The Compact of Mayors is the largest cooperative international effort among mayors and city officials to demonstrate their commitment to reducing greenhouse gas emissions and preparing for the impacts of climate change. The development of the Compact of Mayors was led by C40, ICLEI, and UCLG, in close collaboration with the UN Secretary General's Special Envoy for Cities and Climate Change, UN Habitat, and the UN Secretary General's office.

The <u>Compact of Mayors</u> has been designed to encourage best practices in addressing climate change mitigation and adaptation in cities. The Compact of Mayor's questions can be found <u>here</u>, and are also available in the <u>CDP Cities 2015 Information Request</u>.

For mitigation, it encourages cities to follow a logical progression whereby they publicly: commit to addressing GHG emissions reduction; measure their emission inventory using a consistent and robust standard; set appropriate targets for the future; and develop climate action plans to deliver on their targets. For adaptation, it encourages cities to follow a logical progression whereby they publicly: commit to addressing the impacts of climate change; identify climate hazards; assess vulnerabilities; and develop climate adaptation plans.

The Compact of Mayors recognises that cities may be at different stages of addressing the issue of climate change, and encourages cities to advance along the required steps for Compact compliance, with the goal of being fully compliant with the Compact of Mayors within three years' time. The table below sets out which questions must be answered to be compliant with the four different stages of the Compact of Mayors.

| | Commitment | Year 1 | Year 2 | Year 3 |
|-------|------------|--------|--------|--------|
| M0.1 | | | | |
| M0.2 | | | | |
| M0.3 | | | | |
| M0.4 | | | | |
| M1.0 | | | | |
| M1.1 | | | | |
| M1.2 | | | | |
| M1.3 | | | | |
| M1.4 | | | | |
| M1.4a | | | | |
| M1.5 | | | | |
| M1.5a | | | | |
| M1.6 | | | | |
| M1.6a | | | | |
| M1.7 | | | | |
| M2.0 | | | | |
| M2.0a | | | | |
| M2.1 | | | | |
| M2.2 | | | | |

| M2.3 | | | | |
|-------|---------|--------|--------|--------|
| M2.3a | | | | |
| | Joining | Year 1 | Year 2 | Year 3 |
| M2.4 | | | | |
| M2.4a | | | | |

COM Overview

M0.1 If registering intent of compliance with the Compact of Mayors, please attach your letter. [Attachment function]

To register intent of compliance cities are required to attach a signed letter from their Mayor, or other senior representative of the city, providing a public commitment to reduce greenhouse gas emissions and adapt to climate change, and be fully compliant with the requirements of the Compact of Mayors within three years time. This includes:

- A greenhouse gas emissions inventory consistent with the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC), within one year or less
- · Report climate hazards faced by the city, within one year or less
- Target to reduce carbon emissions, within two years or less
- Assess the climate vulnerabilities faced by the city, within two years or less
- Plans to address climate change mitigation and adaptation within three years of less

You may use the template text available to upload your intent of compliance.

M0.2 Please provide details of your city's current population.

| Current population | Current population year |
|--------------------|-------------------------|
| [Numeric field] | [LOV: 2010-2015] |

To be compliant, cities are required to indicate:

- Current population: the number of residents within your city boundaries
- Current population year: select the year in which the population figure was determined. This must overlap with the accounting year for the emissions inventory selected in M1.0.

M0.3 Please provide details of your city's GDP.

| GDP (\$USD) | Year of GDP |
|-----------------|------------------|
| [Numeric field] | [LOV: 2010-2015] |

To be compliant, cities are required to indicate:

- GDP in USD: the Gross domestic product (GDP) is defined as "a measure for "final goods and services produced by a ... [city] during a period minus the value of imports" by the <u>OECD</u>
- Year of GDP: select the year when the GDP value you are reporting was calculated. This must overlap with the accounting year for the emissions inventory selected in M1.0.

M0.4 Please provide the land area (in km2) of your city. [Numeric field]

To be compliant, cities must indicate the land area within your city boundaries as a one decimal figure in km2. Please provide the land area that is reflective of your emissions inventory boundary and the year of your reported emissions inventory.

COM Emissions Inventory

M1.0 Please state the dates of the accounting year or 12-month period for which you are reporting a GHG emissions inventory for your community.
[Drop down calendar: From]
[Drop down calendar: To]

To be compliant, cities must report the dates of their accounting period. This shall cover a full 12-month period and can be no more than three years prior to the reporting year (i.e. in 2015, inventories must be dated between 2012 and 2014).

M1.1 Please indicate the category that best describes the boundary of your community GHG emissions inventory. [LOV: Administrative boundary of a local government; Combination of administrative divisions; A metropolitan area; Other]

To be compliant, cities must report the boundary which was used for the calculation of their GHG emissions inventory. Cities must select the most appropriate boundary reflecting the specificity of their city from the list of values:

- Administrative boundary of a local government refers to the area covered by the jurisdiction of a single local government, usually at the sub-city level (e.g. a borough of ward).
- Combination of administrative divisions refers to the area covered by the jurisdiction of multiple local governments, usually at the sub-city level.
- A metropolitan area, also referred to as metropolitan region or metro area, consists of a single large urban area or an agglomeration of urban areas, and usually comprises multiple local governments.
- Other. If none of the above apply, please select "Other" and provide a description.

M1.2 Please give the name of the primary protocol, standard, or methodology you have used to calculate GHG emissions.

Primary protocol

[LOV: Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI); International Emissions Analysis Protocol (ICLEI); International Standard for Determining Greenhouse Gas Emissions for Cities (UNEP and World Bank); 2006 IPCC Guidelines for National Greenhouse Gas Inventories; U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (ICLEI); Greenhouse gas Inventory & Research Center of Korea (GIR); Other]

Please select the methodology used to calculate your city's GHG emissions inventory from the list of values. To be compliant, cities must report their GHG emissions inventory following the methodology set out in <u>the Global Protocol for Community-Scale Greenhouse Gas</u> Emissions Inventories.

M1.3 Which gases are included in your emissions inventory? Tick all that apply.

| □ CO2 | □ PFCs |
|--------|--------|
| □ CH4 | □ SF6 |
| □ N2O | □ NF3 |
| □ HFCs | |

Please tick the gases accounted for in your GHG emissions inventory. These gases are the main greenhouse gases defined by the United Nations Framework Convention on Climate Change (UNFCCC): carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulfur hexafluoride (SF6), as well as nitrogen triflouride (NF3). To be compliant cities are required to account for CO2, however, cities are strongly encouraged to also account for CH4 and N2O. Accounting of other gases is optional.

M1.4 If not Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI): Does your city commit to reporting a compact-compliant GPC inventory? [LOV: Yes; No]

To register intent of compliance, cities must commit to reporting their emissions using the Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC). Please select "Yes" if your city is planning to calculate its emissions according to the GPC within a 12 months period.

M1.4a If yes: When does your city commit to reporting a compact-compliant GPC inventory? [Text box]

To register intent of compliance, cities must commit to reporting their emissions using the GPC within 12 months. Please give details, such as expected year, status and progress on when your city is planning to have a compact-compliant GPC inventory.

M1.5 If Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI): Please provide a summary of emissions by sector and scope as defined in the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI). Please complete the corresponding emissions for each row in the table below.

| Sector and scope (GPC reference number) | Emissions (metric tonnes CO2e) |
|---|--------------------------------------|
| [Fixed LOV: Stationary Energy: energy use – Scope 1 (I.X.1); Stationary Energy: energy use – Scope 2 (I.X.2); Stationary Energy: energy use – Scope 3 (I.X.3); Stationary Energy: energy generation supplied to the grid – Scope 1 (I.4.4); Transportation – Scope 1 (II.X.1); Transportation – Scope 2 (II.X.2); Transportation – Scope 3 (II.X.3); Waste: waste generated within the city boundary – Scope 1 (III.X.1); Waste: waste generated within the city boundary – Scope 3 (III.X.2); Waste: waste generated outside the city boundary – Scope 3 (III.X.3); Industrial Processes and Product Use – Scope 1 (IV); Agriculture, | [Numeric field] |

| Forestry and Land Use – Scope 1 (V); TOTAL Scope 1 (Territorial emissions; | |
|--|--|
| TOTAL BASIC emissions; TOTAL BASIC and BASIC+ emissions] | |

Please use the embedded table to disaggregate and report your emissions by sector and by scope. To be compliant, cities must report at minimum their emissions for the following activities: stationary energy (I.X.1, I.X.2, I.4.4), transportation (II.X.1, II.X.2) as defined by the GPC. Cities are strongly encouraged to also report emissions from waste (III.X.1, III.X.2, III.X.3). Other activities are optional.

M1.5a If Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI): Please provide a breakdown of fuel use and emissions by subsector and scope as defined in the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC), (WRI, C40 and ICLEI) and attach GHG emissions report [Attachment function]

To be compliant, cities must provide a detailed breakdown of fuel use and emissions by sector and scope including the notation keys for all sub-sectors, completed data quality assessment and description of methodologies used. Please click <u>here</u> to download a spreadsheet which you can use to enter your breakdown of fuel use and emissions by subsector and scope. Save your completed report and attach it by clicking on 'Choose file', navigate to the file and click 'Open'. Once you can see the file name in the text field click 'Attach & Save' to attach the document. Please refer to the guidance included within the spreadsheet for advice on how to use it.

Within one year of registering compliance, activity data and emission factors must also be provided.

COM Emissions Reduction

M1.6 Does your city have a climate change action plan for reducing GHG emissions? [LOV: Yes, No]

Please respond to indicate whether your city has a climate change action plan by selecting "Yes" or "No" from the drop down menu. If you select "yes" you will be directed to Question 1.5a. If you select "No" you will be directed to Question M1.6a.

If you wish to see an example of a climate change action plan please refer to London's which can be found <u>here</u>.

M1.6a *If yes:* Please attach your city's climate change action plan below.

| P | ublication Title | Year of publication | Attach |
|----|------------------|---------------------|-----------------------|
| [Τ | ext box] | [Numeric field] | [Attachment function] |

Please indicate:

Publication title

State the official name of your city's climate action plan.

Year of publication

Enter the year the plan was published as a numeric value.

Attach

_

Click on 'Choose file', navigate to the file you want to upload and click 'Open'. Once you can see the file name in the text field click 'Attach & Save' to attach the document.

| Baseline year | Baseline emissions (metric tonnes CO2e) | Percentage reduction target | GHG sources to which the target applies | Target date | Comment |
|------------------------------------|---|-----------------------------------|---|--|------------|
| [LOV: 1990 – 2014, Other] | [Numeric field] | [Numeric field] | [Text box] | [LOV:2015; 2020; 2025; 2030; 2035; 2040; 2045; 2050; Other] | [Text box] |

M1.7 Please provide details of your city-wide emissions reduction target.

Add row

To be compliant or register intent of compliance, cities must report a minimum of one target. The Compact of Mayors allows targets to be reported as base-year reduction targets; fixedlevel reduction target; baseline scenario reduction target and intensity reduction target. For intensity reduction targets, please specify the units in the comments box.

For each target reported please be sure to indicate or select from the list of dropdown values:

- Baseline year: is the reference year from which your greenhouse gas reductions are measured.
- Baseline emissions: the greenhouse gas emissions from your baseline year on which your target is based.
- Percentage reduction target: the percentage you are aiming to reduce your emissions by in relation to your baseline emissions. 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).
- GHG sources to which the target applies: the emission sources covered by your reduction target. This may cover the whole of your emissions inventory or only part of it. Please use the GPC (sub-) sectors and scopes to identify the sources to which your target applies.
- Target date: year by which you anticipate achieving your goal. If your target year is not available within the dropdown list, please select "Other" and enter your target year.
- Comment: Please provide any other contextualizing information about your reduction target in the Comment column. If your city has an intensity target (i.e. "emissions reductions relative to productivity or economic output, for instance, tons CO2/million dollars GDP", as defined by the WRI) please provide details here.

COM Risks

M2.0 Has a climate change risk or vulnerability assessment been undertaken for your local government area? [LOV: Yes; No; In progress]

The effects of climate change my pose a significant risk to your city's future development. A climate change risk or vulnerability assessment is a qualitative or quantitative scientific estimation the risks from or vulnerability to climate change. These assessments are most

usually done within the context of a decision-making or planning process to address climate change impacts¹.

To be compliant or register intent of compliance, cities must provide answer this question although no answer is prescribed in the first year of reporting. However progress will need to be demonstrated in future years.

M2.0a If yes: Please attach your climate change risk or vulnerability assessment. [Attachment function]

If a formal assessment of your city's vulnerabilities to climate change has been done, please attach this document here. Click on 'Choose file', navigate to the file you want to upload and click 'Open'. Once you can see the file name in the text field click 'Attach & Save' to attach the document.

M2.1 Please list the city climate hazards you are currently experiencing within your local government area.

| Effects of climate change (Populated from 2.0a) | City climate hazard |
|---|--|
| [LOV: More hot days; Hotter summers; Greater | [LOV: Rain storm; Heavy snow; Severe wind; |
| temperature variability; More frequent heat waves; | Tornado; Cyclone (Hurricane/Typhoon); Tropical |
| More intense heat waves; Warmer water | storm; Electrical storm; Fog; Extreme winter |
| temperatures; Changes in humidity; More frequent | conditions; Cold wave; Extreme cold weather; |
| rainfall; More intense rainfall; Increased average | Heat wave; Extreme hot weather; Drought; |
| annual rainfall; Reduced average annual rainfall; | Forest fire; Land fire; Flash/surface flood; River |
| Reduced average annual snowfall; More frequent | flood; Coastal flood; Groundwater flood; Storm |
| droughts; More intense droughts; Change in | surge; Salt water intrusion; Ocean acidification; |
| seasonality of rainfall; Increased frequency of large | Landslide; Avalanche; Rockfall; Subsidence; |
| storms; Increased wind speeds; Sea level rise; Other] | Water-borne disease; Vector-borne disease; Air- |
| | borne disease; Insect infestation] |

Global climate change is expected to result in changes to local average and extreme conditions, which may affect the frequency, severity or extent of climate hazards. This question asks you to identify which climate hazards are currently occurring in your city.

Cities are being asked to report the climate hazards they face in order to provide a base-line understanding of city climate hazard exposure. By providing a structured and uniform language to report the hazards that cities face it is hoped to improve the ability to highlight areas of commonality and form a basis for a more comprehensive understanding of climate change risk and vulnerability in the future.

¹ Based on the glossary document of the IPCC

IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 688.

Effects of climate change

Please select the relevant effects of climate change your city is currently experiencing from the list of values.

City climate hazard

This is a newly developed taxonomy of climate change hazards which provides a clear and concise list of the key climate hazards that cities are facing.

M2.2 Please list the future city climate hazards you are expecting within your local government area. Tick all that apply.

[Tick boxes: Rain storm; Heavy snow; Severe wind; Tornado; Cyclone (Hurricane/Typhoon); Tropical storm; Electrical storm; Fog; Extreme winter conditions; Cold wave; Extreme cold weather; Heat wave; Extreme hot weather; Drought; Forest fire; Land fire; Flash/surface flood; River flood; Coastal flood; Groundwater flood; Storm surge; Salt water intrusion; Ocean acidification; Landslide; Avalanche; Rockfall; Subsidence; Water-borne disease; Vector-borne disease; Insect infestation]

To be compliant or register intent of compliance, you are required to tick all of the city climate hazard which you are expecting to take place in the future in your city. The city climate hazard reported in this question might differ from the ones reported in the previous question.

COM Adaptation

M2.3 Has the Mayor or local government committed to adapting to climate change across the geographical area of the city, town or settlement? [LOV: Yes; No; In progress]

Please respond to indicate whether your city's Mayor or leadership has made a public commitment to adapt the city to climate change. The available responses in the drop down menu include:

"Yes" - if a public commitment has already been made,

"No" - if a commitment has not been made; or

"In progress" – if a commitment is being developed. For example there is currently a resolution before your local council to make a commitment, but it has not yet been approved.

If you select "Yes" you will be directed to Question 2.3a.

M2.3a *If yes:* Please select the type of commitment(s) and attach evidence.

| Type of commitment(s) | Attach | Comments |
|---|--------------------------|------------|
| [LOV: Durban Adaptation Charter; Mayors Adapt (EU); Mexico City Pact; UNISDR, Making Cities Resilient Campaign; Individual City Commitment; Other] | [Attachment function] | [Text box] |

Add row

To be compliant you are required to indicate which adaptation commitment your city has registered to by filling out the table:

- Type of commitment(s): adaptation commitment(s) your city has signed up to. Please be sure to include all of the commitments you have signed up to by adding rows
- Attach: please attach evidence for each commitment you have signed up to by clicking on 'Choose file', navigate to the file you want to upload and click 'Open'. Once you can see the file name in the text field click 'Attach & Save' to attach the document.
- Comments: Please add further comments on your commitment

M2.4 Does your local government have a plan that addresses climate change adaption? [LOV: Yes; No; In progress]

Please respond to indicate whether your city has produced an adaptation plan, or incorporated adaptation within the context of another long-term plan or strategy by selecting "Yes", "No" or "In progress" from the drop down menu.

A climate adaptation plan outlines the planned alterations to the city's systems in response to actual or anticipated climate change. It should cover the services and departments directly managed by the city government and may also consider the actions required by other stakeholders². The aim of such

a plan is to ensure that climate change risks are addressed in a preventive manner by putting in place a set of concrete measures to tackle those risks.

If you wish to see an example of a climate adaptation plan please refer to Copenhagen's which can be found <u>here</u>.

To be compliant or register intent of compliance, cities must provide answer this question although no answer is prescribed in the first year of reporting. However progress will need to be demonstrated in future years

M2.4a *If yes*: Please indicate the title of your plan, the year it was published and attach the document in the space provided.

| Publication title | Year of publication | Attach the document |
|-------------------|---------------------|-----------------------|
| [Text box] | [Numeric field] | [Attachment function] |

If you have a climate adaptation plan please provide additional details about it in this question. Some cities are still working on their climate adaptation plan, attaching it here will enable them to understand your approach better. To be compliant, you are required to fill out the following table with all of the details:

- Publication title: State the official name of your plan that addresses climate change adaptation
- Year of publication: Enter the year the plan was published as a numeric value
- Attach the document: Click on 'Choose file', navigate to the file you want to upload and click 'Open'. Once you can see the file name in the text field click 'Attach & Save' to attach the document.