilities (e.g. vending machines).
- A '0' (zero) should only be used for reporting zero volumes and not for an absence of data.

Breakdown of procured food by food group (column 2)

- The breakdown by food group can differ depending on the methodology used to measure the total quantity of food.
- WRI Cool Food Pledge developed a calculator which includes default land-use and emission factors by region, and helps pledge signatories enter and estimate five important metrics: 1) Food purchases by food type (boneless equivalent, in kilograms or pounds), 2) Food-related GHG emissions from agricultural supply chains, in tonnes of carbon dioxide equivalent (CO₂ e), 3) Food-related land use (in hectares), 4) Food-related carbon opportunity costs (tonnes of CO₂ e), and 5) Normalized metrics (several possible units of measure).

The food groups used by the WRI Cool Food Calculator are:

- Beef
- Buffalo
- Other ruminant meat (goat, lamb, sheep)
- Pork
- Poultry
- Fish and seafood: fish (finfish), crustaceans (e.g. shrimp, prawns), mollusks (e.g. clams, oysters)
- Liquid dairy: milk, yoghurt
- Solid dairy: cheese, butter, ice cream
- Eggs
- Legumes and pulses: beans, peas, lentils, chickpeas, peanuts and peanut butter, soybeans and tofu
- Nuts and seeds
- Grains: rice, wheat (flour), corn (maize) (flour), bread and baked goods, pasta and noodles, other grains and flours
- Plant-based milk substitutes: almond milk, oat milk, rice milk, soy milk

- Fruits
- Vegetables (non-roots/tubers)
- Roots and tubers
- Sugars and sweeteners
- Vegetable oils

Year data applies to (column 3)

- Report the information for the most recent year which data is available.

Comment (column 4)

- If you do not have food procurement data available to report, you can use the 'comment' field to explain why.

(4.13) Report the sources of your jurisdiction's water supply, volumes withdrawn per source, and the projected change.

(S&R: N/A)

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- Race to Resilience
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG6

Response Options

[*column/row appearance is dependent on selections in this question]

Source of jurisdiction's water supply	Are you able to report volumetric data for this source?*	Annual volume of water withdrawn per source (in megalitres)*	Projected level of change over next 5-10 years*	Comment
Select from: • Fresh surface water, including rainwater, water from wetlands, rivers and lakes • Ground water (non-renewable) • Ground water (renewable) • Desalinated seawater • Other, please specify • Jurisdiction does not have this data	Select from: • Yes • No	Numeric field	Select from: • Much less volume projected to be withdrawn • Less volume projected to be withdrawn • About the same volume projected to be withdrawn • Higher volume projected to be withdrawn • Much higher volume projected to be withdrawn • Do not know	Text field

[Add Row]

Requested Content

Source of jurisdiction's water supply (column 1)

- Select the sources of water supply for your jurisdiction.
- The water supply sources selected should include water drawn from all sources within and outside the jurisdiction boundary for any use over the course of the past reporting year.
- If your jurisdiction does not have this data to report, select 'Do not have information on water sources'. This selection determines the presentation of subsequent columns.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Are you able to report volumetric data for this source? (column 2)

- This column is not presented if 'Jurisdiction does not have this data' is selected in column 1.
- For each water source reported, select whether you are able to provide the annual volume of water withdrawn.

Annual volume of water withdrawn per source (in megalitres) (column 3)

- This column is presented if 'Yes' is selected in column 2.
- Report the volume of total water drawn from each of the known sources. This may be an estimate.
- Report volume in megalitres per year (1 megalitre = 1 million litres or 1000m³).

Projected level of change over the next 5-10 years (column 4)

- This column is presented if 'Yes' is selected in column 2.
- Use the drop-down options to indicate whether you expect water withdrawals to increase, decrease or stay the same from each source in the near future.
- You may use the 'Comment' field to provide any further context for your selection.

Comment (column 5)

- If you have identified a projected level of change in water withdrawal, provide details on the reason(s) why, e.g., population change, industry, recognition of risks associated with the source.

Explanation of Terms

- Fresh surface water, including rainwater, water from wetlands, rivers and lakes: Water that is naturally occurring water on the Earth's surface in ice sheets, ice caps, glaciers, icebergs, bogs, ponds, lakes, rivers and streams, and has a low concentration of dissolved solids. Surface water includes collected or harvested rainwater ().
- Ground water (non-renewable): Water which is being held in, and can be recovered from, an underground formation. Non-renewable groundwater has a negligible rate of natural recharge on the human timescale (more than 50 years) and is generally located at deeper depths than renewable groundwater. This is sometimes referred to as "fossil" water.
- Ground water (renewable): Water which is being held in, and can be recovered from, an underground formation. Renewable groundwater sources can be replenished within 50 years and are usually located at shallow depths.
- Desalinated seawater: Sea water has a typical concentration of salts above 35,000mg/l total dissolved solids. Desalination is the process by which the salt content of water is reduced sufficiently to make the water fit for specified uses ().

Adaptation Goals

(5.1) Does your jurisdiction have an adaptation goal(s) in place? If no adaptation goal is in place, please indicate the primary reason why.^

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar
- TCFD: Metric and Targets (Disclosure C)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Select one of the following options:

- Yes, our jurisdiction has an adaptation goal(s)
- No, but we are planning to introduce a goal in the next two years
- No, and not intending to set a goal
- No, due to a lack of resources
- No, as our goal is already achieved
- No, due to a reason not listed above

Requested Content

General

- Indicate if your jurisdiction has an active adaptation goal(s) in place by selecting the option 'Yes, our jurisdiction has an active adaptation goal(s)'. You will then be presented with the next question where you will be requested to report further information in relation to the goal(s).
- If you do not have an active adaptation goal in place, please indicate the primary reason why by selecting the most relevant 'No' option. You can also add a comment to provide further context by clicking on the speech bubble icon adjacent to the question text in the reporting system.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Section 6: Adaptation Goals of the Common Reporting Framework indicates that adaptation plans shall include the description of the adaptation goals planned.

Avoiding common mistakes

To be compliant with the GCoM "Adaptation-Goal badge" cities must choose "Yes, jurisdiction has an active adaptation goal(s) " and answer all mandatory questions in question 5.1.

Explanation of Terms

- Adaptation goal: An adaptation goal is informed by the hazards identified in the climate risk and vulnerability assessment. Adaptation goals are usually qualitative, using terms like 'safer', 'better' or 'cooler', and alongside mitigation targets contribute to the identification and prioritization of actions in a jurisdiction's climate action plan. Quantitative metrics and/or indicators may also form part of an adaptation goal, but these are usually more action-specific and are therefore often decided later in the climate action planning process after action prioritization ([C40, How to identify adaptation goals and strategies](#)).
 - An adaptation goal is not the same as a mitigation target. Mitigation targets are commitments to reduce, or limit the increase of, GHG emissions or emissions intensity by a specified quantity, to be achieved by a future date. Mitigation targets may be reported in 6.1 and 6.1.1
 - An adaptation goal is not the same as an adaptation action. Adaptation actions are the result of the climate risk and vulnerability assessment, adaptation goals, and the strategic climate action plan. They are the interventions taken to achieve a given strategy, and include policies, projects, programmes, partnerships and other activities ([C40, How to identify adaptation goals and strategies](#)). Adaptation actions may be reported in 9.1.

Additional Information

Example of a jurisdiction's adaptation goals

- Melbourne, Australia: In its [2017 climate adaptation strategy](#) update the city of Melbourne gave a list of five adaptation goals, based on priorities expressed by the local community and supported by a risk assessment, local experience, and best climate change adaptation practices. From each of these goals the city then developed a series of specific adaptation actions, which make up the rest of their climate adaptation strategy. Melbourne's five adaptation goals are:

1. Enhance the natural environment and green spaces of our municipality
2. Shape our built form and urban renewal areas to withstand future climate change impacts
3. Strengthen the resilience of our inclusive, family friendly and culturally diverse community
4. Protect and enhance our diverse economy
5. Continue to build Melbourne's adaptation capabilities and expertise.

Resources

Name	Description	Institution
<u>How to identify adaptation goals and strategies</u>	This article explains the steps involved in identifying the most appropriate and effective adaptation strategies, preparing cities to prioritise the climate actions to be included in their climate action plan. Part of a Climate Action Planning Guide.	C40 Cities
<u>Urban Adaptation Support Tool</u>	The aim of the Urban Adaptation Support Tool (UAST) is to assist cities, towns and other local authorities in developing, implementing and monitoring climate change adaptation plans.	Climate-ADAPT (European Commission and the European Environment Agency)
<u>Urban Adaptation Assessment Indicator List</u>	The indicator list provides a set of indicators for assessing the urban climate risks and readiness components.	Climate-ADAPT (European Commission and the European Environment Agency)
<u>Climate Risk and Adaptation Framework and Taxonomy (CRAFT)</u>	CRAFT is a standardized reporting framework that enables cities to perform robust and consistent reporting of local climate hazards and impacts, risk and vulnerability assessment, and adaptation planning and implementation.	C40 Cities

(5.1.1) Report your jurisdiction's main adaptation goals.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Question Dependencies

This question is presented if 'Yes, our jurisdiction has an adaptation goal(s)' is selected in response to 5.1.

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar
- TCFD: Metric and Targets (Disclosure C)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Please complete the following table. You are able to add rows by using the “Add Row” button at the bottom of the table.

1	2	3	4	5	6	7
Select a reference ID for the goal	Adaptation goal^	Climate hazards that goal addresses^	Base year of goal (or year goal was established if no base year)^	Target year of goal^	Description of metric / indicator used to track goal and evidence of implementation	Comment
Select from: Adaptation goal 1-25	Text field	Select all that apply: - Heat stress - Extreme heat - Extreme cold - Snow and ice - Drought - Water stress - Increased water demand - Fire weather (risk of wildfires) - Urban flooding - River flooding - Coastal flooding (incl. sea level rise) - Other coastal events - Oceanic events - Hurricanes, cyclones, and/or typhoons - Extreme wind - Storm - Heavy precipitation	Numeric field	Numeric field	Text field	Text field

1	2	3	4	5	6	7
Select a reference ID for the goal	Adaptation goal^	Climate hazards that goal addresses^	Base year of goal (or year goal was established if no base year)^	Target year of goal^	Description of metric / indicator used to track goal and evidence of implementation	Comment
		• Mass movement • Loss of green space/green cover • Soil degradation/erosion • Other forms of climate-induced landscape shift/degradation • Infectious disease • Biodiversity loss • Other, please specify				

[Add Row]

Requested Content

General

- Resources on adaptation goals may be found in the reporting guidance for 5.1.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Select a reference ID for the goal (column 1)

- Select an option from the list of goal reference ID's. If reporting more than one goal, please ensure you select a unique goal ID for each goal.

Adaptation goal (column 2)

- Outline your jurisdiction's main goals for climate adaptation. If possible, these goals should be time bounded, and able to be monitored and evaluated based on specific metrics or key performance indicators (KPIs).
- The Urban Adaptation Support Tool and Urban Adaptation Assessment Indicator List are useful references for indicators to monitor adaptation goals. Further resources on adaptation goals may be found in the reporting guidance for 5.1.

Climate hazards that goal addresses (column 3)

- Select the applicable climate hazards that are addressed by the adaptation goal. This can include hazards that are both directly and indirectly addressed by the goal.
- The list of hazards is not exhaustive. Should the climate hazard addressed by the goal not fit under any listed, select 'Other, please specify' and enter the climate hazard into the text box presented.
- The following guidance may help your selection:
 - Extreme heat; Extreme cold: includes (where relevant) extreme hot/cold days, heat/cold waves, and the urban heat island effect.
 - Water stress: refers to the ability, or lack thereof, to meet human and ecological demand for fresh water. Water stress hazards may include water availability, water quality, and the accessibility of water (i.e. whether people are able to make use of physically available water supplies), which is often a function of the sufficiency of infrastructure and the affordability of water, among other things (based on the CEO Water Mandate's definition of water stress).
 - Urban flooding; River flooding; Coastal flooding: includes (where relevant) types of flooding such as groundwater flooding, pluvial (flash/surface flooding), tidal inundation and sea level rise.
 - Other coastal events: includes other hazards that impact the coast and coastal communities such as saltwater intrusion and coastal erosion.
 - Extreme wind: includes extreme events such as tornados.
 - Storm: includes violent atmospheric disturbances not classed as a hurricane, cyclone, or typhoon, such as rainstorms, tropical storms, thunder/lightning/electrical storms, squalls, sand/dust storms, blizzards, hailstorms, or snowstorms.
 - Mass movement: includes hazards such as landslides, avalanches, rock falls, subsidence, or solifluction (mass movement related to freeze-thaw activity).

- Other forms of climate-induced landscape shift/degradation: includes ecosystem/region shifts, permafrost thawing, and desertification.
- Infectious disease: includes water-borne, vector-born, and air-borne diseases.

Base year of goal (or year goal was adopted if no base year) (column 4)

- Report the base year of the goal, this is the reference year from which progress of the goal is being measured. If a base year is not applicable to the adaptation goal, then report the year in which the adaptation goal was adopted.

Target year of goal (column 5)

- Please enter in numerical form the year by which you anticipate achieving your adaptation goal. Please note that the target year cannot be in the past.

Description of metric / indicator used to track goal and evidence of implementation (column 6)

- Report details on the primary metric or indicator that is being used to monitor and evaluate progress towards the adaptation goal.
- Report evidence that the metric/indicator is being used to track the adaptation goal by providing data against the metric..
- The Urban Adaptation Support Tool and Urban Adaptation Assessment Indicator List are useful references for indicators to monitor adaptation goals.

Comment (column 7)

- You may use the field 'Comment' to add any additional context to your response.

GCoM Guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Section 6.1 "Climate action plans" of the Common Reporting Framework indicates that for adaptation goals, local governments shall report:

- Hazards addressed (shall be aligned with hazards in risk and vulnerability assessment)
- Target year
- Baseline year

GCoM Required columns and common mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Question columns	Simplified level Requirements	Complete level Requirements	Avoiding common mistakes
Adaptation goal^	Mandatory	Mandatory	Please make sure to provide an adaptation goal and not a mitigation action. The adaptation action should address a climate hazard faced. For further guidance on adaptation actions please see the reporting guidance for question 5.1.
Climate hazards that goal addresses^	Mandatory	Mandatory	
Base year of goal (or year goal was established if no base year)^	Mandatory	Mandatory	Base year must be equal or prior to the reporting year (2025).
Target year of goal^	Mandatory	Mandatory	Please provide a date from 2025 to 2050. Adaptation goals completed in the past are not compliant. If your target year is later than 2050, please provide another adaptation action to be completed before 2050.

Description of metric / indicator used to track goal	Optional	Optional	Please describe how do you want to track the goal achievement. Common answer could be: Reduction of population influenced by a risk, reduction of land area influenced by the climate risk, or increase of economic benefit due adaptation.
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Example Response

For explanatory purposes, a sample answer to this question is included below.

Select a reference ID for the goal	Adaptation goal^	Climate hazards that goal addresses^	Base year of goal (or year goal was established if no base year)^	Target year of goal^	Description of metric/indicator used to track goal and evidence of implementation	Comment
Adaptation goal 1	Increase tree canopy	Heat stress Extreme heat Urban flooding Loss of green space/green cover Soil degradation/erosion Biodiversity loss	2015	2025	An Urban Tree Canopy Assessment using high-resolution land cover mapping is used to measure and track the percentage of tree cover within the city boundary. The assessment is made every year to track progress towards the goal. We have set a goal to double the tree canopy cover from 20% to 40% by 2025. By	The outcomes of increased tree canopy are to increase permeability, increase areas of shade, and enhance biodiversity across the city.

Select a reference ID for the goal	Adaptation goal^	Climate hazards that goal addresses^	Base year of goal (or year goal was established if no base year)^	Target year of goal^	Description of metric/indicator used to track goal and evidence of implementation	Comment
					2023 we had managed to increase cover by 32%.	
Adaptation goal 2	Reduce household levels of water consumption	Drought Water stress	2020	2030	We are using domestic litres/day of water consumed as the indicator to measure progress. Our goal is for water consumption to be no more than 100 litres per person per day by 2030. In 2020 the average citizen in our city consumed 160 litres/day.	The utility agency supplying our city's water network frequently provides us with the data required to track progress towards this goal.
Adaptation goal 3	Increase flood resilience	Drought Urban flooding River flooding	2020	2050	We are tracking water storage in m ³ . In 2021 we had already increased our water storage capacity by 5%, through a variety of interventions.	Our goal is to double water storage capacity by 2050, from 1 to 2 million m ³ .

[Add Row]

Mitigation Targets

(6.1) Does your jurisdiction have an active greenhouse gas emissions reduction target(s) in place? Please include long-term and/or mid-term targets. If no active GHG emissions reduction target is in place, please indicate the primary reason why.^

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar
- TCFD: Metric and Targets (Disclosure C)
- [Cities only] NetZeroCities – Mission Cities
- Race to Zero
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- Sustainable Development Goals: SDG11, SDG13

Response Options

Select from:

- Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)
- No, but we are planning to introduce a target in the next two years
- No, as our emissions are not fully calculated
- No, and not intending to set a target
- No, due to a lack of resources
- No, as our target is already achieved
- No, due to a reason not listed above

Requested Content

General

- An emissions reduction target is a commitment to reduce, or limit the increase of, GHG emissions or emissions intensity by a specified quantity, to be achieved by a future date.
- If your jurisdiction does not have an emissions reduction target, please select the primary reason why not from the options presented.
- Science-based climate targets are part of CDP scoring criteria in 2025 and are a key element of the Race to Zero commitment. To ensure that your jurisdiction's target can be checked for alignment with 1.5°C, you should provide data for the questions and columns outlined in Appendix A 'Guidance on Reporting Science-Based Targets'. Reporting this information will help CDP and its partners to support your jurisdiction to update targets where needed, take emissions reduction action in line with your target, and track progress over time.

- While every effort is made to keep local governments informed of the latest Science-Based Target criteria and recommendations, we reserve the right to make adjustments as needed to reflect the most recent emissions scenarios, partner organisation policies, and greenhouse gas accounting practices.
- C40 cities targets will be checked by C40.

GCoM guidance

[Link to the GCoM Common Reporting Framework \(CRF\)](#)

Section 4 “Target Setting” of the Common Reporting Framework indicates that local governments shall submit their greenhouse gas emissions reduction target(s) to GCoM within two years upon joining GCoM.

GCoM Required columns and common mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

To be compliant with the GCoM "Mitigation-Target badge" cities must answer "Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)" in this question and complete all mandatory columns in question 6.1.1.

Additional Information

Resources

Name	Description	Institution
Video: Science-based targets for local governments	Video introduction to science-based mitigation targets for local governments.	CDP

<u>Integrity Matters for Cities, States, and Regions</u>	The Integrity Matters for Cities, States, and Regions report, created by a dedicated Expert Group convened by the Global Covenant of Mayors for Climate & Energy (GCoM) and WRI Ross Center for Sustainable Cities, serves as a follow-up to the flagship HLEG Integrity Matters report launched last year at COP27. It outlines recommendations for subnational governments to ensure the credibility, accountability, and transparency of their net zero commitments while acknowledging their varied capacities and characteristics.	UN-HLEG, GCoM and WRI -convened expert group
<u>Mitigation Goal Standard</u>	Guidance for designing national and subnational mitigation targets.	World Resources Institute (WRI)
<u>Identifying mitigation strategies</u>	This article explains the steps involved in adopting targets and identifying the right mitigation strategies for your city's climate action plan, using a transparent, inclusive and evidence-based process. Part of a Climate Action Planning Guide.	C40 Cities
<u>Science-based Climate Targets: A Guide for Cities</u>	This guide assesses and explains three science-based climate target methodologies and their technical criteria. It advises cities on which methodology to use and how to use the methodologies to determine interim and net zero targets.	Science-Based Targets Network
<u>Science-based Targets for Sub-National Governments</u>	This guide details guidance and support for sub-national governments on setting, checking, and disclosing science-based targets.	CDP

(6.1.1) Provide details of your emissions reduction target(s). Please report both long-term and mid-term targets, if applicable.

Change From Last Year

Minor change

Question Dependencies

This question is presented if 'Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)' is selected in response to 6.1.

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar
- TCFD: Metric and Targets (Disclosure C)
- [Cities only] NetZeroCities – Mission Cities
- Race to Zero
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- Sustainable Development Goals: SDG11, SDG13

Response Options

[*column/row appearance is dependent on selections in this question]

1	2	3	4
Select a reference ID for the target	Target type^	Boundary of target relative to jurisdiction boundary^	Gases covered by target
Select from: • Target 1 - Target 30	Select from: • Base year emissions (absolute) target • Fixed-level target • Base year intensity target based on emissions per capita • Base year intensity target based on emissions per unit GDP • Baseline scenario target	Select from: • Same - covers entire jurisdiction and nothing else • Smaller - covers only part of the jurisdiction, please explain exclusions • Larger - covers the whole jurisdiction and adjoining areas, please explain additions • Partial - covers part of the jurisdiction and adjoining areas, please explain exclusions/additions • Government operations – covers only emission sources owned and operated by jurisdictions government	Select all that apply: • CO2 • CH4 • N2O • HFCs • PFCs • SF6 • NF3

5	6	7
Emissions sources covered by target [^]	Is this target a net zero target?	Are carbon credits currently used or planned to be used to achieve this target? ^{^*}
Select from: • All emissions sources which are included in the jurisdiction inventory • All BASIC (GPC) emissions sources which are included in jurisdiction inventory • All BASIC+ (GPC) emissions sources included in jurisdiction inventory • All BASIC+ (GPC) emissions sources plus other indirect emissions (scope 3) included in jurisdiction inventory, please specify other indirect emissions covered • Direct emissions (scope 1 or “territorial”) and indirect emissions from grid-supplied energy (scope 2) included in jurisdiction inventory • All direct emissions (scope 1 or “territorial”) included in jurisdiction inventory • Not all emissions sources included in jurisdiction inventory are covered by target, please specify exclusions • Only energy emissions sources included in jurisdiction inventory • Only transport emissions sources included in jurisdiction inventory • Only waste emissions sources included in jurisdiction inventory • Only IPPU emissions sources included in jurisdiction inventory • Only AFOLU emissions sources included in jurisdiction inventory • Our jurisdiction has not yet developed an emissions inventory • Other, please specify	Select from: • Yes • No, but it is a mid-term target towards our net zero target • No • Do not know	Select from: • Yes, and the number of credits required has been quantified • Yes, but the number of credits required has not been quantified • No, this target will not use carbon credits • Do not know

8	9	10	11	12
Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary*^	Are residual emissions expected in the net zero target year? If residual emissions are expected, explain why these emissions cannot be reduced*	Percentage of net zero target that is expected to remain as residual emissions in the target year*	Year target was established	Emissions covered by target in year target was established (metric tonnes CO2e)
Percentage field	Select from: • Yes, and we plan to offset our residual emissions using carbon credits, please explain your residual emissions • Yes, but we do not plan to offset our residual emissions using carbon credits, please explain your residual emissions • No, residual emissions are not expected in the net zero target year • Do not know	Percentage field	Numeric field	Numeric field

13	14	15	16	17	18	19/20
Base year ^{*^}	Base year emissions covered by target (metric tonnes CO2e) ^{*^}	Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP) ^{*^}	Target year [^]	Estimated business as usual emissions in target year (metric tonnes CO2e) ^{*^}	Percentage of emissions reduction (including offsets and carbon dioxide removal) ^{*^}	Net emissions in target year (including offsets and carbon dioxide removal) (metric tonnes CO2e) ^{*^}
Numeric field	Numeric field	Numeric field	Numeric field	Numeric field	Percentage field	Auto-calculated (C19) / Numeric field (C20)

21	22	23	24
Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to	Emissions covered by target in most recent inventory (metric tonnes CO2e)	Alignment with Nationally Determined Contribution [^]	Select the conditional components of your emissions reduction target
Select from: Yes, our jurisdiction considers the target to be science-based (select applicable methodology)	Numeric field	Select from: This target is as ambitious as the Nationally Determined Contribution	Select all that apply: This target is not conditional on the success of an externality or component of

21	22	23	24
Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to	Emissions covered by target in most recent inventory (metric tonnes CO2e)	Alignment with Nationally Determined Contribution^	Select the conditional components of your emissions reduction target
• WWF's One Planet City Challenge (OPCC) • C40 Cities Deadline 2020 • Tyndall Centre • Other, please specify No, our jurisdiction does not consider the target to be science-based (select future intention to set a SBT) • But we are reporting another target that is science-based • But we are committed to setting a science-based target in the next 2 years • We are not committed to setting a science-based in the next 2 years • Other, please specify		• This target is more ambitious than the Nationally Determined Contribution • This target is not as ambitious as the Nationally Determined Contribution • Do not know if this target is as ambitious as the Nationally Determined Contribution	policy outside of direct control of jurisdiction administration • Target is conditional on mitigation in emissions sources that are controlled by a higher level of government • Target is conditional on mitigation in emissions sources that are controlled by private entity outside of direct control of jurisdiction administration • Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government • Target is conditional on additional state or regional/national legislation, regulation and/or policy • Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.) • Target is conditional on the decarbonization of the electricity grid that

21	22	23	24
Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to	Emissions covered by target in most recent inventory (metric tonnes CO2e)	Alignment with Nationally Determined Contribution^	Select the conditional components of your emissions reduction target
			is outside the direct control of jurisdiction administration • Target is conditional on the implementation of carbon capture and storage (CCS) technology • Target is conditional on the development or scaling up of other innovative technologies • Target is conditional on a reduction in emissions from air travel that is outside the direct control of jurisdiction administration • Do not know • Other, please specify

25	26
Target status and progress made towards target	Please explain
Select from: • New • Underway – significant progress made	Text field

• Underway – moderate progress made • Underway – limited progress made • Achieved • Expired • Revised • Replaced • Retired • Other, please specify	
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[Add Row]

Requested Content

General

- Resources on mitigation targets may be found in the reporting guidance for 6.1.
- See the 'Explanation of Terms' section for key definitions.
- All emissions should be reported in metric tonnes of CO₂e. Common conversion factors are included in the Technical Note ["Units of Measure Conversions"](#).
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Select a reference ID for the target (column 1)

- Select an option from the list of target reference IDs. If reporting more than one target, please ensure you select a unique target ID for each target. This target reference ID will be presented alongside this target in future years when reporting to better support year-on-year tracking of targets.

Target type (column 2)

- Select the specific target type that is being reported i.e., base year (absolute), fixed level, base year intensity or baseline scenario target.

- The selected target type will determine the subsequent fields that are presented. This is explained for each applicable column in the guidance below.
 - Base year emissions (absolute) target: A base year emissions (absolute) target is a commitment to reduce or control the increase of emissions by a specified quantity relative to a base year. For example, a 60% reduction of absolute emissions from 2018 levels by 2030.
 - Fixed level target: Fixed level goals represent a reduction in emissions to an absolute emissions level by a target year. For example, “to achieve 200Mt CO₂e by 2020”. Carbon neutrality goals are the most common type of fixed level goal, for example: “to reach 0 emissions by 2050”.
 - Base year intensity target: A base year intensity target is a commitment to reduce a jurisdiction's emissions intensity (emissions per unit of another variable, typically GDP) by a specified quantity relative to a base year. For example, a 40% reduction of emissions per GDP from 2018 levels by 2030.
 - Baseline scenario (business as usual) target: A baseline scenario (business as usual) target is a commitment to reduce emissions by a specified quantity relative to a projected emissions baseline scenario (or ‘BAU’ - business as usual -) scenario. A baseline scenario is a reference case that represents future events or conditions most likely to occur in the absence of activities taken to meet the mitigation goal. Baseline scenario targets are not recommended due to the inherent uncertainty associated with emissions forecasts.

Boundary of target relative to jurisdiction boundary (column 3)

- Indicate the boundary of your emissions reduction target relative to your jurisdiction's boundary (as reported in 1.2).
- Select the option ‘Same - covers entire jurisdiction and nothing else’ to report an emissions reduction target that covers all of jurisdiction.
- If ‘Smaller’, ‘Larger’, or ‘Partial’ is selected a text box will be presented. Please provide a brief justification of additions/exclusions in comparison with your jurisdiction's boundary. If required, more information can be provided in ‘Please explain’.

Gases covered by target (column 4)

- Select the greenhouse gases covered by your target. The list consists of the main gases as defined by the United Nations Framework Convention on Climate Change (UNFCCC): carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), as well as nitrogen trifluoride (NF₃).
- The Integrity Matters for Cities, States, and Regions report outlines the following recommendations for ensuring credibility of net zero commitments:
 - Targets must account for all CO₂, CH₄, and N₂O emissions, and should include HFCs, PFCs, SF₆, and NF₃ emissions where these make a material contribution to aggregated GHG emissions.
 - Where non-CO₂ greenhouse gases make a material contribution of ≥5% to aggregated GHG emissions, jurisdictions should report separate targets for those gases.

Emissions sources covered by target (column 5)

- Please select the most appropriate option that represents the emissions sources covered by your emissions reduction target relative to your jurisdiction's emissions inventory.
- If none of the listed options reflect the emissions sources covered by target then select 'Other, please specify'. If you do not have an emissions inventory then select 'Our jurisdiction has not yet developed an emissions inventory'.
- 'BASIC' emissions include scope 1 and scope 2 emissions from stationary energy and transportation, as well as scope 1 and scope 3 emissions from waste.
- 'BASIC+' emissions include BASIC emissions plus scope 3 emissions from stationary energy and transportation, as well as scope 1 emissions from IPPU and AFOLU.

Is this target a net zero target? (column 6)

- Select the appropriate option from the list. A mid-term target is any interim or near-term target set between the reporting year and your net zero target.
- A science-based target should include a net zero target year of 2050 or sooner and a 1.5C aligned mid-term target.

Are carbon credits currently used or planned to be used to achieve this target? (column 7) / Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary (column 8)

- Column 7 is presented if any option but 'Yes' is selected in column 6.
- Indicate if carbon credits are currently used or planned to be used to achieve this target.
- If you select the option 'Yes, this target will be achieved using carbon credits and the number of credits required has been quantified' you will be requested to report the percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary in column 8.
- You will have the opportunity to provide further information on the use/planned use of the carbon credits in the subsequent question.
- For further information on the use of carbon credits units refer to Section 4.5 of the [Mitigation Goal Standard](#), developed by the World Resources Institute (WRI).
- The [Integrity Matters for Cities, States, and Regions](#) report outlines the following recommendation for ensuring credibility of net zero commitments:
 - Cities, states and regions that choose to fund mitigation or removals outside of the emissions boundary defined above through the purchase of high integrity carbon credits, cannot use these credits to demonstrate progress toward their emissions reduction targets and pathway.
 - See page 14 of the report for further information on using carbon credits.

Are residual emissions expected in the net zero target year? If residual emissions are expected, explain why these emissions cannot be reduced (column 9) / Percentage of net zero target that is expected to remain as residual emissions in the target year (column 10)

- Column 9 is presented if 'Yes' is selected in column 6.
- The 'target year' is the year you report in column 16 'Target year'.
- If residual emissions are expected in the net zero target year and so you select one of the two 'Yes' options in column 9, you will be requested to report the percentage of the net zero target that is expected to remain as residual emissions in the target year in column 10.

Year target was established (column 11)

- Select the year in which your target came into effect or was approved by the local government. This is not your target's base year, which is used as the reference year from which to measure or compare emissions and may be reported in column 13.

Emissions covered by target in year target was established (metric tonnes CO2e) (column 12)

- Report the emissions from the sources selected in the column 5 'Emissions sources covered by target' in the year the target was established.
- This is not your target's base year emissions, which is used as the reference value from which to measure or compare emissions and may be reported in column 14.

Base year (column 13)

- This column is only presented if you have selected 'Base year emissions (absolute) target', 'Base year intensity target based on emissions per capita', 'Base year intensity target based on emissions per unit GDP' or 'Baseline scenario target' in response to column 2.
- Report the target's base year (also known as the "representative year"). This is the reference year from which the emissions reductions are measured.
- If you are reporting a target for a specific sector of your inventory, please provide the base year for that sector.
- If reporting interim targets or more than one target, it is highly recommended to keep the same base year for all targets if possible.

Base year emissions covered by target (metric tonnes CO2e) (column 14)

- This column is only presented if you have selected 'Base year emissions (absolute) target', 'Base year intensity target based on emissions per capita', 'Base year intensity target based on emissions per unit GDP' or 'Baseline scenario target' in response to column 2.
- Report the target's base year absolute emissions in metric tonnes CO2e. Base year emissions are the greenhouse gas emissions from your base year on which your target is based.

- Please ensure the base year emissions correspond to the total emissions value of the base year emissions inventory if all emissions sources included in jurisdiction inventory are covered by the target.
- If you are reporting a target for a specific sector of your emissions inventory, or for a different emissions boundary, please provide the base year emissions for that sector or boundary.
- If available, you can attach your emissions inventory for the base year to the 'Further Information' question 11.1.

Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP) (column 15)

- This column is only presented if you have selected 'Base year intensity target based on emissions per capita' or 'Base year intensity target based on emissions per unit GDP' in response to column 2.
- Report the target's base year emissions intensity figure. Dependent on the target type this will be the emissions in metric tonnes CO2e per capita or emissions in metric tonnes CO2e per unit GDP (i.e., emissions per \$1/£1 etc. of GDP).
- Please ensure the base year emissions corresponds to the total emissions value of the base year emissions inventory if all emissions sources included in jurisdiction inventory are covered by the target.

Target year (column 16)

- Report the year by which the target should be achieved. Please note that the target year cannot be in the past.

Estimated business as usual emissions in target year (metric tonnes CO2e) (column 17)

- This column is only presented if you have selected 'Baseline scenario target' in response to column 2.
- This refers to the emissions in the target year under a reference case that represents the future events or conditions most likely to occur in the absence of activities taken to meet the mitigation goal.
- Sometimes referred to as business-as-usual scenarios, baseline scenarios are plausible descriptions of a possible future state of the world given pre-established assumptions and methodological choices.
- For further information on estimating baseline scenario emissions refer to Section 5.2 of the Mitigation Goal Standard, developed by the World Resources Institute (WRI).

Percentage of emissions reduction (including offsets and carbon dioxide removal) (column 18)

- This column is only presented if you have selected 'Base year emissions (absolute) target', 'Base year intensity target based on emissions per capita', 'Base year intensity target based on emissions per unit GDP' or 'Baseline scenario target' in response to column 2.
- Please enter the numerical value for the percentage of reduction (depending on the target in place) without commas and without the percentage symbol (%).
- Include in this percentage any offsets and carbon dioxide removals that are currently in use or planned to be in use in the target year.
- If your target is not currently expressed as a percentage, please convert it into this format (for example an absolute emissions reduction in metric tonnes CO₂e can be converted into a percentage reduction relative to the base year).
- If this is not possible, please note your target reduction and other relevant detail in the 'Please explain' field for this question.

Net emissions in target year (including offsets and carbon dioxide removal) (metric tonnes CO₂e) (column 19 [auto-calculated] / column 20)

- If you have selected 'Base year emissions (absolute) target' in column 2 this will be auto-calculated with the value calculated based on your base year emissions and percentage of emissions reduction. You must enter a value in column 14 'Base year emissions covered by target (metric tonnes CO₂e)' and in column 18 'Percentage of emissions reduction (including offsets and carbon dioxide removal)' in order for the calculation to be complete.

Specify if target is considered a science-based target (SBT) and the SBT methodology it aligns to (column 21)

- Select first whether or not the target is considered to be a science-based target (SBT), if so please select the SBT methodology it aligns to and if not please indicate your intention to set one in the future.
- A science-based target is a jurisdiction-wide emissions reduction target that is aligned with limiting global warming to 1.5°C.
- A science-based target should include a net zero target year of 2050 or sooner and a 1.5°C aligned mid-term target. A science-based target is:
 - aligned with the latest climate science,
 - equitable – taking into account different historical contributions to atmospheric emissions levels and socio-economic development, and

- complete – covering jurisdiction-wide emissions from a variety of sources (at least scope 1 and 2 emissions) and multiple GHGs.
- For more information on how to set a science-based target, please refer to the Science-Based Target Network’s [Guide for Cities](#) and CDP’s [Science-Based Targets for Sub-National Governments](#) page.
- The WWF OPCC 1.5 °C Alignment Method, established in 2018, provides local, state, and regional governments with a straightforward approach to setting GHG emission reduction targets that align to limit global warming to 1.5°C. It focuses on both mid and long-term, fair emissions reduction objectives and is designed for simplicity in its application, making it suitable for any city reporting under the GcoM’s Common Reporting Framework and for states and regions.
- C40’s Deadline 2020 research was developed in order to guide C40 cities in setting ambitious targets and developing action plans aligned with delivering on the goals of the Paris Agreement.
- The Tyndall Centre methodology and the accompanying tool allow users to calculate the maximum carbon budget for any UK administrative area, from local authority area scale up to subnational regions and devolved administrations, and set climate change targets which meet the objectives of the United Nations Paris Agreement on Climate Change. It was released in 2018.

Emissions covered by target in most recent inventory (metric tonnes CO₂e) (column 22)

- If your jurisdiction has an inventory in place, the emissions data for the sources covered by the target should be from the same year as your most recent inventory, as reported in 3.1.1.
- If you are reporting a ‘Base year emissions (absolute) target’, ‘Base year intensity target based on emissions per capita’, ‘Base year intensity target based on emissions per unit GDP’ or ‘Baseline scenario target’ and the base year is the same year as the year of your most recent inventory then the value input here will be the same as the value input in the column ‘Base year’.

Alignment with Nationally Determined Contribution (column 23)

- Report how your target’s ambition level compares with your applicable Nationally Determined Contribution. The Climate Action Tracker’s [Climate Target Update Tracker](#) provides an overview of many NDC’s which may be useful when comparing the alignment of your jurisdictions target with your applicable Nationally Determined Contribution.

Select the conditional components of your emissions reduction target (column 24)

- Indicate if your target is conditional on the success of an externality or component of policy outside of the direct control of your jurisdiction's administration. For example, if your target requires further legislation, regulation, policy, or financial support from a higher level of government please indicate this here. If your target is conditional on a factor not listed select 'Other, please specify' and report the factor in the text box that is presented.

Target status and progress made towards target (column 25)

- Indicate the status of the target:
 - New – Select this option for targets that have been set in the reporting year and are newly in progress.
 - Underway – significant / moderate / limited progress made – Select this option for targets that were set before the reporting year, with a target year in the future, that have not been achieved and continue to be pursued. Ensure to select the appropriate option that indicates the progress made toward the target.
 - Achieved – Select this option for targets that have been achieved or exceeded in the reporting year.
 - Expired – Select this option for targets with a target year of the reporting year, that have not been achieved and have therefore expired in the reporting year.
 - Revised – Select this option for targets that were set before the reporting year but a revision has been made to any of the elements in columns 2 to 24 in the reporting year, for example due to a recalculation of the base year emissions or a change to the target year. Please explain further any revisions in column 26 'Please explain'.
 - Replaced – Select this option for previously reported targets that have been replaced with another target in the reporting year, for example where a target previously covering a boundary smaller than the jurisdiction boundary has been incorporated into a jurisdiction-wide target. Please explain further any replacements in column 26 'Please explain'.
 - Retired – Select this option for targets with a target year in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this target was retired in column 26 'Please explain'.
- The Integrity Matters for Cities, States, and Regions report outlines the following recommendation for ensuring credibility of net zero commitments:
 - A jurisdiction shall be considered and recognised as net zero aligned when it is demonstrating progress by achieving or exceeding its mid-term targets through public reporting based on publicly available data.

- A jurisdiction shall be considered and recognised as net zero when it has achieved its long-term net zero target, and demonstrates this through public reporting based on publicly available data.

Please explain (column 26)

- Please provide any further relevant information relating to your target.
- For jurisdictions reporting baseline scenario targets: Outline in this field what emissions projection modelling method was used and attach documentation of the methodology, data inputs and assumptions used. For further information on estimating baseline scenario emissions please refer to Chapter 5 'Estimating Base Year or Baseline Scenario Emissions' of the [WRI Mitigation Goal Standard](#).
- For jurisdictions reporting emissions intensity targets: Provide an explanation for how you projected the growth in the activity unit and if it is on a linear basis, compounded basis or year-on-year basis.
- For jurisdictions reporting 'new', 'underway', or 'revised' targets: Report on your plan for achieving the target, progress made to the end of the reporting year, and accountability mechanisms for cases in which emissions reduction targets are not met.
- For jurisdictions reporting 'achieved' targets: Report on key actions that contributed to this target.
- You may also include additional information on the sectors this target covers, and/or whether your target includes emissions from international aviation and shipping.
- You may provide a hyperlink in this field or attach documents to the 'Further Information' question 11.1 to provide any additional information relevant to your target, e.g. a press release, policy document etc.

Example Response

For explanatory purposes, two SBT-aligned sample answers to this question are included below.

Example response 1

1	2	3	4	5	6	9
Select a reference ID for the target	Target type [^]	Boundary of target relative to jurisdiction boundary [^]	Gases covered by target	Emissions sources covered by target [^]	Is this target a net zero target?	Are residual emissions expected in the net zero target year? If residual emissions are expected, explain why these emissions cannot be reduced*
Target 1	Base year emissions (absolute) target	Same - covers entire jurisdiction and nothing else	CO2, CH4, N2O	Target covers all the emissions sources which are included in the jurisdiction inventory	Yes	Yes, and we plan to offset our residual emissions using carbon credits, please explain your residual emissions

10	11	12	13	14	16	18
Percentage of net zero target that is expected to remain as residual emissions in the target year*	Year target was established	Emissions covered by target in year target was established (metric tonnes CO2e)	Base year ^{^^}	Base year emissions covered by target (metric tonnes CO2e) ^{^^}	Target year [^]	Percentage of emissions reduction (including offsets and carbon dioxide removal) ^{^^}
10%	2019	21000	2018	20000	2050	100

19	21	22	23	24	25	26
Net emissions in target year (including offsets and	Specify if target is considered a science-based target (SBT) and	Emissions covered by target in most recent	Alignment with Nationally Determined Contribution	Select the conditional components of	Target status and progress made towards target	Please explain

carbon dioxide removal) (metric tonnes CO2e)*^ [auto-calculated]	the SBT methodology it aligns to	inventory (metric tonnes CO2e)		your emissions reduction target		
0	Yes, our jurisdiction considers the target to be science-based (select applicable methodology): WWF's One Planet City Challenge (OPCC)	15000	This target is more ambitious than the Nationally Determined Contribution	Target is conditional on mitigation in emissions sources that are controlled by a higher level of government Conditional on the provision of national funding for infrastructure (e.g., renewable energy generation, energy efficiency measures etc.) Target is conditional on the implementation of carbon capture and storage (CCS) technology Target is conditional on the development or scaling up of other innovative technologies	Underway – moderate progress made	Our city's target is to achieve net zero emissions by 2050. We used the OPCC SBT methodology to set both our long-term and interim targets (also reported). We expect to have residual emissions in some of our harder to abate sectors. This should account for no more than 10% of our net zero target.

Example response 2

1	2	3	4	5	6	7
Select a reference ID for the target	Target type^	Boundary of target relative to jurisdiction boundary^	Gases covered by target	Emissions sources covered by target^	Is this target a net zero target?	Are carbon credits currently used or planned to be used to achieve this target?^*
Target 2	Base year emissions (absolute) target	Same - covers entire jurisdiction and nothing else	CO2, CH4, N2O	Target covers all the emissions sources which are included in the jurisdiction inventory	No, but it is a mid-term target towards our net zero target	No this target will not use carbon credits

11	12	13	14	16	18
Year target was established	Emissions covered by target in year target was established (metric tonnes CO2e)	Base year^	Base year emissions covered by target (metric tonnes CO2e)^*	Target year^	Percentage of emissions reduction (including offsets and carbon dioxide removal)^*
2019	21000	2018	20000	2030	63

19	21	22	23	24	25	26
Net emissions in target year (including	Specify if target is considered a science-based	Emissions covered by target in most	Alignment with Nationally	Select the conditional components of	Target status and progress	Please explain

offsets and carbon dioxide removal) (metric tonnes CO2e)*^ [auto-calculated]	target (SBT) and the SBT methodology it aligns to	recent inventory (metric tonnes CO2e)	Determined Contribution	your emissions reduction target	made towards target	
7400	Yes, our jurisdiction considers the target to be science-based (select applicable methodology): WWF's One Planet City Challenge (OPCC)	15000	This target is more ambitious than the Nationally Determined Contribution	• Target is conditional on mitigation in emissions sources that are controlled by a higher level of government • Target is conditional on complete implementation of legislation, regulation and/or policy set by a higher level of government • Conditional on the provision of national funding for infrastructure		Our mid-term target was developed using the OPCC methodology. Having an SBT-aligned interim target gives us the confidence that we will contribute our fair share to global emissions reductions. We are not planning to use any offsets towards our mid-term target.

				(e.g., renewable energy generation, energy efficiency measures etc.)		
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Explanation of Terms

- BASIC emissions: includes scope 1 and scope 2 emissions from stationary energy and transportation, as well as scope 1 and scope 3 emissions from waste. ([GHG Protocol for Cities](#))
- BASIC+ emissions: includes BASIC emissions plus scope 3 emissions from stationary energy and transportation, as well as scope 1 emissions from IPPU and AFOLU. ([GHG Protocol for Cities](#))
- Net zero: describes a condition in which human-caused residual greenhouse gas emissions are balanced by human-led removals over a specified period and within specified boundaries. ([ISO IWA 42:2022 Net Zero Guidelines](#))
- Science-based target: Science-based targets are measurable and actionable environmental targets aligned with the goals of the Paris Agreement. It is an emission reduction target which is complete (covers jurisdiction-wide emissions), aligns with a 1.5°C pathway and represents a fair share of global emission reduction, based on historic emissions or current development level. ([Integrity Matters for Cities States and Regions](#))
- Mid-term target: A mid-term target is any interim or near-term target set between the reporting year and your net zero target.
- Carbon credit: A tradeable certificate representing the mitigation of a specified amount of greenhouse gas emissions. ([ISO IWA 42:2022 Net Zero Guidelines](#))
- Residual emissions: Emissions whose abatement remains uneconomical or technically infeasible under the assumptions of a specific model and mitigation scenario. These emissions cannot be eliminated or reduced further either because there is no known mitigation technology or the technology is so cost prohibitive that it is considered economically unviable in any context. ([Integrity Matters for Cities States and Regions](#))

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 4 “Target Setting” of the Common Reporting Framework indicates that local governments shall use one of the following four target types:

- Base year emissions target
- Base year intensity target
- Fixed level target
- Baseline scenario target: For a baseline scenario target, the modelling methodologies, and parameters shall be transparently described

Avoiding common mistakes

Simplified level[^]: Mandatory (also mandatory for Complete level)

Complete level^{^^}: Mandatory (mandatory only for Complete level)

Different target types have different reporting requirements. You will only view target specific columns once a target is selected.

Question columns	Simplified level Requirements	Complete level Requirements	Common mistakes
Target type [^]	Mandatory	Mandatory	
Boundary of target relative to jurisdiction boundary [^]	Mandatory	Mandatory	Choose the appropriate option. If the assessment boundary is different from “Same”, please explain. Failing to justify a different boundary is not compliant.

Emissions sources covered by target^	Mandatory	Mandatory	To be compliant with the CRF targets must cover all emission sources in the CRF emissions inventory either integrated in the same target or disaggregated in different targets. This means that a signatory can provide: A. A single target that covers all emissions sources which are included in the jurisdiction inventory (energy, transport, waste). B. Multiple targets that together include transport, energy, and waste emissions.
Are carbon credits currently used or planned to be used to achieve this target?^	Mandatory	Mandatory	
Percentage of target to be met using carbon credits generated from outside jurisdiction or target boundary^ ^	Mandatory	Mandatory	Please answer column 8 when column 7 is a “yes”. Failing to answer column 7 is not compliant with the CRF.
Base year^	Mandatory	Mandatory	
Base year emissions covered by target (metric tonnes CO2e)^	Mandatory	Mandatory	
Emissions intensity figure in base year (metric tonnes CO2e per capita or GDP)*^	Mandatory	Mandatory	
Target year^	Mandatory	Mandatory	All target types. Please provide a target year in the future (2025 onwards). A target earlier than the reporting year is not compliant.

Estimated business as usual emissions in target year (metric tonnes CO ₂ e) [^]	Mandatory	Mandatory	For a baseline scenario target, the modelling methodologies, and parameters shall be transparently described.
Percentage of emissions reduction (including offsets and carbon dioxide removal) [^]	Mandatory	Mandatory	
Net emissions in target year (including offsets and carbon dioxide removal) (metric tonnes CO ₂ e) [^]	Mandatory	Mandatory	
Alignment with Nationally Determined Contribution [^]	Mandatory	Mandatory	At a minimum, the target shall be as ambitious as the NDC. Local governments should set targets that are more ambitious than the NDC.

Regional variations:

To comply with the Simplified level of reporting, Covenant of Mayors Europe signatories shall, in addition to meeting other Simplified level requirements of the CRF, report:

- At least one complete absolute emissions reduction target.

(6.1.2) If you are using or plan to use carbon credits sold to or purchased from outside the jurisdiction or target boundary, provide details.

Change From Last Year

No change

Question Dependencies

This question is presented if 'Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)' is selected in response to 6.1.

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- GCoM: Mitigation Pillar^
- Race to Zero
- *[Cities only]* NetZeroCities – Mission Cities
- *[States and Regions only]* Under2 Coalition
- ICLEI's GreenClimateCities

Response Options

(*column/row appearance is dependent on selections in this question)

Use of carbon credits	Identify target*	Emissions purchased/sold (metric tonnes CO2e)*	Verified to which standard*	Outline the crediting period and country(ies)/area(s) where offsetting efforts are or will be taking place*	Comment
Select from: • We do not currently purchase or sell offset credit transactions • Offset credit transactions purchased from outside of the boundary • Offset credit transactions generated within the boundary and sold • Other, please specify	Select from: Target reference ID (populated based on reported targets)	Numeric field	Select from: • Carbon Registry • Clean Development Mechanism • Climate Action Reserve • Gold Standard • Verified Carbon Standard • Verra • Not yet verified • Do not know • Other, please specify	Text field	Text field

[Add Row]

Requested Content

General

- A carbon credit represents a metric ton of carbon dioxide-equivalent (CO2e) that is avoided or sequestered outside the GHG accounting boundary (or geographic boundary as a proxy for GHG accounting boundary) and can be used to compensate for a

metric ton of residual GHG emissions occurring within the accounting boundary ([Defining carbon neutrality for cities & managing residual emissions](#), C40).

- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Use of carbon credits (column 1)

- The primary intent of this question is to request data as it pertains to the purchase of credits from outside of the boundary, to report this information please select the option 'Offset credit transactions purchased from outside of the boundary'.
- Additionally, and where relevant jurisdictions can report if they are involved in the generation and sale of carbon credits by selecting the option 'Offset credit transactions generated within the boundary and sold'.
- If you do select the option 'Offset credit transactions generated within the boundary and sold' please report the mechanism by which they are sold and where the offsets are used in the column 'Comment'.

Identify target (column 2)

- This column is not presented if 'We do not currently purchase or sell offset credit transactions' is selected in column 1.
- Select the target ID, as reported in 6.1.1, to indicate which target the carbon credits being reported are supporting.

Emissions purchased/sold (metric tonnes CO2e) (column 3)

- This column is not presented if 'We do not currently purchase or sell offset credit transactions' is selected in column 1.
- Report the quantity of emissions the carbon credits represent in metric tonnes CO2e. This will assist with ensuring transparency and enabling accurate reporting of progress made towards the mitigation targets reported in 6.1.1.
- Chapter 4 (Section 4.5) of the WRI's [Mitigation Goal Standard](#) provides guidance on ensuring the environmental integrity of units, and Chapter 9 provides equations for accounting for units.

Verified to which standard (column 4)

- This column is not presented if 'We do not currently purchase or sell offset credit transactions' is selected in column 1.

- Carbon credit projects should be verified and/or validated under standards by reputable, certified third party auditors. Select from the list the applicable standard used or where the standard used is not listed, please select 'Other, please specify' and report the standard in the text box that is presented.

Outline the crediting period and country(ies)/area(s) where offsetting efforts are or will be taking place (column 5)

- This column is not presented if 'We do not currently purchase or sell offset credit transactions' is selected in column 1.
- Report both the crediting period and country(ies)/area(s) where offsetting efforts are or will be taking place. The crediting period is the quantity of time during which a carbon credit project generates verifiable and/or certifiable carbon credits. After the end of the crediting period, the project can be re-evaluated against current standards for renewal, otherwise the project will cease to produce carbon credits.

Comment (column 6)

- Additional information may include: stating if the use of carbon credits is planned or has been decided upon; if your jurisdiction has or will consider all direct and indirect social and environmental impacts of the carbon credit project; or how any harmful impacts from projects will be avoided or mitigated and how potential educational, economic development, and resiliency benefits will be maximised.

(6.1.3) If your jurisdiction has a net zero target, report the proportion of the net zero target that is allocated to emissions removals and provide further information on the emissions removal activities that the jurisdiction is undertaking.

Change From Last Year

No change

Question Dependencies

This question is presented if 'Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)' is selected in response to 6.1.

Questionnaire

- States and Regions

Connection to other frameworks

- Under2 Coalition

Response Options

[*column/row appearance is dependent on selections in this question]

Net zero target and emissions removals usage	Emissions removals (in unit selected in column 1)*	Removal activities the government is undertaking/plans to undertake*	Comment
Select from: • Our jurisdiction has a net zero target that will be achieved using emissions removals and this value is quantified in metric tonnes CO₂e • Our jurisdiction has a net zero target that will be achieved using emissions removals and this value is quantified as a percentage of the overall target • Our jurisdiction has a net zero target that will be achieved using emissions	Numeric field	Select all that apply: • Afforestation • Reforestation • Direct air capture (DAC) • Bioenergy with carbon capture and sequestration (BECCS) • Agricultural soil carbon management • Biochar • Ocean-based carbon removal (inc. ocean alkalinisation) • Coastal blue carbon	Text field

removals but this value has not yet been quantified • Our jurisdiction has a net zero target but it will not be achieved using emissions removals • Our jurisdiction does not have a net zero target • Do not know • Other, please specify		• Other, please specify	
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Requested Content

Net zero target and emissions removals usage (column 1)

- Your selections in this column determine the presentation of subsequent columns:
 - Selection of 'Our jurisdiction has a net zero target that will be achieved using emissions removals and this value is quantified in metric tonnes CO2e' presents columns 2 and 3;
 - Selection of 'Our jurisdiction has a net zero target that will be achieved using emissions removals and this value is quantified as a percentage of the overall target' presents columns 2 and 3;
 - Selection of 'Our jurisdiction has a net zero target that will be achieved using emissions removals but this value has not yet been quantified' presents column 3.

(6.1.4) Provide the following information in relation to the governance of your jurisdiction's emissions reduction targets.

Change From Last Year

No change

Question Dependencies

This question is presented if 'Yes, our jurisdiction has an active greenhouse gas emissions reduction target(s)' is selected in response to 6.1.

Questionnaire

- States and Regions

Connection to other frameworks

- Under2 Coalition

Response Options

[*column/row appearance is dependent on selections in this question]

Indicate if processes are in place for reviewing and updating emissions reduction targets	Provide information on processes for reviewing and updating emissions reduction targets*	Indicate if accountability mechanisms are in place for cases in which emissions reduction targets are not met	Provide information on the accountability mechanisms for cases in which emissions reduction targets are not met*
Select from: • Yes • No • Do not know	Text field	Select from: • Yes • No • Do not know	Text field

Requested Content

General

- Column 2 is presented if 'Yes' is selected in column 1.
- Column 4 is presented if 'Yes' is selected in column 3.

Sector Targets

(7.1) Provide details of your jurisdiction's energy-related and other environment-related targets active in the reporting year.

Change From Last Year

Minor change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Energy Access and Poverty Pillar
- TCFD: Metric and Targets (Disclosure C)
- Race to Resilience
- Race to Zero
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign

Response Options

[*column/row appearance is dependent on selections in this question]

1	2	3	4	5	8	6	7
Target type^	Target description	Boundary of target relative to jurisdiction boundary^	Year target was established	Absolute or intensity target	Base year^	Metric (metric numerator if reporting an intensity target)^	Metric denominator (intensity targets only)*
Select from: Select from drop-down options below	Text field	Select from: • Same - covers entire jurisdiction and nothing else • Smaller - covers only part of the jurisdiction, please explain exclusions • Larger - covers the whole jurisdiction and adjoining areas, please explain additions • Partial - covers part of the jurisdiction and adjoining areas, please explain exclusions/additions • Government operations - covers only functions owned and operated by jurisdiction's government • Other, please specify	Select from: 1990-2025	Select from: • Absolute • Intensity	Select from: 1990-2025	Select from drop-down options below	Select from drop-down options below

9	10	11	12	13	14	15	16
Metric value in base year^	Target year^	Metric value in target year^	Metric value in most recent year data is available	Percentage of target achieved relative to base year (auto-calculated)^	If target type is renewable energy: Percentage of total energy that is renewable in target year*	Is this target publicly available?	Progress made towards target
Numeric field	Select from 2025-2200	Numeric field	Numeric field	[Auto-calculated]	Percentage field	Select from: • Yes, provide link • No • Other, please specify • Do not know	Text field

[Add Row]

Target type drop-down options:

Renewable energy generation target • Increase generation of renewable energy (all energy types) • Increase generation of renewable electricity • Increase generation of renewable heating and/or cooling • Reduce energy generation from coal • Reduce energy generation from oil and gas • Other renewable energy generation target type, please specify Renewable energy consumption target • Increase proportion of energy consumed from renewable sources (all energy types) • Other renewable energy consumption target type, please specify	Transport target • Modal share targets • Target to increase low-carbon/electric vehicles jurisdiction-wide • Target to increase low-carbon/electric vehicles in government fleet • Consumption of renewable energy in transportation • Other transport target type, please specify Waste target • Target to reduce the municipal solid waste generation per capita • Target to reduce the amount of municipal solid waste disposed to landfill and incineration
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• Increase proportion of electricity consumed from renewable sources • Increase proportion of heating and cooling consumed from renewable energy sources • Reduce energy consumption from coal • Reduce energy consumption from oil and gas Renewable energy installed capacity target • Other renewable energy installed capacity target type, please specify • Increase installed capacity of renewable energy (all energy types) • Increase installed capacity of renewable electricity • Increase installed capacity of renewable heating and/or cooling • Reduce coal-based installed energy capacity • Reduce oil and gas-based installed energy capacity Energy efficiency targets • Reduction in energy consumption (jurisdiction-wide) • Increase in energy efficiency (jurisdiction-wide) • Increase energy efficiency of buildings (all buildings) • Increase energy efficiency of buildings (residential buildings) • Increase energy efficiency of buildings (government-owned buildings) • Increase energy efficiency of buildings (commercial buildings) • Increase energy efficiency of buildings, specify building types covered • Other energy efficiency target type, please specify Energy poverty/energy access target • Increase average duration of available electricity	• Target to increase the diversion rate away from landfill and incineration • Target to reduce food loss and/or waste • Target to increase composting of food • Target to increase methane recovery from landfills • Target to increase capturing of biogas from food waste • Target to increase the reuse of waste • Target to increase the reuse of construction and demolition waste • Target to increase the total waste generated that is recycled • Target to increase the volume of wastewater treatment • Target to increase the re-use of treated wastewater • Other waste target type, please specify Water target • Target to increase water use efficiency • Target to reduce water consumption • Target to address pollution • Target to increase WASH coverage • Target towards net-zero water • Target to restore/improve aquatic ecosystems • Other water target type, please specify AFOLU target • Target to reduce deforestation • Target to reduce peatland loss • Target to reduce conversion of other remaining natural ecosystems • Other AFOLU target type, please specify • Target to increase afforestation • Target to increase reforestation • Target to increase restoration of degraded forests
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• Increase the percentage of population or households with access to electricity • Improve the average yearly energy consumption per capita • Reduction in energy poverty (population) • Reduction in energy poverty (households) • Increase access to clean cooking fuels and technologies (population) • Increase access to clean cooking fuels and technologies (households) • Addressing energy poverty • Addressing energy access • Other energy poverty/energy access target type, please specify Building specific emissions reduction target • All building types emissions reduction target • Residential buildings emissions reduction target • Municipal buildings emissions reduction target • Commercial buildings emissions reduction target • Commercial and municipal buildings emissions reduction target • New buildings emissions reduction target • Other buildings emissions target, please specify	• Target to increase green space • Forest cover target Food target • Target to increase consumption of alternative and plant-based proteins • Target to reduce consumption of animal-based proteins • Target to reduce food-based emissions • Target to increase sustainable agricultural practices in food production • Target to reduce percentage of population that is food insecure and/or living in food deserts • Target to reduce food loss and waste • Other food-related target type, please specify Air Quality • Target to reduce PM2.5 concentrations (annual/24 hour) • Target to reduce PM10 concentrations (annual/24 hour) • Target to reduce O3 concentrations (peak season /8 hour) • Target to reduce NO2 concentrations (Annual / 24 hour) • Target to reduce SO2 concentrations (24 hour) • Target to reduce CO concentrations (24 hour) • Target to increase quantity of good air quality/low air pollution days • Other air quality target, please specify
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Metric (metric numerator if reporting an intensity target) drop-down options:

Renewable energy generation target • Kilowatt (kW) • Megawatt (MW) • Gigawatt (GW) • Kilowatt hour (kWh) • Megawatt hour (MWh) • Gigawatt hour (GWh) • Percentage (%) • Metric tonnes of CO2e (t) • Metric tonnes of solid biomass (t) • Liters of liquid biofuel (L) • Cubic meters of biogas (m3) • Cubic meters of hydrogen (m3) • Other, please specify Renewable energy consumption target • Kilowatt (kW) • Megawatt (MW) • Gigawatt (GW) • Kilowatt hour (kWh) • Megawatt hour (MWh) • Gigawatt hour (GWh) • Percentage (%) • Metric tonnes of CO2e (t) • Metric tonnes of solid biomass (t) • Liters of liquid biofuel (L) • Cubic meters of biogas (m3) • Cubic meters of hydrogen (m3) • Other, please specify	Building-specific emissions reduction target • Kilowatt (kW) • Megawatt (MW) • Gigawatt (GW) • Kilowatt hour (kWh) • Megawatt hour (MWh) • Gigawatt hour (GWh) • Percentage of net zero carbon buildings (%) • Percentage of net zero energy buildings (%) • Percentage of buildings with a green building certificate (%) • Metric tonnes of CO2e (t) • Number of buildings/households • Other, please specify Transport target • Percentage of fleet/Mode share (%) • Percentage of journeys (%) • Number of EV charging points • Metric tonnes of CO2e (t) • Other, please specify Waste target • Metric tonnes of waste (t) • Percentage of total waste (%) • Other, please specify Water target • Gallons (gal) • Cubic metres (m3)
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Renewable energy installed capacity target • Kilowatt (kW) • Megawatt (MW) • Gigawatt (GW) • Percentage (%) • Other, please specify Energy efficiency target • Kilowatt (kW) • Megawatt (MW) • Gigawatt (GW) • Kilowatt hour (kWh) • Megawatt hour (MWh) • Gigawatt hour (GWh) • Percentage (%) • Metric tonnes of CO₂e (t) • Gigajoules (GJ) • Million British thermal units (million Btu) • Number of buildings/households • Other, please specify Energy poverty/energy access target • Percentage of population (%) • Percentage of households (%) • Other, please specify	• Other, please specify AFOLU target • Percentage tree canopy cover/green cover (%) • Hectares (ha) • Number of trees • Metric tonnes of CO₂e sequestered (t) • Other, please specify Food target • Percentage (%) • Metric tonnes (t) • Number of individuals • Number of households • Number of parks/gardens • Other, please specify Air quality target • Concentration of pollutant (µg/m³) • Percentage (%) • Number of monitoring stations • Other, please specify No target • Our jurisdiction does not have an energy-related or other environmental related target
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Metric denominator (intensity targets only) drop-down options:

- Capita
- GDP
- Day
- Week
- Year
- Kilowatt hour (kWh)
- Megawatt hour (MWh)
- Gigawatt hour (GWh)
- Metric tonnes (t)
- Square meters (m²)
- Cubic meters (m³)
- Unit revenue
- Other, please specify

Requested Content

General

- Emissions reduction targets are not the only type of relevant targets that jurisdictions can use to drive change. In this question, you may report on other types of target beyond the greenhouse gas emissions targets reported in 6.1.1.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Target type (column 1)

- Please select the target type you are reporting. Jurisdictions are encouraged to initially report energy-related target that advance the generation and/or consumption of renewable energy. The IRENA Renewable Energy Target Setting report defines renewable energy targets as: "Numerical goals established by governments or other actors (such as electric utilities) to achieve a specific amount of renewable energy production or consumption. Renewable energy targets can apply to the electricity,

heating/cooling or transport sectors, or to the energy sector, and include a specific time period or date by which the target is to be reached.”

- For more information on setting renewable energy targets see the [Renewables in Cities 2019 Global Status Report](#) (page 51) and to see the latest overview of renewable energy targets at the city-level see the [Renewables in Cities 2021 Global Status Report](#) (page 44).
- You will be first requested to report what area the target relates to, for example Renewable energy generation target, Transport target, Air quality target. Based on this selection you are then presented with more specific target types related to the selected area. If the target types presented are not relevant to the area, then please select the option ‘Other...target type’ and enter the specific target type in the text box that is presented.

Target description (column 2)

- Provide a description of the target. This can include further information on the scope of the target for example specifying whether the target covers all sectors or only a specific sub-sector, or whether the target is technology-specific (e.g., focussed on solar PV) versus technology-neutral (e.g., covers all renewable energy technologies).
- You may wish to provide information on whether the target is binding or aspirational and if any penalties apply in the event that the target is not met.

Boundary of target relative to jurisdiction boundary (column 3)

- Indicate the boundary of your target relative to your jurisdiction’s boundary (as reported in 1.2).
- Select the option ‘Same - covers entire jurisdiction and nothing else’ to report a target that is intended to or does apply to the entire jurisdiction. For example, if your jurisdiction has a target to power your jurisdiction with 100% renewable energy then this is the appropriate response.
- If a boundary option other than ‘Same (city-wide) - covers entire city and nothing else’ or ‘Government operations’ is selected a text box will be presented. Please provide a brief justification of boundary additions/exclusions. For example, the target may only apply to certain sectors or locations within your jurisdiction and in this instance the option ‘Smaller - covers only part of the jurisdiction, please explain exclusions’ may be the appropriate selection.

Year target was established (column 4)

- Select the year in which your target came into effect or was approved by the local government.
- This is not your target's base year, which is used as the reference year from which to measure progress.

Absolute or intensity target (column 5)

- Select whether the target is an absolute or an intensity target, regardless of whether you measure it in absolute (e.g. MWh) or relative (%) values.
- An absolute target describes a reduction/increase in *actual* units of the metric in a future year compared to a base year, e.g. increase percentage of electric vehicles in the bus fleet.
- An intensity target describes a reduction/increase of the metric in a future year compared to a base year *relative* to another economic or operational variable, e.g. reduction in per capita energy consumption.

Metric (numerator if reporting an intensity target) (column 6)

- Select the metric relevant to your energy/climate-related target. If you have selected that the target is an intensity target in column 5, this column will be the metric numerator.

Metric denominator (intensity targets only) (column 7)

- Select the metric denominator of your energy/climate-related intensity target. This column will only appear if you selected 'Intensity' in column 5.

Base year (column 8)

- Report the target's base year (also known as the "representative year"). This is the reference year from which the target's progress can be measured.
- The base year cannot be after the reporting year.
- The base year is the year against which you are comparing your target.
- If you have a year-on-year rolling target, your base year will be the previous reporting year.

- If you have a stabilization target, i.e. a target to maintain a certain level of performance (e.g. to maintain an 80% waste diversion rate for 100% of sites), your base year will be the current reporting year.

Metric value in base year (column 9)

- Report the value of the target in the base year, for example if the target is to 'Increase installed capacity of renewable electricity' and the installed capacity of renewable electricity generation sources was 5MW in the base year then you would enter the number 5 in this field.
- This value must be in the same units as reported in column 6 (and 7 for intensity targets).

Target year (column 10)

- Report the year by which the target should be achieved. Please note that the target year cannot be in the past.
- If you have a year-on-year rolling target or stabilization target, your target year will be the reporting year.

Metric value in target year (column 11)

- Report the expected value to be achieved in the target year, for example if the target is to increase the proportion of electricity consumed from renewable sources to 100% by 2030 then enter 100 in the field.
- This value must be in the same units as reported in column 6 (and 7 for intensity targets)

Metric value in most recent year data is available (column 12)

- Report the metric value for most recent year data is available. This data will inform analysis of the progress of sector-based targets. In the 'Comment' field you can indicate the year for which this data applies. If data is not available then this can also be reported in the 'Comment' field.
- This value must be in the same units as reported in column 6 (and 7 for intensity targets)

% of target achieved relative to base year (auto-calculated) (column 13)

- This column will be auto-calculated.

- The target's percentage completion compared with the base year will be calculated from the 'Metric value in base year' (column 9), 'Metric value in target year' (column 11), and the 'Metric value in most recent year data is available' (column 12) columns. Ensure you have entered data into these columns.
 - $$\frac{((\text{Metric value in most recent year data is available}) - (\text{Metric value in base year}))}{((\text{Metric value in target year}) - (\text{Metric value in base year}))} * 100\%$$
- Negative values indicate that you have made negative progress towards your target. E.g. in the above example, that you have reduced the percentage of low-carbon vehicles in the company fleet, when compared with the base year.
- Values greater than 100% indicate that you have exceeded your target.

Percentage of renewable energy of total energy in target year (column 14)

- This column is presented if you are reporting a renewable energy generation target, a renewable energy consumption target, or a renewable energy installed capacity target, as selected in column 1. Report the expected jurisdiction-wide sector-wide percentage of final energy consumption that will be consumed from renewable energy sources in the target year.
- If you are reporting a percentage-based target renewable energy consumption target, then this value may be the same the value as that reported in column 11 'Metric value in target year'.
- Given the broad spectrum of renewable energy targets that are set by governments this data will enable comparability of reported targets.

Is this target publicly available? (column 15)

- Report if the target is publicly available. If so, please provide a link in the text box that is presented, or attach a file to the 'Further Information' question 11.1...

Progress made towards target (column 16)

- Please provide any additional contextual information which can include data sources used and methods to assess progress. You may wish to reference any plans or strategies developed to help deliver the target. If you have specified policies, programs, and/or financial incentives that are in place to support uptake of renewable energy production/consumption please indicate here the administering body (local/regional/national/supranational) of these actions.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Local governments shall adopt a general target for a quantified relative increase of energy access and/or alleviation of energy poverty towards universal access to energy in alignment with SDG 7. The target shall define the estimated percentage increase of energy access and/or decrease in energy poverty in 2030 compared to their selected base year (example of general target: Addressing energy poverty).

In addition, local governments shall set at least one specific target (separate to the general target) that addresses energy access and alleviates energy poverty the regionally selected energy attribute (example of specific target to the regional attribute of Affordable Energy: Reduction in energy poverty (population)).

Local governments shall continuously report against the selected target(s) in the list below.

- Improving access to secure energy
 - Increase the average duration of available electricity by 2030 in relation to their base year
 - Increase the percentage of population or households with access to electricity by 2030 in relation to base year
 - Improve the average yearly energy consumption per capita (without affecting the level and quality of energy services used)
- Improving access to affordable energy
 - Reduce the percentage of households or population within the city boundary that face energy poverty
 - Increase energy efficiency of buildings
- Improving access to sustainable energy
 - Increase the installed capacity of renewable energy sources (RES) within local boundary
 - Increase the total energy generated from RES within local boundary
 - Increase the energy consumption from RES
 - Increase the households within the municipality with access to clean cooking fuels and technologies
 - Improve the greenness of the source mix of thermal energy (heating and cooling) consumed in your city

Local governments may report against additional targets addressing energy access and alleviating energy poverty from the list above.

Local governments may also identify and set additional complementing targets suited to their local conditions and needs.

When setting a target, local governments shall demonstrate commitments to increase in energy access and/or reduction in energy poverty. Local governments shall declare these commitments in their plan(s).

The target shall be reported as a percentage (%) in relation to the base year. If absolute data is available, signatory shall report the percentage in addition to their quantitative data.

To report with compliance against the requirement of 'Units', a percentage must be selected as a metric in column 6. This is to allow the comparison of percentage from the target year in relation to the base year

GCoM required columns and common mistakes

This question is mandatory to be compliant with the GCoM " *Energy Access and Poverty Pillar*":

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

Mandatory columns	Simplified level Requirements	Complete level Requirements	Avoiding Common mistakes
Target type^	Mandatory	Mandatory	Please select a target type according to your region's requirements
Boundary of target relative to jurisdiction boundary^	Mandatory	Mandatory	The boundary shall be same or larger than the community boundary. If it is smaller or partial, please explain the exclusion in the text box.

Metric (numerator if reporting an intensity target)^	Mandatory	Mandatory	To report with compliance against the requirements of 'Units' and 'Target Setting', a percentage must be selected as a metric in column 6. This is to allow the comparison of percentage from the target year in relation to the base year.
Base year^	Mandatory	Mandatory	Please specify the base year. The base year shall be equal or prior to the reporting year.
Metric value in base year^	Mandatory	Mandatory	Please report the metric value in base year (the quantitatively target results).
Target year^	Mandatory	Mandatory	Please specify the target year. The target year shall be equal or post to the reporting year. The GCoM recommend using 2030 as the target year in alignment with SDG 7.
Metric value in target year ^	Mandatory	Mandatory	Please ensure that in column 11 you report the increase/decrease as a percentage change from the base year. For example: a 50% reduction/increase relative to 2010.

Planning

(8.1) Does your jurisdiction have a climate action plan or strategy that addresses mitigation, adaptation (resilience), and/or energy?^

Change From Last Year

No change

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Adaptation, Mitigation, Energy Access and Poverty Pillars
- TCFD: Strategy (Disclosure C)
- Race to Resilience
- Race to Zero
- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- Transformative Actions Program
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Select from:

- Yes, our jurisdiction has a climate action plan or strategy
- No, but we are currently undertaking one and it will be complete in the next year
- No, but we are intending to undertake one in the next two years
- No, and we are not intending to undertake due to lack of financial capacity
- No, and we are not intending to undertake due to lack of expertise/technical capacity
- No, and we are not intending to undertake due to lack of financial capacity and expertise/technical capacity
- No, and we are not intending to undertake due to other higher priorities
- No, and we are not intending to undertake due to a reason not listed above, please specify

Requested Content

General

- A climate action plan is a strategic document (or series of plans and documents) that demonstrates how a city will deliver on its commitment to address climate change ([C40 Climate Action Planning Framework](#)).
- Please respond to indicate whether your jurisdiction has produced a climate action plan by selecting 'Yes, our jurisdiction has a climate action plan or strategy' from the drop-down menu.
- This can include an integrated climate action plan that addresses adaptation/resilience, mitigation and/or energy, or a standalone plan(s) that addresses these aspects.

- Jurisdictions that have standalone energy-related plans that address sustainability, security and/or affordability of energy or integrate these energy-related issues into their climate action plans should report these here in 7.1/7.1a. If you previously reported these energy-related plans in 7.2, you should re-report them in 7.1/7.1a.
- If your jurisdiction does not have a climate action plan, then select the most relevant reason why not. If you wish to provide further information you can do so by selecting the comment icon and entering this information in the presented text field.

Additional Information

Resources - Adaptation and mitigation

Name	Description	Institution
<u>C40 Climate Action Planning Framework</u>	Supports users to develop climate action plans that are aligned with the objectives of the Paris Agreement.	C40 Cities
<u>Co-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA)</u>	Estimates the health and economic benefits of air quality policies.	US EPA
<u>Co-Benefits Calculator for Transport</u>	Estimates co-benefits of transportation projects in Asia. Includes travel-time savings, injury prevention, and economic savings.	Institute for Global Environmental Strategies
<u>Climate Policy Database</u>	Filterable database of existing climate policies for a variety of sectors and policy types.	New Climate Institute
<u>Adaptation and Mitigation Integration Assessment Tool (AMIA)</u>	Helps users identify mitigation-relevant actions that also have climate-adaptation benefits.	C40 Cities

Resources - Adaptation

Name	Description	Institution
<u>Urban Adaptation Support Tool</u>	The aim of the Urban Adaptation Support Tool (UAST) is to assist cities, towns and other local authorities in developing, implementing and monitoring climate change adaptation plans.	EU Covenant of Mayors
<u>Climate Risk and Adaptation Framework and Taxonomy (CRAFT)</u>	CRAFT is a standardized reporting framework that enables cities to perform robust and consistent reporting of local climate hazards and impacts, risk and vulnerability assessment, and adaptation planning and implementation.	C40 Cities
<u>Adaptation Resource Pathway for Planners (ARPP)</u>	ARPP is an interactive document that helps planners identify resources to increase their knowledge and understanding of climate change adaptation and to help support adaptation action.	Climate Risk Institute

Resources - Mitigation

Name	Description	Institution
<u>Action Selection and Prioritisation Tool (ASAP)</u>	Synthesizes information about a government's goals, impacts and co-benefits of possible actions, and potential barriers to implementation to help users prioritize and select major climate change mitigation actions.	C40 Cities
<u>City Action for Urban Sustainability (CURB)</u>	CURB, Climate Action for Urban Sustainability, is an interactive scenario planning tool that helps cities take action on climate change.	GCoM, C40 Cities, World Bank Group, AECOM Consulting

Resources - Energy

Name	Description	Institution
<u>Energy Resource Hub</u>	GCoM's Resource Library containing energy-related documents and tools to support actions.	GCoM
<u>Energy Security and Access</u>	C40 Knowledge Hub in energy security and access, containing research reports, case studies, and implementation guides.	C40 Cities

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 6.1 "Climate action plans" of the Common Reporting Framework states that local governments shall develop plans for climate change mitigation, adaptation (climate resilience) and energy access and energy poverty, which may be presented in separate plans or an integrated plan. Local governments shall submit their climate action plans to GCoM within three years upon joining GCoM.

Avoiding common mistakes

To be compliant with the GCoM "Mitigation-Plan badge", "Adaptation-Plan badge", and "Energy Access and Poverty-Plan Badge" cities must answer "Yes, our jurisdiction has a climate action plan or strategy" and answer all mandatory columns in question 8.1.1.

Also, cities must answer 9.1 for the adaptation/energy access and poverty plan badge and 9.2 for the mitigation/energy access and poverty plan badge.

If your mitigation/adaptation/energy access and poverty action plans have been completed before this year and are due to be published in 2025, you can select: "Yes, our jurisdiction has a climate action plan or strategy".

(8.1.1) Report details on the climate action plan or strategy that addresses mitigation, adaptation (resilience), and/or energy-related issues in your jurisdiction.

Change From Last Year

No change

Question Dependencies

This question is presented if 'Yes, our jurisdiction has a climate action plan or strategy' is selected in response to 8.1.

Questionnaire

- Cities
 - Pathway 1: Columns 1 – 10, 17
 - Pathway 2 and 3: Columns 1 – 17
- States and Regions: Columns 1-10, 12, 13, 17

Connection to other frameworks

- [Cities only] GCoM: Adaptation, Mitigation, Energy Access and Poverty Pillars
- TCFD: Strategy (Disclosure C)
- Race to Resilience
- Race to Zero
- [Cities only] NetZeroCities – Mission Cities
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- C40 Leadership Standards

- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG7, SDG11, SDG13, SDG17

Response Options

1	2	3	4	5
Climate action plan type^	Plan attachment^	Name of plan and URL link, if applicable^	Confirm attachment/link provided to plan	Boundary of plan relative to jurisdiction boundary
Select from: • Integrated climate plan (addressing mitigation, adaptation and energy-related issues) • Integrated climate plan (addressing mitigation and adaptation) • Integrated climate plan (addressing mitigation and energy) • Integrated climate plan (addressing adaptation and energy) • Standalone mitigation plan • Standalone adaptation plan • Standalone energy-related plan	Attachment function	Text field	Select from: • The plan has been attached • The plan can be accessed (unrestricted) on the link provided • The plan has been attached and can be accessed (unrestricted) on the link provided • Unable to provide an attachment and/or direct link to the plan	Select from: • Same (jurisdiction-wide) - covers entire jurisdiction and nothing else • Smaller - covers only part of the jurisdiction, please explain • Larger - covers the whole jurisdiction and adjoining areas, please explain • Partial - covers part of the jurisdiction and adjoining areas, please explain

6	7
Processes for monitoring evaluation and updates of plan^	Plan status/progress towards plan
Select all that apply: Monitoring • Information on progress of plan is monitored and publicly reported annually or more frequently than annually • Information on progress of plan is monitored and publicly reported every 1-3 years • Information on progress of plan is monitored and publicly reported every 3-5 years • Information on progress of plan is monitored and publicly reported every 5+ years Evaluation • Evaluation of plan takes place annually or more frequently than annually • Evaluation of plan takes place every 1-3 years • Evaluation of plan takes place every 3-5 years • Evaluation of plan takes place every 5+ years Update • Updates to the plan are published annually or more frequently than annually • Updates to the plan are published every 1-3 years • Updates to the plan are published every 3-5 years • Updates to the plan are published every 5+ years • Other, please specify • No monitoring, evaluation or update processes in place	Select from: • New • Underway – significant progress made • Underway – moderate progress made • Underway – limited progress made • Achieved • Expired • Revised • Replaced • Retired • Other, please specify

8	9	10	11
Funding sources and financial instruments to finance plan	Communities and organizations engaged	Describe if and how climate-related scenarios have informed the plan	Primary author(s) of plan^
Select all that apply: Funding sources • Jurisdiction's own resources • Regional funds and programmes • National funds and programmes • International (including ODA) • Private • Other, please specify source Financial instruments • Climate finance (carbon credits) • Public-private partnerships • Private partnerships (e.g., a combination of private investments) • Other, please specify source	Select all that apply: • National government and/or agencies • Indigenous peoples • State/regional government(s) and/or agencies • Local government(s) and/or agencies • Citizens • Vulnerable population groups • Academia • Business and private sector • Trade unions • Non-governmental organisations • No communities or organizations engaged • Other, please specify	Text field	Select all that apply: • Dedicated team within jurisdiction • Relevant department within jurisdiction • Consultant • International organization • Community group • Regional / state / provincial government • National / central government • Other, please specify

12	13	14	15	16	17
Assessment of co-benefits, trade-offs, and synergies of actions included in plan	Year of formal approval of plan^	End year of plan	Total cost of implementation of plan (in currency specified in 1.2)	Sectors covered by action plan	Please explain
Select all that apply: • Plan assesses co-benefits of actions • Plan assesses trade-offs of actions • Plan assesses synergies of actions • Plan does not assess synergies, trade-offs and co-benefits of actions • Do not know • Other, please specify	Numeric field	Numeric field	Numeric field	Select all that apply: • Agriculture • Forestry • Fishing • Mining and quarrying • Manufacturing • Electricity, gas, steam and air conditioning supply • Water supply • Sewerage, wastewater management and remediation activities • Waste management • Administrative and support service activities • Public administration and defence; compulsory social security • Conservation • Construction • Wholesale and retail trade; repair of motor vehicles and motorcycles • Transportation and storage • Accommodation and food service activities • Information and communication • Financial and insurance activities	Text field

12	13	14	15	16	17
Assessment of co-benefits, trade-offs, and synergies of actions included in plan	Year of formal approval of plan^	End year of plan	Total cost of implementation of plan (in currency specified in 1.2)	Sectors covered by action plan	Please explain
				• Real estate activities • Professional, scientific and technical activities • Education • Human health and social work activities • Arts, entertainment and recreation • Other, please specify	

[Add row]

Requested Content

General

- Use this question to report on your jurisdiction's climate action plan or strategy that covers adaptation, mitigation, and/or energy-related issues (including energy sustainability, energy security, and/or energy affordability).
- The plans you report may be standalone or integrated into one or more plans. If your jurisdiction has separate mitigation, adaptation, and/or energy-related plans, please report all individually in separate rows.
- Other climate-related plans may be reported in 8.2.
- For resources on climate action plans, see the reporting guidance for 8.1.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Climate action plan type (column 1)

- Report the type of climate action plan your jurisdiction has in place. This may be an integrated climate action plan which encompasses adaptation, mitigation, and energy-related issues, or standalone plans that separately address adaption, mitigation and/or energy-related issues.

Plan attachment (column 2) / Name of plan and URL link, if applicable (column 3)

- Use column 2 to attach your jurisdiction's climate action plan, and provide the plan name in column 3.
- You may also use column 3 to provide a direct link to the plan. If you are providing a direct link, please ensure the climate action plan can be accessed unrestricted on the link provided.

Confirm attachment/link provided to plan (column 4)

- Select the appropriate option from the list of the presented options. For example, if you have attached the file in column 2 you will make the selection 'The plan has been attached'
- If your plan is not available externally, select 'Unable to provide an attachment and/or direct link to the plan'.
- Providing access to your jurisdiction's climate action plan is a key item for multiple projects, initiatives and data users for assessment and validation purposes. The purpose of this column is to ensure that jurisdictions who have reported they have climate action plans have provided access to the plan or have indicated that they cannot.

Boundary of plan relative to jurisdiction boundary (column 5)

- Indicate the boundary of your climate action plan relative to your jurisdiction's boundary (as reported in 1.2).
- If the jurisdiction's climate action plan covers only part of the jurisdiction or covers the whole jurisdiction and adjoining areas outside of the jurisdiction boundary then use the explanation field presented to briefly describe which areas are excluded or additional areas included. For example, if the boundary is smaller or larger indicate the population that is covered by the plan if this is different from the population reported in 1.2.

Processes for monitoring, evaluation and updates of plan (column 6)

- Please indicate the frequency to which the climate plan is monitored, evaluated and updated. You can select an option under each process of 'Monitoring', 'Evaluation', and 'Update'.
- If these processes are not in place, then select the option 'No monitoring, evaluation or update processes in place'. If other processes are in place related to the monitoring, evaluation and updating of the climate action plan then please select the option 'Other, please specify' and provide a brief explanation of these processes.
- Monitoring: Indicate how often information on progress of the climate action plan is monitored and publicly reported. It is important that there is a process for monitoring and reporting progress on implementation of the climate action plan with key performance indicators identified for priority actions. This includes regular monitoring and public reporting, in line with existing governance and reporting systems.
- Evaluation: Indicate the frequency to which the climate action plan is evaluated. This provides insight into the processes for evaluating the impact of the climate action plan and can include evaluating jurisdiction wide emissions reductions, risk reduction and the equitable distribution of benefits.
- Updates: Indicate the frequency to which updates to the plan are published. Monitoring and evaluation should feed into the continuous review and revision of the plan, while this does not have to include updates that result in significant change throughout the plan it should support a reflective and iterative planning process that keeps the jurisdiction on track to meet its targets. This indicates that a process and timeline for review and revision are part of the climate action plan. If the plan has not yet been through an update process, for example due to being newly published, report the planned timeline for updates.
- For further information related to the monitoring, evaluation and updating of climate action plans see C40's [Climate Action Planning Framework](#).
- If "No monitoring, evaluation or update processes in place" is selected, no other selections should be made.

Plan status/progress towards plan (column 7)

- Indicate the status of the plan:
 - New – Select this option for plans that have been published in the reporting year and are newly in progress.

- Underway – significant / moderate / limited progress made – Select this option for plans that were published before the reporting year, with an end year in the future, that have not been achieved and continue to be pursued. Ensure to select the appropriate option that indicates the progress made toward the plan.
- Achieved – Select this option for plans that have been achieved or exceeded in the reporting year.
- Expired – Select this option for plans with an end year of the reporting year, that have not been achieved and have therefore expired in the reporting year.
- Revised – Select this option for plans that were set before the reporting year but a revision has been made to any of the elements reported in this question. Please explain further any revisions in column 17 'Please explain'.
- Replaced – Select this option for previously reported plans that have been replaced with another plan in the reporting year, for example if a previously reported standalone energy plan has been incorporated into an integrated climate action plan. Please explain further any replacements in column 17 'Please explain'.
- Retired – Select this option for plans with an end year in the future, that have not been achieved, but will no longer be pursued. Provide more information as to why this plan was retired in column 17 'Please explain'.

Funding sources and financial instruments to finance plan (column 8)

- Select all the applicable funding sources and financial instruments that are being used and/or are intended to be used to finance your jurisdiction's climate action plan.
- The presented list of options is not exhaustive, and should your jurisdiction use alternative funding sources of financial instruments please indicate this by selecting 'Other, please specify' and report all others in the text box that is presented.

Communities and organizations engaged (column 9)

- Select all parties that have been engaged with on the selected plan(s) in column 1.
- Engaging with multiple parties ensures that the jurisdiction has incorporated a wide range of perspectives and priorities ([UN-Habitat](#)). The [C40 Inclusive Community Engagement Playbook](#) provides practical support to develop an effective engagement strategy.

- Using a variety of engagement methods increases the ability to engage across different communities and organizations, particularly hard-to-reach groups. The methods you use should be selected based on your engagement objectives, for example, to co-design, collaborate, consult, inform or identify/manage. (C40).

Describe if and how climate-related scenarios have informed the plan (column 10)

- This is an exploratory question on the use of climate-related scenarios in the development of climate action plans/strategies.
- Scenario analysis is a tool used to describe potential pathways that lead to a particular outcome or goal. Scenario analysis is the process of highlighting central elements of a possible future and drawing attention to key factors and uncertainties. A scenario is not a forecast or prediction, but rather a tool used to enhance critical strategic thinking by challenging “business-as-usual” assumptions, and to explore alternatives based on their relative impact and likelihood of occurrence.
- Please outline if your climate action plan/strategy has been informed by climate-related scenarios. If so, which scenarios have been used and which time horizons applied. This can include scenarios that are aligned with 1.5°C and 2°C, and, where relevant scenarios resulting in higher temperature increases and consistent with increased climate hazards.
- Scenario analysis can be qualitative, relying on descriptive, written narratives, or quantitative, relying on numerical data and models, or some combination of both. Please outline if your use of scenarios has been qualitative or quantitative in nature.
- There are publicly available scenarios (such as those developed by the [International Energy Agency](#), [Deep Decarbonization Pathways Project](#), and [International Renewable Energy Agency](#)) jurisdictions can use, as a direct tool, or a reference point for tailored scenarios.
- If it is the case that your jurisdiction’s master plan (referred to sometimes as a development plan or strategy) considers climate-related scenarios, please outline this also.

Primary author(s) of plan (column 11)

- Indicate the primary author(s) responsible for the jurisdiction’s climate action plan by selecting the most applicable response(s) from the listed options.

Assessment of co-benefits, trade-offs, and synergies of actions included in plan (column 12)

- You may select all options that apply:

- Synergies are benefits or characteristics shared among all other mitigation/adaptation actions. For example, if one action is to establish a car-free zone in the jurisdiction centre and another action is to provide rental bikes, these two actions share synergy and will promote zero-carbon commute within the jurisdiction boundary with a greater magnitude.
- Trade-offs are the sacrifices of a certain action. The trade-off of renewable energy deployment will be the increased electricity price and the potential of energy poverty. Therefore, the jurisdiction should take measures to mitigate the trade-off, such as providing subsidies to people with certain income level.
- Co-benefits are the benefits gained apart from the main mitigation/adaptation impacts. For example, the mitigation of air pollution and reduction of road traffic will be the benefit of a car-free zone project.
- C40's guidance on the '[Interaction between adaptation and mitigation actions](#)' and the associated Adaptation and Mitigation Interaction Assessment Tool (AMIA) provides information on how to identify potential interactions between climate adaptation and mitigation measures.
- If 'Plan does not assess synergies, trade-offs and co-benefits of actions' is selected, no other selections should be made.

Year of formal approval of plan/End year of plan (column 13 and 14)

- Enter the year the plan was published and approved by the jurisdiction and the year in which the plan will conclude as a numeric value.

Total cost of implementation of plan (in currency specified in 0.1) (column 15)

- If the cost associated with the implementation of the actions within the climate action plan has been calculated, please report this cost. It is recognised that this figure will be an estimate. You can provide further information on this value in the field 'Please explain' that will be presented at the end of this question.

Sectors covered by action plan (column 16)

- Select the sectors that are covered by the climate action plan, this may include sectors that have been assigned specific actions within the climate action plan. You can provide further context on this selection in the field 'Please explain' that will be presented at the end of this question.

Please explain (column 17)

- The column 'Please explain' will be presented at the end of this question for all responding jurisdictions.
 - Where data availability allows, please provide an overview of how the plan addresses populations from urban communities and those from rural communities and additionally how the plan addresses populations from inland communities and those from coastal communities. If relevant, attach the stakeholder engagement and communication plan and/or any other reference documents related to the engagement. Reference documents may include meeting minutes, pictures or webpages. However, ensure that no personal data is included in the information reported or the attachments provided.
 - If relevant, report the last year the plan was updated and/or the year when it will be updated next.
 - Explain how the actions contained in the plan have been prioritized and the factors considered when prioritizing climate-related actions.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

Section 6.1 & 6.2 "Climate action plans & Monitoring"

All action plan(s) shall include the following information for mitigation, adaptation, and energy access and poverty actions:

- Mitigation targets and or adaptation goals
- All actions of priority sections
- Descriptions for each action (only for Complete Level of reporting)
- The local government which formally adopted the plan
- Date of adoption

Local governments are also recommended to report the following:

- Description of the stakeholder engagement process
- Synergies, tradeoffs and co-benefits

- Lead author team/responsible/coordination team in the local governments.

Local governments should either provide an attachment of their plans in column 2 or provide a link in column 3. Local governments shall submit monitoring reports every four years after submitting the action plans.

GCoM required columns and common mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

GCoM Mandatory columns	Simplified level requirements	Complete level requirements	Guidance and Common Mistakes
Climate action plan type^	Mandatory	Mandatory	If you have a combined mitigation and action plan, please select "An integrated climate plan (addressing mitigation, adaptation, and energy-related issues)". Completing all required columns for an integrated plan will grant you both action plan badges for mitigation and for adaptation. If you have a standalone mitigation plan, please select "Standalone climate mitigation plan". Completing all required columns for a standalone mitigation plan is compliant with the Mitigation Plan badge. If you have a standalone adaptation plan, please select "Standalone climate adaptation plan". Completing all required columns for a standalone Adaptation plan is compliant with the Adaptation Plan badge. If you have a standalone energy plan, please select "Standalone energy-related plan". Completing all required columns for a standalone Energy-related plan is compliant with the EAPP Plan badge.

			It can be a standalone plan or integrated plan containing two or three elements from mitigation, adaptation and energy access. Please select the relevant plan type. The plan types you select will support your application to relevant GCoM badges. A standalone mitigation plan or integrated plan with mitigation aspect is eligible for the mitigation plan badge A standalone adaptation plan or integrated plan with adaptation aspect is eligible for the adaption plan badge A standalone energy-related plan or integrated plan with energy aspect is eligible for the energy access and poverty pillar plan badge
Plan attachment^	Mandatory	Mandatory	If you choose to attach a plan, please ensure that the correct attachment is included in your submission.
Name of plan and URL link, if applicable^	Mandatory	Mandatory	Make sure that the link is openly accessible (unrestricted) and leads to the correct plan. Links that direct to a drive folder is often difficult to access for validators.
Primary author(s) of plan^	Mandatory	Mandatory	The primary author of the action plan helps us understand the staff capacity status of local government. Your answer can help other cities identify resources for compiling risk and vulnerability assessment plan. Please choose the appropriate option and do NOT leave it blank. Please report the name of the plan in the attachment.
Processes for monitoring	Mandatory	Mandatory	GCoM cities are required to submit monitoring report of the implementation of action every two years.

evaluation and updates of plan^			
Year of formal approval of plan^	Mandatory	Mandatory	Please provide a year of publication or approval not later than the reporting year (2025). Action plans older than 10 years are not compliant with the CRF.

Example Response

For explanatory purposes, a sample answer to this question is included below.

Climate action plan type^	Plan attachment^	Name of plan and URL link, if applicable^	Confirm attachment/link provided to plan	Boundary of plan relative to jurisdiction boundary
Integrated climate plan (addressing mitigation and adaptation)	[Attachment of climate action plan]	Climate Action Plan	The plan has been attached	Same (jurisdiction-wide) covers entire jurisdiction and nothing else

Processes for monitoring evaluation and updates of plan^	Plan status/progress towards plan	Funding sources and financial instruments to finance plan	Communities and organizations engaged	Describe if and how climate-related scenarios have informed the plan	Primary author(s) of plan^
Information on progress of plan is monitored and publicly reported annually or	Underway – significant progress made	Regional funds and programmes Public-private partnerships	National government and/or agencies	Climate-related scenarios were used to inform the development of our climate plan. Quantitative models were used to simulate three	Consultant

Processes for monitoring evaluation and updates of plan^	Plan status/progress towards plan	Funding sources and financial instruments to finance plan	Communities and organizations engaged	Describe if and how climate-related scenarios have informed the plan	Primary author(s) of plan^
more frequently than annually Evaluation of plan takes place annually or more frequently than annually Updates to the plan are published every 1-3 years			State/regional government(s) and/or agencies Citizens Vulnerable population groups Academia Business and private sector	GHG emissions scenarios in our city until 2050. The scenarios included 1.5°C, 2°C and 2.5°C.	

Assessment of co-benefits, trade-offs, and synergies of actions included in plan	Year of formal approval of plan^	End year of plan	Total cost of implementation of plan (in currency specified in 0.1)	Sectors covered by action plan	Please explain
Plan assesses co-benefits of actions Plan assesses trade-offs of actions Plan assesses synergies of actions	2020	2030	1000000	Agriculture Forestry Electricity, gas, steam and air conditioning supply Water supply Sewerage, wastewater management and remediation activities Waste management Conservation Transportation and storage	Citizens and vulnerable population groups engaged with as part of a participatory process of prioritizing actions.

(8.2) Report details on the other environment-related plans, policies and/or strategies in your jurisdiction.

Please note that C40 Cities with an Air Quality Management Plan are requested to ensure that they report and provide their plan in this question.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 2 and 3
- States and Regions

Connection to other frameworks

- Race to Resilience
- Race to Zero
- [Cities only] NetZeroCities– Mission Cities
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

[*column/row appearance is dependent on selections in this question]

Area of plan, policy, and/or strategy	Plan attachment	Name of plan and URL link, if applicable*	Current status of plan*
Select from: • Climate emergency declaration • Air quality • Food policy • Buildings • Green infrastructure • Biodiversity • Health and wellbeing • Heat emergency • Flood management • Deforestation, forest degradation and/or forest restoration • Forest management plan to address mining and infrastructure drivers • Peatland loss and degradation • Conversion of other remaining natural ecosystems • Sustainable urban mobility • Spatial development • Water security/quality • Just transition • Circular economy • Waste management (inc. recycling) • Urban greening	Attachment function	Text field	Select from: • In implementation • Implementation complete • Monitoring and evaluation in progress • Plan update in progress • Other, please specify

Area of plan, policy, and/or strategy	Plan attachment	Name of plan and URL link, if applicable*	Current status of plan*
• Other, please specify • No other environment-related plans and/or strategies in the jurisdiction to report			

Boundary of plan relative to jurisdiction boundary*	Year of formal approval of plan*	End year of plan*	Comment
Select from: • Same – covers entire jurisdiction and nothing else • Smaller – covers only part of the jurisdiction, please explain • Larger – covers the whole jurisdiction and adjoining areas, please explain • Partial – covers part of the jurisdiction and adjoining areas, please explain	Numeric field	Numeric field	Text field

[Add Row]

Requested Content

General

- For jurisdictions that have standalone energy-related plans that address sustainability, security and/or affordability of energy or integrate these energy-related issues into their climate action plans – these should be reported in 8.1/8.1.1.
- Initiative-specific requests:
 - C40 Cities with an Air Quality Management Plan are requested to report and provide their plan in this question.

- C40 Cities and ICLEI GCC are requested to report their consumption-based emissions strategy, if applicable, in question 8.3.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Area of plan and/or strategy (column 1)

- Report the topic area of any other climate-related plan and/or strategy in your jurisdiction. These can include but are not limited to topic specific plans/strategies on e.g. food, health, mobility and/or water. Please use the 'Other, please specify' option if the appropriate area is not available.
- 'Climate emergency declaration' includes any related declaration of a climate emergency within your jurisdiction. Related climate emergencies declarations include the following – please specify the exact term in column 3:
 - Climate and ecological emergency
 - Climate and environmental emergency
 - Climate and biodiversity emergency
 - Climate emergency and mobilization
- 'Air quality' may include an Air Quality Management Plan (AQMP) developed by the jurisdiction only, or a regional/airshed AQMP in which the jurisdiction participates, or a Climate Action Plan (CAP) where air quality and public health considerations are integrated. An AQMP or AQ integrated-CAP will typically contain:
 - Clear time-bound targets for multiple pollutants (PM_x, NO_x, Ozone, CO, black carbon, methane, VOCs);
 - Comprehensive control strategies to reduce emissions in key sectors, including a description of how various agencies or departments will implement the strategies and programs outlined;
 - For example, the South Coast Air Quality Management Plan 2016

Attachment (column 2) / Name of plan and URL link, if applicable (column 3)

- These columns are not presented if 'No other environment-related plans and/or strategies in the jurisdiction to report' is selected in column 1.

- Use column 2 to attach the plan, and provide the plan name in column 3.
- You may also use column 3 to provide a direct link to the plan. If you are providing a direct link, please ensure the climate-related plan can be accessed unrestricted on the link provided.

Current status of plan (column 4)

- This column is not presented if 'No other environment-related plans and/or strategies in the jurisdiction to report' is selected in column 1.
- In implementation: if your jurisdiction has begun to implement actions from the climate action plan (execution);
- Implementation complete: if the actions identified in the plan have been fully implemented;
- Monitoring and evaluation in progress: if the project is complete and results are being measured;
- Plan update in progress: if your jurisdiction has begun to update the action plan based on the progress and success of actions that have been executed.

Boundary of plan relative to jurisdiction boundary (column 5)

- This column is not presented if 'No other environment-related plans and/or strategies in the jurisdiction to report' is selected in column 1.
- Indicate the boundary of your climate-related plan relative to your jurisdiction's boundary (as reported in 0.1).
- If the jurisdiction's climate-related plan covers only part of the jurisdiction or covers the whole jurisdiction and adjoining areas outside of the jurisdiction boundary then use the explanation field presented to briefly describe which areas are excluded or additional areas included.

Year of formal approval of plan and End year of plan (column 6 and 7)

- This column is not presented if 'No other environment-related plans and/or strategies in the jurisdiction to report' is selected in column 1.
- Enter the year the plan was published and approved by the jurisdiction and the year in which the plan will conclude as a numeric value.

Comment (column 8)

- You may use the field 'Comment' to add any additional context to your response.
- If reporting a climate emergency declaration in column 1, report in this column the motivation of your jurisdiction for declaring a Climate Emergency, and to provide a link(s) to where the declaration text and/or other supporting documentation can be viewed on your website. You may also include further information about your Climate Emergency Declaration, for example the main climate actions associated and their progress.

(8.3) Does your jurisdiction have a strategy for reducing emissions from consumption of the most relevant goods and services?

(S&R: N/A)

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- Sustainable Development Goals: SDG12, SDG13

Response Options

[*column/row appearance is dependent on selections in this question]

0	1	2	3
Which consumption categories does the strategy cover?	Response	Provide an attachment to the strategy addressing emissions from consumption of the most relevant goods and services*	Provide a link, if applicable, and highlight any specific action the jurisdiction is implementing to reduce emissions from the consumption of goods and services in this category
Food	Select from: • Yes • Strategy in this sector does not focus on emissions reduction • No strategy that addresses consumption-based emissions from this sector • Do not know	Attachment function	Text field
Construction and demolition	As above	Attachment function	Text field
Transportation	As above	Attachment function	Text field

0	1	2	3
Which consumption categories does the strategy cover?	Response	Provide an attachment to the strategy addressing emissions from consumption of the most relevant goods and services*	Provide a link, if applicable, and highlight any specific action the jurisdiction is implementing to reduce emissions from the consumption of goods and services in this category
Clothing and textiles	As above	Attachment function	Text field
Household appliances and electronics	As above	Attachment function	Text field
Aviation	As above	Attachment function	Text field
Waste management	As above	Attachment function	Text field
Other	As above	Attachment function	Text field

Requested Content

General

- This question focuses on the consumption of goods and services (such as food, clothing, electronic equipment, etc.) by residents of your jurisdiction, where GHG emissions are reported by consumption category rather than GHG emission source category ([Consumption-Based GHG Emissions Of C40 Cities](#)).
- Selection of 'Yes' in column 1 determines the presentation of subsequent columns, where you are requested to:

- provide an attachment or link to your strategy;
- explain your strategies for reducing consumption based GHG emissions in your jurisdiction for each of these consumption categories;
- specify indicators used to measure your progress;
- specify more information if an emissions reduction target is in place.
- For more information on how cities can source data on urban consumption and use actionable data indicators (ADI) to plan and measure actions designed to cut consumption-based emissions, see C40's 2023 report [Cutting GHG emissions from consumption: Indicators are tools for action](#).

Additional Information

In its [Sixth Assessment Report](#) released in 2023, the IPCC estimated that global emissions could be reduced 40-70% by 2050 through interventions on consumption demand. The report also noted that cities could only achieve net zero emissions if emissions are reduced within and outside of their administrative boundaries through supply chains, which will have beneficial cascading effects across other sectors.

Emissions from urban consumption include all emissions from goods and services consumed in a city (such as food, housing, flying, clothing, electronic equipment, etc.) including the direct use emissions, such as fuel and electricity use, and also the indirect or embodied emissions created when a product is made, through the extraction of natural resources, the product manufacture and shipping etc. Those emissions might be created in the city boundary or anywhere else in the world.

Some of these emissions are counted in standard city emissions inventories and addressed to an extent in city building, transportation, and waste strategies. To address the scope of consumption emissions, it is important that these strategies include a focus on indirect emissions in building construction, reduction in use and ownership of private cars, and reduction of packaging and single use plastics and reuse of products.

Increasingly cities are implementing strategies in other consumption categories such as food, which is a major source of emissions in every city, to reduce food waste, shift more meals to plant-based food, and support regenerative agriculture; regulations regarding demolition and construction materials to address embodied emissions in buildings. In aviation, cities can advocate for sustainable

aviation fuel at their airports and develop inter-city transport. Right to repair is a growing movement to reduce emissions from product obsolescence and enable the use of products for longer.

The [C40 Knowledge Hub](#) has more information on urban consumption emissions and ways to plan and implement strategies for action.

(8.4) Does your jurisdiction have a strategy or standard for reducing emissions from the jurisdiction's procurement and purchase of goods and services?

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3
- States and Regions

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- C40 Leadership Standards
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Ecomobility Alliance
- Sustainable Development Goals: SDG12

Response Options

Response	Provide an attachment to the strategy or standards addressing emissions from the jurisdiction's procurement*	Provide a link, if applicable, and highlight any specific action(s) the jurisdiction is implementing to reduce emissions from its own consumption*
Select from: • Yes • No • Do not know	Attachment function	Text field

Requested Content

General

- The goal of this question is to understand how the jurisdiction is using its own consumption of goods and services and spending power as an opportunity to reduce consumption-based emissions and create markets for clean energy and low-carbon products and services.
- Selection of 'Yes' in column 1 determines the presentation of subsequent columns.
- In columns 2 and 3, please provide any guidance, strategies or standards, such as a sustainable public procurement strategy, that the jurisdiction is using to reduce emissions from its purchase of goods and services, and information about actions the jurisdiction is taking such as procuring low-carbon options, gearing purchasing toward local producers, and ensuring purchasing is fair and equitable. If the jurisdiction has an inventory of emissions associated with its purchasing, please also attach this in column 2 and/or provide a link in column 3.

Explanation of Terms

- Sustainable public procurement: ensuring that the products and services your organisation buys achieve value for money on a life cycle cost basis and generate benefits not only for your organisation, but also for the environment, society and the economy. To procure in a sustainable way involves looking beyond short-term needs and considering the longer-term impacts of each purchase. Sustainable procurement is used by both public and private sector organisations to ensure that their purchasing reflects broader goals linked to e.g. resource efficiency, climate change, social responsibility, and economic resilience (Procura+ Manual).
- Life cycle costing: an important element of sustainable procurement is identifying the true cost or value of a purchase – i.e. the savings over its entire lifetime from purchase to end-of-life. This approach considers costs associated with acquisition, operation, maintenance/repair, and disposal costs, and can also consider ‘externalities’, which are the additional environmental and social costs borne by society rather than the organisation (e.g. greenhouse gases and other pollutant emissions, or other climate change mitigation costs) (Procura+ Manual).

Additional Information

Examples of jurisdictions embedding standards and strategies to reduce their emissions from procurement

- Berlin, Germany: Berlin’s Waste Management Strategy has ambitious climate protection targets, to be achieved not only through high quality recycling and cleaner recovery of waste, but also through an improved, environmentally responsible public procurement process. All public purchasing offices in Berlin are required to apply ecological criteria for their procurement, including the lifecycle costs. Demanding environmental criteria is also required to be applied to deliveries, construction work, and services, including for office materials, office equipment, cleaning agents and cleaning services, road vehicles, large-scale events, tenders for power supplies, the planning of the office buildings, and for the recycling of commercial waste. The City carried out a study based on these regulations and criteria, applying it to their whole government procurement worth €4-5 billion each year. They calculated an annual greenhouse gas reduction of 47% compared to former conventional procurement, and cost savings of around €38 million per year. Based on this, they will be expanding environmentally friendly procurement in the future (C40, Municipality-led Circular Economy Case Studies).

- Calgary, Canada: The City of Calgary's Sustainable Environmental and Ethical Procurement Policy (SEEP) program includes the use of a Vendor Leadership Questionnaire to solicit information on the sustainability leadership demonstrated by prospective vendors. This questionnaire emphasizes the environmental impacts of vendors, requires mandatory evidence for responses, focuses on targets related to GHG's and waste reduction, and makes ethical/supply chain questions accessible for smaller businesses as well as larger. They determined that a standard SEEP questionnaire could be used as a default for most SEEP contracts, with a second 'advanced version' for more mature markets or for those with higher risks of ethical/environmental concerns. Such questionnaires help send signals to the marketplace that Calgary is looking for leadership in sustainability practices from its vendors (2015 Annual Report on the State of Municipal Sustainable Procurement in Canada).

Resources

- C40 Knowledge Hub on Sustainable Procurement
- Procura+ Manual: this manual provides clear, easy-to-understand guidance on how to implement sustainable procurement. Developed by the Procura+ network of European public authorities and regions, the manual presents lessons and experiences of Procura+ participants and the results of research.
 - A list of life-cycle costing calculation tools and resources can be found on p.77 of the Procura+ Manual.
- Sustainable Procurement Platform: managed by ICLEI, this platform provides up-to-date news, case studies, events, guidance and more on sustainable procurement from across the world.
- European Commission Green Public Procurement website: contains good practice and criteria for member states on sustainable procurement for multiple product and service groups.

Actions

(9.1) Describe the outcomes of the most significant adaptation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phase.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Columns 1 - 11
 - Pathway 2 and 3: Columns 1 – 14
 - Column 15 and 16 shown only to GCoM cities
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Adaptation Pillar and Energy Access and Energy Poverty Pillar
- TCFD: Metric and Targets (Disclosure A)
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery

- 100% Renewable Energy Campaign
- Transformative Actions Program
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG11, SDG13

Response Options

Please complete the following table. You are able to add rows by using the “Add Row” button at the bottom of the table.

1	2	3	4
Select a reference ID for the action	Action [^]	Climate hazard(s) that action addresses	Action description and web link to further information ^{^^}
Select from: Adaptation Action 1 – Adaptation Action 30	Select from drop-down options below	Select all that apply: Drop-down options will be populated with selections from 1.2 column 1 • Heat stress • Extreme heat • Extreme cold • Snow and ice • Drought • Water stress • Increased water demand • Fire weather (risk of wildfires) • Urban flooding	Text field

1	2	3	4
Select a reference ID for the action	Action [^]	Climate hazard(s) that action addresses	Action description and web link to further information ^{^^}
		• River flooding • Coastal flooding (incl. sea level rise) • Other coastal events • Oceanic events • Hurricanes, cyclones, and/or typhoons • Extreme wind • Storm • Heavy precipitation • Mass movement • Biodiversity loss • Loss of green space/green cover • Soil degradation/erosion • Other forms of climate-induced landscape shift/degradation • Infectious disease • Other, please specify • Action does not address hazard	

5	6	7	8
Sectors adaptation action applies to	Select the attributes of resilience this action enhances	Co-benefits realized	Timeframe for which increased resilience is expected to last
Select all that apply: • Agriculture • Forestry • Fishing • Mining and quarrying • Manufacturing • Electricity, gas, steam and air conditioning supply • Water supply • Sewerage, wastewater management and remediation activities • Waste management • Administrative and support service activities • Public administration and defence; compulsory social security • Conservation • Construction • Wholesale and retail trade; repair of motor vehicles and motorcycles • Transportation and storage	Select all that apply: • Anticipation & preparedness • Planning & strategy • Informal learning • Formal learning • Self-determination • Leadership • Decision-making capacity • Community participation • Social connections • Coordination & governance • Availability of diverse options • Backup resources and strategies • Distributive equity • Inclusive access to goods and services • Finance & resource management • Infrastructural assets • Natural resources • Technology assets • Basic services	Select all that apply: Economic • Job creation • Revenue generation • Reduced costs • Increased energy security • Business/technological innovation • Increased labor productivity • Improved labor conditions • Increased economic production • Reduced natural resource depletion • Reduced congestion • Reduced disruption of energy, transport, water or communications networks Social • Increased water security • Increased food security • Improved mobility and access • Improved road safety • Increased access to energy	Select from: • Short-term (by 2025) • Medium-term (2026-2050) • Long-term (after 2050) • Not known (not possible to define) • Do not know

5	6	7	8
Sectors adaptation action applies to	Select the attributes of resilience this action enhances	Co-benefits realized	Timeframe for which increased resilience is expected to last
• Accommodation and food service activities • Information and communication • Financial and insurance activities • Real estate activities • Professional, scientific and technical activities • Education • Human health and social work activities • Arts, entertainment and recreation • Other, please specify		• Reduced fuel/energy poverty • Increased security/protection for poor/vulnerable populations • Increased social inclusion, equality and justice • Increased transparency and accountability • Improved education and public awareness on climate issues • Fewer or no households and businesses forced from homes/places of work • Undertaken in collaboration with Indigenous peoples Public Health • Improved physical health • Improved mental wellbeing/quality of life • Improved air quality • Improved preparedness for health service delivery • Reduced health impacts from extreme heat or cold weather	

5	6	7	8
Sectors adaptation action applies to	Select the attributes of resilience this action enhances	Co-benefits realized	Timeframe for which increased resilience is expected to last
		• Reduced disaster/disease/contamination-related health impacts • Reduced premature deaths • Reduced health costs Environmental • Reduced GHG emissions • Improved water/soil quality • Improved waste management • Reduced noise/light pollution • Increased/improved green space • Protected/improved biodiversity and ecosystem services Other impacts measured • Other impacts from climate actions, please specify Do not know	

9	10	11	12
Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Funding source(s)	Status of action in the reporting year
Select from: • ≤ 10% • 11-20% • 21-30% • 31-40% • 41-50% • 51-60% • 61-70% • 71-80% • 81-90% • 91-100% • I do not have this data	Select from: • ≤ 10% • 11-20% • 21-30% • 31-40% • 41-50% • 51-60% • 61-70% • 71-80% • 81-90% • 91-100% • I do not have this data	Select all that apply: • Jurisdiction's own resources • Regional funds and programmes • National funds and programmes • International (including ODA) • Climate finance (carbon credits) • Public-private partnerships • Private partnerships (e.g., a combination of private investments) • Other, please specify source(s)	Select from: Pre-implementation • Scoping • Pre-feasibility study • Feasibility finalized, but currently no finance secured • Feasibility finalized, and finance partially secured • Feasibility finalized, and finance fully secured Implementation • Implementation complete in the reporting year • Implementation underway with completion expected in less than one year

9	10	11	12
Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Funding source(s)	Status of action in the reporting year
			• Implementation underway with completion expected in more than one year Post-implementation/Operation • Action in operation (jurisdiction-wide) • Action in operation (across most of jurisdiction) • Action in operation (targeted to sector/location) Other, please specify

13	14	15	16
Inclusion in climate action plan and/or jurisdiction development/master plan^	Total cost of action (in currency specified in 1.2)	Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^	Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^
Select from: - Action is included in climate action plan and/or development/master plan - Action is not included in climate action plan and/or development/master plan - No climate action plan and/or development/master plan has been developed - Other, please specify	Numeric field	Select from: - Yes - No - Do not know	Select all that apply: - Energy consumption from renewable energy sources (<i>increase / decrease</i>) - Source mix of thermal energy (heating and cooling) consumed within local boundary (<i>increase / decrease</i>) - Installed capacity of renewable energy sources within local boundary (<i>increase / decrease</i>) - Total energy generated from renewable energy sources within local boundary (<i>increase / decrease</i>) - Percentage of households within the municipality with access to clean cooking fuels and technologies (<i>increase / decrease</i>) - Percentage of households or population within the city boundary that spending up to X% of income on energy service (<i>increase / decrease</i>) - Percentage of municipality population or households with access to electricity (<i>increase / decrease</i>) - Average duration of available electricity (<i>increase / decrease</i>) - Average yearly energy consumption per capita (<i>increase / decrease</i>) - Action not related to energy access and/or poverty indicator(s)

[Add row]

Action drop-down options:

Engineered and built environment actions • Sea walls and coastal protection structures • Flood defence, such as flood levees and culverts • Water storage and pump storage • Sewage works • Improved drainage • Beach nourishment • Flood and cyclone shelters • Building codes • Storm and wastewater management • Transport and road infrastructure adaptation • Floating houses • Increase resilience of and/or diversify power/energy supply • Smart metering in households • Municipal water efficiency retrofits • Upgrading existing water supply infrastructure • Diversifying water supply (including new sources) • White roofs • Shading in public spaces • Cooling centres, pools, water parks/plazas • Cool pavement • Resilience and resistance measures for buildings • Hazard resistant infrastructure design and construction • Permeable pavements • Other, please specify Technological actions • New crop and animal varieties • Genetic techniques	Behavioural actions • Accommodation • Managed retreat/planned relocation • Soil and water conservation • Livelihood diversification • Changing livestock and aquaculture practices • Changing cropping practices, patterns, and planting dates (including crop-switching) • Citizen dietary shift • Use of non-potable water • Silvicultural options • Other, please specify Economic actions • Financial incentives (including taxes and subsidies) • Insurance (including index-based weather insurance schemes) • Catastrophe bonds • Revolving funds • Payments for ecosystem services • Water tariffs • Savings groups • Microfinance • Disaster contingency funds • Cash transfers • Economic diversification measures • Financial support to expand local food production (including urban agriculture programs, community gardens, etc.) • Financial support to improve market access for local food producers • Other, please specify
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• Traditional technologies and methods • Water saving technologies (including rainwater harvesting) • Water recycling/reclamation • Conservation agriculture • Cold food storage, preservation and/or distribution facilities • Building Insulation • Mechanical and passive cooling • Renewable energy technologies • Second-generation biofuels • Other, please specify Ecosystem-based actions • Ecological restoration (including wetland and floodplain conservation and restoration) • Increasing biological diversity • Biodiversity monitoring • Afforestation and reforestation • Conservation and replanting mangrove forest • Bushfire reduction and prescribed fire • Green infrastructure • Controlling overfishing • Fisheries co-management • Assisted migration or managed translocation • Ecological corridors • Ex situ conservation and seed banks • Community-based natural resource management • Adaptive land-use management • Watershed preservation • Soil retention strategies • Other, please specify	Laws and regulations actions • Land zoning laws to prevent urban sprawl and promote more efficient use of land • Land zoning laws (including restrict development in at risk areas) • Land zoning laws to increase local food access (including grocery stores, farmers markets, community gardens, etc.) • Preservation of local and regional agricultural space • Building standards • Easements • Water use restrictions • Water efficiency regulations or standards • Enforcement of abstraction licenses • Law to support disaster risk reduction • Laws to encourage insurance purchasing • Protected areas • Fishing quotas • Patent pools and technology transfer • Other, please specify Government policies and programs actions • Development of targeted plan/program to address hazard(s) selected • Disaster planning and preparedness • Adaptive management • Ecosystem-based management • Sustainable forest management • Fisheries management • Community-based adaptation • Disease prevention measures • Air quality initiatives
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Services actions • Ensure all waste generated is collected • Ensure residual waste is disposed of adequately in an engineered sanitary landfill • Social safety nets and social protection • Food donation and redistribution of food surplus • Municipal services to reduce food waste (including composting) • Municipal services (including water and sanitation) • Ensure access to resilient secure, sustainable and safely managed sanitation services • Vaccination programs • Essential public health services • International trade • Other, please specify Educational/Informational actions • Public preparedness (including exercises/drills) • Community engagement/education • Community engagement/awareness campaigns on the climate and health benefits of sustainable healthy diets • Engagement with retailers (including restaurants) to expand and encourage sustainable, healthy food choices • Early warning and response systems • Systematic monitoring and remote sensing • Undertaken source-related studies to understand sources of air pollution • Measuring days with extreme air pollution due to climate events • Measuring indoor air quality • Flood mapping • Heat mapping and thermal imaging	• Public health policies to improve nutrition (including improved access to healthy foods) • Public policies to encourage citizen dietary shift to sustainable, healthy diets (including incentivizing purchase of low-carbon foods, plant-based or alternative proteins) • Municipal/jurisdictional food procurement policies that align with guidelines for sustainable, healthy diets (including school procurement, etc.) • Municipal/jurisdictional food procurement policies that support sustainable food production practices (including school procurement, etc.) • Other, please specify No adaptation action in place • We are currently undertaking one and it will be complete in the next year • We are intending to undertake one in the next two years • We are not intending to undertake, specify why • Other, please specify Other, please specify • Other, please specify
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• Landslide risk mapping • Sea level rise modelling • Real time risk monitoring • Other, please specify	
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Requested Content

General

- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Select a reference ID for the action (column 1)

- Select a unique identifier from the drop-down menu provided to enable identification of the action in question 9.3 (if required) and to track the status of the action in subsequent reporting years. Please select from Adaptation Action 1 – Adaptation Action 30 and use the same identifier in subsequent years for the same action. For any new actions you are adding, always use a new identifier that you have not used previously.

Action (column 2)

- Report the most significant adaptation actions your jurisdiction is currently undertaking. It is recommended, where possible, that you report actions that address the climate hazards reported in question 2.2.
- If the action types presented are not applicable then select 'Other, please specify' and provide the action type in the text box that is presented.
- If your jurisdiction is not taking any action, select the option 'No adaptation action in place' and in the follow-on field select the option that best reflects your jurisdiction's intention to undertake an action.
- Note for Brazilian Cities: [SEEG](#) have developed a tool to support the identification and implementation of climate actions.

Climate hazard(s) that action addresses (column 3)

- The actions selected must correspond to the hazard being reported against. If the action does not directly relate to a hazard, please select 'action does not address hazard'.

Action description and web link to further information (column 4)

- Use this field to describe the action in as much detail as possible. Detail could include:
 - context about the project such as how your jurisdiction identified and prioritized the action;
 - whether your jurisdiction tested the actions through pilot/demonstration projects;
 - when the action's intended benefits will be realized;
 - whether the action specifically addresses coastal, inland, rural and/or urban residents;
 - details on who will be responsible for overseeing the implementation of the action, e.g. a specific department within the city, regional government, national government, private entity etc
- If applicable, if 'Action in operation' is selected in column 12, please provide information on progress tracking and/or ongoing monitoring & evaluation data if available. Tracking the adaptation action's progress is important especially when the timeframe is medium- to long-term. It can provide you with information on what is working, what is not and if alterations need to be made to succeed. ([IISD, 2019](#))

Sectors adaptation action applies to (column 5)

- Select the relevant sectors where the adaptation action is applicable. This may be the sectors where the goal is directly implemented or sectors where the action indirectly reduces the risk of climate hazards to that sector.

Select the attributes of resilience this action enhances (column 6)

- Resilience attributes are fundamental characteristics or qualities that enable a system to withstand, adapt, and recover from adverse or challenging circumstances.
- These attributes reflect the resilience 'sub-categories' in the [metrics framework developed by Race to Resilience](#). They serve as *predictive measures of resilience*, aiding in the design, supervision, and initial assessment of resilient action. Actions that positively impact these attributes are seen to improve the capacity to respond to and adapt to changes.
- The Additional Information section contains more information and examples.

- Each attribute can be defined as follows. Select, to the best of your knowledge, any of the attributes your action (or an element of your action) enhances.
 - Anticipation & preparedness: the competence to anticipate and prepare for changes and uncertainties;
 - Planning & strategy: the ability to develop strategies for short, medium, and long-term goals in the face of change and uncertainty;
 - Informal learning: learning from past experiences and failures, helping to avoid repeating mistakes and making more cautious decisions in the future;
 - Formal learning: focuses on the generation and processing of new information and knowledge about climate change adaptation and uncertainty management;
 - Self-determination: the ability to make independent decisions and take action in the face of challenges;
 - Leadership: the ability to influence, guide, and motivate others to achieve common goals in times of adversity;
 - Decision-making capacity: the ability to choose between different options in response to changes or challenges;
 - Community participation: mobilizing individuals and groups towards common goals, promoting cohesion and collaborative action in the face of challenges;
 - Social connections; the quality and depth of social relationships within a system or community, which is crucial for sharing information, resources, and mutual support in times of crisis;
 - Coordination & governance: the capacity to organize and align leaders, departments, or organizations, improving response to crises and strengthening solidarity and effective cooperation;
 - Availability of diverse options: having multiple adaptation strategies, providing a variety of approaches to deal with challenges and fostering innovation and creativity;
 - Backup resources and strategies: maintaining copies of key strategies to ensure the continuity of critical functions in the event of failures, which is crucial for survival and recovery from adversities;
 - Distributive equity: the ability to ensure a fair distribution of resources, avoiding favoritism and ensuring that the benefits and costs of adaptation and recovery strategies are shared equitably;
 - Inclusive access to goods and services: the capacity to include all stakeholders, especially marginalized ones, in decision-making processes, guaranteeing that all viewpoints are considered and the needs of all actors are represented;
 - Finance & resource management: financial resources are essential for implementing climate change adaptation measures;

- Infrastructural assets: Infrastructure serves as a platform that can withstand disasters, increasing the resilience of society;
- Natural resources: assets provided by the environment that can enhance the resilience of individuals and systems;
- Technology assets: technology that can facilitate adaptation to climate change and provide life support in the event of disasters;
- Basic services: Accessing basic services, such as health and food, is essential to support climate change adaptation and ensure community well-being.

Co-benefits realized (column 7)

- Actions taken to adapt to climate change can also provide additional areas of benefit for the jurisdiction. Please select which areas other than adaptation/resilience are improved as a result of the action.
- Evaluating the impacts of wider opportunities/benefits can help build a strong case for climate actions, create buy-in from decision-makers and help prioritize those actions that will deliver the most benefits ([The co-benefits of climate action: Accelerating City-Level Ambition](#)).
- The [Urban Climate Action Impacts Framework](#) suggests indicators that can be used to measure co-benefits.
- Tools that can enable your jurisdiction to quantify co-benefits include: [C40 Benefits toolkit](#) and [Siemens City Performance Tool](#).

Timeframe for which increased resilience is expected to last (column 8)

- Indicate the timescale at which the increased resilience is expected to last based on the following list of values:
 - Short-term – if you anticipate your jurisdiction will expect increased resilience to last till 2025.
 - Medium-term – if you anticipate your jurisdiction will expect increased resilience to last between 2026 and 2050
 - Long-term – if you anticipate your jurisdiction will expect increased resilience to last after 2051.

Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%) (column 9)

- This datapoint aligns with [Race to Resilience's Metric Framework](#).

- Based on your jurisdiction's total population as reported in column 6 of 1.2, select the most applicable percentage range that represents the proportion potentially exposed to increased resilience. It is acknowledged that this selection will, in many cases, be based upon an estimate.
- Where your jurisdiction does not have the data available to respond you can select the option 'Data is not available'.
- For example, if the adaptation action being disclosed is the building of critical infrastructure for emergency response, such as shelters and storage units in a flood-prone city, you may disclose the proportion of the jurisdiction population that resides in these exposed areas that could access this infrastructure.

Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%) (column 10)

- This datapoint aligns with Race to Resilience's Metric Framework.
- Based on your jurisdiction's total estimated area of natural or modified ecosystems as reported in column 5 of question 1.2, select the most applicable percentage range that represents the proportion potentially exposed to increased resilience. It is acknowledged that this selection will, in many cases, be based upon an estimate.
- Where your jurisdiction does not have the data available to respond you can select the option 'Data is not available'.
- For example, if the adaptation action being disclosed is the restoration of wetland/floodplain zones in a flood-prone city, you may disclose the proportion of the zones delineated within local city zoning plans.

Funding source(s) (column 11)

- Please select the relevant funding sources providing financial support for the action.

Status of action in the reporting year (column 12)

- It is expected that a diverse set of adaptation action will be reported, and that the definition of the status will be dependent upon type of adaptation action (for example the status of the implementation of flood defences and cool pavement may vary considerably). Recognizing this variation cities are requested to select the status option that most closely relates to the context of the adaptation action being reported. If the presented options are not applicable then select 'Other, please specify' and provide the status in the text box that is presented.

- Pre-implementation: The pre-implementation phase refers to actions which have yet to be implemented or yet to be in operation but are undergoing a scoping or pre-feasibility study or in the process of securing funding.
- Implementation: The implementation phase refers to actions which are yet to be in operation and delivering adaptation impacts but have started to be executed/implemented.
- Post-implementation/Operation: The post-implementation/operation phase refers to actions which are in operation and delivering adaptation impacts.

Inclusion in climate action plan and/or jurisdiction development/master plan (column 13)

- Select the option 'Action is included in climate action plan (or analogous document)' if the action is included in your jurisdiction's climate action or master/development plan. This includes climate action plans (which may address mitigation, adaptation/resilience, and/or energy) or master/development plans that are published or currently in development but where it is known the action will be included.

Total cost of action (in currency specified in 1.2) (column 14)

- Total action cost is defined as all costs specific to the action incurred prior to operation. Please provide the total expected cost of the action, in numbers with no delimiters. For example \$600,000 should be written as 600000. Please ensure you are reporting using the currency selected in 1.2.

Does this action contribute to your jurisdiction's energy access and/or poverty objectives? (column 15)

- This column is only presented to cities reporting to GCoM.
- Select whether or not the action reported contributes to your jurisdiction's energy access and/or poverty objectives.

Select the related energy access and/or poverty indicator(s) for this action and indicate how they are impacted by the action (i.e. value increases/decreased) (column 16)

- This column is only presented to cities reporting to GCoM.
- This is a mandatory column to be compliant with the GCoM 'Energy Access and Poverty Pillar'. For each action, select which of the energy access and/or poverty indicators, reported on in questions 4.1 to 4.4, is impacted by the action and how the action

impacts the indicator (i.e. increases or decreases the value of the indicator). For example, if you have reported on the following indicator in question 4.4 “Percentage of municipality population or households with access to electricity”, does the action you are reporting in this question help increase or decrease the percentage of households with access to electricity?

- If you have reported on ‘Source mix of thermal energy (heating and cooling) consumed within local boundary’ in question 4.1.2, use the ‘other’ text box to briefly provide more information on how the action you are reporting impacts this indicator. For example, if the action has increased the amount of thermal energy consumed that comes from solar thermal, you would select ‘Source mix of thermal energy (heating and cooling) consumed within local boundary (increases)’ and provide extra detail about the change in the energy mix under ‘please specify’.

Explanation of Terms

- Adaptation action: the result of the climate risk and vulnerability assessment, adaptation goals, and the strategic climate action plan. They are the interventions taken to achieve a given strategy, and include policies, projects, programmes, partnerships and other activities ([C40](#)).
- Nature-based Solutions: Nature-based solutions are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits ([UNEA-5](#)).
- Resilience: the capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation ([IPCC, 2018](#)).
- Sustainable, healthy diet: While the exact definition of what constitutes a sustainable, healthy diet is subjective and may vary by city, the general principles are at a diet that prioritizes low-carbon, sustainably sourced health-positive foods, usually largely plant-based and with a reduction in meat consumption. Several frameworks define diets in this vein:
 - [WRI’s Cool Food](#) initiative emphasize low-carbon footprint meals that meet nutritional safeguards
 - [EAT](#), a partner of the Cool Food initiative, utilizes the “Planetary Healthy diet,” a flexible set of guidelines for food groups that constitute an optimal diet for human health and environmental sustainability. It emphasizes a plant-forward diet where whole grains, fruits, vegetables, nuts and legumes comprise a greater proportion of foods consumed. Meat and

dairy constitute important parts of the diet but in significantly smaller proportions than whole grains, fruits, vegetables, nuts and legumes.

- The Milan Urban Food Pact defines a sustainable diet as one that is “healthy, safe, culturally appropriate, environmentally friendly, and rights-based.”
- Sustainable food production practices: the list below are some examples and is not exhaustive:
 - Regenerative agriculture: an inclusive agroecosystems approach for conserving land and soil, biodiversity, and improving ecosystem services within farming systems. It focuses on the regeneration of living soil, improved micro hydrology, and conserving biodiversity at all levels while enhancing inputs use efficiency and ecosystem system services (FAO 2021). Practices include cover crops, reducing tilling, crop rotation, composting, organic farming, and natural fertilizer use in place of chemicals and herbicides.
 - Nature-positive production: Food production systems that provide beneficial impacts to nature (e.g. pollinator support, reforestation, improved biodiversity, etc) and avoid typical impacts to the environment such as deforestation (UNEP).
 - Nature-based solutions may also be applied to sustainable food production.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

- Section 6.1 “Climate action plans” of the Common Reporting Framework indicates that local governments reporting to the Complete level shall report more than one key action per pillar (Mitigation and Adaptation), and at least one key action for the Energy Access & Poverty pillar. Under the Simplified reporting level, local governments shall report at least one key action per pillar (Mitigation, Adaptation and Energy Access & Poverty).

Energy-related Actions:

When setting a target, local governments shall demonstrate commitments to increase in energy access and/or reduction in energy poverty. Local governments shall declare these commitments in their plan(s).

Additionally, for all energy-related actions, local governments shall provide information on the related energy access and poverty indicators and how the implementation of the action impacts the value of the those indicators (e.g. increases/decreases).

Avoiding common mistakes

Simplified level^: Mandatory (also mandatory for Complete level)

Complete level^^: Mandatory (mandatory only for Complete level)

GCoM mandatory columns	Simplified level requirements	Complete level requirements	Avoiding common mistakes
Action^	Mandatory	Mandatory	Please specify the action type from the dropdown list
Action description and web link to further information^^	Optional	Mandatory	GCoM cities are required to report brief description of each action.
Inclusion in climate action plan and/or city development/master plan^	Mandatory	Mandatory	GCoM requires cities to report actions as part of the action plan. Your answer here will help us build connection to your report in question 8.1.1.
Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^	Mandatory	Mandatory	
Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^	Mandatory (for EAPP actions)	Mandatory (for EAPP actions)	

Regional variation:

To comply with the Simplified level of reporting, Covenant of Mayors Europe signatories shall, in addition to meeting other Simplified level requirements of the CRF, report:

- Status of action in the reporting year.

Additional Information

Resilience Attributes

This table provides a further description of the resilience attributes listed in column 6 ‘Select the attributes of resilience this action enhances’ (see [Race to Resilience Campaign’s Metrics Framework](#)). The examples listed have been put together using examples from adaptation actions reported to CDP in previous years, and the RtR framework and surrounding scientific literature. They could represent the whole of a reported action, or just an element of one.

As you may notice, one action (or an element of an action) can enhance many different attributes of resilience. The nature of resilience building is that one action may have multiple impacts and co-benefits which build up to improve the ability of a community overall to withstand, adapt, and recover from challenging circumstances and shocks.

Resilience Attribute sub-category (disclosed in column 6)	Race to Resilience Campaign category	Description of Resilience Attribute	Examples of adaptation actions that may enhance this attribute
Anticipation & preparedness	Preparedness and Planning	This skill focuses on the ability to anticipate and prepare for situations of change and uncertainty. It involves not only the implementation of responses, warning systems, and action protocols, but also the early identification of potential threats. It is the competence to recognize the hazard, interpret its imminent proximity, and know how to act appropriately and effectively in the face of it. This preparedness not	Development of early warning systems for flooding from storms and typhoons – including rain gauges, other monitoring networks, dissemination of warnings, and

		only mitigates the impact of threats, but can also provide opportunities for adaptation and growth in times of challenge.	evacuation plans that specifically address needs of vulnerable groups.
Planning & strategy	Preparedness and Planning	This skill emphasizes the ability to develop short, medium, and long-term strategies that manage change and uncertainty, promoting continuous adaptation to climate change. Planning is a critical process that facilitates the generation of a resilient vision for the future. This approach includes establishing long-term perspectives, taking into account both current and future trends, creating more adaptive and collaborative methods that encourage the participation and engagement of various stakeholders, as well as the clear definition of desirable conditions for conservation and sustainable use of natural resources. This forward planning process aids in anticipating and preparing effective responses to situations of change and challenge.	Development of a forward-looking flood risk management plan that addresses short- and long-term trends.
Informal learning	Learning	This resilience-building capacity refers to the ability to learn from past experiences and failures, avoiding repeating mistakes and encouraging greater caution in future decisions. Transformative or experiential learning is a process in which problematic frames of reference are reconfigured to make them more inclusive, open and reflective with the intention of changing the scenario and thus building resilience. Therefore, this type of learning becomes a vital tool for the growth and development of stronger and more enduring resilience.	A reflective learning period is integrated into the jurisdiction's annual planning process, to record and formalize any new experiential ('informal') knowledge gained from responding to heat events after a summer period.
Formal learning	Learning	This type of learning involves the generation, absorption and processing of new information and knowledge focused on climate change adaptation and uncertainty management. This process is characterized by its dynamism and constant evolution, which allows for the continuous incorporation and application of new information. Educational learning is not limited to the classroom, but also occurs through interaction with the community, participation in research projects and field work. Environmental education can be a strategy for educational learning, involving the development of analytical and critical skills to understand the complexity of climate change and its consequences.	The jurisdiction funds community education and empowerment programs that focus on promoting localized actions residents can take, such as rainwater harvesting, community gardening, and citizen science surveys.

Self-determination	Agency	Autonomy refers to the ability of an individual, system or community to independently make decisions and take actions in response to challenges or changes. This ability promotes more personalized and effective adaptation to specific circumstances, resulting in greater resilience. Under autonomy, entities have the authority and independence to assess their own situations, define their own goals, and make their own decisions. Autonomy not only promotes self-confidence and empowerment, but is also critical for successful adaptation and recovery in the face of adversity.	Promote development of local self-sufficient food production capacity. Empower neighborhood managers with authority on localized issues like water safety.
Leadership	Agency	Leadership in the context of resilience involves the ability to influence, guide and motivate others to achieve common goals in times of adversity. This skill requires not only the ability to make strategic decisions at critical moments, but also the skill to inspire trust, cohesion and action in others. Effective leadership can mobilize resources, foster collaboration, and lead recovery efforts in ways that overcome adversity and promote resilience. A leader's influence can have a profound impact on the ability of a community or system to withstand, adapt, and recover from hardship.	As part of disaster planning, provide resources for community leaders to use on disseminating information and support in the event of an evacuation order.
Decision-making capacity	Agency	Decision making refers to the ability to choose among different options in response to changes or challenges. This skill involves evaluating possible actions and their consequences, as well as choosing and executing a course of action. Effective decision making is critical to a timely and effective response to challenges, and can make the difference between failure and overcoming adversity. Sound judgment, the ability to make decisions under pressure, and the ability to learn from mistakes are key aspects of this subcategory of agency. These skills promote successful adaptation and recovery from adversity, which increases resilience.	Investment in mapping tools to create a more accurate evidence-base that decision-makers can use to prioritize risks and actions more effectively.
Community participation	Social Collaboration	Collective participation is a vital aspect of resilience, enabling the mobilization of individuals and groups towards common goals. In the context of resilience, it fosters social cohesion and drives collaborative action, particularly in response to challenges like climate change. By promoting collective participation, communities strengthen their bonds,	Decentralized composting sites into communities with community participation in home and local green space composting initiatives, to

		foster shared ownership and solidarity, and empower individuals to work together for the greater good. This collaborative approach allows communities to tap into shared resources, knowledge, and skills, enhancing their ability to anticipate, respond to, and recover from shocks and stresses. Additionally, collective participation nurtures a sense of place attachment, deepening individuals' connection to the territory they inhabit and participate in, further reinforcing community resilience.	promote awareness and a sense of responsibility for waste.
Social connections	Social Collaboration	This refers to the quality, depth, and strength of social relationships within a system or community. Connectivity is about the existence of strong, reliable communication channels, as well as the ability to utilize these relationships to boost resilience. This includes sharing information, resources, and providing mutual support, particularly in times of crisis. Enhanced connectivity creates a responsive, well-informed network that can rapidly disseminate vital information and resources, facilitate mutual support, and collectively implement strategies to deal with crisis situations.	Cycling collectives within the jurisdiction can join an app which helps link experienced cyclists with new cyclists, and allows groups to share information about volunteering/courier opportunities.
Coordination & governance	Social Collaboration	This refers to the ability to organize and align various elements, be they leaders, departments, or organizations, towards achieving shared goals. Effective coordination enhances the efficiency of crisis response, promotes the spirit of unity, fosters effective cooperation, and thereby fortifies resilience. It involves creating shared understanding, developing joint strategies, aligning efforts, and managing resources, which together contribute to a more effective, efficient, and responsive system. Proper coordination can lead to more effective decision-making processes, faster implementation of strategies, and more efficient use of resources, thereby strengthening the overall resilience of a community or system.	A biodiversity monitoring program across the jurisdictional landscape brings together multiple datasets from different organizations, and coordinates monitoring across different regional departments, NGOs, citizen science initiatives, and academics.
Availability of diverse options	Flexibility	Diversity refers to the ability to maintain multiple adaptive strategies, which ensures an effective response to a variety of climatic situations or adversities. This sub-attribute promotes resilience by providing a variety of tools and approaches to deal with challenges. By having a diverse range of strategies, an individual, community, or system is	The jurisdictional flood risk management plan takes a 'sponge city' approach, employing a range of strategies to manage seasonal flooding

		more likely to find an appropriate response to any challenge that may arise. In addition, diversity can foster innovation and creativity, which can be beneficial in adapting to new circumstances.	e.g. increasing green roof area; restoration of riverbanks and floodplains; building drainage channels and pumping stations; building sunken/wetland areas in parks; replacing old/vulnerable parts of the sewage network; and installation of permeable paving.
Backup resources and strategies	Flexibility	Redundancy involves maintaining copies of key strategies to ensure continuity of critical functions, even in cases of failures or outages. Redundancy is a form of insurance: if one strategy or resource fails, others are available to take its place. In the context of resilience, redundancy can be vital to maintain functionality in times of crisis. It provides headroom that can be invaluable when faced with unexpected events or rapid change. Although redundancy may seem inefficient in times of normalcy, it can be crucial for survival and recovery during and after adversity.	Installation of multiple back-up power generators at water treatment plants to ensure continuation of critical water supply during storm conditions.
Distributive equity	Equity	Equity refers to the ability to ensure fair and equitable distribution and access to resources, while recognizing and respecting the rights of all stakeholders. It is a capacity that requires fair and equitable treatment of all actors, avoiding favoritism. In the context of resilience, it is critical to ensure that the benefits and costs of adaptation and recovery strategies are shared fairly and that no one is excluded or left behind. In this sense, equity highlights the need to address these issues when promoting resilience by supporting the development of systems that respond to change in a socially just manner.	Local groups and historically marginalized communities are actively engaged to participate in local green space development planning, to ensure the benefits of the development serves the needs of the local community.
Inclusive access to goods and services	Equity	Emphasizes the capacity to incorporate and integrate all affected actors and discourses into decision-making processes, with special emphasis on the diversity of actors and social identities, including historically marginalized groups. This capacity ensures that all points of view are considered and valued and that decisions are made in a	Conduct a food system vulnerability assessment to identify neighbourhoods and groups vulnerable to food insecurity in extreme weather

		democratic and consensual manner. Inclusiveness is crucial to ensure that decisions made are representative of the needs and aspirations of all stakeholders, and to foster cooperation, cohesion, and trust, elements that in turn strengthen resilience.	events, and develop a plan for improving access.
Finance & resource management	Assets	Finance refers to the capacity to access, manage and effectively use financial resources. This aspect is essential in resilience building, as financial funds enable the implementation of climate change adaptation measures and strategies. The robustness of internal funding, i.e., funds generated and managed within the community or system, is often more significant than external funding sources. This suggests that strengthening skills and strategies to improve internal funding may result in more effective management of financial resources. This optimization in the management of finances enhances resilience to disasters and increases long-term resilience in a more efficient and sustainable manner.	The jurisdiction works with an organization that provides community development capital to create a funding source for local renewable energy projects.
Infrastructural assets	Assets	Infrastructure encompasses the physical and systematic facilities that are essential to the functioning and well-being of a community or society. Ensuring the resilience of infrastructure is critical, as these facilities act as platforms that can absorb and withstand catastrophes, thereby increasing the resilience of society. In addition, a well-maintained infrastructure adapted to climate change can provide vital services during disruptions, minimizing negative impacts on the community.	Adoption of sustainable and heat-resilient building practices, for example efficient natural ventilation systems, heat resistant coatings, and reflective materials for roofs and façades.
Natural resources	Assets	The effective management and use of natural resources is fundamental to the life and well-being of communities and ecosystems. These resources, also known as nature's services, are assets provided by the environment that can increase the resilience of people and systems. Sustainable management of natural resources ensures their long-term availability and enables adaptation and recovery in the face of climate shocks.	Investment into mangrove and seagrass restoration to improve coastal resilience to sea level rise and storm surges.

Technology assets	Assets	Access to and use of appropriate technologies can significantly facilitate adaptation to climate change. Technologies can improve the efficiency and effectiveness of processes and, at the same time, act as a backup in case of catastrophes. From the development of information and communication technologies to the implementation of renewable energy technologies, these tools can contribute to building more resilient and sustainable systems.	Installation of solar-powered water pumping stations, to replace those run by fossil fuels.
Basic services	Assets	Access to a wide range of services is a crucial component of supporting climate change adaptation. These services can include health, education, infrastructure services, and others. A resilient system ensures that these services remain accessible and functional during shocks, ensuring the well-being of the community and maintaining its ability to recover and adapt to the challenges of climate change.	Surveillance of standing water sites, with biological and chemical controls employed where necessary to control mosquito breeding and manage spread of infectious disease.

Resources

Name	Description	Institution
<u>Adaptation Options</u>	List of adaptation actions, their effects, co-benefits, costs, and case studies.	CLARITY, European Commission
<u>Co-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA)</u>	Estimates the health and economic benefits of air quality policies.	US EPA
<u>Co-Benefits Calculator for Transport</u>	Estimates co-benefits of transportation projects in Asia. Includes travel-time savings, injury prevention, and economic savings.	Institute for Global Environmental Strategies

<u>Climate Policy Database</u>	Filterable database of existing climate policies for a variety of sectors and policy types.	New Climate Institute
<u>Adaptation and Mitigation Integration Assessment Tool (AMIA)</u>	Helps users identify mitigation-relevant actions that also have climate-adaptation benefits.	C40 Cities
<u>Urban Adaptation Support Tool</u>	The aim of the Urban Adaptation Support Tool (UAST) is to assist cities, towns and other local authorities in developing, implementing and monitoring climate change adaptation plans.	EU Covenant of Mayors
<u>Climate Risk and Adaptation Framework and Taxonomy (CRAFT)</u>	CRAFT is a standardized reporting framework that enables cities to perform robust and consistent reporting of local climate hazards and impacts, risk and vulnerability assessment, and adaptation planning and implementation.	C40 Cities

Example Response

For explanatory purposes, sample answers to this question are included below.

Example Response 1

Select a reference ID for the action	Action^	Climate hazard(s) that action addresses	Action description and web link to further information^^	Sectors adaptation action applies to	Select the attributes of resilience this action enhances
Adaptation action 1	Technological actions > Water recycling/reclamation	Water stress Increased water demand	We are treating our wastewater through an advanced purification process to produce drinking-quality water. Our recycled water is used for irrigation, construction use and drinking water.	Agriculture Water supply Sewerage, wastewater management and remediation activities Construction	Backup Resources and Strategies Basic services

Co-benefits realized	Timeframe for which increased resilience is expected to last	Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Funding source(s)
Reduced costs Reduced natural resource depletion Reduced disruption of energy, transport, water or communications networks Increased water security	Medium-term (2026-2050)	21–30%	≤10%	Jurisdiction's own resources Public-private partnerships

Status of action in the reporting year	Inclusion in climate action plan and/or jurisdiction development/master plan^	Total cost of action (in currency specified in 1.2)
Action in operation (jurisdiction-wide)	Action is included in climate action plan and/or development/master plan	100000

Example Response 2

Select a reference ID for the action	Action	Climate hazard(s) that action addresses	Action description and web link to further information^^	Sectors adaptation action applies to^	Select the attributes of resilience this action enhances
Adaptation action 2	Ecosystem-based actions > Afforestation and reforestation	Heat stress Extreme heat Water stress River flooding Loss of green space/green cover Soil degradation/erosion Air pollution Biodiversity loss	In our climate risk and vulnerability assessment, loss of green space, poor air quality and extreme heat were identified as some of the most severe hazards facing our city. After conducting cost-benefit and co-benefit analysis of various actions, afforestation and reforestation was identified as a priority action for our city. In addition, this action has been successfully carried out by neighbouring cities within the region, therefore, we were able to take away key learnings from their experience. We will be measuring the impact of this action by measuring air quality, monitoring species diversity and heat map analysis.	Forestry Water supply Conservation Arts, entertainment and recreation	Natural Resources

Co-benefits realized	Timeframe for which increased resilience is expected to last	Proportion of the total jurisdiction population within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Proportion of natural or modified terrestrial, freshwater, coastal and/or marine ecosystems within the jurisdiction boundary (specified in 1.2) with increased resilience due to adaptation action (%)	Funding source(s)
Reduced natural resource depletion Improved mental wellbeing/quality of life Improved air quality Reduced health impacts from extreme heat or cold weather Reduced GHG emissions Improved water/soil quality Increased/improved green space Protected/improved biodiversity and ecosystem services	Long-term (after 2050)	81-90%	61-70%	Regional funds and programmes

Status of action in the reporting year	Inclusion in climate action plan and/or jurisdiction development/master plan^	Total cost of action (in currency specified in 1.2)
Implementation underway with completion expected in more than one year	Action is included in climate action plan and/or development/master plan	100000

(9.2) Describe the outcomes of the most significant mitigation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phases.

Change From Last Year

No change

Questionnaire

- Cities
 - Pathway 1: Column 1 - 11
 - Pathway 2 and 3: Column 1 – 14
 - Column 15 and 16 shown only to GCoM cities
- States and Regions

Connection to other frameworks

- [Cities only] GCoM: Mitigation Pillar and Energy Access and Energy Poverty Pillar
- TCFD: Metric and Targets (Disclosure A)
- Race to Zero
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- 100% Renewable Energy Campaign
- Ecomobility Alliance
- Transformative Actions Program
- Sustainable Development Goals: SDG11, SDG13

Response Options

[*column/row appearance is dependent on selections in this question]

1	2	3	4	5
Select a reference ID for the action	Primary emissions sector addressed and action type^	Action description and web link to further information^^	Start year of action	Year for which mitigation is expected to last
Select from: Mitigation Action 1 – Mitigation Action 30	Select from drop-down options below	Text field	Numeric field	Select from: • Drop-down list of years (2025-2050, 2051 or later) • End year not known/not applicable

6	7	8	9
Impact indicators measured ^^	Estimated reduction in annual inventory emissions (metric tonnes CO2e) ***	Estimated annual energy savings (MWh)***	Estimated annual renewable energy generation (MWh) ***
Select all that apply: • Estimated reduction in annual inventory emissions due to action • Estimated annual energy savings due to action • Estimated annual renewable energy generated due to action • None of the above impacts associated with this action have been measured Other impact indicator(s), please specify	Numeric field	Numeric field	Numeric field

10	11
Co-benefits realized	Funding source(s)
Select all that apply: Economic • Job creation • Revenue generation	Select all that apply: • Jurisdiction's own resources • Regional funds and programmes • National funds and programmes • International (including ODA)

10	11
Co-benefits realized	Funding source(s)
• Reduced costs • Increased energy security • Business/technological innovation • Increased labor productivity • Improved labor conditions • Increased economic production • Reduced natural resource depletion • Reduced congestion • Reduced disruption of energy, transport, water and communications networks Social • Increased water security • Increased food security • Improved mobility and access • Improved road safety • Increased access to energy • Reduced fuel/energy poverty • Increased security/protection for poor/vulnerable populations • Increased social inclusion, equality and justice • Increased transparency and accountability • Improved education and public awareness • Enhanced climate change adaptation • Enhanced resilience to shocks and disasters • Undertaken in collaboration with Indigenous peoples Public Health	• Climate finance (carbon credits) • Public-private partnerships • Private partnerships (e.g., a combination of private investments) • Other, please specify source(s)

10	11
Co-benefits realized	Funding source(s)
• Improved physical health • Improved mental wellbeing/quality of life • Improved air quality • Improved preparedness for health service delivery • Reduced health impacts from extreme heat or cold weather • Reduced disaster/disease/contamination-related health impacts • Reduced premature deaths • Reduced health costs Environmental • Improved water/soil quality • Improved waste management • Reduced noise/light pollution • Increased/improved green space • Protected/improved biodiversity and ecosystem services Other impacts measured • Other impacts from climate actions, please specify • Do not know	

12	13	14	15	16
Status of action in the reporting year	Inclusion in climate action plan and/or jurisdiction development/master plan [^]	Total cost of action (in currency specified in 1.2)	Does this action contribute to your jurisdiction's energy access and/or poverty objectives? [^]	Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased) [^]
Select from: Pre-implementation • Scoping • Pre-feasibility study • Feasibility finalized, but currently no finance secured • Feasibility finalized, and finance partially secured • Feasibility finalized, and finance fully secured Implementation • Implementation complete in the reporting year • Implementation underway with completion expected in less than one year	Select from: • Action is included in climate action plan and/or development/master plan • Action is not included in climate action plan and/or development/master plan • No climate action plan and/or development/master plan has been developed • Other, please specify	Numeric field	Select from: • Yes • No • Do not know	Select all that apply: • Energy consumption from renewable energy sources (<i>increase / decrease</i>) • Source mix of thermal energy (heating and cooling) consumed within local boundary (<i>increase / decrease</i>) • Installed capacity of renewable energy sources within local boundary (<i>increase / decrease</i>) • Total energy generated from renewable energy sources within local boundary (<i>increase / decrease</i>) • Percentage of households within the municipality with access to clean cooking fuels and technologies (<i>increase / decrease</i>) • Percentage of households or population within the city boundary that spending up

12	13	14	15	16
Status of action in the reporting year	Inclusion in climate action plan and/or jurisdiction development/master plan^	Total cost of action (in currency specified in 1.2)	Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^	Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^
- Implementation underway with completion expected in more than one year Post-implementation/Operation - Action in operation (jurisdiction-wide) - Action in operation (across most of jurisdiction) - Action in operation (targeted to sector/location) - Other, please specify				to X% of income on energy service (<i>increase / decrease</i>) - Percentage of municipality population or households with access to electricity (<i>increase / decrease</i>) - Average duration of available electricity (<i>increase / decrease</i>) - Average yearly energy consumption per capita (<i>increase / decrease</i>) - Action not related to energy access and/or poverty indicator(s)

[Add row]

Primary emissions sector addressed and action type drop-down options:

Stationary energy	Waste
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• Building codes and standards • Building performance rating and reporting • Energy efficiency/ retrofit measures addressing existing commercial, residential and/or municipal buildings • Requirements which incentivize net zero carbon, Passivhaus or other ultra-high-efficiency standards for new buildings • Requirements which incentivize net zero carbon, Passivhaus or other ultra-high-efficiency standards for existing buildings • Action to advance net zero carbon municipal buildings • On-site renewable energy generation • Switching to consumption of low-carbon fuels • Electrical appliance performance ratings • LED / CFL / other luminaire technologies • Smart meters • Smart lighting • Domestic and/or commercial heat network • Increase use of clean energy sources for heating and cooling buildings • Domestic and/or commercial scale battery storage • Demand-side management billing (inc. time-of-use tariffs/billing) • Purchase of low-carbon electricity, heat, steam or cooling (i.e., power purchase agreement, supply agreement, renewable energy credit or other sourcing method) • Wastewater to energy initiatives • Other, please specify Transportation • Improve fuel economy and reduce CO2 emissions from bus and/or light rail • Improve fuel economy and reduce CO2 emissions from ferries	• Bans or restrictions on single use or non-recyclable materials • Criteria to design for durability, reparability and recycling in public procurement • Increase awareness/engage public on waste reduction/recycling measures • Implement practices and policies to promote circular economy • Improve the efficiency of waste collection • Landfill management • Reduce organics disposal to landfill and incinerators • Adopt source separation policies (e.g., collection for dry recyclables, organic compostable waste, etc.) • Ensuring residual waste is disposed of adequately (in at least an engineered sanitary landfill) • Sanitary landfill with leachate capture and landfill gas management system • Install advanced thermal treatment/waste to energy • Install landfill gas management/landfill gas to energy • Install anaerobic digestion • Install municipal recycling points or centres (for residents or businesses) • Install waste heat recovery • Volume based waste collection policy (e.g., fees or incentives) • Recycling or composting collections and/or facilities • Waste prevention/recycling policies and programs • Other, please specify • Water > Water metering and billing • Water > Water recycling and reclamation • Water > Water use efficiency projects • Construction > Procuring the use of zero emission construction machinery/low carbon materials
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• Improve fuel economy and reduce CO2 emissions from trucks • Development of low emission zones • Improve fuel economy and reduce CO2 emissions from aviation • Improve fuel economy and reduce CO2 emissions from motorized vehicles • Improve bus infrastructure, services, and operations • Improve rail, metro, and tram infrastructure, services and operations • Improve the efficiency of freight systems • Improve the operations of shipping ports • Improve the efficiency of long-haul transport • Procurement of zero emissions buses • Procurement of electric vehicles for government fleet • Advance micromobility transportation • Electric vehicle charging points and infrastructure • Public-use bicycles/Bike share schemes • Awareness and education for non-motorized transport • Smart public transport • Improve walking, cycling and integrated transit access • Transportation demand management • Transit oriented development • Measure that restricts internal combustion engines • Development of zero emission zones • Development of 15/30-minute neighborhoods (complete neighborhoods) • Other, please specify	• Construction > Advancing use of Life Cycle Assessments in planning policy and processes • Other, please specify No mitigation action in place • We are currently undertaking one and it will be complete in the next year • We are intending to undertake one in the next two years • We are not intending to undertake, specify why • Other, please specify Other, please specify • Other, please specify
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Requested Content

General

- This question requests information about the efforts you are undertaking to reduce community-wide emissions.
- This question seeks to understand the details about emissions reduction projects which your jurisdiction has, including the activities which they fall under, emissions reduction potential, timescale and other details.
- For example, a jurisdiction may have multiple actions within the wider activity of improving building energy efficiency/retrofit measures, which may involve different forms of public/private partnership, different sectors, scope, costs or timescale.
- Note for Cities Race to Zero: Cities partaking in Cities Race to Zero can report progress against climate actions that are aligned with their action commitment in this question.
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Select a reference ID for the action (column 1)

- Select a unique identifier from the drop-down menu provided to enable identification of the action in question 9.3 (if required) and to track the status of the action in subsequent reporting years. Please select from Mitigation Action 1 – Mitigation Action 30 and use the same identifier in subsequent years for the same action. For any new actions you are adding, always use a new identifier that you have not used previously.

Primary emissions sector addressed and action type (column 2)

- First, select the sector where the majority of emissions reductions are or will be realized.
- Secondly, select the most appropriate action type from the list presented. If the action types presented are not applicable then select 'Other, please specify' and provide the action type in the text box that is presented.
- If your jurisdiction is not taking any action, select the option 'No mitigation action in place' and in the follow-on field select the option that best reflects your jurisdiction's intention to undertake an action.

Action description and web link to further information (column 3)

- Use this field to describe the action in as much detail as possible. Detail could include:

- context about the project such as how your jurisdiction identified and prioritized the action;
- whether your jurisdiction tested the actions through pilot/demonstration projects;
- when the action's intended benefits will be realized;
- whether the action specifically addresses specific groups, e.g. coastal, inland, rural and/or urban residents;
- details on who will be responsible for overseeing the implementation of the action, e.g. a specific department within the city, regional government, national government, private entity etc.
- If available, please include a weblink which provides further information on the action.
- If applicable, if the action is implemented or in operation (you are able to provide details on this in column 12), please include any lessons learned.
- If applicable, if 'Action in operation' is selected in column 12, please provide information on progress tracking and/or ongoing monitoring & evaluation data if available. Tracking the mitigation action's progress is important especially when the year for which mitigation is expected to last lies further ahead (e.g. 2030 or 2050). It can provide you with information on what is working, what is not and if alterations need to be made to achieve the emissions reduction set out at the start (UN).
- If this action has received financing from an International Finance Institution, please provide information on the type of scheme and the specific projects/activities funded, if significantly different to the action being reported.

Start year of action / Year for which mitigation is expected to last (columns 4 and 5)

- In these fields you are requested to indicate the timescale for which the emissions mitigation, energy savings and/or renewable energy generation associated with the action will last. For example, if the action being reported is the installation of solar panels on government owned facilities, the start year is the year from which the solar system is functioning while the end year is the expected year by when the system will stop producing power.
- If the action is expected to last beyond the year 2050 then select the option '2051 or later'.
- If it is impossible to determine an end year or an end year is not applicable to the action being reported, then select 'End year not known/not applicable'.

Impact indicators measured (columns 6 – 9)

- Select in column 6 the indicators which are measured in relation to the action being reported. Your selection in this column will determine which of the following columns 7-9 are presented:
 - Selection of 'Estimated reduction in annual inventory emissions due to action' presents column 7;
 - Selection of 'Estimated annual energy savings due to action' presents column 8;
 - Selection of 'Estimated annual renewable energy generated due to action' presents column 9.
- If none of the options are applicable, then select the option 'None of the above impacts associated with this action have been measured'. In this instance you will not be presented with columns 7–9.
- If you measure another impact indicator then select the option 'Other impact indicator, please specify' and specify the indicator and its associated value in the text box that is presented.
- Emissions reductions (column 7) can be calculated as what the baseline emissions would be in a year without the action, minus the emissions in a year with the action (GHG emissions reduction = baseline emissions – project emissions). For further details on this calculation, and for examples for different sectors, see [this guide developed by the Partners for Climate Protection Program](#).
- Emissions should be reported in metric tons of CO₂e. Common conversion factors are included in the Technical Note "[Units of Measure Conversions](#)".

Co-benefits realized (column 10)

- Please select which areas other than reducing GHG emissions are improved as a result of the action.
- Evaluating the impacts of wider opportunities/benefits can help build a strong case for climate actions, create buy-in from decision-makers and help prioritize those actions that will deliver the most benefits ([The co-benefits of climate action: Accelerating City-Level Ambition](#)).
- The [Urban Climate Action Impacts Framework](#) suggests indicators that can be used to measure co-benefits.
- Tools that can enable your jurisdiction to quantify co-benefits include: [C40 Benefits toolkit](#) and [Siemens City Performance Tool](#).

Funding source(s) (column 11)

- Please select the relevant funding sources providing financial support for the action.

Status of action in the reporting year (column 12)

- It is expected that a diverse set of mitigation actions will be reported, and that the definition of the status will be dependent upon the type of mitigation action (for example the status of the implementation of building codes and standards and a community-owned renewable electricity installation may vary considerably).
- Recognizing this variation, jurisdictions are requested to select the status option that most closely relates to the context of the mitigation action being reported. If the presented options are not applicable then select 'Other, please specify' and provide the status in the text box that is presented.
 - Pre-implementation: The pre-implementation phase refers to actions which have yet to be implemented or yet to be in operation but are undergoing a scoping or pre-feasibility study or in the process of securing funding.
 - Implementation: The implementation phase refers to actions which are yet to be in operation and delivering mitigation impacts (i.e., emissions reductions or energy savings or renewable energy generation) but have started to be executed/implemented.
 - Post-implementation/Operation: The post-implementation/operation phase refers to actions which are in operation and delivering mitigation impacts (i.e., emissions reductions or energy savings or renewable energy generation).

Inclusion in climate action plan and/or jurisdiction development/master plan (column 13)

- Select the option 'Action is included in climate action plan and/or development/master plan' if the action is included in your jurisdiction's climate action or master/development plan. This includes climate action plans (which may address mitigation, adaptation/resilience, and/or energy) or master/development plans that are published or currently in development but where it is known the action will be included.

Total cost of action (in currency specified in 1.2) (column 14)

- Total action cost is defined as all costs specific to the action incurred prior to operation. Please provide the total expected cost of the action, in numbers with no delimiters. For example, \$600,000 should be written as 600000. Please ensure you are reporting using the currency selected in 1.2.

Does this action contribute to your jurisdiction's energy access and/or poverty objectives? (column 15)

- This column is only presented to cities reporting to GCoM.
- Select whether or not the action reported contributes to your jurisdiction's energy access and/or poverty objectives.

Please explain the related energy access and poverty indicator(s) and how the implementation of the action impacts the value of the those indicator (e.g. increases/decreases) (column 16)

- This column is only presented to cities reporting to GCoM.
- This is a mandatory column to be compliant with the GCoM 'Energy Access and Poverty Pillar'. For each action, select which of the energy access and/or poverty indicators, reported on in questions 4.1 to 4.4, is impacted by the action and how the action impacts the indicator (i.e. increases or decreases the value of the indicator). For example, if you have reported on the following indicator in question 4.1 "Energy consumption from renewable energy sources", does the action you are reporting in this question help increase or decrease the share of energy consumption from renewable sources?
- If you have reported on 'Source mix of thermal energy (heating and cooling) consumed within local boundary' in question 4.1.2, use the 'please specify' function to briefly provide more information on how the action you are reporting impacts this indicator. For example, if the action has increased the amount of thermal energy consumed that comes from solar thermal, you would select 'Source mix of thermal energy (heating and cooling) consumed within local boundary (increases)' and provide extra detail about the change in the energy mix under 'please specify'.

Explanation of Terms

- Nature-based Solutions: Nature-based solutions are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental

challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits ([UNEA-5](#)).

- Sustainable, healthy diet: While the exact definition of what constitutes a sustainable, healthy diet is subjective and may vary by city, the general principles are at a diet that prioritizes low-carbon, sustainably sourced health-positive foods, usually largely plant-based and with a reduction in meat consumption. Several frameworks define diets in this vein:
 - [WRI's Cool Food](#) initiative emphasize low-carbon footprint meals that meet nutritional safeguards
 - [EAT](#), a partner of the Cool Food initiative, utilizes the "Planetary Healthy diet," a flexible set of guidelines for food groups that constitute an optimal diet for human health and environmental sustainability. It emphasizes a plant-forward diet where whole grains, fruits, vegetables, nuts and legumes comprise a greater proportion of foods consumed. Meat and dairy constitute important parts of the diet but in significantly smaller proportions than whole grains, fruits, vegetables, nuts and legumes.
 - [The Milan Urban Food Pact](#) defines a sustainable diet as one that is "healthy, safe, culturally appropriate, environmentally friendly, and rights-based."
- Sustainable food production practices: the list below are some examples and is not exhaustive:
 - Regenerative agriculture: an inclusive agroecosystems approach for conserving land and soil, biodiversity, and improving ecosystem services within farming systems. It focuses on the regeneration of living soil, improved micro hydrology, and conserving biodiversity at all levels while enhancing inputs use efficiency and ecosystem system services ([FAO 2021](#)). Practices include cover crops, reducing tilling, crop rotation, composting, organic farming, and natural fertilizer use in place of chemicals and herbicides.
 - Nature-positive production: Food production systems that provide beneficial impacts to nature (e.g. pollinator support, reforestation, improved biodiversity, etc) and avoid typical impacts to the environment such as deforestation ([UNEP](#)).
 - Nature-based solutions may also be applied to sustainable food production.

GCoM Guidance

Link to the GCoM Common Reporting Framework (CRF)

- Section 6.1 “Climate action plans” indicates that **local governments reporting to the Complete level** shall report more than one key action per pillar (Mitigation and Adaptation), and at least one key action for the Energy Access & Poverty pillar. **Under the Simplified reporting level**, local governments shall report at least one key action per pillar (Mitigation, Adaptation and Energy Access & Poverty).

Energy-related actions:

When setting a target, local governments shall demonstrate commitments to increase in energy access and/or reduction in energy poverty. Local governments shall declare these commitments in their plan(s).

Additionally, for all energy-related actions, local governments shall provide information on the related energy access and poverty indicators and how the implementation of the action impacts the value of those indicators (e.g. increases/decreases).

Avoiding common mistakes

Simplified level[^]: Mandatory (also mandatory for Complete level)

Complete level^{^^}: Mandatory (mandatory only for Complete level)

GCoM mandatory columns	Simplified level requirements	Complete level requirements	Avoiding common mistakes
Primary emissions sector addressed and action type [^]	Mandatory	Mandatory	Please specify the action sector from the dropdown list.
Action description and web link to further information ^{^^}	Optional	Mandatory	GCoM cities are required to report brief description of each action.

Impact indicators measured^^	Recommended	Mandatory (for mitigation actions)	Please select at least one indicator from “Estimated reduction in annual inventory emissions due to action” or “Estimated annual energy savings due to action” or “Estimated annual renewable energy generated due to action”, and then answer the numerical value of estimation in the subsequent column(s).
Estimated reduction in annual inventory emissions (metric tons CO2e)^^	Recommended	Mandatory (For mitigation actions)	To be compliant at least one assessment shall be provided: Estimated annual emissions reductions or estimated annual energy savings or estimated annual renewable energy generation.
Estimated annual energy savings (MWh)^^	Recommended	Mandatory (For mitigation actions)	To be compliant at least one assessment shall be provided: Estimated annual emissions reductions or estimated annual energy savings or estimated annual renewable energy generation.
Estimated annual renewable energy generation (MWh)^^	Recommended	Mandatory (For mitigation actions)	To be compliant at least one assessment shall be provided: Estimated annual emissions reductions or estimated annual energy savings or estimated annual renewable energy generation.
Inclusion in climate action plan and/or city development/master plan^	Mandatory	Mandatory	GCoM requires cities to report actions as part of the action plan. Your answer here will help us build connection to your report in question 8.1.1.

Does this action contribute to your jurisdiction's energy access and/or poverty objectives?^	Mandatory	Mandatory	
Select the related energy access and/or poverty indicator(s) for this action, and indicate how they are impacted by the action (i.e. value increased or decreased)^	Mandatory (For EAPP Actions)	Mandatory (For EAPP Actions)	

Regional variation:

To comply with the Simplified level of reporting, Covenant of Mayors Europe signatories shall, in addition to meeting other Simplified level requirements of the CRF, report:

- Impact indicators measured
- At least one impact indicator from: Estimated annual emissions reductions or estimated annual energy savings or estimated annual renewable energy generation.
- Status of action in the reporting year.

Additional Information

Resources

Name	Description	Institution
<u>Policy and Action Standard - An Accounting and Reporting Standard for Estimating the Greenhouse Gas Effects of Policies and Actions</u>	The GHG Protocol Policy and Action Standard provides a standardized approach for estimating and reporting the change in GHG emissions and removals resulting from policies and actions.	WRI

<u>GHG Protocol for Project Accounting</u>	The Project Protocol provides specific principles, concepts, and methods for quantifying and reporting GHG reductions—i.e., the decreases in GHG emissions, or increases in removals and/or storage—from climate change mitigation projects (GHG projects).	GHG Protocol, WBCSD, WRI
<u>Co-Benefits Calculator for Transport</u>	Estimates co-benefits of transportation projects in Asia. Includes travel-time savings, injury prevention, and economic savings.	Institute for Global Environmental Strategies
<u>ClimateView</u>	Estimates emissions impacts of city-level climate-mitigation actions. Illustrates these impacts in terms of a city's emissions goals.	ClimateView
<u>Climate Policy Database</u>	Filterable database of existing climate policies for a variety of sectors and policy types.	New Climate Institute
<u>Adaptation and Mitigation Integration Assessment Tool (AMIA)</u>	Helps users identify mitigation-relevant actions that also have climate-adaptation benefits.	C40 Cities
<u>Action Selection and Prioritisation Tool (ASAP)</u>	Synthesizes information about a government's goals, impacts and co-benefits of possible actions, and potential barriers to implementation to help users prioritize and select major climate change mitigation actions.	C40 Cities
<u>City Action for Urban Sustainability (CURB)</u>	CURB, Climate Action for Urban Sustainability, is an interactive scenario planning tool that helps cities take action on climate change.	GcoM, C40 Cities, World Bank Group, AECOM Consulting
<u>SEEG Soluções</u>	A tool for Brazilian cities developed by SEEG to support the identification of climate solutions and their impact on emissions.	SEEG

(9.3) Describe any planned climate-related projects within your jurisdiction for which you hope to attract financing.

Questionnaire

- Cities: Pathway 1, 2 and 3
- States and Regions

Change From Last Year

No change

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition
- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Transformative Actions Program
- EU Mission on Adaptation to Climate Change

Response Options

[*column/row appearance is dependent on selections in this question]

0	1	2	3	4
	Project area	Project title*	Stage of project development*	Status of financing*
Row 1	Select from: • Buildings • Energy efficiency (including public lighting) • Renewable energy • Transport • Waste management (including waste recycling) • Water management • Health systems and services • Sustainable food consumption/production • Land-Use • Nature-Based Solutions • Public and green spaces • Landscape and Jurisdictional Approaches • Jurisdictional REDD+ Program • Other, please specify • No relevant projects	Text field	Select from: • Scoping • Pre-feasibility/impact assessment • Project feasibility • Project structuring • Transaction preparation • Implementation • Post implementation	Select from: • Project not funded and seeking partial funding • Project not funded and seeking full funding • Project partially funded and seeking additional funding • Other, please specify

5	6	7	8	9	10
Identified financing model*	Project description, and URL link, if applicable*	Attach project proposal, if applicable*	Total cost of project (in currency specified in 1.2)*	Total investment cost needed, if relevant (in currency specified in 1.2)*	If this project is related to a previously reported adaptation or mitigation action, select the ID of the action*
Select all that apply: • Grants • Loans from commercial banks • Bonds • Loans from International Financial Institutions • Private investment • Public finance- own budget • Public finance- national government • Public-private partnership • Carbon markets • No financing model identified Other, please specify	Text field	Attachment function	Numeric field	Numeric field	Select all that apply: • Adaptation Action 1 – 30 • Mitigation Action 1 – 30 • No linked action

[Add Row]

Requested Content

General

- This is a climate finance question.
- This question provides the opportunity to report any planned climate-related projects for which your jurisdiction seeks to attract funding or technical assistance from public and/or private institutions. These may be projects relating to renewable energy, sustainable transport, building or energy efficiency, waste, water or other climate-related areas.
- Project disclosure helps close the information gap on subnational climate finance needs. Data disclosed through this question is used to develop actionable insights and high-level briefings for policymakers, public and private investors, technical assistance facilities, and partner networks. CDP aims, but cannot guarantee, to connect pending projects to technical assistance and funding opportunities. For additional information on how CDP uses project data, please refer to our project disclosure guides in English, Portuguese, French, Spanish, and Bahasa, which are available at [CDP's Climate Finance webpage](#).
- You are able to add rows by using the 'Add Row' button at the bottom of the table.

Project area (column 1)

- Your selection in this column will determine whether the subsequent columns are presented. If your jurisdiction is not currently seeking financing on any relevant projects, please select 'No relevant projects' in the first field. If this option is selected, the subsequent columns 2 – 10 will not be presented.
- Use the drop-down options to select the project area that is closest to the project that your jurisdiction is seeking financing for. If the project also relates to other project areas, you can provide this information in column 6 'Project description, and URL link if applicable'.

Project title (column 2)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Please provide a short title or name for the project. You can provide further qualitative information on the project in column 6 'Project description, and URL link if applicable'.

Stage of project development (column 3)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Please indicate the current status of the project by selecting from the listed options.

Status of financing (column 4)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Please indicate the status of the project's financing by selecting from the listed options:
 - Project not funded and seeking partial funding: Select this option if the project is not funded and your jurisdiction is seeking funding for only a portion of the project. If the project falls into this category, please specify the estimated total cost of the project in column 8 'Total cost of the project' and the amount of partial funding required in column 9 'Total investment cost needed, if relevant.'
 - Project not funded and seeking full funding: Select this option if the project is not funded and seeking financing for the whole project. If your project is in this status, please indicate the total cost of the project and the amount that is still needed in the relevant columns. If appropriate, please put the same value in both columns.
 - Project partially funded and seeking additional funding: Select this option if the project is partially funded, but your jurisdiction is still seeking additional funding. If your project is in the status, please indicate in the description how much funding has already been received and indicate how much additional finance is being sought in the investment cost needed column.
 - Other, please specify: Please provide additional details of the status of financing of the project.

Identified financing model (column 5)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Indicate if your jurisdiction has identified a financing model(s) for your project. The financing model provides information about possible financing sources and/or financial instruments.

Project description and URL link (column 6)

- This column is not presented if 'No relevant projects' is selected in column 1.

- Use this text box to provide a comprehensive description of the project, including details about its scope, objectives, anticipated climate change outcomes, potential co-benefits, and environmental and social impacts. If known, please provide a quantification of mitigation/adaptation benefits, information about any technical studies available for the projects, names of partners and technical assistance facilities involved, the percentage of already secured funding for the project. If available, please report the percentage of finance secured from each of the financing models selected in column 5 'Identified financing model'.

Attach project proposal, if applicable (column 7)

- This column is not presented if 'No relevant projects' is selected in column 1.
- If available, attach your written project proposal using the attachment function.

Total cost of project (column 8)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Give an estimate of the total cost of the project, including any financing which has already been secured. This figure should be in the same currency that you selected in question 1.2.

Total investment cost needed, if relevant (column 9)

- This column is not presented if 'No relevant projects' is selected in column 1.
- Indicate the total amount of money (full, partial, or additional funds) your jurisdiction is seeking for the project. If the project is seeking full funding, this amount should be equal to the total estimated cost of the project specified in column 8 labelled 'Total of the project.'
- This figure should be in the same currency that you selected in question 1.2 for all financial information disclosed
- throughout your response.

If this project is related to a previously reported adaptation or mitigation action, select the ID of the action (column 10)

- This column is not presented if 'No relevant projects' is selected in column 1.

- A reported project may be related to an adaptation or mitigation action reported in questions 9.1 and/or 9.2. If that is the case, please provide a unique identifier for each of your mitigation or adaptation actions and select the appropriate action from the drop-down menu. If the project is associated with several actions, you can select more than one action from the drop-down menu.
- Identifying the link between a mitigation/adaptation action and a specific project can help the city identify a clear action plan for investment or budgeting and provides vital context to data users on the link between a city's targets, actions, and investable projects.
 - Example: As part of your city's mitigation actions, you are working to decarbonize all municipal buildings in the city. As part of this larger initiative, you are seeking technical assistance or funding to install rooftop solar on 10 municipal buildings. In this case you will report the larger rooftop solar action under Mitigation Actions (9.2) and report the municipal building project in question 9.3.
- If there are no actions that have been reported in 9.1 or 9.2 that link to the project, select 'No linked action'.

Additional Information

- CDP Climate Finance – CDP Climate Finance advances the implementation of climate resilient, sustainable and equitable infrastructure through project data disclosure and stakeholder consultation. CDP aims, but cannot guarantee, to connect pending projects to technical assistance and funding opportunities where possible. CDP also leverages project data to develop programming that seeks to accelerate equitable climate action through partnerships between local governments, communities and companies.
- ICLEI TAP - The Transformative Actions Program (TAP) aims to catalyze and improve capital flows to cities, towns and regions and strengthen the capacity of local and regional governments to access climate finance and attract investment.

While US\$ trillions will be required annually by 2050 for infrastructure to address climate risks, local governments continue to face significant barriers in accessing necessary capital. Project disclosure through this question helps address the widespread gap in standardized data on urban infrastructure needs and opportunities while better positioning local governments for robust technical assistance, funding and financing opportunities from CDP's partners.

Each year cities, states and regions, and public authorities report projects through their annual disclosure to this question. In 2023, 2,500+ projects worth US\$162 billion were disclosed by 700+ cities globally. This represents a 63% increase since 2021, demonstrating that the opportunity to invest in local governments has never been greater.

To accelerate the implementation of these climate infrastructure projects, CDP disseminates actionable project data and convenes key stakeholders needed to prepare, fund, finance and implement climate infrastructure. These stakeholders include capital markets and other investors, public funding and policymakers, the private sector, and project preparation facilities (PPFs).

For more information about how to report climate infrastructure projects through the questionnaires and the benefits of project disclosure, we invite you to read our two-page guidance resource, available in [English](#), [Portuguese](#), [French](#), [Bahasa](#), and [Spanish](#).

For your reference, below is the project disclosure checklist to guide your response:

- Projects should be at the planning, design or partial implementation phase;
- Projects should be seeking funding or financing;
- Projects should fall under project sector categories in the questionnaire;
- Previously reported projects should be updated annually;
- Examples of projects that can be disclosed include EV expansion, solar PV, building retrofits, green infrastructure and others.

Organizations must fill in as much data as possible for each column to be best positioned for further support by partners.

You can learn more about CDP's work on sustainable infrastructure finance on [this webpage](#). Feel free to contact us at ClimateProjects@cdp.net, should you need additional information.

Explanation of Terms

- Nature-based Solutions: Nature-based solutions are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits. ([UNEA-5](#))

- Landscape and Jurisdictional Approaches:
 - Landscape approach: Landscape approaches involve collaborative action of partners within a landscape that advance shared sustainability goals and reconcile and optimize multiple social, economic and environmental objectives across multiple economic sectors and land uses. They are implemented through processes of integrated landscape management, convening diverse partners to develop and implement land-use plans, policies, projects, investments, and other interventions.
 - Jurisdictional approach: A type of landscape approach that advances shared sustainability goals where the landscape is defined by administrative boundaries of sub-national governments and the approach is implemented with a high level of government involvement.

(9.4) Report the factors that support climate-related investment and financial planning in your jurisdiction.

Change From Last Year

No change

Questionnaire

- Cities: Pathway 3
- States and Regions

Connection to other frameworks

- [Cities only] NetZeroCities – Mission Cities
- Race to Resilience
- [States and Regions only] RegionsAdapt
- [States and Regions only] Under2 Coalition

- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI's GreenClimateCities
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- Transformative Actions Program
- EU Mission on Adaptation to Climate Change
- Sustainable Development Goals: SDG17

Response Options

Please complete the following table:

Climate finance area	Response	Comment
Mechanisms used by jurisdiction to access finance for climate-related projects	Select all that apply: • Jurisdiction's own funds and budgetary means • Jurisdiction borrows from national government • Jurisdiction access finance from national government funds, grants etc. • Jurisdiction issues municipal bonds • Jurisdiction issues green bonds and/or climate bonds • Jurisdiction accesses finance from public-private partnerships • Jurisdiction accesses finance from Regional Development Banks • Jurisdiction has established a fund to invest in climate-related projects • Jurisdiction has received or secured funding for climate-related projects from an International Financial Institution (e.g. World Bank, Asian Development Bank, etc.) • Jurisdiction utilises foreign debt and/or foreign investments • Jurisdiction utilises foreign debt and/or foreign investments and requires the support of the national government to access international finance • Jurisdiction utilises foreign debt and/or foreign investments and requires a sovereign guarantee to access international finance	Text field

Climate finance area	Response	Comment
	• Jurisdiction utilises foreign debt and/or foreign investments and national/federal authorities have provided or are willing to provide a written letter of support to access international finance • Jurisdiction uses land value capture (LVC) to help finance climate-related projects • Jurisdiction uses carbon markets to help finance climate-related projects • Jurisdiction partners with other jurisdictions to access finance • Jurisdiction uses REDD+ to help finance climate-related projects • Do not know • Other, please specify	
Credit rating of jurisdiction	Select all that apply: • Jurisdiction has an international credit rating • Jurisdiction has a domestic credit rating • Jurisdiction is taking steps to attain an international or domestic credit rating • Jurisdiction does not have an international or domestic credit rating • Other, please specify • Do not know	Text field
Decarbonising jurisdiction's investments	Select all that apply: • Jurisdiction has taken steps to decarbonise the investments held by the jurisdiction retirement funds by investing in the low-carbon economy • Jurisdiction has taken steps to decarbonise the investments held by the jurisdiction retirement funds by divesting from fossil fuels • Jurisdiction has taken steps to decarbonise the investments held by the jurisdiction retirement funds by engaging with portfolio companies to reduce emissions in their operations or investments	Text field

Climate finance area	Response	Comment
	• Jurisdiction has taken steps to decarbonise municipal investments by investing in the low-carbon economy • Jurisdiction has taken steps to decarbonise municipal investments by divesting from fossil fuels • Jurisdiction has taken steps to decarbonise municipal investments by engaging with portfolio companies to reduce emissions in their operations or investments • Other, please specify • Do not know	

Requested Content

General

- This is a climate finance question.

Mechanisms used by jurisdiction to access finance for climate-related projects (column 1)

- Listed are a range of mechanisms used by local governments to access finance for climate-related projects, select the options that are used by your jurisdiction. Some of the listed options will not be applicable to your jurisdiction and some options that are applicable may not be listed. If this is the case please select 'Other, please specify' and outline the mechanism(s) used.
- If you have indicated that your jurisdiction has received or secured funding for climate-related projects from an International Financial Institution (e.g. World Bank, Asian Development Bank, etc.) please outline in the 'Comment' field the specific International Financial Institution.

Credit rating (column 3)

- Select whether your jurisdiction has an international and/or domestic credit rating, or no credit rating. If your jurisdiction has more than one rating, please report the highest credit rating and indicate the other rating(s) in the column 'Comment'.

- Credit ratings are forward looking opinions about an issuer's relative creditworthiness. They provide a common and transparent global language for investors to form a view on and compare the relative likelihood of whether an issuer may repay its debts on time and in full ([S&P, 2020](#)).

Decarbonising jurisdiction investments (column 5)

- Indicate if your jurisdiction has taken steps to decarbonise the investments held by the jurisdiction retirement funds either by investing in the low-carbon economy, divesting from fossil fuels or other actions. These actions can promote the transition to a more resilient, prosperous and sustainable economy.
- If applicable, provide further detail in the 'Comment' column on: other actions you are taking which could include aligning reporting with the Taskforce for Climate-related Financial Disclosures (TCFD) recommendations; developing a policy to divest from fossil fuel companies; further details on your investments in the low-carbon economy (e.g. investing in local community energy projects).
- Governments around the world have committed to divest from fossil fuels and increase investments to build more just and sustainable cities, recent examples include Auckland, Copenhagen, Glasgow, Paris, Rio de Janeiro and Seattle ([C40](#)).

Forest

States and Regions from the following [countries/areas](#) will be shown the Forest module of the 2025 questionnaire.

This part of the reporting guidance provides additional support and information for states and regions that are requested to answer the Forest module. The information states and regional governments will provide in response to the Forest module's questions will assist in making comparisons between other governments. It will also help inform lessons learned that could assist other states and regions on their way to tackling deforestation and/or forest degradation or it could help further refine the collection of data.

CDP is committed to contribute to end deforestation by 2030. In this regard, the states and regions - country/areas - requested to disclose to the Forest module include (among others) the signatories of the [Glasgow Leaders' Declaration on Forests and Land Use](#) of

the UNFCCC. The Glasgow Declaration is the strongest political commitment to date made by over 140 countries to end deforestation and land degradation by 2030. The declaration recognizes that addressing the dual crises of climate change and biodiversity collapse will require an end not just to deforestation, but also to the degradation of critical forest ecosystems from industrial logging and other industries.

The Forest module will allow state and regional governments to report data on all relevant drivers of deforestation and/or forest degradation within their jurisdiction. CDP will also provide insights on the role of states and regions in managing the impacts of deforestation and forest degradation resulting from non-agricultural drivers including mining.

The Forest module is translated into English, Spanish and Portuguese. If you are responding to the questionnaire in Japanese or Chinese (Simplified) the Forest module will be viewable in English.

(10.1) Please provide the details of your region's current natural forest area.

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Current natural forest area (in square km)	Reporting year used for your region's natural forest area	Methodology used to collect data and quantify natural forest area	Can you provide information on the ownership or tenure rights associated with your region's natural forest area?
Numerical field	Numerical field (1990 – 2025)	Select all that apply: • Satellite imagery • Land cover maps • Field sampling • Forest inventory • Reports or publications • Other, please specify	Select from: • Yes • No • Do not know

Requested Content

This is a table question, which asks for the details of your region's natural forest area.

The table has the following fields:

- Current natural forest area (in square km): Please provide a numerical value to indicate the coverage of your region's natural forest area.
- Reporting year used for your region's natural forest area: Please state the relevant year for the data used for your region's natural forest area.
- Methodology used to collect data and quantify natural forest area: Please select the methods used to collect and quantify your natural forest area. You are able to select multiple methods in this question.
- Can you provide information on the ownership or tenure rights associated with your region's natural forest area: This question provides insight into the relationship between people with respect to forests by defining ownership and tenure rights within a jurisdiction. Clear and secure forest tenure is widely believed to be a key enabling condition for sustainable management of forests (Source: [WRI, The Governance of Forests Initiative \(GFI\) Guidance Manual: A Guide to Using the GFI Indicator](#))

Framework). Please respond to this question, by selecting from one of the options provided. If “Yes” is selected in this question, a follow-up question will appear to allow states and regions to provide additional details on the region’s forest ownership and tenure rights.

Explanation of terms

- Natural forest area: A forest that is a natural ecosystem, i.e., possesses most of the native species composition, structure, and ecological function as a forest native to the given site. This includes:
 - Primary forests that have not been subject to major anthropogenic impacts in recent history;
 - Regenerated (second-growth) forests that were subject to major anthropogenic impacts in the past (e.g., by agriculture) but where the main causes of impact have ceased or greatly diminished, and the ecosystem has attained much of the species composition, structure and function of prior or other contemporary natural ecosystems;
 - Managed natural forests where much of the ecosystem composition, structure, and ecological function exist in the presence of activities such as: (a) Harvesting of timber or other forest products, including management to promote high-value species, (b) Low intensity, small-scale cultivation within the forest, such as less-intensive forms of swidden agriculture in a forest mosaic; and
 - Forests that have been partially degraded by anthropogenic causes (e.g., harvesting, fire, invasive species), but where the land has not been converted to another use and where degradation does not result in the sustained reduction of tree cover below the thresholds that define a forest, or sustained loss of other main elements of ecosystem composition, structure, and ecological function (Source: [AFI, 2019](#)).
- Forest tenure: For the purpose of the 2025 States and Regions forest module, ownership or tenure rights refer to the general concept of “forest tenure”. Forest tenure is concerned with who owns forestland and who uses, manages and makes decisions about forest resources. It determines who is allowed to use which resources, in what way, for how long, and under what conditions, as well as who is entitled to transfer those rights and how (Source: [CIFOR - Forest tenure](#)).

(10.1.1) Please provide details of your region's natural forest area by different categories of forest ownership.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" in response to column 4 of 10.1.

Response Options

Forested land ownership category	Percentage of region's natural forest area characterized by the forest ownership category	Please explain
Public land administered by government	Numerical field	Text field
Public land designated for community groups and/or Indigenous peoples	Numerical field	Text field
Private land owned by community groups and/or Indigenous peoples	Numerical field	Text field
Private land owned by individuals or firms	Numerical field	Text field
Other, please specify	Numerical field	Text field

Requested Content

The aim of this question is to collect information on the forest ownership and tenure rights associated with the region's natural forest area. Clear ownership and management rights are vital for good governance and sustainable management of forests. Information

about forest ownership helps us to better understand who controls forest management and use, and who benefits or loses from the variety of products and services provided by forests. When forest tenure is secure, it promotes capital investment by government and the private sector and has a role in the arrangement of incentives that motivate the sustainable use of forest resources (Source: [FAO - Global Forest Resources Assessment 2015](#)).

This table question has the following fields:

- Forested land ownership category: This field requests data on two main categories; public (land administered by the government and/or land designated for community and indigenous groups) and private (land owned by communities and indigenous groups and/or land owned by individuals or firms). The supporting table below provides additional information on these categories. An additional row is included if the state or region would like to provide information on other categories of forest ownership.
- Percentage of region's natural forest area characterized by forest ownership category: Please provide a numerical % value according to which your region's natural forest area is designated under the relevant forest ownership categories.
- Please explain: This is an open text field. Please provide any additional information you can provide relating to forest ownership and tenure rights within your region in relation to the categories provided. If you wish to provide information on other categories of forest ownership, please use this field to explain and provide additional context.

Forest tenure categories providing examples of public and private designations (Sources: [FOA](#), [Forest Tenure in Cambodia, Nepal and Vietnam](#)).

Category	Examples	Description
Public	Public land administered by the government	Typically includes all lands in the legal forest estate that are owned and administered exclusively by the government and that are not designated for use by communities and indigenous peoples (IPs). Note that this category includes some protected areas and forest lands awarded as concessions for logging, agri-industrial or silvicultural plantations, and mining
Public	Public land designated for use by communities and IPs	Refers to forest lands set aside on a semi-permanent but conditional basis. In this category, governments retain ownership and entitlement to unilaterally negate local groups' rights over entire areas. Local groups lack rights to sell or otherwise alienate land through mortgages or other financial instruments

Private	Private land owned by communities and IPs	Refers to forest lands where rights cannot be unilaterally terminated by a government without some form of due process and compensation. Private landowners typically (but not always) have rights to access, sell, or otherwise alienate, manage, withdraw resources and exclude outsiders
Private	Private lands owned by individual and firms	Includes those lands where the rights cannot be unilaterally terminated by a government without due process or compensation

(10.2) Is deforestation and/or forest degradation currently an issue for your region?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

[*column/row appearance is dependent on selections in this question]

Deforestation/forest degradation is an issue for the region	Current drivers of deforestation and/or forest degradation*	Total current annual deforestation rate (%)*	Comments
Select one from: • Yes • No • Do not know, but we are intending to assess this in the next year	Select all that apply: • Mining • Large-scale agriculture • Small-scale agriculture • Unsustainable logging	Numerical field	Text field

• Do not know, but we are intending to assess this in the next two years • Do not know, and we are not intending to assess this in the next two years	• Forest plantations • Fires • Charcoal and fuelwood production • Infrastructure • Hydroelectric power • Other, please specify		
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Requested Content

This question collects data on the key drivers or pressures of deforestation and/or forest degradation. The drivers available as options are based on the most common pressures causing deforestation and severe forest degradation in areas where the largest concentrations of forest loss or severe degradation are projected to take place until 2030 (i.e. deforestation fronts) as identified by the [WWF's Living Forests Report: Chapter 5](#).

This table question has the following fields:

- Deforestation / forest degradation is an issue for the region: Please select the relevant option depending on your region's current situation. Please ensure that you review this and change the response if required. If 'Do not know but are intending to assess this in the next two years' or 'Do not know, but we are intending to assess this in the next year' is selected, you may provide further details in column 4 'Comments'.
- Current drivers of deforestation and/or forest degradation : This column is presented if 'Yes' is selected in column 1. Please select all the relevant drivers of deforestation/and or forest degradation within your region. You are able select multiple drivers in this question. The options you select will pre-populate in the other questions of the Forest module thereby allowing you to report data specific to the driver of deforestation/and or forest degradation selected.
- About the drivers of deforestation and/or forest degradation
 - The selection of these drivers will allow states and regions is integral if you wish to disclose information on how your region is managing deforestation / forest degradation. The drivers you select will pre-populate in the other questions (i.e. 10.5.1, 10.10.1, 10.11.1) of the forest module thereby allowing you to report more granular and data specific information to the driver of deforestation/and or forest degradation selected.

- Selecting “Mining” as a driver will trigger the appearance of 10.3, which is specific to mining activities. The data collected on mining in addition to mining-related information on the “Forest policy and implementation” and “Forest risks, impacts and opportunities” sections will directly contribute towards the assessment of Goal 3 of the New York Declaration on Forests.
- Total current annual deforestation rate (%): This column is presented if ‘Yes’ is selected in column 1. Please provide a numerical % value of the total deforestation rate within your region resulting from all the drivers selected.
- Comments: This is an open text field with 2400 characters. Please provide any comments you have about the selected drivers of deforestation/and or forest degradation within your region in this field. This could include information regarding the importance of each driver selected in addition to the importance of each of the relevant drivers of deforestation/degradation relative to each other. If “No” is selected as a response to the “Deforestation / forest degradation is an issue for the region” field, please provide some evidence or a reference on this.

Explanation of terms

- Deforestation: Loss of natural forest as a result of the following human activities: i) conversion to agriculture or other non-forest land use; ii) conversion to a plantation forest; or iii) severe and sustained degradation.
 - Severe degradation constitutes deforestation even if the land is not subsequently used for non-forest land use
 - Loss of natural forest that meets this definition is considered to be deforestation regardless of whether or not it is legally permitted.
 - Deforestation signifies "gross deforestation" of a natural forest where "gross" is used in the sense of "total aggregate: without deduction for reforestation or other offsets" (Source: [AFi, 2019](#)).
- Forest degradation: Changes within a natural ecosystem that significantly and negatively affect its species composition, structure and/or function and reduce the forest’s capacity to support biodiversity, supply products and/or deliver ecosystem services. (Source: [AFi, 2019](#)).

(10.3) What types of mining activities operate within your region?

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Mining" in 10.2.

Response Options

Select all that apply:

- Large-scale mining (LSM)
- Artisanal or small-scale mining (ASM)
- Other, please specify
- Do not know

Requested Content

- This question only appears if "Mining" is selected as a driver of deforestation and/or forest degradation in response to question 10.2.
- For the purpose of this question, there are two main activities that you can select. These activities refer to the large-scale mining (LSM) and artisanal or small-scale (ASM) operations occurring within the region.

- LSM refers to the activity of major companies as well as to mid-tier and junior-level companies or to any formal company that complies with international performance standards.
- ASM is used in a broad sense to refer to all kinds of local and often informal mining activities (Adapted from: [World Bank, Mining together: large-scale mining meets artisanal mining – a guide for action](#)).
- You can select all relevant types of mining activities operating with your region. If “Other, please specify” is selected, please specify the type of mining activity that you are referring to.

(10.4) Please explain what safeguards are in place to protect your region's forests in the long-term.

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Safeguards in place	Web link with additional information about the safeguard	Explain how the safeguard is implemented, or if there is no safeguard why this is the case
Select one from: • National laws on improved forest management • National laws on avoided conversion • Regional laws on improved forest management	Text field	Text field

• Regional laws on avoided conversion • Regional policies on improved forest management • Regional policies on avoided conversion • Jurisdictional approaches or initiatives • Management programs in partnership with Indigenous peoples • Officially approved registry for land ownership • Traceability system for forest commodities • Land use planning • Strategic environmental assessments • Management of Protected Areas • High conservation value assessments • Long-term forest management / protection / conservation plans • Targets to address deforestation / forest degradation are set • Monitoring systems to inform management of deforestation and/or forest degradation • Budget set aside for dedicated work on forest protection / conservation • Other, please specify • No safeguards in place		
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[Add Row]

Requested Content

The aim of this question is to collect information on how your region's natural forest area is protected currently and any long-term interventions in place to manage deforestation and/or forest degradation.

This question has the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.

- Safeguards in place: Please select the option that best describes the safeguard or interventions in place for the long-term protection of your region's forests from deforestation and/or forest degradation. Please select "Other, please specify", if there is

a specific safeguard in place within your region that is not covered by the options provided. You can only select only one option in this field. If you have multiple safeguards in place within your region, please add a new row to provide more information. This field is designed for the states and regions to specify different interventions in place to manage forests. In the scenario where there are no forests in your region and you selected “No” as a response to question 10.2 ‘Is deforestation and/or forest degradation currently an issue for your region?’, please select the “Other, please specify” option and explain. If you select ‘No safeguards in place’ in column 1, please provide further details in column 3.

- Web link with additional information about the safeguard: if available, please provide the website link with additional contextual information on the safeguard your region has in place to protect forests in the long-term.
- Explain how the safeguard is implemented, or if there is no safeguard why this is the case: This is an open text field with 2400 characters. Please use this field to explain how your region is implementing the reported safeguard(s), or why there are no safeguards in place.

(10.5) Do you have any policies that directly address deforestation, forest degradation and/or forest restoration?

Change From Last Year

No change

Questionnaire

- States and Regions

Connection to other frameworks

- EU Mission on Adaptation to Climate Change

Response Options

Select from:

- Yes
- No
- No, but we are currently developing one and it will be complete in the next year.
- No, but we are intending to develop one in the next two years.
- Do not know

Requested Content

The aim of this question is to allow states and regions to report on all policies relating to the management of deforestation and/or forest degradation. When reporting on the policies, consider all levels of governance that may influence your region's work on deforestation and/or forest degradation. These policies could cover those that are specific to the boundaries of the region or those from federal and national-levels. For example, state and regional governments play a vital role in making progress towards national reductions of emissions from deforestation and overall forest degradation as their efforts represent a vital link between pilot projects and full national implementation. If "Yes" is selected to this question, you will be asked to provide information on the policies you have that address deforestation and/or forest degradation. When reporting on the policy description and enforcement field, comment on how the region is contributing towards the implementation of the policies reported.

Forest policies deal specifically with forest resources and their management when treating: socio-economic factors related to increasing the performance of the sector; the role of the forest and tree resource in land use and rural development; and nature conservation and environmental protection.

(10.5.1) Please provide details of your region's forests-related policies.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" in response to 10.5.

Connection to other frameworks

- EU Mission on Adaptation to Climate Change

Response Options

Policy name	Year enforced	Focus area	Drivers covered by the policy	Policy web link	Policy description and region's role in its enforcement
Text field	Numerical field (1970 - 2025)	Select all that apply: • Deforestation • Forest degradation • Conversion of natural habitats • Forest restoration • Other, please specify	Select all that apply: Options pre-populated from drivers selected in question 10.2	Text field	Text field

[Add Row]

Requested Content

This question allows states and regions to provide additional information policies relating to the management of deforestation and/or forest degradation. Forest policies deal specifically with forest resources and their management when treating: socio-economic factors related to increasing the performance of the sector; the role of the forest and tree resource in land use and rural development; and nature conservation and environmental protection (Source: [FAO – Policy and legal aspects of sustainable forest management](#)).

Forests must be managed in a much more interdependent and complex context which requires a partnership process among all major actors and beneficiaries. For this to happen, it is essential that forest policies recognize the diversity of interests related to forest conservation and utilization as well as the need to involve major interest groups in forest management decisions through consultations in which they can express their expectations and their role in sustainable forest management. The prevailing political system in each country/area will have to determine how divergent interests are to be harmonized and how the costs and benefits are to be shared among the main actors and beneficiaries. In addition, there is a need to adapt the policy framework regularly in response to real changes so that it continues to provide an effective incentive for the long-term management of forests for sustainable development (Source: [FAO – Policy and legal aspects of sustainable forest management](#)).

This is a table question with the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.

- Policy name: This a text field to allow you to specify the official name of the policy or how it is commonly referred to.
- Year enforced: The year in which the policy came into effect.
- Focus area: Please select all the relevant issues covered by the policy. You can select multiple options in this field.
- Drivers covered by the policy: Please select all the drivers that are covered by your policy. Please note that the options for this field will be dependent on the options selected in question 10.2.
- Policy web link: If available, please provide a website link for your policy.
- Policy description and region's role in its enforcement: This is an open text field with 5000 characters. When reporting on this field, please provide a brief description of the policy and explain on how the region is contributing towards the implementation of the policies reported.

Explanation of terms

- Deforestation: Loss of natural forest as a result of the following human activities: i) conversion to agriculture or other non-forest land use; ii) conversion to a plantation forest; or iii) severe and sustained degradation.
 - Severe degradation constitutes deforestation even if the land is not subsequently used for non-forest land use.
 - Loss of natural forest that meets this definition is considered to be deforestation regardless of whether or not it is legally permitted.
 - Deforestation signifies "gross deforestation" of a natural forest where "gross" is used in the sense of "total aggregate; without deduction for reforestation or other offsets" (Source: [Afi, 2019](#)).
- Forest degradation: Changes within a natural ecosystem that significantly and negatively affect its species composition, structure and/or function and reduce the forest's capacity to support biodiversity, supply products and/or deliver ecosystem services. (Source: [Afi, 2019](#))
- Conversion: Human-induced change of a natural ecosystem to another land use or profound change in the natural ecosystem's species composition, structure, and/or function.
 - Deforestation is one form of conversion (conversion of natural forests)
 - Conversion includes severe degradation or the introduction of management practices that result in a substantial and sustained change in the ecosystem's former species composition, structure, or function.
 - Change to natural ecosystems that meets this definition is considered to be conversion regardless of whether or not it is legally permitted (Source: [Afi, 2019](#)).
- Restoration: the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. The purpose of forest restoration is to restore a degraded forest to its original state - that is, to re-establish the presumed structure, productivity and species diversity of the forest originally present at a site (Source: [FAO - Forest Restoration and Rehabilitation](#)).

(10.5.2) Please explain why your region does not have a forests-related policy.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question appears if you select any "No" option or "Do not know" in response to 10.5.

Response Options

Reason	Please explain
Select one from: • Forest management is not a priority for the region • Policies are set at national level • Policy is in development • No information available • Other, please specify	Text field

Requested Content

This question allows states and regions to explain the primary reason as to why there are no policies on deforestation and/or forest degradation. This question is a table with the following fields:

- Reason: Please select the most appropriate reason for your response from the options provided in the drop-down list. Please select "Other, please specify" if you want to provide a different reason from the options provided. Please specify this reason in the text field provided.
- Please explain: Please provide a brief explanation as to the relevance of this reason in the context of your region. Please use the text field to also explain any future plans you have to set and implement policies on deforestation and/or forest degradation if relevant.

(10.6) Does your region participate in any global initiatives or conventions on forest protection or conservation?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Select from:

- Yes
- No, but we are intending to participate in the next 2 years
- No, and we are not intending to participate due to other higher priorities
- No, and we are not intending to participate due to a lack of resources
- No, and we are not intending to participate due to a reason not listed above, please specify

- Do not know

Requested Content

Taking part in recognized global initiatives indicates greater environmental stewardship and transparency. If “Yes” or “No, but we are intending to participate in the next 2 years” is selected, states and regions will be requested to report on those initiatives and their overall involvement in 10.6.1. CDP has listed the following initiatives/conventions:

- [REDD+](#)
- [New York Declaration on Forests](#)
- [Rio Branco Declaration](#)
- [Bonn Challenge](#)
- [UN Convention on Biological Diversity](#)
- [UN Convention to Combat Desertification](#)
- [World Heritage Convention](#)
- [Sustainable Development Goal 15](#)
- [Nature4Climate](#)

(10.6.1) Please provide the details of the global initiatives or conventions your region participates in.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" or "No", but we are intending to participate in the next 2 years" in response to 10.6.

Response Options

Global initiative/convention	Please describe your region's involvement
Please select one from: • REDD+ • New York Declaration on Forests • Rio Branco Declaration • Bonn Challenge • World Heritage Convention • Sustainable Development Goals • Nature4Climate • Forest Carbon Partnership Facility • Governors' Climate and Forests (GCF) Task Force • Cities4Forests • RegionsWithNature • LEAF Coalition • Other, please specify	Text field

[Add Row]

Requested Content

This questions requests states and regions to select the different initiatives and conventions they currently or plan to participate in and to provide information on how the region's overall involvement. This question has the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.

- Global initiative/convention: Select the relevant initiative/convention(s) relevant to your region. Please note that you can only select one option at a time. If you wish to provide information on multiple initiative/conventions, please add another row to provide further details.
- Please describe your region's involvement: Please provide additional information as to how your region is currently involved in or is planning to contribute to meeting the objectives of the initiative/convention(s) reported.

(10.7) Indicate your state/region's implementation of REDD+ and provide details.

Change From Last Year

No change

Questionnaire

- States and Regions

Connection to other frameworks

- UNFCCC - REDD+

Response Options

Please complete the table below.

*column/row appearance is dependent on selections in this question]

Indicate your state/region's involvement with jurisdictional REDD+	Mechanisms in place to implement the jurisdictional REDD+*	Financial sources, both secured or at application stage, for the jurisdictional REDD+*	Provide more details on the jurisdictional REDD+*
Select from: • Yes, we are currently implementing jurisdictional REDD+ • No we are not currently implementing jurisdictional REDD+ but we are intending to in the next two years • No, we are not implementing jurisdictional REDD+ and are not intending to due to other higher priorities • No, we are not implementing jurisdictional REDD+ and are not intending to due to a lack of resources • No, we are not implementing jurisdictional REDD+ and are not intending to due to lack of financial capacity • No, we are not implementing jurisdictional REDD+ and are not intending to due to a lack of expertise / technical capacity • No, we are not implementing jurisdictional REDD+ as it is not applicable to us • No, we are not implementing jurisdictional REDD+ and are not intending to due to a reason not listed above, please specify	Select all that apply: • Policy strategy • Financial architecture: Regional fund to manage jurisdictional REDD+ • Baseline year Subnational Forest Reference Emission Levels (FREL) • Monitoring, reporting and verification system • Social and environmental safeguards • Benefit sharing strategy • Multi-partner governance structure • Other, please specify	Select all that apply: • Carbon market mechanisms • Bilateral agreements (ex. between governments) • UN-REDD+ • REDD Early Movers (REM) • Forest Carbon Partnership Facility (FCPF) • National Public Fund (ex. Amazon Fund) • Green Climate Fund (GCF) • None • Other, please specify	Text field

Requested Content

General

- Through disclosing details on the mechanisms in place and financial sources data users can see how your state/region is currently implementing REDD+ at the jurisdictional level.
- This question will provide data users with clear information on the Jurisdictional REDD+ projects your state and/or region is implementing.
- If you select 'Yes, we are currently implementing jurisdictional REDD+' in column 1, columns 2, 3 and 4 will be presented.

Mechanisms in place to implement the jurisdictional REDD+ (column 2)

- This column is presented if 'Yes, we are currently implementing jurisdictional REDD+' is selected in column 1.
- POLICY: you may also include more broad jurisdictional policies which feed into the REDD+, for example forest and climate change jurisdictional policies.

Provide more details on the jurisdictional REDD + (column 4)

- This column is presented if 'Yes, we are currently implementing jurisdictional REDD+' is selected in column 1.
- You may provide information here on project timelines, targets, successes, private sector involvement and plans for the jurisdictional REDD+.
- If you are applying for any of the funds listed in column 3, you may give more details of the application stage.

Explanation of terms

- Reducing emissions from Deforestation and Degradation (REDD+): REDD+ is an accounting framework, created by the UNFCCC Conference of the Parties ([COP](#)). It guides activities in the forest sector that reduce emissions from deforestation and forest degradation, as well as the sustainable management of forests and the conservation and enhancement of forest carbon stocks in developing countries/areas. The framework is aimed at the implementation of activities by national governments to reduce human pressure on forests that result in greenhouse gas emissions at the national level, but as an interim measure

also recognizes subnational implementation. The implementation of REDD+ activities is voluntary and depends on the national circumstances, capacities and capabilities of each developing country/area and the level of support received. ([UNFCCC, 2021](#))

- Jurisdictional Reducing Emissions from Deforestation and Degradation (REDD+): Implementation of REDD+ projects at the jurisdictional or sub-national level. This signals a shift from individual REDD+ projects financed by the private sector to public administrative bodies such as federal states and sub-national governments.

Additional information

Resources

- [Re-Framing REDD+ \(Amazon Environmental Research Institute\)](#)
- [Exploring the design of jurisdictional REDD+: The case of Central Kalimantan, Indonesia \(ScienceDirect\)](#)
- [Adaptive management of jurisdictional REDD + programs: a methodology illustrated for Ecuador \(Carbon Management Journal\)](#)

(10.8) Is your state/region involved in landscape (including jurisdictional) approaches to progress shared sustainable land use goals during the reporting period?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Please answer the table below.

[*column/row appearance is dependent on selections in this question]

Is your state/region involved in landscape (including jurisdictional) approaches to progress shared sustainable land use goals?	Primary reason for no involvement in landscape and/or jurisdictional approaches*
Select from: • Yes, we lead landscape/jurisdictional approaches • Yes, we support landscape/jurisdictional approaches • No, but we are planning to in the next two years • No, and do not plan to in the next two years	Select from: • Important but not an immediate priority • Judged to be unimportant • Lack of financial resources • Insufficient legal/policy frameworks to enforce implementation • Insufficient institutional arrangements to enable implementation. • Lack of knowledge or information on how to implement landscape and/or jurisdictional approaches • Lack of human resources • Lack of coordination with partners of the landscape/jurisdiction • No suitable initiatives to engage in • Benefits of engaging in landscapes/jurisdictions unclear • Benefits of engaging do not outweigh costs • Other, please specify

Requested Content

General

- This question is presented to all disclosers regardless of your response to 10.7.
- In answering this question, consider whether your state/region is involved, to any extent, in the design or implementation of landscape/jurisdictional approaches.

- Involvement in landscape approaches differ from other local engagements in that the goals and outcomes are defined at the landscape level and reached collectively through a multi-partner governance process and are jointly monitored and reported on through an integrated landscape management framework.
- Select “Yes, we lead landscape/jurisdictional approaches” only if your state/region leads the implementation of a landscape and/or jurisdictional approach during the reporting period.
- Select “yes we support landscape/jurisdictional approaches” if your state/region has taken part in the implementation of an initiative in any way other than leading, through support such as engagement, planning, finance, etc.

Primary reason for no involvement in the implementation of landscape and/or jurisdictional approaches

- Only appears if “No, but we are planning to in the next two years” or “No, and do not plan to in the next two years” is selected in column 1.
- Select the option that best describes the primary reason why your organization is not engaging in landscape and/or jurisdictional approaches or indicate if you have plans for implementing targets in the next two years.
- If you select “Other, please specify”, provide a label for primary reason for not encouraging landscape and/or jurisdictional approaches in your region.

Explanation of terms

- Landscape approach: Landscape approaches involve collaborative action of partners within a landscape that advance shared sustainability goals and reconcile and optimize multiple social, economic and environmental objectives across multiple economic sectors and land uses. They are implemented through processes of integrated landscape management, convening diverse partners to develop and implement land-use plans, policies, projects, investments, and other interventions.
- Jurisdictional approach: A type of landscape approach that advances shared sustainability goals where the landscape is defined by administrative boundaries of sub-national governments and the approach is implemented with a high level of government involvement.
- Partner: Partners are communities, organizations and other groups engaged, consulted, or partnered with, who are affected by or who can affect a decision or issue.

(10.8.1) Provide details of your state/region's implementation of landscape/jurisdictional approaches during the reporting year.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

Only appears if the answer is 'yes' to question 10.8

Response Options

Please complete the following table. The table is displayed over several rows for readability. You can add rows by using the "Add Row" button at the bottom of the table.

*column/row appearance is dependent on selections in this question

1	2	3	4	5
Name of the initiative	Name of jurisdiction or/and landscape area	Describe the aim of the initiative including any focus commodities and your	Implementation stage of initiative	Current sources of finance for the initiative

		state/region's role		
Text field [maximum 500 characters]	Text field [maximum 500 characters]	Text field [maximum 2,500 characters]	Select from: • Pre-Implementation and design stage: Initiative plans are under development but not yet implemented. • Implementation stage: Implementation plans are completed and currently underway/operational. • Post implementation: Implementation is complete, measurement, monitoring and report of impacts is in progress. • Review, evaluation and adapt: Lessons learned from the initiative are being used to update original plans. • Other, please specify	Select all that apply: • Governmental fund/subsidies • Private sector, companies • International development bank • Private financial institutions • National development bank • NGO • REDD+ finance • International organizations • Regional budget • No finance at present • Other, please specify

6	7	8	9	10
Types of partners engaged in the initiative design and implementation	Describe governance structures and policies in place to support the initiative	Five primary actions from private sector companies that would drive positive impact in the initiative	Is a collective monitoring framework used to measure progress towards landscape goals and actions?	State the achievements of your engagement so far, and how progress is monitored *
Select all that apply: • Indigenous peoples • Financial institution(s)	Text field [maximum 4,000 characters]	Select all that apply from table below	Select from: • Yes, progress is monitored using a shared	Text field [maximum 2,500 characters]

• Local communities • Government • NGO and/or civil society • Private sector			external framework, please specify • Yes, progress is monitored using an internally defined framework • No, but we are planning to monitor and report on progress in the next two years • No, we do not monitor progress and do not plan to in the next two years	
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[Add row]

Private sector actions which would drive positive impact in the initiative (column 8)

Participate in planning and multi-partner alignment • Co-design and develop goals, strategies and an action plan with timebound targets and milestones for the initiative • Collaborate on management/ land use planning in the landscape/jurisdiction • Collaborate on landscape sustainability assessments through participatory mapping • Collaborate on establishing and managing monitoring system(s) for deforestation, natural ecosystem conversion and/or degradation • Collaborate on establishing and managing monitoring system(s) for biodiversity, habitat fragmentation and/or threats to IUCN Red List species in priority areas	Enhance government and capacity • Support local governments (or equivalent) to enhance landscape governance structure, and provide them with resources to develop and implement sustainable landscape policies and/or management plan(s) • Support enforcement of land-use and/or zoning plans Support and incentivize sustainable production and community land use practices • Collaborate on integrated watershed management and remediation activities
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• Collaborate on establishing and managing monitoring system(s) for livelihoods and human well-being • Identify and map partners (including vulnerable and/or marginalized groups) and encourage their engagement in multi-partner processes • Help establish a transparent governance platform responsible for managing the initiative and its activities with clear roles, responsibilities, and balanced decision-making • Help establish effective mechanisms for undertaking human rights due diligence, risk management, monitoring, verification, and grievance resolution • Identify and act on opportunities for pre-competitive collaboration with company's own sector • Share spatial data and land management plans with other partners in the landscape/jurisdiction • Collaborate to maintain representation from all relevant stakeholders within governance structure of initiative Build community and multi-partner capacities • Share information on supplier non-compliance, supply chain mapping and traceability with other partners in the landscape/jurisdiction • Engage partners on importance of conservation, restoration and/or rehabilitation • Communicate externally the business case for investing in landscapes/jurisdiction • Support communities and smallholders in gaining access to incentives (e.g. support achieving certification, group formation, getting land title, packaging access to loans, preferential sourcing etc.)	• Provide financial support to fund Free Prior and Informed Consent (FPIC) processes and/or activities to halt systemic violations of workers' rights • Capacity building for farmers, smallholders and local communities to implement good agricultural practices (including improved efficiency, crop diversification and adoption of certification) • Support smallholders to clarify and secure land tenure rights • Support indigenous peoples and local communities to clarify and secure land tenure rights • Improve sustainability of waste management practices Link supply chain action to landscape/jurisdictional initiative through private sector collaboration • Collaborate on commodity traceability • Use preferential sourcing to support landscape/jurisdictional initiatives that are demonstrating progress Support innovative financial mechanisms • Finance carbon credits Other • Other, please specify
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• Support implementation of climate change vulnerability assessment • Promote and implement climate change adaptation and mitigation activities • Support maintenance/ improvement of water availability and/or quality • Implement REDD+ actions in the landscape/jurisdiction	
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Requested Content

General

- When completing this question, you may report engagement activities with landscapes and jurisdictional approaches.
- You must only report engagement that was active during the reporting period.
- Add a new row for each jurisdictional/landscape approach you are engaged with.

Describe the aim of the initiative including any focus commodities and your state/region's role (column 3)

- Provide a brief description of your role in the approach, including primary shared aims, activities and the focus commodities relevant to this initiative.
- You may include your implementation timescale for the project(s).

Describe governance structures and policies in place to support the initiative (column 7)

- Provide a brief description of the main characteristics of the governance mechanisms or structure of the initiative (who convenes it, the different partners engaged), including primary policies that support the implementation, and the process by which collective goals are being decided and monitored.
- Describe your role in facilitating an enabling governance and policy environment that supports the initiative.

Five primary actions from private sector companies that would drive positive impact in the initiative (column 8)

- Collaboration with the private sector can be influential in the implementation of these initiatives. Select around 5 primary actions which would be beneficial to the overall aims and objectives of the initiative.

Is a collective monitoring framework used to measure progress towards landscape goals and actions? (column 9)

- Select 'Yes, progress is collectively monitored using a shared external framework, please specify' if there is a system/framework (used collectively by the partners involved in the approach) in place to monitor progress in the landscape/jurisdiction, and if results are publicly reported. Provide a label to specify the assessment framework(s) that you use (e.g. LandScale, IDH SourceUp).
- If you monitor progress independently, select 'Yes, progress is monitored using an internally defined framework'.

State the achievements of your engagement so far, and how progress is monitored (column 10)

- This column is presented if "Yes, progress is..." is selected in column 9.
- Explain how your region's actions or support contributes to the landscape or jurisdictional initiative, providing an indication of progress made and how this has benefited relevant partners. You may state the verification or validation status of the approach here.
- Describe the achievements/outcomes of your engagement within the landscape/jurisdiction. This may relate to (but is not limited to) partner engagements, governance, financing, policy influence, progress on commitments, and monitoring systems.
- Provide details on how you monitor progress in the landscape/jurisdiction, including information on monitoring frameworks, metrics that are applied and data sources (primary or secondary) used to measure performance against relevant outcomes/targets. Indicate whether this information is verified by independent partners that provide insight to performance and metrics.
- Indicate how the progress of your approach is monitored (e.g., performance relative to the timeframe and scale of the approach).

Explanation of terms

- Landscape approach: Landscape approaches involve collaborative action of partners within a landscape that advance shared sustainability goals and reconcile and optimize multiple social, economic and environmental objectives across multiple economic sectors and land uses. They are implemented through processes of integrated landscape management, convening diverse partners to develop and implement land-use plans, policies, projects, investments, and other interventions.
- Jurisdictional approach: A type of landscape approach that advances shared sustainability goals where the landscape is defined by administrative boundaries of sub-national governments and the approach is implemented with a high level of government involvement.
- Partner: Partners are communities, organizations and other groups engaged, consulted, or partnered with, who are affected by or who can affect a decision or issue.

Additional information

- [A platform of resources to help private sector action in jurisdictional initiatives - JA Hub \(jaresourcehub.org\)](https://jaresourcehub.org)
- [Landscape approaches: what are the pre-conditions for success? - CIFOR Knowledge](#)

(10.9) Is there a monitoring system in place to identify changes in your region's natural forest area resulting from deforestation and/or forest degradation?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Select one from:

- Yes
- No, but we are currently planning one and it will be complete in the next year.
- No, but we are planning to implement one in the next two years.
- No, and we are not planning to implement one in the next two years.
- Do not know

Requested Content

This question allows states and regions to provide information on monitoring systems in place within their jurisdictions. The need to be able to accurately monitor forest cover and quality is crucial to understanding the costs of deforestation and/or forest degradation. Forest monitoring could include measurements of certain parameters of forests (physical, chemical, and biological) to determine baselines to detect and observe changes over time. Without monitoring and the robust statistics, understanding the loss of biodiversity and reduction of carbon sequestration capacity that results from deforestation becomes much more difficult (Adapted from: [Global Forest Atlas – Forest Monitoring](#)).

Explanation of terms

- Monitoring: an on-going function that used the systematic collection of data on specific indicators to assess and document the extent to which actions, progress, performance, and compliance are being carried out or achieved (Source: [AFi, 2019](#))

(10.9.1) Please provide the details of the monitoring system in place within your region.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" in response to 10.9.

Response Options

Description of data collected	Geographic scope covered by the monitoring	Frequency of data collection	Do the results of forest monitoring inform your region's overall strategy to managing forests?	Please explain
Text field	Select from: • Entire natural forest area within the region • Areas of high deforestation/forest degradation risk • Specific forest concessions • Areas of high conservation value • Areas of high commercial value • Areas of high carbon stock • Area legally defined as forest • Other, please specify	Select from: • One-off measurement, explanation provided • Six monthly or more frequently • Annually • Every two years • Other, please specify	Select from: • Yes • No • Do not know	Text field

[Add Row]

Requested Content

This question allows states and regions to provide additional information on their monitoring process and systems in place for identifying changes in their natural forest area as a result of deforestation and/or forest degradation. This is a table question with the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.

- Description of data collected: This is an open text field allowing you provide details of the data you collect as part of the forest monitoring. For example, forest monitoring could include measurements of certain parameters of forests (physical, chemical, and biological) to determine baselines to detect and observe changes over time (Source: [Global Forest Atlas – Forest Monitoring](#)). Forest monitoring includes all efforts to track forest conditions over time, including changes in forest cover and other social, environmental, and economic dimensions of forests.
- Geographic scope covered by the monitoring: Please select from the options provided which best describes the scope of the monitoring occurring within your region. Please note that you can only select one option at a time and if you need to provide additional information on different types of monitoring which has different geographical scope, please do so by adding a new row.
- Frequency of data collection: Please specify how frequently you undertake monitoring and data collection to identify changes in your region's natural forest area.
- Do the results of forest monitoring inform your region's overall strategy to managing forests: Please respond by selecting the best option that describes the role of monitoring and how it informs your region's overall strategy to forest management. Information and monitoring systems for the forest sector are instrumental for effective policies and planning, prioritizing interventions, valuation of forest resources, efficient investments, and engendering accountability. Relevant forest information that is systematically and periodically collected can enable effective implementation of policies, inform decision making, and guide management (Source: [World Bank – Monitoring and Information Systems for Forest Management](#)). If monitoring does not inform your region's management strategy, please use the following explanation field to provide information on this.
- Please explain: Please use this open text field to provide additional information about your region's monitoring systems and explain the extent to which the results of your monitoring inform your region's forest management strategy.

Explanation of terms

- Natural forest area: A forest that is a natural ecosystem, i.e., possesses most of the native species composition, structure, and ecological function as a forest native to the given site. This includes:
 - Primary forests that have not been subject to major anthropogenic human impacts in recent history;
 - Regenerated (second-growth) forests that were subject to major anthropogenic impacts in the past (e.g., by agriculture) but where the main causes of impact have ceased or greatly diminished, and the ecosystem has attained much of the species composition, structure and function of prior or other contemporary natural ecosystems
 - Managed natural forests where much of the ecosystem composition, structure, and ecological function exist in the presence of activities such as: (a) Harvesting of timber or other forest products, including management to promote high-value species, (b) Low intensity, small-scale cultivation within the forest, such as less-intensive forms of swidden agriculture in a forest mosaic; and;
 - Forests that have been partially degraded by anthropogenic or natural causes (e.g., harvesting, fire, invasive species) but where the land has not been converted to another use and where degradation does not result in sustained reduction of tree cover below the thresholds that define a forest, or sustained loss of other main elements of ecosystem composition, structure and ecological function (Source: [AFi, 2019](#)).
- Monitoring: an on-going function that used the systematic collection of data on specific indicators to assess and document the extent to which actions, progress, performance, and compliance are being carried out or achieved (Source, [AFi, 2019](#)).
- Forest concession: the right to use land or other property to produce forest risk commodities, granted by a government, company, landholder or a controlling body. A forest concession is "a contract between a forest owner and another party permitting the harvesting (forest utilization contracts) and/or managing (forest management services contracts) of specified resources from a given forest area" (Source: [FAO - Making forest concessions work to sustain forests, economies and livelihoods in tropical timber producing countries](#)).
- High Carbon Stock forests: this is the High Carbon Stock Approach (HCSA) classification of forested areas that should be protected based on high carbon stock, importance to local communities or high biodiversity value. The HCSA distinguishes high carbon stock forests from degraded lands that may be developed.

- High Conservation Value (HCV): biological, ecological, social or cultural values which are considered outstandingly significant or critically important, at the national, regional or global level, as defined by the High Conservation Values (HCV) Resource Network.

Additional Information

Case study: Forest monitoring in the Amazon

Forest monitoring in the Amazon basin is vital to map forest cover and identify areas of deforestation. Moreover, forest biomass measurement is a necessary step to identify total forest carbon stocks and establish baselines for carbon finance mechanisms such as REDD+.

Forest inventory has traditionally been conducted by field plot measurements. H.H. Chapman and others at the Yale School of Forestry were some of the first foresters to develop a forest mensuration methodology in the United States. Today, allometric equations are then used to extrapolate total biomass and carbon content over a large scale. However, these biomass estimates vary between sites, and field plot measurements are costly and time consuming to replicate over a large area. Satellite data can be used to estimate forest cover across a large area at resolutions of 30 square meters for Landsat and 250 square meters for MODIS. A recent mapping project between the University of Maryland and Google created a detailed global map of forest cover change. Using Landsat images, the research confirmed a slowing down in Amazon forest cover loss in Brazil but increased deforestation in the dry forest area of the Cerrado and Chaco forest, in southern Brazil, Bolivia and Paraguay. Other studies using MODIS images also show the annual change in forest cover in South America. They found continued forest loss in the arc of deforestation extending from Para, Brazil, south to Mato Grosso, and west into Acre, while finding forest recovery in steep areas of the Andes, the Atlantic Forest of Brazil, and the dry Caatinga of northeast coastal Brazil.

Source: [Global Forest Atlas – Forest Inventory and Monitoring in the Amazon](#)

(10.10) Has a risk or vulnerability assessment on deforestation and/or forest degradation been undertaken for your region?

Change From Last Year

No change

Questionnaire

- States and Regions

Connection to other frameworks

- EU Mission on Adaptation to Climate Change

Response Options

Select one:

- Yes, a risk or vulnerability assessment has been undertaken
- Yes, a risk or vulnerability assessment is currently being undertaken and it will be complete in the next year
- No, a risk or vulnerability assessment has not been undertaken but we plan to undertake and complete one in the next two years
- No, a risk or vulnerability assessment has not been undertaken and we do not plan to undertake one in the next two years
- Do not know

Requested Content

It is important to provide details of your procedures for deforestation and/or forest degradation risk or vulnerability assessment so that data users can consider the thoroughness of your region's understanding of its forests-related risk exposure. If you have completed a risk assessment for your entire region, select "Yes, a risk or vulnerability assessment has been undertaken". If you have an environmental risk assessment that considers any inherent deforestation and/or forest degradation risks among other environmental issues, please select "Yes, a risk or vulnerability assessment has been undertaken". If your risk or vulnerability assessment is in the process of being undertaken, or has not been undertaken, select the relevant option.

Explanation of term

"Risk", as used in the Global Forest Watch's Jurisdictional Risk Assessment, captures only deforestation that is achieved in a manner that is not permitted (e.g., by use of fire), or which takes place where certain laws and policies prohibit deforestation or conversion. Assessing the degree to which deforestation occurs in these areas helps to illuminate where background conditions may contribute to deforestation risk. (Source: [WWF – Using Public Data Platforms To Assess Deforestation Risks Within Jurisdictions](#))

(10.10.1) Please provide the details of your region's procedures for assessing deforestation and/or forest degradation risks.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes, a risk or vulnerability assessment has been undertaken" in response to 10.10.

Response Options

1	2	3	4	5
Risk assessment procedure	Forests-related issue assessed	Drivers assessed	Frequency of assessment	Tools and methods used to identify and assess risks
Select from: - Assessed as part of land use planning - Assessed as part of regional sustainability appraisals - Assessed as part of strategic environmental assessments - Assessed as part of corporate projects' environmental impact assessments - Assessed as part of the management of Protected Areas - Assessed as part of the management of commercially valuable forests and/or plantations - Assessed as a standalone issue - Other, please specify	Select all that apply: - Deforestation - Forest degradation - Conversion of natural habitats - Other, please specify	Select all that apply: Options pre-populated from drivers reported in question 10.2	Select from: - One-off assessment, explanation provided - Six monthly or more frequently - Annually - Every two years - Other, please specify	Select all that apply: - Desk-based research and studies - Field surveys - Online tools (e.g. WWF-SIGHT and Analytics) - WRI Global Forest Watch - Remote sensing (e.g. satellite or aerial photographs) - Consultations with partners - Region-specific tools and databases - National specific tools and databases - Other, please specify

6	7	8	9
Risk assessment procedure	Forests-related issue assessed	Drivers assessed	Frequency of assessment
Select from: - Assessed as part of land use planning - Assessed as part of regional sustainability appraisals - Assessed as part of strategic environmental assessments - Assessed as part of corporate projects' environmental impact assessments - Assessed as part of the management of Protected Areas - Assessed as part of the management of commercially valuable forests and/or plantations - Assessed as a standalone issue - Other, please specify	Select all that apply: - Deforestation - Forest degradation - Conversion of natural habitats - Other, please specify	Select all that apply: Options pre-populated from drivers reported in question 10.2	Select from: - One-off assessment, explanation provided - Six monthly or more frequently - Annually - Every two years - Other, please specify

[Add Row]

Requested Content

It is important to describe your risk assessment coverage and content so that data users can understand the thoroughness of your risk assessment processes and whether your adopted risk assessment procedures are appropriate for the context and risks.

Reporting the frequency of your risk assessments helps demonstrate whether these aspects of your assessments are appropriate for the context and risks reported.

This is a table question with the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.

- Risk assessment procedure: Select the option that best describes how your region assesses risks associated with deforestation and/or forest degradation. If multiple approaches apply, select the main or primary approach taken by your

region and add a new row to provide information on other procedures. If none of the available options are suitable, select "Other, please specify" and a text box will appear for you to add a label that describes your approach.

- Forests-related issue assessed: Please select all the relevant issues that are assessed. You can select multiple options in this field.
- Drivers assessed: Please select all the drivers that are assessed. Please note that the options for this field will be dependent on the options selected in question 10.2.
- Frequency of assessment: Please select the option that best describes how frequently your risk or vulnerability assessment is carried out within your region.
- Tools and methods used to identify and assess risks: Select the options that best represent the tools and methods used by your region to identify and assess risks associated with deforestation and/or forest degradation. If none of the available options are suitable, select "Other, please specify" and a text box will appear for you to add a label that describes the tools/methods used.
- Issues considered: This field provides an indication of the comprehensiveness of the risk assessment, as it collects information on the additional contextual issues that inform your region's understanding of its risks related to deforestation and/or forest degradation. Please select all the relevant issues considered from the options provided. If none of the available options are suitable, select "Other, please specify" and a text box will appear for you to add a label that describes other issues considered. Please use the explanation field to explain why those issues are considered in your risk assessment.
- Communities and organizations considered: This field provides an indication of the comprehensiveness of the risk assessment, as it collects information on the key communities and organizations that inform your region's understanding of its risks related to deforestation and/or forest degradation. Please select all the relevant communities and organizations considered from the options provided. If none of the available options are suitable, select "Other, please specify" and a text box will appear for you to add a label that describes the other groups considered. Please use the explanation field to explain why those communities and organizations are considered in your risk assessment.
- Risk assessment web link: If it is available online, please provide a web link to your region's risk assessment.
- Please explain: This is an open text field with 2400 characters, which allows you to provide additional information regarding the risk assessment procedures in place within the region to identify and assess risks relating to deforestation and/or deforestation. Please use this field to explain why the selected contextual issues and communities and organizations are considered in your region's risk assessment.

Explanation of terms

- "Risk", as used in the Global Forest Watch's Jurisdictional Risk Assessment, captures only deforestation that is achieved in a manner that is not permitted (e.g., by use of fire), or which takes place where certain laws and policies prohibit deforestation or conversion. Assessing the degree to which deforestation occurs in these areas helps to illuminate where background conditions may contribute to deforestation risk (Source: [WWF- Using Public Data Platforms To Asses Deforestation Risks Within Jurisdiction](#))
- Forests-related issues: for the purpose of the 2025 States and Regions questionnaire, this refers to deforestation and forest degradation as well as conversion and degradation of other natural ecosystems.
- Deforestation: Loss of natural forest as a result of the following human activities: i) conversion to agriculture or other non-forest land use; ii) conversion to a plantation forest; or iii) severe and sustained degradation.
 - Severe degradation constitutes deforestation even if the land is not subsequently used for non-forest land use.
 - Loss of natural forest that meets this definition is considered to be deforestation regardless of whether or not it is legally permitted.
 - Deforestation signifies "gross deforestation" of a natural forest where "gross" is used in the sense of "total aggregate; without deduction for reforestation or other offsets" (Source: [AFi, 2019](#)).
- Forest degradation: Changes within a natural ecosystem that significantly and negatively affect its species composition, structure and/or function and reduce the forest's capacity to support biodiversity, supply products and/or deliver ecosystem services. (Source: [AFi, 2019](#))
- Conversion: Human-induced change of a natural ecosystem to another land use or profound change in the natural ecosystem's species composition, structure, and/or function.
 - Deforestation is one form of conversion (conversion of natural forests)
 - Conversion includes severe degradation or the introduction of management practices that result in a substantial and sustained change in the ecosystem's former species composition, structure, or function.
 - Change to natural ecosystems that meets this definition is considered to be conversion regardless of whether or not it is legally permitted (Source: [AFi, 2019](#)).

(10.10.2) Please explain why your region has not undertaken / has not been requested to undertake a forests-related risk assessment.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question appears if you select any "No" option or "Do not know" in response to 10.10.

Response Options

Reason	Please explain
Select from: • Forest management is not a priority for the region • Risk assessment in progress • Risk assessment is still in the planning stages • Intending to undertake in the future • Human resources/capacities constraint • Lack of expertise and knowledge of deforestation risks • Lack of funding • Lack of data • Other, please specify	Text field

Requested Content

This question allows you to explain the primary reason as to why the region has not undertaken/has not been requested to undertake a risk assessment relating to deforestation and/or forest degradation. This question is a table with the following fields:

- Reason: Please select the option from the drop-down that describes the reasoning to your response. Please select “Other, please specify” if you want to provide a different reason from the options provided. Please specify this reason in the text field provided.
- Please explain: Please provide a brief explanation for this reason and its relevance in the context of your region. Please use the text field to also explain any future plans you have to undertake a forests-related risk assessment if relevant.

(10.11) Do current and/or anticipated impacts of deforestation and/or forest degradation present significant risks to your region?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Select from:

- Yes
- No, please specify why

- Do not know

Requested Content

Deforestation and forest degradation are major concerns for forest users and managers because it threatens their livelihoods. Deforestation not only leads to a reduction of available forest, it may also have adverse effects on the productivity, biodiversity and health of nearby remaining forests. For this question, please report whether the impact of deforestation and/or forest degradation presents significant risks to your region, by selecting "Yes", "Do not know" or "No, please specify why". If you select "Yes" or "Do not know", you will be directed to questions 10.11.1.

Deforestation and forest degradation can have severe socio-economic consequences: for example, it can threaten the livelihoods, cultures and survival of people who depend on forests, including indigenous peoples; weaken local and national economies; trigger social conflicts over natural resources; and cause population displacements. When identifying impacts of deforestation and/or forest degradation, states and regions should think objectively of the ways in which these issues will affect their region's ability to conduct business as usual as well as the risks associated to their citizens.

(10.11.1) Please provide details of the deforestation and/or forest degradation impacts as well as the primary action taken by your region.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" or "Do not know" in response to 10.11.

Response Options

1	2	3	4
Impacts	Forests-related issue causing the impact	Driver causing the impact	Anticipated timescale
Select from: • Increased greenhouse gas emissions • Loss of carbon sinks • Disruptions in the water cycle • Decline in water quality • Loss of forest products and services • Disruption of sources of livelihoods • Displacement or other impacts for Indigenous peoples • Biodiversity loss • Introduction of invasive species • Change in forest structure and composition • Habitat loss and wildlife displacement • Habitat fragmentation • Increased soil erosion • Change in soil quality • Increased wildfires • Other, please specify	Select all that apply: • Deforestation • Forest degradation • Conversion of natural habitats • Other, please specify	Select all that apply: Options pre-populated from drivers reported in question 10.2	Select from: • Current • Short-term • Medium-term • Long-term • Unknown

5	6	7	8	9
Impact seriousness	Impact description	Primary action taken	Status of action	Action description
Select from: - Extremely serious - Serious - Less serious - Other, please specify	Text field	Select from: See drop-down options below	Select from: - Scoping - Pre-feasibility study - Pre-implementation - Implementation - Operation - Complete - Monitoring and reporting	Text field

[Add Row]

Primary action drop-down options:

- Adoption of afforestation strategies
- Adoption of reforestation strategies
- Encouraging integrated land-use planning and management
- Enforcing forest policies and regulations
- Upholding customary right and the security of land tenure and use
- Forest landscape restoration
- Implementing jurisdictional or integrated landscape approaches
- Increase awareness/engage all partners on sustainable forest management
- Institutional strengthening and capacity building on forest management
- Introduction of biodiversity offsets or compensatory conservation
- Promoting certification and sustainable procurement policies
- Promoting and sharing information on best practices

- Reinforcing and expanding networks of protected areas and/or indigenous reserves
- Restoring soil fertility
- Setting up disincentives (e.g. taxes or fines for forest clearing)
- Setting up incentives (e.g. payments for ecosystem services)
- Strengthening demand-side policies
- No action currently undertaken
- Other, please specify

Requested Content

- This question allows states and regions to report on the current or anticipated impacts of deforestation and/or forest degradation as well as the primary actions they are taking to address these impacts. The [FAO's Sustainable Forest Management \(SFM\) Toolbox has a module on reducing deforestation](#) has provided additional information and guidelines on how to address deforestation by:
- Identifying and analysing drivers: Location-specific, comprehensive assessments of the drivers of deforestation are the essential first steps in addressing deforestation. Note that the identification and analysis of drivers should be done with the full and informed participation of all partners, such as the people involved in the various land uses and those benefiting from, or incurring costs due to, deforestation. Care should be taken to ensure that marginalized partners, such as women and youth, minority groups, and indigenous peoples and other forest-dependent people, are able to participate meaningfully. The general requirements for such analyses are as follows:
 - Identify deforestation areas (location and extent) using the most recent data obtained from existing monitoring systems or remote sensing, complemented by historical data, local knowledge, relevant reports and statistics, and an assessment of potential future threats in order to anticipate and minimize risk.
 - Analyze the specific drivers based on data obtained from existing monitoring systems, local knowledge, and other available sources of information.
 - Evaluate the impact of drivers at the local, national and, where possible, global scales, looking beyond the forest sector and considering the relationship of such drivers to all land-use activities.

- Analyze the underlying drivers, particularly those at the international level. This may need to be done using economic and social indicators, statistical analyses and modelling. It should include the mapping of the main actors associated with specific deforestation drivers and with forest restoration drivers.
- Collect qualitative information from partners in order to understand the dynamics of the drivers. Of particular interest are the views of partners living or working in areas where deforestation or forest degradation occur, and those living or working at sites that are showing signs of forest recovery. Such information can be gathered through, for example, key informant interviews, focus group discussions, participatory rural appraisals, and livelihood analysis, including household surveys.
- Main considerations: The following issues need to be considered when designing actions to address deforestation drivers:
 - Taking a holistic approach that considers all scales: The drivers of deforestation are dynamic and interlinked and should therefore be addressed holistically. Because they occur at many scales (from local to global), strategies must integrate actions at various scales. Addressing regional or global drivers of deforestation is especially challenging and requires collaboration among countries/areas.
 - Different types of interventions: At all scales, three kinds of interventions may be considered: 1) incentives; 2) disincentives; and 3) creating an enabling environment. The table provides examples in each of these categories of measures that might be taken at various scales.
 - Actions to reduce deforestation should be formulated and implemented with the engagement of all partners in order to achieve legitimacy and buy-in. Because the most powerful drivers of deforestation are outside the forest sector, a cross-sectoral approach is crucial. An assessment of sectoral policies (e.g. forest, agriculture, mining, infrastructure and energy sectors), integrated land-use planning (e.g. a landscape approach), and the commitment to action by actors across sectors, are all essential for aligning sectoral interests in efforts to combat deforestation. Strategies should take into account the impacts of proposed actions on food security, local livelihoods, and climate-change mitigation and adaptation.
- Prioritization, implementation and monitoring: The identified actions should be ranked based on predefined criteria (e.g. objectives, estimated costs and potential for funding, existing implementation capacities, and alignment with national development priorities and plans). This will help in determining which drivers should be addressed first, the most suitable actions to take, and which drivers should not be addressed, or should be addressed later, and the rationale for the choices made. An implementation plan for the selected interventions should be developed, establishing mechanisms for partner

consultations and coordination. The plan should include an efficient monitoring system to enable the assessment of interventions, partner engagement and perceptions, and socioeconomic and environmental impacts, in light of which the plan can be adapted as required.

- This is a table question with the following fields. You are able to add rows by using the 'Add Row' button at the bottom of the table.
- Impacts: Please select one of the impacts relating to deforestation and/or forest degradation that are relevant for your region from the drop-down options provided. You can select more than one type of impact by adding new rows when responding to this question.
- Forests-related issue causing the impact: Please select all the relevant issues that are causing the impact selected. You can select multiple options in this field.
- Driver causing the impact: Please select all the drivers that are causing the impact selected. Please note that the options for this field will be dependent on the options selected in question 10.2.
- Anticipated timescale: Please select the option that best applies to the impact reported. This field offers the following options for the timescale:
 - Current – If your region is already experiencing the identified effect of deforestation and/or forest degradation.
 - Short term – If you anticipate your region will experience the effect of deforestation and/or forest degradation by 2025.
 - Medium term – If you anticipate your region will experience the identified effect of deforestation and/or forest degradation between 2026 and 2050.
 - Long term – If you anticipate your region will experience the identified effect of deforestation and/or forest degradation after 2051.
 - Unknown – If the information as to when your region will experience the identified effect of deforestation and/or forest degradation is not available.
- Impact seriousness: CDP asks states and regions to assess their level of risk by estimating the potential impact from the anticipated effect of deforestation and/or forest degradation along with the likelihood of that effect occurring. The seriousness of an impact will vary from region to region. When describing changes/activities and impacts on ecosystem structure and function, reference should be made to the following parameters, which include: positive or negative; magnitude; extent; duration; reversibility; and timing and frequency (Source: [CIEEM – Impact Assessment](#)). For example, “Extremely serious” impacts could be those that are widespread, long lasting and result in substantial and possibly irreversible change to the

environmental value, which requires avoidance through appropriate and very specific responses or environmental controls. On the other hand, “Serious” impacts could be those that extend beyond the area of disturbance to the surrounding area but have a shorter duration.

- Impact description: This is an open text field with 2400 characters, which allows you to provide information as to how the impact selected is affecting the region and its citizens. For example, Biodiversity has high economic value. Some of the more obvious sources of value include: bio-prospecting, carbon sequestration, watersheds and tourism. Therefore, biodiversity loss resulting from deforestation could have considerable costs in both measurable economic loss and difficult-to-measure non-marketed terms (Source: [OECD – Biodiversity](#)).
- Primary action taken: Please select one option from the drop-down list that best describes the action you are taking to address the impact reported. If multiple actions apply, select the impact and the corresponding action by adding a new row to provide further information. If none of the available options are suitable, select “Other, please specify” and a text box will appear for you to add a label that describes your approach.
- Status of action: Please select the most appropriate option from the drop-down menu to describe the stage of implementation of the action selected.
- Action description: This is an open text field with 2400 characters, which allows you to provide further relevant comments about the action. Description of the actions should include details about: project name, scope, costs, timescale, collaborators and the projected outcome of the action.

Explanation of terms

- Forests-related issues: for the purpose of the 2025 States and Regions questionnaire, this refers to deforestation and forest degradation as well as conversion and degradation of other natural ecosystems.
- Deforestation: Loss of natural forest as a result of the following human activities: i) conversion to agriculture or other non-forest land use; ii) conversion to a plantation forest; or iii) severe and sustained degradation.
 - Severe degradation constitutes deforestation even if the land is not subsequently used for non-forest land use.
 - Loss of natural forest that meets this definition is considered to be deforestation regardless of whether or not it is legally permitted.

- Deforestation signifies "gross deforestation" of a natural forest where "gross" is used in the sense of "total aggregate; without deduction for reforestation or other offsets" (Source: [AFi, 2019](#)).
- Forest degradation: Changes within a natural ecosystem that significantly and negatively affect its species composition, structure and/or function and reduce the forest's capacity to support biodiversity, supply products and/or deliver ecosystem services. (Source: [AFi, 2019](#))
- Conversion: Human-induced change of a natural ecosystem to another land use or profound change in the natural ecosystem's species composition, structure, and/or function.
 - Deforestation is one form of conversion (conversion of natural forests)
 - Conversion includes severe degradation or the introduction of management practices that result in a substantial and sustained change in the ecosystem's former species composition, structure, or function.
 - Change to natural ecosystems that meets this definition is considered to be conversion regardless of whether or not it is legally permitted (Source: [AFi, 2019](#)).

(10.12) Does managing forests sustainably provide any opportunities for your region?

Change From Last Year

No change

Questionnaire

- States and Regions

Response Options

Select from:

- Yes
- No, please specify why
- Do not know

Requested Content

Implementing sustainable forest management practices may reveal or lead to a variety of opportunities for the region. This question is designed to collect information on how states and regions are approaching and capitalizing opportunities from managing forests sustainably. If you select “Yes” in response to this question, you will be asked to provide information on those opportunities and explain how your region is positioning itself to maximize them. When identifying opportunities resulting from managing forests sustainably, please consider also the benefits associated with forests including those with and without financial or market value.

Explanation of terms

- Sustainable forest management: The process of managing a forest for achieving the continuous production of desired forest products and services without reducing its inherent values, future productivity and avoiding undesirable social-environmental effects (Source: adapted from [ITTO](#)).

Additional Information

Case study: Examples of benefits associated with forests

Food security and nutrition

For example, a vital way in which forests contribute to food security and nutrition is in the provision of wood fuel as a household energy source. A sustainable energy supply is essential for proper and safe food and water use and therefore for family health.

Likewise, the most recognized contribution of forests to food security and nutrition is the direct provision of forest foods, which can support a nutritious and diverse diet. Plants and animals found in forests provide important nutrient-rich dietary supplements, add variety to the bland diets common in rural, food-insecure households, and improve the taste and palatability of staple foods.

Source: [FAO – Forests, Food security and Nutrition](#)

Health and well-being

Studies in countries such as Australia, Japan, the Netherlands, Norway, Sweden, the United Kingdom and the United States indicate the significant benefits of trees, woodlands and green spaces to people's overall health and well-being. There are many ways in which to categorize such benefits, but primarily the categories are physical, psychological and social. Benefits can be gained from being active in nature (e.g. walking or cycling in forests), and by viewing nature, for example while in transit between or within urban areas. In many developing countries/areas, forests are central to cultures and ways of life – agricultural and forestry practices may be impossible to separate from beliefs and values. In Borneo, for example, rice cultivation in swidden systems is a central activity of Kenyah Dayak women. Without the forest (or access to it), this subsistence system, and the accompanying culture and way of life, would be endangered.

Source: FAO – [Health Benefits from Forests](#)

(10.12.1) Please indicate the opportunities associated with sustainable forest management and describe how your region is positioning itself to take advantage of them.

Change From Last Year

No change

Questionnaire

- States and Regions

Question dependencies

This question only appears if you select "Yes" or "Do not know" in response to 10.12.

Response Options

Opportunity	Describe how the region is maximizing this opportunity
Select from: • Climate change mitigation • Increasing resilience to climate change impacts and other disasters • Continued access to forest products • Development of recreation and tourism industry • Ensuring clean water supply • Sustain livelihoods dependent on forests • Other ecosystem services from forests realized (e.g. improved well-being, soil erosion management) • Compliance to policies and regulations • Develop jurisdictional approaches • Preferential sourcing by companies • Increase employment opportunities • Increase opportunities for partnership and establish joint forest management principles • Increased attention to other environmental concerns • Additional funding and investment opportunities (e.g. access to REDD+) • Gain access to export markets with higher sustainability standards • Other, please specify	Text field

[Add Row]

Requested Content

This is a table question, which invites you to detail the opportunities that may arise from managing forests sustainably and asks you to describe how your region is seizing them. This question allows you to report on multiple economic opportunities by adding an additional row. You are able to add rows by using the 'Add Row' button at the bottom of the table. The table has the following fields:

- Opportunity: Please select the relevant opportunity for your region. If you want to add other types of opportunities that are not listed in the provided drop-down options, please select "Other, please specify" and specify the type of opportunity. Note that you can select one opportunity at a time. If you want to report multiple opportunities associated with sustainable forest management, then please add a new row. When selecting the opportunities, please consider that they can relate to those that are:
 - Currently being experienced or are expected to arise in the future;
 - Being managed or newly identified;
 - Well understood or with high levels of uncertainty about the likelihood of the opportunity materializing and the extent to which it will impact the region.
- Describe how the region is maximizing this opportunity: For each of the opportunities identified, please use this field to highlight what your region is doing to seize the relevant opportunity.

Explanation of Terms

- Sustainable forest management: The process of managing a forest for achieving the continuous production of desired forest products and services without reducing its inherent values, future productivity and avoiding undesirable social-environmental effects (Source: modified from [ITTO](#)).

Further Information

(11.1) Use this field to provide any additional information or context that you feel is relevant to your jurisdiction's response. Please note that this field is optional and is not scored/assessed.

Change From Last Year

No change

Questionnaire

- Cities
- States and Regions

Connection to other frameworks

- Union of the Baltic Cities Sustainable Cities Commission
- ICLEI Ukrainian Cities: Climate Neutrality, Resilience and Recovery
- EU Mission on Adaptation to Climate Change

Response Options

Further information	Further attachments
[Text]	[Attachment column]

Requested Content

General

- Information reported in this question could include:
 - An estimate of the quantity of data (in MB or GB) your jurisdiction needed to collect from internal departments and external stakeholders in order to be able to respond to the questionnaire.
 - Any further attachments to support the information in your response. Please ensure you briefly describe any attachments in the 'Further information' column and indicate which question they relate to (if any).

(11.2) Where available, please provide the following documentation relevant to your membership in the Green Climate Cities program.

Change From Last Year

No change

Questionnaire

- Cities: Initiative-specific

Connection to other frameworks

- ICLEI's GreenClimateCities

Response Options

Document	Attachment	Comment and URL link, if applicable
Select from: • Council decision stating climate action as priority (official document with date). • Document that shows local context (what is in place already): outlining existing policies, regulations and in-house capacity of the local/regional government to address climate action planning and implementation. • Summary document with mandates, roles and responsibilities of the Climate Coordination Team (or equivalent group). • Document outlining institutional structures in place (i.e. decision-making and internal reporting process, could include an organigram). • Report to Council summarizing results of all assessments and baselines (e.g. GHG emissions, main climate risks and vulnerabilities) to inform next steps ("climate readiness review") for planning. • Document identifying local capacity and resources, opportunities, challenges and constraints, staff capacity assessment, available finances to address climate action planning, implementation, monitoring and reporting. • Stakeholder engagement plan. • Awareness-raising and communication plan. • List of possible (wide range of options) climate actions and potential impacts, both for Government Operations and across the territory (all sectors, all stakeholders). • Prioritized (shortlisted) list of actions, their estimated impacts and costs. • Pre-feasibility studies conducted to assess operational and financial viability of climate actions. • Feasibility studies conducted (environmental impact assessment, project design, scheduling, operational plan, maintenance, risk management, detailed budget, identified need for supplementary studies, financing options). • Document of financial capacity assessment. Identify if ICLEI's Sustainable Public Procurement guidelines have been followed.	Attachment function	Text field

Document	Attachment	Comment and URL link, if applicable
• Document tracking implementation progress of identified prioritized climate actions / interventions. • Document describing internal Monitoring & Evaluation System for climate action. • Document summarizing the local/regional government climate budget tracking system. • Document evaluation of climate action planning processes: mid-term or final report. • Any award won or recognition of climate leadership at national or international level. • Document describing how the city has contributed to climate advocacy at the national or international level leveraging their actions as best practice. • Other, please specify.		

[Add row]