CDP's 2016 states and regions guidance

Overview

Welcome

This document is designed to provide disclosure guidance and support to states and regions using CDP's states and regions platform.

Should you need any further support with answering the questions or using CDP's platform, please contact CDP by e-mail on statesandregions@cdp.net or by phone on +44 (0) 203 818 3918. Office hours are 09:00 – 17:30 GMT/BST, Monday to Friday.

Important information

1. **Your username and password can only be used by one user at a time.**

   Your username and password allow you to access your response session in CDP's platform. The platform saves your session when you click either the "Save and previous" or "Save and continue" buttons at the base of each platform page. Please note that you can only have one session open at a time. If you have two sessions open, the platform will only save your latest session.

2. **To submit your final response, click the "Submit" button at the base of the homepage.**

   When you log in to CDP's platform you will arrive at the homepage. At the base of the homepage is a submit button. Please only click this button when you are ready to submit you final response. More information on this is available in the "submitting my response" sub-section of the guidance document.

3. **The Compact of States and Regions.**

   If you have joined the Compact of States and Regions, certain questions are required to be answered. The required questions are located in sections 1, 2 and 3 of the questionnaire. If you have joined as a Signatory to the Compact of States and Regions, you are required to answer all of these questions, have a region-wide GHG emissions reduction target and region-wide GHG emissions inventory in place. Your inventory must date from at least the year 2010. If you have joined as an Observer, you must commit to having a region-wide GHG emissions inventory and target in place within a two year period, and are encouraged to answer as many as possible of the required questions.

4. **RegionsAdapt**

   If you have joined RegionsAdapt, certain questions are required to be answered. The required questions are located in sections 1 and 5 of the questionnaire.

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Overview – Getting started

Getting started

To start disclosing through CDP's platform, head to the login page here. Enter the username and password you were provided with in the invitation email you received, and then click the "Enter" button at the base of the login page. A print screen of the login page is below:

Once you have logged in you will be taken to the homepage of CDP's platform. The homepage contains an introduction to the platform, a "section navigator" to access each of the six question sections and a review section, and four questions to answer before you submit you final response.
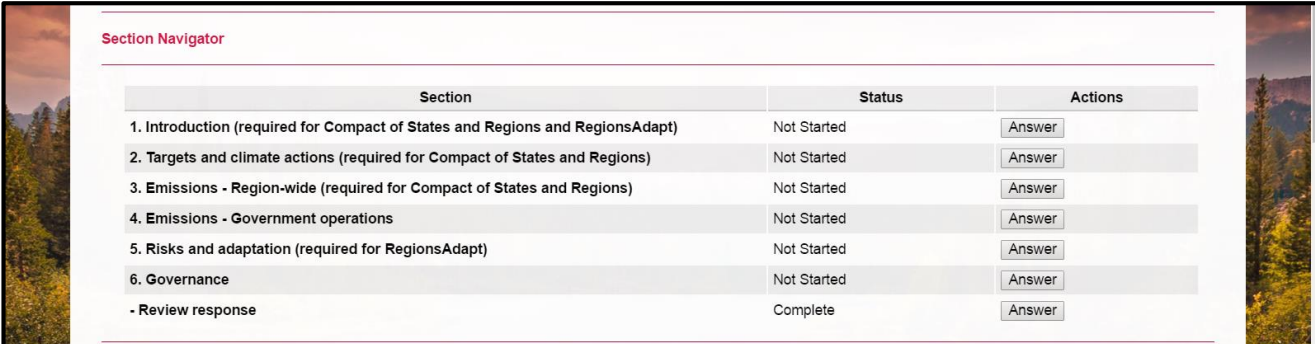
Section Navigator

CDP's platform contains about 65 questions, depending on how you answer each question as this will trigger sub-questions. The Compact of States and Regions and RegionsAdapt initiatives are composed of a subset of these questions, about 20 questions each, located in Sections 1, 2 and 3 for the Compact of States and Regions, and Sections 2 and 5 for RegionsAdapt, as visible below:

The Section Navigator allows you to access each of the 6 question sections in CDP's platform, as well as the new "Review response" section. The Section Navigator is located on the homepage below the introductory text. The right side column of the Section Navigator contains a button labelled "Answer" which allows you to answer each question section in CDP's platform. When you click "Answer" to access a question section, you can use the "Save and previous" or "Save and continue" button at the base of each question page to save the data you entered on that page, and then navigate forward one page, or back one page. If there are no more pages in that section, clicking these buttons will return you to the homepage.

The middle column of the section navigator titled "Status" informs you of whether you have answered any questions in that section. This will either read "Not Started", "Answered" or "Complete". Their meanings are as follows:

- ◥ **Not started** will appear if no questions in that section have been answered;
- ◥ **Answered** will appear if at least one but not every question in that section has been answered;
- ◥ **Complete** will appear if every question in that section has been answered.

You do not need to answer every question, we do however recommend that you complete as much possible. If you have joined the Compact of States and Regions, you are required to answer questions marked with a green asterisk " * ", and if you have joined RegionsAdapt you are required to answer questions marked with a blue caret " ^ ".

The 6 question sections and review section of CDP's platform are below and in brackets are how many pages of questions are contained within each section:

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Overview – Saving and reviewing

Saving your response

CDP's platform saves your information every time you click the "Save and previous" or "Save and continue" buttons at the base of each section page.

If you want to close your session and come back to it another time, simply navigate back to the homepage using the "Save and previous" or "Save and continue" buttons and then close your browser window. The buttons are visible below:
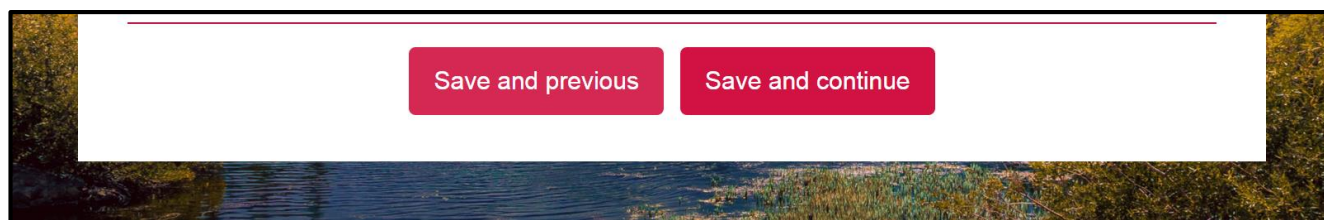
Reviewing your response
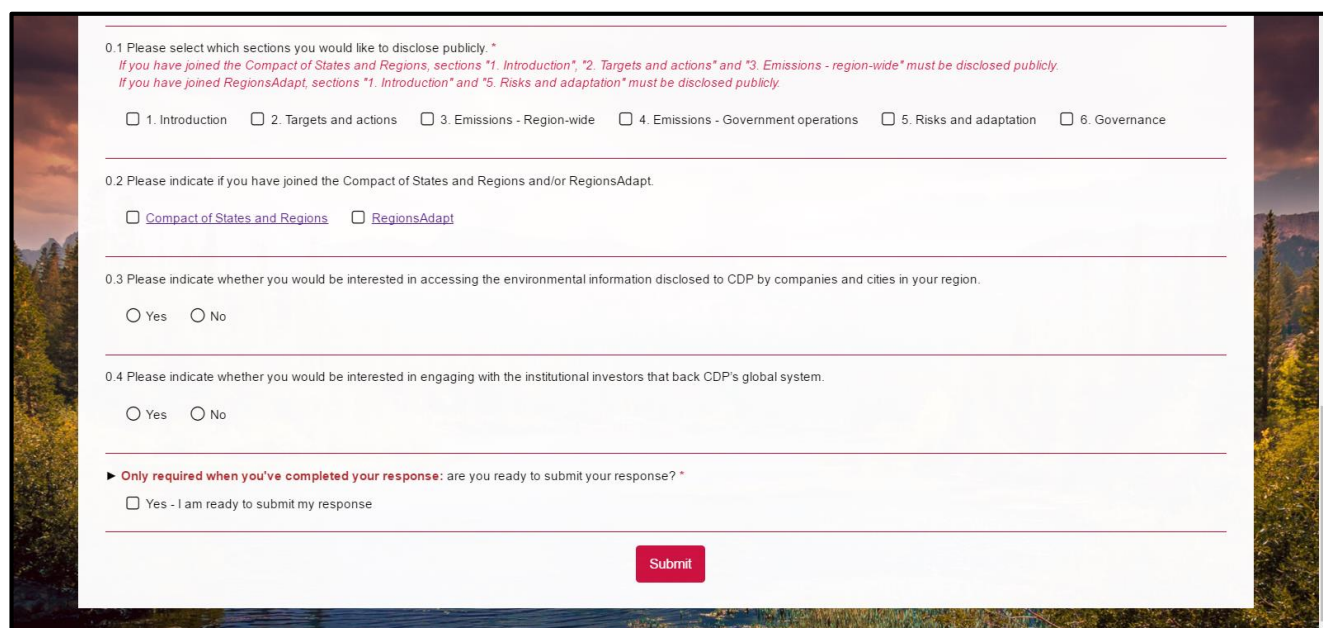
You can download a PDF version of your response for review at any time by clicking "answer" on the "Review response" section in the Section Navigator. This will then take you to the screenshot view below. CDP can also provide you with a PDF version of your response.
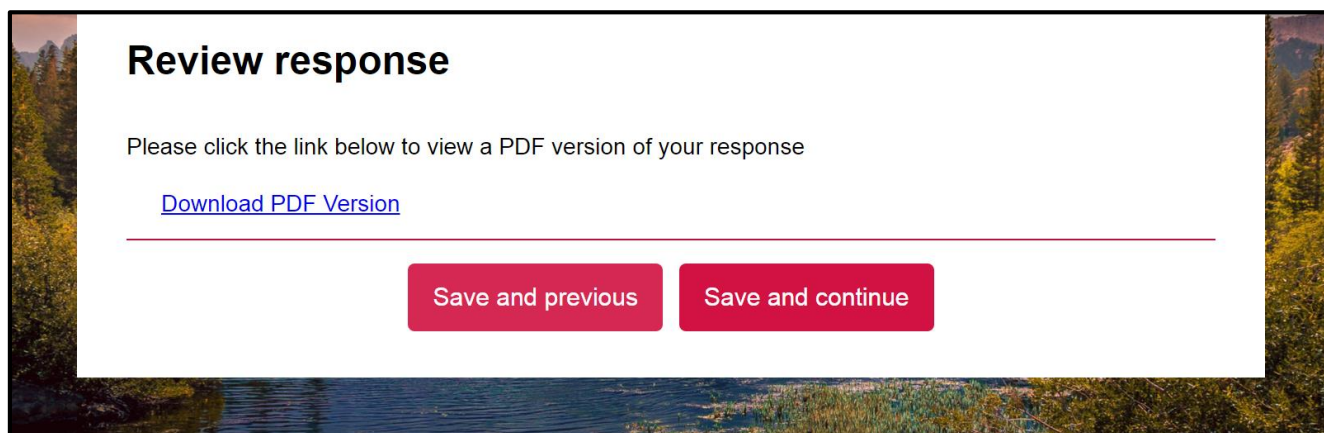
Submitting your response

There are 4 questions at the base of the homepage that need to be answered before you can submit your response. These four questions are:

These questions are:

0.1 Please select which sections you would like to disclose publicly.

This question asks you which data you would like to make public, and which data you would like to make non-public. If you have joined the Compact of States and Regions or RegionsAdapt, the data in their required sections must be disclosed publicly. This is Section 1, 2 and 3 for the Compact of States and Regions, and Section 1 and 5 for RegionsAdapt.

We encourage you to disclose information publicly, however recognise that some data may wish to be kept non-public. Non-public data will only be used in the production of aggregate or anonymous statistics in any report authored or co-authored by CDP and its partners.

0.2 Please indicate if you have joined the Compact of States and Regions and/or RegionsAdapt.

This question asks you to indicate whether you have joined either the Compact of States and Regions and/or RegionsAdapt. Leave this question blank if you have not joined either. If you would like to learn more about joining either initiative, please contact CDP or our partners The Climate Group or nrg4SD.

0.3 Please indicate whether you would be interested in accessing the environmental information disclosed to CDP by companies and cities in your region.

0.4 Please indicate whether you would be interested in engaging with the institutional investors that back CDP's global system.

These two questions allow CDP to understand whether there is demand from states and regions to access the data and/or collaborate with the fellow stakeholders that use CDP's system. In 2015, over 5,000 companies and 300 cities disclosed environmental information to CDP, which is backed by over 800 institutional investors. For instance, in 2016 we are combining cities with investors to fund urban mitigation projects and are researching green bond facilitation as well.

◥ **Are you ready to submit your response?**

    o   Yes – I am ready to submit my response

Once you have answered this final question, you will be able to submit your response by clicking the submit button at the base of the platform homepage.
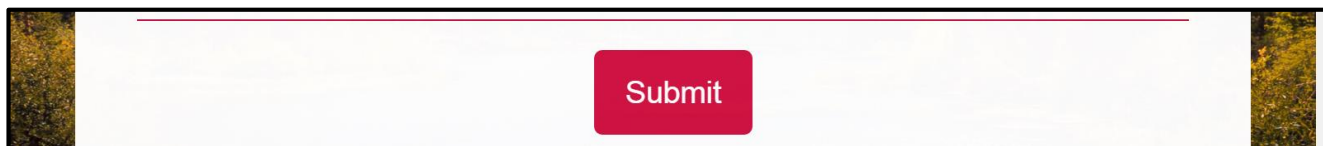
Section 1 – Platform page 1 of 1 – Introduction

The introduction section of the information request contains questions concerning basic information regarding your government and region's profile. For help answering this section, please consult the guidance document at the base of the platform page.

Specific question guidance

1.1:   Please provide the following details for your region. * ^

Government name	[Text field]
Country	[Text field]
Leader title (e.g. Governor, Premier…)	[Text field]
Leader name	[Text field]
Land area (km^2)	[Numeric field]
Main cities or urban centres	[Text field]

1.2:   Please describe your region's key sectors of administrative power. * ^

[Text field]

This question is new to the 2016 information request and has been added to allow states and regions to disclose which sectors of their jurisdiction they have administrative power over. For instance where states have legislative, regulatory, and tax powers. For EU regions, there is a useful reference on division of powers provided by the Committee of the Regions.

1.3:   Please give a general description and introduction to your region. * ^

[Text field]

The information provided here will assist CDP in drawing upon distinctions, similarities, and comparative features between regions in terms of their operational emissions, those arising within their boundary, and tools and successes in mitigating and adapting to climate change. Information that could be provided includes: Location; Boundaries; Geographic characteristics; Natural features; Economic strengths / main economic sectors; Main cities or urban centers; Changes in regional development and regional growth over the short to medium term; Forecasted changes in regional development and regional growth over the long term; Institutional governance frameworks of the region; and Relationship with national government.

1.4:   Please provide the following details of your region's current population, annual operating budget, and gross domestic product (GDP). ***** **^**

Box 1: Example answer to Q 1.4:

Population	Population year	Annual operating budget (US$)	Budget year	GDP (US$)	GDP year
15,000,000	2015	20,000,000,000	2014	270,000,000,000	2014

Should your annual operating budget or GDP year be calculated over two years (1st April 2013 – 31st March 2014) please choose either 2013 or 2014 from the dropdown list and add a comment regarding this in the question box.

1.5:   Please attach a historical population record and future population projection for your region. *

[Attachment function] [Comments text box]

1.6:   Please attach a historical GDP record and future GDP projection for your region. *

[Attachment function] [Comments text box]

Your records do not need to precede the year 1990 and your projections do not need to exceed the year 2050. If your records or projections are available online, please provide the web links in the question "comments text box".

Questions 1.5 and 1.6 assist CDP in understanding the demographic and economic changes that have occurred in a region over the past 25 years (if your records don't go back to 1990, please upload or link to the records that you do have) and what the projections are for a region towards 2050 (if your projections don't go to the year 2050, please upload or link to the projections that you do have). Should you not have this information available, please provide a comment on this in the comments text box.

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Section 2 – Platform page 1 of 2 – Targets

General guidance

The targets subsection concerns information regarding your emissions reduction, energy efficiency and renewables targets. For help answering this section, please consult the guidance document at the base of the platform page. The information provided in this section will also be made available for the UNFCCC NAZCA portal (Non-state Actor Zone for Climate Action).

This section of the questionnaire is divided into 2 pages in the online platform:

◥ **Targets (Question 2.1):** This page regards the emissions reduction, energy efficiency or renewables energy/electricity targets that your region is taking.

◥ **Climate actions (Questions 2.2 – 2.3):** This page regards any other climate actions your region is taking.

Specific Question Guidance

2.1: **Please provide details of your emissions reduction, energy efficiency and/or renewables target(s) by selecting the corresponding image(s) below.** *

To answer to this question, please select the images corresponding to the types of target you would like to report. **Multiple images can be selected.** Ticking images will direct you to the questions 2.1a corresponding to the types of targets selected; not selecting any image will direct you to question 2.1b.

Depending on which images are selected from question 2.1, the following 3 variations are available:

◥ *If emissions reduction:* **Please provide details of your emissions reduction target(s).**

◥ *If energy efficiency:* **Please provide details of your energy efficiency target(s).**

◥ *If renewable energy:* **Please provide details of your renewable energy or renewable electricity target(s).**

❯ If you are disclosing to the Compact of States and Regions, "Emissions reduction" must be one of your choices and it must have a region-wide scale.

There are 4 common fields across the emissions reduction, energy efficiency and renewables targets:

❯ **Scale**
Please select the appropriate scale from the drop down menu. "Region-wide" includes the entire geographic area of the region while "Government operations" focuses on targets applied solely to your government operations. If you are disclosing to the Compact of States and Regions, you must provide a "region-wide" scale emissions reduction target.

❯ **Target year**
Please select the year you anticipate achieving your goal from the drop down menu. You are able to select every year between now and 2060.

❯ **Short target summary**
Please summarise your target in a sentence that has a maximum of 140 characters. Examples of this summary might include:

- "Reduce region-wide CO2e emissions by 20% by 2020 based on 1990";
- "Reduce region-wide electricity consumption by 20% by 2020 based on 1990"; and,
- "Increase renewables to 25% of region-wide energy production by 2020".

❯ **Please comment and detail any progress to meet target**
Please provide a longer explanation of how your region or regional government is progressing towards this target and also why the target was developed.

The fields that are unique to a specific variation of question 2.1a are listed below:

2.1a: *If emissions reduction selected:* **Please provide details of your emissions reduction target(s).** *

❯ **Target type**
Please detail your type of emissions reduction target. The options available are Base year emissions; Base year intensity; Baseline scenario; and Fixed level. More information on setting targets can be found in Chapter 2 of the GHG Protocol Mitigation Goal Standard report that provides guidance for designing national and subnational mitigation goals and a standardized approach for assessing and disclosing progress toward goal achievement.

❯ **Target reduction (%)**
Please select your percentage reduction from the drop down menu (1-100%, N/A). If your target is not expressed as a percentage, such as Fixed level targets, please choose the "N/A" value which is at the base of the dropdown list.

◤ Base year
Please select the appropriate year from the drop down menu provided (1990 – 2015, N/A). Your base year (also known as a "baseline year" or "representative year") is the reference year from which your emissions reductions are measured.

◤ Base year emissions covered by target (metric tonnes of CO2e)
Please enter the numerical value of your base year emissions. Your base year emissions are the emissions from the base year on which your target is based.

◤ Target gases
Please detail the gases covered by your emissions reduction target. Your target may apply to all gases in your emissions inventory, or it may only apply to some of them.

◤ Target sectors
Please detail the sectors covered by your emissions reduction target. If your target is region-wide, you can choose which sectors it covers such as energy, industry or agriculture. Should your target apply to your government operations, you can select "other" from the dropdown menu and detail which activities or operations these are in the "Please comment and detail any progress to meet target" (e.g. transport fleet, department energy use, staff transit…).

◤ Does target include emissions from outside your regional boundary?
Please detail whether your target includes emissions from outside your regional boundary or jurisdiction. These can include emissions related to imported electricity for instance. If your target does include emissions from outside your regional boundary, please detail how your target will reduce these emissions.

◤ Has a decarbonisation pathway(s) been modelled for your target?
Please detail whether or not a decarbonisation pathway has been modelled for your target and if so, any associated information and web links to this research.

Box 2: Example answer to Q 2.1a for emissions reduction target:

Scale	Target type	Target reduction (%)	Target year	Base year
Region-wide	Base year emissions	40%	2030	1990

Base year emissions covered by target (metric tonnes of CO2e)	Target gases	Target sectors	Does target include emissions from outside your regional boundary?
250,000,000	CO2 CH4 N20 HFCs PFCs	Energy Transport Industry Agriculture	No. The target only covers GHG emissions from within our jurisdiction.

Has a decarbonisation pathway(s) been modelled for your target?	Short target summary (140 character limit)	Please comment and detail any progress to meet target
Yes we have modelled a decarbonisation pathway contingent on several scenarios. These pathways can be seen here (weblink).	Reduce region-wide CO2e emissions by 40% by 2030 based on 1990.	We have achieved a 2% reduction in GHG emissions on last year. This totals a 10% reduction in GHG emissions since the target base year. We are on track to meet our 2030 target, continuing at 2% a year for the next 15 years.

Click to add another emissions reduction target

2.1a: *If energy efficiency:* **Please provide details of your energy efficiency target(s).**

◤ **Target type**
Please detail your type of energy efficiency target. The options available are to "Reduce consumption" or "Increase efficiency". Targets that reduce consumption are designed to reduce an absolute amount of energy being consumed. However, targets that increase efficiency are designed to increase a certain variable as a proportion of energy consumed, thereby increasing its efficiency. This variable could be public spending or heating public buildings for instance.

◤ **Target energy**
Please select the energy type defined by your energy efficiency target. The options are electricity, final energy or primary energy.

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◤ **Target sectors**
Please detail the sectors covered by your energy efficiency target. If your target is region-wide, please detail in the text box sectors in your region the energy efficiency target applies to. Should your target apply to your government operations, please detail which government operations and activities this applies to.

◤ **Target (%)**
Please select your targeted percentage reduction in consumption or increase in efficiency from the drop down menu (1-100%, N/A). If your target is not expressed as a percentage, please choose the "N/A" value which is at the base of the dropdown list.

◤ **Base year**
Please select the appropriate year from the drop down menu provided (1990 – 2015, N/A). Your base year (also known as a "baseline year" or "representative year") is the reference year from which your target is measured.

Box 3: Example answer to Q 2.1a for energy efficiency target:

Scale	Target type	Target energy	Target sectors
Government operations	Reduce consumption	Electricity	Buildings (state owned and/or occupied)

Target (%)	Target year	Base year	Short target summary (140 character limit)	Please comment and detail any progress to meet target
20%	2020	2000	Reduce electricity consumption in state buildings by 20% by 2020 based on 2000.	The target aims to reduce electricity consumption in state buildings. There was a 1% reduction on last year. This equals a 5% reduction on base year. We are behind our target for 2020.

Click to add another energy efficiency target

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2.1a: *If renewable energy:* **Please provide details of your renewable energy or renewable electricity target(s).**

◥ **Target type**
Please specify if your target concerns renewable energy or electricity, and its production or consumption.

◥ **Target (%)**
Please select your targeted percentage reduction in consumption or increase in efficiency from the drop down menu (1-100%, N/A). If your target is not expressed as a percentage, please choose the "N/A" value which is at the base of the dropdown list.

◥ **Current renewable production or consumption**
Please provide your current renewable production or consumption, as either a production value, consumption value or percentage. The associated units that can be selected for this question include: GW, MW, GWh, MWh, and %.

◥ **Target renewable production or consumption**
Please provide your target renewable production or consumption, as either a production value, consumption value or percentage. The associated units that can be selected for this question include: GW, MW, GWh, MWh, and %.

Box 4: Example answer to Q 2.1a for a renewables target:

Scale	Target type	Target (%)	Target year
Region-wide	Renewable electricity production	30%	2025

Current renewable production or consumption	Unit type	Target renewable production or consumption	Unit type	Short target summary (140 character limit)	Please comment and detail any progress to meet target
750	MW	1,500	MW	Increase renewable electricity to 30% of region-wide electricity production by 2025.	Currently, renewable electricity accounts for 18% of production. We are on track for 1,500MW of production by 2025 that we anticipate will account for 30% of energy production alongside energy efficiency measures.

Click to add another renewables target

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2.1b: *If no emissions reduction target:* **Please detail why you do not have an emissions reduction/ energy efficiency/ renewable energy or electricity target.**

This question only applies if you have not selected any images from question 2.1. This question offers you the opportunity to provide further information about your future plans for emissions reduction, energy efficiency and renewable target setting, if you have any.

Section 2 – Platform page 2 of 2 – Climate actions

The climate actions subsection concerns information regarding your wider climate actions, grouped across 10 sectors. For help answering this section, please consult the guidance document at the base of the platform page.

2.2: **Please provide details of your climate actions in the following sector(s) by selecting the corresponding image(s) below.**

If you would like to access the public information you disclosed for this question in 2015, you can access a full PDF copy of your response [here](.).

This question covers which climate actions you are taking in your region. There is a total of 99 possible climate actions available, grouped into the 10 sectors visible as tiles above. The actions are grouped as follows:

- Agriculture sector   (1 possible action)
- Buildings & Lighting sector   (18 possible actions)
- Energy sector   (21 possible actions)
- Finance & Economy sector   (15 possible actions)
- Governance sector   (4 possible actions)
- Industry sector   (5 possible actions)
- Land use sector   (6 possible actions)
- Transport sector   (17 possible actions)
- Waste sector   (9 possible actions)
- Water sector   (3 possible actions)

To disclose the climate actions you are taking in a specific sector, simply click on the sector tile you wish to disclose your actions for, and a table will drop down with the actions associated with that sector. For each action row there are three column headers, listed as follows:

◣ **Is your region taking this action?**
Please select from the options of "Yes"; "No"; or "Planned". Select "Panned" when you intend to take that action within the next two years.

◣ **If yes, what is the scale of its implementation?**
Please select from the options of "Pilot"; "Limited implementation"; or "Comprehensive Implementation". Select "Pilot" when you are trialling a climate action, "Limited implementation" when the climate action has been partly deployed in your region/applicable areas, and "Comprehensive implementation" when the climate action has been fully deployed across your region/applicable areas.

◣ **Action description**
Please provide a description of your climate action

Box 5: Example answer to Q 2.2 for Industry:

Climate action	Is your region taking this action?	If yes, what is the scale of its implementation?	Action description
1. Establish region-wide plan to reduce short-lived climate pollutants	Planned		We plan to pilot an O3 reduction project in two of our major cities in 2018.
2. Improve energy efficiency of industrial processes	Yes	Comprehensive implementation	We have several policies across our region that target energy efficiency in industrial processes.
3. Promote industrial symbiosis/industrial ecology programs	Yes	Pilot	We started a pilot project in 2015 to promote industrial ecology.
4. Promote reduced packaging.	No		We have no plans to promote this climate action.
5. Tax GHG-heavy industrial fuel consumption	Yes	Limited implementation	We have introduced a GHG tax on oil refining.

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2.3: **If you have any additional documents regarding your targets and climate actions, please upload them here.**

The size of the files should not exceed 10-megabytes. You can upload a maximum of 3 files.

Section 3 – Platform page 1 of 3 – Region-wide GHG accounting

This region-wide emissions sub-section concerns information regarding the accounting of your region-wide (territorial) greenhouse gas emissions. For help answering this section, please consult the guidance document at the base of the platform page.

General guidance

This section gives you the opportunity to disclose your region-wide emissions inventory as well as additional metrics that provide a holistic picture of your region's emissions and energy use activities.

The information provided in this section will also be made available for the UNFCCC NAZCA portal (Non-state Actor Zone for Climate Action) to support national action for a global deal at COP 21 in Paris, 2015.

Emissions from government operations represent only a small portion of overall emissions from the region over which they have jurisdiction. Capturing region-wide emissions – often referred to as the "geographic" or "regional" emissions inventory – creates a snapshot of all the region-wide activities and their contribution to global climate change. Collating region-wide emissions can provide a basis from which regions can develop policy and enact regulation with the aim of reducing these emissions. This distinction and imperative to capture data for both government operations emissions and the wider region represent the greatest difference between appropriate region-specific protocols and corporate emissions disclosing protocols.

Note that while protocols for measuring region-wide emissions do exist, there is a range of opinion and differences in application for what emissions are calculated. In many cases, the decision on inclusion will come down to preferences and capacity of the organization undertaking the calculations. The unbounded nature of regions, in terms of where they draw their resources from and the goods and services that flow in and out of them, presents great complexity in efforts to calculate emissions.

Many methodologies exist. It many cases, regions are using methodologies designed for national or regional inventories, but 'downscaling' them for their jurisdictions. Thus, using the [IPCC national inventory framework](#) as the basic accounting architecture, but tailoring to your circumstances to manage data availability and reliability issues, is one approach. Other examples include the use of [Greenhouse Gas Regional Inventory Protocol (GRIP)](#), which, as the name implies, is designed for regional calculations. Across the US, the [EPA's Greenhouse Gas Disclosing Program](#) provides a common set of tools for states to use

Global momentum is growing around the new protocol created by C40, WRI, ICLEI, and the World Bank, called the [Global Protocol for Community Greenhouse Gas Inventories](#). This could be adapted to suit region's needs.
Regions can report their emissions through CDP's platform regardless of which protocol they have used.

Specific question guidance

3.1: **Please provide the dates of the accounting year or 12-month period for your latest region-wide GHG emissions inventory.** *

If you have joined the Compact of States and Regions, your region-wide GHG emissions inventory must date from 2010 or sooner.

CDP's platform provides a drop down calendar for you to enter the dates requested. Entries must be for a 12-month period. If you do not have data for the entire 12-month period, please extrapolate to 12 months.

The period you select may be the same as or distinct from the accounting period as used for your government operations emissions.

3.2: **Please select the category that best describes the boundary of your region-wide GHG emissions inventory.** *

In your answer, please choose from the list of values provided:

- Geopolitical boundary—physical areas over which regional government has jurisdictional control
- Other

Examples of approaches that might be used by your region other than its geopolitical boundary in the US for instance include county or regional GHG accounting. Circumstances where this might be undertaken include where your region's geopolitical boundary is small relative to the total population, economic activity and land area that are symbiotic with a particular urban center of the region. If you select 'Other', you will be given the opportunity to enter the relevant boundary in a text box.

3.3: **Please select the name of the primary protocol, standard, or methodology you have used to calculate GHG emissions.** *

In CDP's platform, you will see a list of methodologies developed by third parties. Please select the primary methodology that you followed in measuring greenhouse gas emissions for your region. If you do not see your chosen methodology reflected in the list please select "Other" and describe your methodology. We recognize that many regions follow multiple protocols in creating their inventories; if this is the case for your region, please choose the protocol that is best described as your "primary" protocol.

The values are:
- ◤ [International Emissions Analysis Protocol](#) (ICLEI);
- ◤ [2006 IPCC Guidelines for National Greenhouse Gas Inventories](#)
- ◤ [Global Protocol for Community-Scale Greenhouse Gas Emissions (GPC) (C40 and ICLEI)](#)
- ◤ [U.S. Community Protocol for Accounting and Disclosing of Greenhouse Gas Emissions (ICLEI)](#);
- ◤ [1996 IPCC Guidelines for National Greenhouse Gas Inventories](#)
- ◤ [The Climate Registry General Disclosing Protocol](#)
- ◤ [U.S. EPA Greenhouse Gas Disclosing Program](#) (includes US EPA SIT tool, FLIGHT tool, etc)
- ◤ Other

These values are not meant to be exhaustive. If you have used a proprietary methodology or a third party methodology that you do not see listed here, please select "Other" and enter the name of the methodology in the text box provided.

3.4:   Please explain your methodology (including use of additional protocols), methods of calculation (including how you account for emissions from electricity imported into your territory) and processes for data collection. *

In the event where you have used more than one methodology please explain the interaction between them. Also if you have the data available, please use this section to describe the sources of the emissions factors and global warming potentials that you have applied. If answering "Other" in Question 3.3, please provide enough information to make clear issues such as boundaries, data capture and accounting / calculation techniques, and decision-making criteria for which emissions to include.

3.5:   Has the GHG emissions data you have reported here been externally verified either in part or in whole? *

Regional governments (or any large organization) may see value in having external verification or auditing of their emissions and emission reduction efforts. This can ensure higher levels of quality control / quality assurance. Externally verified information may also be required if performance metrics related to carbon emissions have been devised for government departments or department managers. The ability to call on verified data may provide government organizations a powerful tool in their efforts to influence policy or regulation at other levels of government or with other regional stakeholders.

Please respond to this question by selecting "yes" or "no" from the drop down menu provided.

3.5a: *If yes:* **Please provide any other relevant information about the emission verification process, such as the verification standard or organization, and whether the verification applies to all or just a section of your reported emissions.** *

This question provides an opportunity to describe relevant information about the verification process. Please provide the following information if you have it:

- ◤ Name of verifier
- ◤ Year of verification
- ◤ Any comments or relevant information you have on the verification process

3.5b: *If no:* **Please describe why not and your future plans to verify your emissions, if any.** *

This question only applies if you have answered "no" to question 3.5. This question offers you the opportunity to explain why you do not have an external verification process and provide further information about your future plans for external verification, if you have any.

Section 3 – Platform page 2 of 3 – Region-wide GHG emissions

This region-wide emissions sub-section concerns information regarding the reporting of your region-wide greenhouse gas emissions. For help answering this section, please consult the guidance document at the base of the platform page.

3.6: **Please select which gases are included in your region-wide GHG emissions inventory.***

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

This question allows you to go into more details about the types of gases reported in your emissions inventory. They are grouped into one of seven GHG categories (also known as the Kyoto Protocol greenhouse gases).

3.7: **Please provide your total region-wide GHG emissions and indicate if your emissions have changed since your last reported year.** *

If you do not calculate one of the following types of total, please provide that total row blank.

This question allows you to enter the total gross, net and targeted (if different from gross or net) region-wide GHG emissions for the reported year. If your region does not calculate one of these types of total, please leave that row blank. If your target total is the same as either your gross or net total, please indicate whether your target covers your gross or net emissions.

◥ **Emissions (metric tonnes CO2e)**
   This question is your opportunity to enter the total figure for your region's GHG emissions in the selected year. Your answers will be numeric entries (metric tonnes of CO2e).

◥ **Comment on emissions total**
   Please provide relevant information on the total emissions figure.

◥ **Change in emissions total from last reported year**
   Please specify the evolution of the total emissions figure from the last reported year. Your emissions could have increased, decreased or not changed at all. You also have the possibility to specify any other type of evolution or if this is your first year of disclosing.

◥ **Comment on any change in emissions total**
   Please explain the reasons behind the evolution of the total emissions figure.

Box 6: Example answer to Q 3.7 for region-wide GHG emissions totals:

	Emissions (metric tonnes CO2e)	Comment on emissions total	Change in emissions total from last reported year	Comment on any change in emissions total
Gross total (excludes sinks)	295,000,000	Total includes emissions from all GHG sources in our region	Decreased	Our gross emissions have decreased by 3% since last year. This is mainly due to GHG reductions in the energy sector.
Net total (includes sinks)		Sinks are not calculated or estimated.		
Target total (if different from Gross or net)	250,000,000	Target excludes emissions from the energy sector covered by the EU ETS.	Decreased	Our targeted emissions have decreased by 2% since last year.

3.8: The answers required to this question **depend on the type of methodology selected** in question 3.3. If you happen to modify your methodology halfway through disclosing your data, please ensure that you modify the breakdown of emissions according to the newly chosen methodology.

Many regions categorize their emissions differently. The intent of this question is to learn more about how your region differentiates emissions, which can be valuable information for tracking, monitoring and evaluation, and disclosing purposes. The information will also contribute to a comparative understanding between regions. Below are the variations of question 3.8 that will appear depending on which inventory methodology you selected in Q 3.3.

3.8: If **1996 IPCC Guidelines for National Greenhouse Gas Inventories** was selected in Q 3.3: **Please provide a breakdown of emissions by sector as defined in the 1996 IPCC Guidelines.** *

Please provide a breakdown of your GHG emissions according to the 1996 IPCC sectors listed below. The reason 1996 and 2006 IPCC Guidelines are listed is to allow different states to report the simplest way possible.

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Your answers will be numeric entries (metric tonnes of CO2e). The "Energy sub-sector: mobile combustion only" should be a sub-set of the emissions found within the "Energy (total)" field. This sub-sector has been added to ease the analysis of emissions related to transportation across the dataset. For more information is [available here](#) on how to report according to the IPCC guidelines.

- Energy (total)
- Energy sub-sector: mobile combustion only
- Industrial processes
- Solvents
- Land-use, land-use change and forestry
- Agriculture
- Waste

A second column allows you to comment on the emissions figure for each sector. Please provide any contextualising information on the emissions figure in this column.

3.8: If **2006 IPCC Guidelines for National Greenhouse Gas Inventories** was selected in Q 3.3: **Please provide a breakdown of emissions by sector as defined in the 2006 IPCC Guidelines.** *

Please provide a breakdown of your GHG emissions according to the 1996 IPCC sectors listed below. The reason 1996 and 2006 IPCC Guidelines are listed is to allow different states to report the simplest way possible.

Your answers will be numeric entries (metric tonnes of CO2e). The "Energy sub-sector: mobile combustion only" should be a sub-set of the emissions found within the "Energy (total)" field. This sub-sector has been added to ease the analysis of emissions related to transportation across the dataset. For more information is [available here](#) on how to report according to the IPCC guidelines.

- Energy (total)
- Energy sub-sector: mobile combustion only
- Industrial processes and product use
- Agriculture, forestry, and other land use
- Waste
- Other (indirect N_2O emissions and other)

A second column allows you to comment on the emissions figure for each sector. Please provide any contextualising information on the emissions figure in this column.

3.8: If **Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI)** was selected in Q 3.3: **Please provide a summary of emissions by sector and scope as defined in the Global Protocol for Community GHG Emissions Inventories.** *

Please provide a breakdown of your GHG emissions according to the sectors and scopes listed below. The subsections used are in accordance with the GPC reference numbers. Your answers will be numeric entries (metric tonnes of CO2e).

- 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 1 (III.X.3)
- Industrial Processes and Product Use – Scope 1 (IV)
- Agriculture, Forestry and Land Use – Scope 1 (V)
- TOTAL Scope 1 (Territorial emissions)
- TOTAL BASIC emissions
- TOTAL BASIC and BASIC+ emissions

3.8: If **any other methodology** was selected in Q 3.3*:* **Please provide a breakdown of your total emissions by end user (buildings, water, waste, transport), economic sector (transportation, industrial, commercial and residential, agriculture, electricity), greenhouse gas (CO2, CH4, N20, etc) or any other classification used in your region.** *

Please provide a breakdown of your GHG emissions according to the fields listed below. Your answers will be numeric entries (metric tonnes of CO2e). You are provided with a group of fields in CDP's platform to structure your response. Multiple entries can be made into this group of fields, using the 'Add another' button at the base of the question. An example is visible in Box 5 below.

- **End user:** buildings, transport, water utilities, wastewater utilities, etc.
- **Economic sector:** commercial, residential, industrial, agricultural, freight and logistics, etc.
- **Greenhouse Gas:** grouped into one of six GHG categories (also known as the Kyoto Protocol greenhouse gases), which are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulfur hexafluoride (SF_6).
- **Other:** please describe if your region uses another classification approach (e.g. by geography or zone, by zoning or land use classification, etc.)

A second column allows you to comment on the emissions figure for each sector. Please provide any contextualising information on the emissions figure in this column.

Box 7: Example answer to Q 3.8 for region-wide GHG emissions totals:

End user/Economic sector/Greenhouse gas/Other	Emissions (metric tonnes CO2e)
Stationary combustion	379,000
Mobile combustion	18,000
Waste	5,000
Transport	350,000
Electricity	3,542
Total	**3,901,142**

End user/Economic sector/Greenhouse gas/Other	Emissions (metric tonnes CO2e)
CO2	588,007
CH4	12,908
N2O	5,000
Other	3,490
Total	**1,218,810**

3.8a: The answers required to this question **depend on the type of methodology selected** in question 3.3. If you happen to modify your methodology halfway through disclosing your data, please ensure that you modify the answers to the following questions.

3.8a: If **Global Protocol for Community-Scale Greenhouse Gas Emissions Inventories (GPC), (WRI, C40 and ICLEI)** was selected in Q 3.3: **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 upload GHG emissions report.** *

Please upload a document disclosing a breakdown of fuel type and amount, as well as your greenhouse gas emissions by subsector and scope (10-megabyte max file size). Please use the "Comments" box to include any links to relevant websites

3.8a: If **any other methodology** was selected in Q 3.3: **Please upload a historical record of your region-wide GHG emissions inventory.** *

The historical record should start from the base year of your region-wide GHG emissions target and include every subsequent inventory year, where applicable.

If your region-wide GHG emissions target does not have a base year, please provide your earliest inventory year (starting in 1990 or sooner). Please provide the record in Excel, where possible. Please use the "Comments" box to include any links to relevant websites.

Please upload a document disclosing a historical record of your region-wide GHG emissions inventory (10 file maximum, 25-megabyte max file size). Please use the "Comments" box to include any links to relevant websites.

3.9:   Are your emissions broken down into Scope 1, 2 and 3?

Please provide a "yes" or "no" answer using the drop down menu provided. If you answered "yes" you will be directed to question Q 3.9a.

3.9a: *If yes:* Please provide your region's Scope 1, 2 and 3 emissions (metric tonnes of CO2e).

Scope 1: Total amount of fuel that has been consumed within your region disclosing boundary. Your number will depend on which fuel sources you measure and what you include within your boundary. For instance, you might include the fuel consumed by residential, commercial, and industrial buildings, road transportation, and energy production. Alternatively, you might also include the fuels used by water travel (e.g. water taxis) and planes that take off and land at your regional airports.

Scope 2: Detail the amount of electricity, heat, steam, or cooling, referring to indirect/Scope 2 emissions that has been supplied to all of the entities within your region-wide boundary during the disclosing year. Your number will depend on which energy users you include in your total. For instance, you might include residential, commercial, and industrial buildings and industrial processes.

Scope 3: 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 disclosing entity (e.g., employee commuting and business travel), outsourced activities, waste disposal, etc.

Section 3 – Platform page 3 of 3 – Region-wide electricity

This region-wide emissions sub-section concerns information regarding your region-wide electricity consumption, generation and imports. For help answering this section, please consult the guidance document at the base of the platform page.

3.10: **Please detail your region-wide electricity consumption, generation and imports, and the GHG emissions associated with these activities.** *

This question is your opportunity to detail the amount of electricity generated in your region, consumed by your region and imported by your region. Electricity generated refers to "in-state" generation. The associated GHG emissions are also asked for. The seb-questions are listed below:

◥ **Amount of electricity**
   Your answers must be numeric entries (i.e. 1,000).

◥ **Units**
   Select from the drop-down the corresponding unit for the number entered in the previous field (GWh; MWh; kWh; TJ; GJ; MJ)

◥ **Associated GHG emissions (metric tonnes of CO2e)**
   Your answers must be numeric entries (i.e. 1,000).

◥ **Comments**
   Please provide any contextualizing information on the electricity figures or their associated GHG emissions. This comments box is particularly important for this question as electricity use is quantified differently in different states. Please provide clear information that accurately explains the data you have inputted.

Box 7: Example answer to Q 3.8 for region-wide GHG emissions totals:

	Amount of electricity	Units	Associated GHG emissions (metric tonnes of CO2e)	Comments
Electricity consumed	250,000	GWh	315,000,000	Electricity consumption has decreased by 3% on last year. This is due to…
Electricity generated	175,000	GWh	205,000,000	Electricity generation has increased by 5% on last year.
Electricity imported	75,000	GWh	110,000,000	Electricity imports remained stable. More information here: web link.

3.11: **Please detail the energy mix of your region-wide electricity generation (%).** *

Make sure the sum of values on the right-hand side does not exceed 100%.

To move the slider points using a keyboard, click the slider point you want to move, and use the "left arrow key" and "right arrow key" to move the slider point left and right.

Comments [Text field]

Please use the sliding tool to indicate the breakdown of the region's energy sources in percentages. Make sure the sum of values on the right-hand side does not exceed 100%.

As with question 3.10, please provide any contextualizing information on the electricity figures or their associated GHG emissions. This comments box is particularly important for this question as electricity use is quantified differently in different states. Please provide clear information that accurately explains the data you have inputted.

Box 8: Example answer to Q 3.11 for region-wide electricity generation:

4. Emissions – government operations

Section 4 – Platform page 1 of 3 – Government GHG accounting

General Guidance

This section gives you the opportunity to disclose your government operations' emissions inventory as well as some other information that will provide a holistic picture of your activity and operations.

CDP recognizes that regions use different methodologies to measure their greenhouse gas emissions. As such, at this time CDP does not require regions to use a specific methodology to report to CDP – you may disclose an emissions inventory that has been calculated by any methodology.

The methods and approaches for the measurement of emissions from government operations are broadly similar to that of companies. A number of well-accepted methodologies for quantifying organizational GHG emissions exist, which have applicability to governments seeking to compile this information. Some of these have been adapted to include guidance specifically for government disclosing. Interested regions can consult the following links to learn more about existing methodologies:

- The Greenhouse Gas Protocol from the World Resources Institute (WRI) and the World Business council for Sustainable Development (WBCSD)
- The GHG Protocol for the U.S. Public Sector: Interpreting the Corporate Standard for U.S. Public Sector Organizations from the World Resources Institute (WRI) and LMI.
- Local Government Operations Protocol (LGOP) for the Quantification and Disclosing of Greenhouse Gas Emissions Inventories (Version 1.1), created in partnership with the California Air Resources Board, California Climate Action Registry, ICLEI-USA, and the Climate Registry.
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories;
- ISO 14064 Greenhouse Gases series of standards; and
- GRI (Global Disclosing Initiative) Public Sector Agency Supplement.

In its work with the corporate sector, CDP encourages and supports the use of the Greenhouse Gas Protocol (GHG Protocol) developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development. Regions may find it useful to consult this document.

Note that ICLEI additionally have an international protocol that captures both government (organizational) and regional (also known as region-wide) emissions, the International Local Government GHG Emissions Analysis Protocol (IEAP). This can be used by regional governments globally to produce government operations and regional inventories. (Refer to the "Emissions – Region" section of this guidance document for more information on regional (or region-wide) inventories.)

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4. Emissions – government operations

Some of these measurement methodologies share general principles. Many of these principles are included in the WRI/WBCSD GHG Protocol (and other similar methods) and the following is quoted directly from the ICLEI International Emissions Analysis Protocol (IEAP):

◤ **Relevance**: the greenhouse gas inventory shall appropriately reflect the greenhouse gas emissions of the government operations or the region and should be organized to reflect the areas over which regional governments exert control and hold responsibility in order to serve the decision-making needs of users.

◤ **Completeness**: all greenhouse gas emission sources and activities within the chosen inventory boundary shall be accounted for. Any specific exclusion should be disclosed.

◤ **Consistency**: consistent methodologies to allow for meaningful comparisons of emissions over time shall be used. Any changes to the data, inventory boundary, methods, or any relevant factors in the time series shall be disclosed.

◤ **Transparency**: all relevant issues shall be addressed in a factual and coherent manner to provide a clear audit trail, should auditing be required. Any relevant assumptions shall be disclosed and include appropriate references to the accounting calculation methodologies and data sources used, which may include this Protocol and any relevant Supplements.

◤ **Accuracy**: the quantification of greenhouse gas emissions should not be systematically over or under the actual emissions. Accuracy should be sufficient to enable users to make decisions with reasonable assurance as to the integrity of the reported information."

Many methodologies also suggest similar best practices in measuring greenhouse gas emissions. Some of these suggestions are detailed here:

◤ Definition of boundaries (operational and organizational) to restrict emissions to only those that are relevant (or *material*) to the organization. In general, this relates to those emissions under the direct control or influence of the organization (and excludes regional emissions, which are dealt with in a later section of the questionnaire).

◤ Attention to the integrity of the data sources and calculation rules to produce consistent results.

◤ Disaggregating total emissions for sector- or activity-based disclosing.

◤ Many methodologies (though not all) also encourage the use of "Scopes" to differentiate the level of control over the source of the emissions.

◤ Use of emissions factors to normalize emissions data (carbon intensity or carbon equivalents) across gases, activities or geographies.

◤ Disclosing against, as a minimum, the six main greenhouse gases defined by the United Nations Framework Convention on Climate Change (UNFCCC): carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF_6).

4. Emissions – government operations

CDP also recognizes that regions may have created their own proprietary methodologies for calculating greenhouse gas emissions. If your region fits into this category, please provide as much information as possible about the methods you have used to measure your emissions.

Additional guidance on accounting methodologies and differences in approach can be found in numerous IPCC reports and research studies on urban emissions. In particular, the study *Greenhouse Gas Emission Baselines for Global Cities and Metropolitan Regions* by Kennedy, C.A. et al. provides a comparison of accounting practices of more than 40 global cities.

Specific question guidance

4.1: **Please provide the dates of the accounting year or 12-month period for which you are disclosing a GHG emissions inventory for your government's emissions.**

Please enter the requested dates on the drop down calendars. Entries MUST be for a 12-month period. If you do not have data for the entire 12-month period, please extrapolate to 12 months.

4.2: **Please select the category that best describes the boundary of your government's GHG emissions inventory.**

A list is provided with the following values:

- Departments, entities or companies over which operational control is exercised
- Departments, entities or companies over which financial control is exercised
- Other

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 and the WRI/WBCSD GHG Protocol.

If none of the listed options describes your boundary, please select "other" from the drop down list. You will then be provided with a text box in which to describe your boundary.

4.3: **Please indicate which of the following major sources of emissions are included in your government's GHG emissions inventory.**

In CDP's platform, you will have the option to select as many as apply. The full list of emissions sources is below. Multiple entries can be made, using the 'Add another' button at the base of the question. These values are broadly consistent with guidance provided by other organizations (including ICLEI) for disaggregating and disclosing total emissions.

- Airport (s)
- Buildings
- Buses
- Electricity generation
- Electricity transmission and distribution
- Incineration of waste
- Employee commuting
- Landfills
- Local trains
- Maritime port
- Vehicle fleet
- Regional trains
- Roads / highways
- Street lighting and traffic signals
- Subway / underground
- Thermal energy
- Waste collection
- Wastewater treatment
- Water supply
- Other

The values selected may differ significantly from one region to the next, based on size, jurisdictional issues / relationship with other levels of government, and resources. For example, some regions will control utility services that service their population, but this is by no means universal. Others may offer extensive mass transit services which are under regional control or influence, while others may not. By providing this information, you will help make comparisons between regions that share similarities in size, functions, and jurisdiction.

If you have any other major emission sources not listed above, please select 'other' and use the comment box to provide a description. Select "not included" if this source is part of your regional government's control but not included in your GHG emissions; select "not applicable" if this source is not within your regional government's control.

4.4:   Please give the name of the primary protocol, standard, or methodology you have used to calculate your government's GHG emissions.

This question aims to understand which processes you have used to calculate emissions generated by your government operations. In the first field you will see a list of methodologies. Please select the methodology on which you base the majority of your calculations. The system will only let you select one methodology. These values are not meant to be exhaustive. If you do not see your chosen methodology reflected in the list please select "Other" and describe your methodology.

- Greenhouse Gas Protocol: Public Sector Standard;
- International Emissions Analysis Protocol (ICLEI);
- ISO 14064;
- Local Government Operations Protocol (ICLEI / The Climate Registry / California Climate Action Registry / California Air Resources Board);
- Australian National Greenhouse and Energy Disclosing (Measurement) Determination;
- Other.

4. Emissions – government operations

You might have calculated your emissions using multiple methodologies or by slightly modifying an existing methodology. In the second field, please detail how you have used multiple methodologies or how your region collects and manages data for your government operations.

4.5:   Has the GHG emissions data you have reported here been externally verified either in part or in whole?

Regional governments (or any large organization) may see value in having external verification or auditing of their emissions and emission reduction efforts. This can ensure higher levels of quality control / quality assurance. Externally verified information may also be required if performance metrics related to carbon emissions have been devised for government departments or department managers. The ability to call on verified data may provide government organizations a powerful tool in their efforts to influence policy or regulation at other levels of government or with other regional stakeholders.

Please respond to this question by selecting "yes" or "no" from the drop down menu provided.

4.5a: *If yes:* Please provide any other relevant information about the emission verification process, such as the verification standard or organisation, and whether the verification applies to all or just a section of your reported emissions.

This question only applies if you have answered "yes" to question 4.5 and provides an opportunity to describe other relevant information about this verification process. You may wish to consider providing information on the following:

- Name of verifier
- Year of verification (2010-2015)
- Comments

4.5b: *If no:* Please describe why not and your future plans to verify your emissions, if any.

This question only applies if you have answered no to question 4.5. This question offers you the opportunity to explain why you do not have an external verification process and provide further information about your future plans for external verification, if you have any.

4. Emissions – government operations

Section 4 – Platform page 2 of 3 – Government GHG emissions

This government emissions sub-section concerns information regarding the reporting of your regional government's greenhouse gas emissions. For help answering this section, please consult the guidance document at the base of the platform page.

4.6:   Please select which gases are included in your government's GHG emissions inventory.

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

This question allows you to go into more details about the types of gases reported in your emissions inventory. They are grouped into one of six GHG categories (also known as the Kyoto Protocol greenhouse gases).

4.7:   Please provide total emissions (Scopes 1 and 2) for your government operations, and indicate if your emissions have changed since your last reported year.

This question is your opportunity to enter a numeric value for the total figure for your government operations' GHG emissions in the selected year / 12 months of disclosing. Please indicate figures related to total emissions (combining scopes 1 & 2) in the first row. If your region disaggregates emissions into Scope 1 and Scope 2 emissions, please enter the total emissions for scope 1 only in the second row and the total emissions for scope 2 only in the third row.

If you do not break down your emissions in this way then please skip this question.

Please provide the following information:

◤ **Total emissions**
This question is your opportunity to enter the total figure for your region's GHG emissions in the selected year. Your answers will be numeric entries (metric tonnes of CO2e).

◤ **Comment on total emissions**
Please provide any relevant information on the total emission figure.

◤ **Change in total emissions from last reported year**
Please specify the evolution of the total emissions figure from the last reported year to 2015. Your emissions could have increased, decreased or not changed at all. You also have the possibility to specify any other type of evolution or if this is your first year of disclosing.

◤ **Comment on any change in total emissions**
Please explain the reasons behind the evolution of the total emissions figure.

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Scopes are a common categorization and more details are available in the following methodologies:

- [International Emissions Analysis Protocol](#)
- [Local Government Operations Protocol](#)
- [WRI / WBCSD Greenhouse Gas Protocol](#)

For example, the following description of scopes is taken directly from the [Local Government Operations Protocol](#):

- **Scope 1:** All direct GHG emissions (with the exception of direct CO2 emissions from biogenic sources).
- **Scope 2:** Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.

4.8: **Where it will facilitate a greater understanding of your government emissions, please provide a breakdown of these emissions by department, facility, source, GHG or by any other classification system used by your government.**

Many regions categorize their emissions differently. The intent of this question is to learn more about how your organization disaggregates emissions, which can be valuable information for tracking, monitoring and evaluation, and disclosing purposes. The information will also contribute to a comparative understanding between regional departments / organizations, or among regions themselves. Please note that this question is flexible to accommodate all of the different kinds of categories used by regions.

You are provided with group of fields in CDP's platform to structure your response under the following headings; an example is provided in Box 6.

- **Department / Facility / Source / Fuel / Other**
  Please use this text box field to denote the categories the region uses to classify emissions. This can be by department, facility, greenhouse gas or any other categorization. If you have data for more than one type of emissions as defined in the second field create multiple rows for each categorization.

- **Scope**
  For more information about scopes see Question 4.7. Select from the following options:
  - Scope 1
  - Scope 2
  - Total Figure

       o   Other

◥ **Emissions**

Enter a numeric value in metric tonnes of CO2e for the amount of emissions that correspond with the previous two fields.

Box 8: Example answer to Q 4.8:

Department / Facility / Source / Fuel / Other	Scope	Emissions (metric tonnes CO2e)
Parks Department	Scope 1	2300
Parks Department	Scope 2	475000
Office of Financial Affairs	Scope 2	15000
Government Office	Total figure	10000
Public Works	Total figure	350000
Other	Total figure	5000

Department / Facility / Source / Fuel / Other	Scope	Emissions (metric tonnes CO2e)
Facility A	Scope 2	47500
Facility A	Scope 1	1500
Facility B	Scope 1	10000
Facility C	Scope 2	350000

4.9:   Do you measure Scope 3 emissions?

Please provide a "yes" or "no" answer using the drop down menu provided. If you answer "yes" you will be directed to question 4.9a, if you answer "no" you will be directed to question 4.9b.

As an example, the following description of Scope 3 emissions is taken directly from the ICLEI Local Government Operations Protocol:

> ◥ **Scope 3:** "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 disclosing entity (e.g., employee commuting and business travel), outsourced activities, waste disposal, etc."

Further detail on measuring Scope 3 emissions can be found in the ICLEI Local Government Operations Protocol.

4.9a: *If yes:* **Please complete the below.**

We anticipate that there will be variations between regions in how Scope 3 emissions are calculated. The information you provide in the question will assist in making comparison between regions and drawing lessons learned that can assist regions in selecting and implementing appropriate methods for accurately measuring and managing this type of emissions.

This is a text box question with three fields to allow explanation of the Scope 3 emissions sources which are included in the government operations inventory. The fields provided are as follows:

> ◥ **Source of Scope 3 emissions**
>
> Provide a breakdown of the different categories of scope 3 emissions:
> Employee commuting
> Employee business travel
> Emissions from contracted services
> Upstream production of materials and fuels
> Upstream and Downstream transportation of Materials and Fuels
> Waste related Scope 3 emission sources
> Other

> ◥ **Emissions**
> Provide the amount of CO2e emitted for each source in metric tonnes of CO2e.

> ◥ **Comment**
> Provide more detail about your Scope 3 emissions reported.

Box 9: Example answer to Q 4.9a for region-wide GHG emissions totals:

Source of Scope 3 emissions	Emissions (metric tonnes CO2e)	Comment
Employee commuting	4000	Estimate based on a survey conducted amongst government employees regarding their ways of traveling to work

4.9b: *If no:* **Please describe why not and your future plans to measure Scope 3 emissions, if any.**

If you do not measure Scope 3 emissions, please explain why not and detail your plans to do so in the future, if any.

4. Emissions – government operations

Section 4 – Platform page 3 of 3 – Government electricity

This government emissions sub-section concerns information regarding the electricity consumption of your regional government. For help answering this section, please consult the guidance document at the base of the platform page.

4.10: **Please detail your government's electricity consumption, and the GHG emissions associated with these activities.**

This question is your opportunity to detail the amount of electricity consumed by your region along with their associated GHG emissions. The values are listed below:

◤ **Amount of electricity consumed**
   Your answers must be numeric entries (1,000).

◤ **Units**
   Select from the drop-down the corresponding unit for the number entered in the previous field.
   o GWh
   o MWh
   o kWh
   o TJ
   o GJ
   o MJ
   o m³
   o L
   o Metric tonnes
   o Short tons
   o Therms
   o Btus

◤ **Associated GHG emissions**
   Your answers must be numeric entries (1,000).

◤ **Comments**
   Please provide any contextualizing information on the electricity figures or their associated GHG emissions.

4.11: **Please detail the energy mix of your government's electricity consumption (%).**

Please use the sliding tool to indicate the breakdown of the region's energy sources in percentages. Make sure the sum of values on the right-hand side does not exceed 100%. Same visualization as for Q 3.11.

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5. Risks and adaptation

Section 5 – Platform page 1 of 4 – Climate risks and adaptation actions

General Guidance

This risks and adaptation sub-section concerns information regarding the physical risks from climate change affecting your region and your adaptation actions. For help answering this section, please consult the guidance document at the base of the platform page.

This section seeks to gain information on the current understanding of climate change risks affecting your region. Further information regarding climate change impacts analysis is available from the following sources:

◤ *Coping with Global Climate Change, The Role of Adaptation in the United States* by the Pew Center on Global Climate

The information provided in this section will also be made available for the UNFCCC NAZCA portal (Non-state Actor Zone for Climate Action) to support national action for a global deal at COP 21 in Paris, 2015.

This section of the questionnaire is spread over 4 pages in CDP's platform:

◤ **Physical risks (Questions 5.1 – 5.3):** These may arise from dramatic extreme weather events or subtle changes in weather patterns. Their impact may be direct or indirect, i.e. affecting other organizations on which your region relies. When identifying physical risks, regions should think objectively of the ways in which physical changes will affect the region's ability to conduct business as usual. Information about physical risks associated with climate change can be found on the website of the Intergovernmental Panel on Climate Change, and in particular the report by Working Group II, "Impacts, Adaptation and Vulnerability"

It is up to the user of the risk framework / risk analysis to define the level of risk faced by the region, depending on the circumstances and user preferences. It will further be up to the users to make judgments about priorities: for example, whether a high impact but low probability event presents a greater risk to the region than that of a low impact but high probability one.

◤ **Water supply risks (Questions 5.4 – 5.5):** When it comes to climate change water is an issue of critical importance for regional governments. Ensuring there is ample water for industry, agriculture and citizens can be an important responsibility of the regional government. The following questions relate to the region's water supply.

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◥ **Social risks (Questions 5.6):** Climate change can also deeply affect populations, especially in developing or politically unstable areas where communities and their infrastructures lack resilience against physical and water supply hazards.

◥ **Vulnerability assessment & Adaptation (Questions 5.7 - 5.8):** These questions examine if your region is measuring their vulnerability to climate change and how it is adapting to it.

Specific Question Guidance

5.1: **Do current and/or anticipated impacts of climate change present significant physical risks to your region? ^**

[Radio buttons: Yes, No, Don't know]

5.1a: *If yes or don't know:* **Please describe these current and/or anticipated impacts of climate change. ^**

This question asks you to detail the physical risks of climate change which you expect to experience in your region, together with their anticipated timescales. Do not feel obliged to include every risk to the region - list only the most pertinent and important, for example, those that may have the biggest impact, magnitude or risk factor. Responses should be reported in the fields provided using the drop down menus where appropriate, as detailed below:

◥ **Climate change impacts:**

- More hot days
- Hotter summers
- Greater temperature variability
- More frequent heat waves
- More intense heat waves
- Warmer water temperatures
- Changes in humidity
- More frequent rainfall
- More intense rainfall
- Increased average annual rainfall
- Reduced average annual rainfall

- Reduced average annual snowfall
- More frequent droughts
- More intense droughts
- Change in seasonality of rainfall
- Increased frequency of large storms
- Increased wind speeds
- Sea level rise
- Other

5. Risks and adaptation

◥ **Level of risk:** Risk can be assessed in a variety of ways. For the purposes of this survey, CDP asks regions to assess their level of risk by estimating the potential impact from the anticipated effect of climate change along with the likelihood of that effect occurring. The categories of risk are general and all that is necessary is an estimate. Four options are available to describe the level of risk:

- o Extremely serious: If you anticipate that the expected effect of climate change poses the highest level of potential concern to your region. For example, you might choose this option if you expect large storms to have a significant impact on your region within a short time period.
- o Serious: If you anticipate that the expected effect of climate change poses a significant level of concern to your region. For example, you might choose this option if you expect large storms to have a significant impact on your region within a medium time frame.
- o Less serious: If you anticipate that the expected effect of climate change will have a lower impact within a longer timescale.
- o Other.

Again, it is up to the region to determine its level of risk and to make judgments about priorities: for example, whether a high impact risk with a long term timescale constitutes a more serious risk than a low impact risk with an immediate timescale.

◥ **Anticipated timescale in years:**
The field offers four choices for timescale:

- o Current - if your region is already experiencing the identified effect from climate change
- o Short term - if you anticipate your region will experience the identified effect from climate change by 2025.
- o Medium term - if you anticipate your region will experience the identified effect from climate change between 2026 and 2050.
- o Long term - if you anticipate your region will experience the identified effect from climate change after 2051.

◥ **Impact description:** The final question field gives you an opportunity to describe individual impacts that could be affected by the physical climate change effects you have identified, including for example, agriculture, buildings, water, waste, transport, energy, communications/telecommunications or human health. It may be useful to state how the expected effects of climate change may affect each of these areas in detail. Some examples are provided in Box 10 below. Multiple impacts can be added using the 'Add another' button at the base of the question.

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5. Risks and adaptation

Please see the example below in Box 10 for reference.

Box 10: Example answer to Q 5.1a for risks identified:

By way of example, some effects and potential impacts relevant to regions might be:

◤ Higher average temperatures and more extreme heat waves:
    ○ increased cooling loads (buildings)
    ○ decreased efficiency of energy generating plants and transmission and distribution lines (energy infrastructure)
    ○ increase in morbidity and mortality from at-risk populations to extreme heat (human health)

◤ Decrease in average annual rainfall:
    ○ decreased water availability for hydroelectric power generation and for cooling water for thermal energy plants (energy)
    ○ decreased potable water supply and resulting water use restrictions (water)
    ○ increased potential for pipe breakage and failure of underground services due to soil / ground condition changes (water, waste)

◤ More intense precipitation events:
    ○ increased likelihood of combined sewer overloads (waste)
    ○ increased likelihood of landslide and landslip and resulting damage (buildings)

◤ Sea level rise:
    ○ Increased likelihood of service disruptions on freight and mobility infrastructure networks near coastal areas (marine terminals, airports, roads, rail) (transport)
    ○ Decreased efficacy of gravity fed wastewater and sewage systems in low-lying areas (waste)
    ○ Salinization of groundwater (water)

These examples are illustrative only and the relevant potential impacts will vary from region to region.

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5. Risks and adaptation

Please note that the risks you have selected in this question have to be used in Q 5.1b. This could not be programmed to happen automatically in CDP's platform, so please make sure the "effects of climate change" you have entered for Q 5.1a match those that you enter in Q 5.1b.

5.1b: *If yes or don't know:* **Please describe the adaptation actions you are taking to reduce the vulnerability of your region's citizens, businesses and infrastructure to the impacts of climate change identified in 5.1a. ^**

This question only applies if you have answered "yes" to Q 5.1. Please note that you must have filled out question 5.1a before attempting to answer this question.

 ◥ **Climate change impact**
 Please describe a number of possible effects of climate change which you have to select to mirror those selected from the drop down menu in Q 5.1a.

 ◥ **Adaptation action**
 Please detail the adaptation you are taking in relation to the climate change risk which you identified, the values are listed in Appendix B.

 ◥ **Action Description**
 Please provide any additional information about your adaptation action in 140 characters.

Box 11: Example answer to Q 5.1b on adaptation actions:

Climate change impact	Adaptation Action	Action Description
Sea level rise	Flood defenses – development and operation & storage	We are testing various sea walls and barriers around the port to prevent the low-lying areas from flooding. The most successful version will be rolled out region-wide.
More frequent heat waves	Shading in public spaces, markets	Restaurants are able to expedite the cafe (outdoor seating) licensing process if they plant trees to provide shade in the public spaces around the location.

5.1c: *If no:* **Please explain why the anticipated impacts of climate change present no significant physical risks to your region. ^**

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If climate change does not present physical risks to your region, please detail why.

5.2:   Please detail any compounding factors that may worsen the impacts of climate change in your region. ^

While a high level of predictability may be difficult, it is possible that climate change's effects (e.g. extreme heat) may have increasing consequences due to compounding factors. These may include underlying conditions or characteristics of the region that may accentuate the severity. For example, it is understood that extreme heat raises the risk of wildfires, increasing the demand for water while simultaneously reducing its supply. Compounding factors could include terrain that is susceptible to wildfires or low annual rainfall.

5.3:   Do you consider that these impacts of climate change threaten the ability of businesses to operate successfully in your region? ^

Please respond by selecting "yes", "no" or "don't know" from the drop down menu. You might answer "yes" to this question if, for example, the dominant industry in your region is dependent on certain climatic conditions, like skiing.

5.3a: Please explain the reasoning behind your response. ^

Your answer could relate to how physical impacts of climate change will affect businesses operating in your region. Examples could include facilities / companies operating in a low-lying, increasingly flood-prone area or those businesses that are dependent on certain predictable weather conditions such as agriculture or tourism. The consideration of business viability could extend to higher costs of doing business, issues of workforce availability, transport disruptions, storm or flood damage, supply chain interruptions, or the health risks to residents due to frequent severe weather events. It may also be useful for other regions to understand how you assessed the risks to businesses in your region.

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Section 5 – Platform page 2 of 4 – Water supply risk

This risks and adaptation sub-section concerns information regarding the water supply risks in your region. For help answering this section, please consult the guidance document at the base of the platform page.

5.4: Do you foresee substantive risks to your region`s water supply in the short, medium or long term?

This question asks you to consider risks to the region's water supply that may or may not be caused or exacerbated by climate change. Consider risks that are physical in nature as well as regulatory, economic or social. Please select "yes" or "no" from the drop down menu.

5.4a: *If yes:* Please identify the risks to your region's water supply as well as the timescale and level of risk.

This question is structured as a group of question fields. Multiple rows can be entered into the group using the 'Add another' button to the base of the group of question fields.

◤ **Risks to water supply:** This question asks you to classify the level of risk to your water supply. The field provides a drop down list of options from which to select. The values are:
   o   Increased water stress or scarcity
   o   Declining water quality
   o   Inadequate or aging infrastructure
   o   Flooding
   o   Higher water prices
   o   Regulatory
   o   Other

◤ **Timescale:** The field offers four choices for timescale:
   o   Current - if your region is already experiencing the identified effect from climate change.
   o   Short term - if you anticipate your region will experience the identified effect from climate change by 2025.
   o   Medium term - if you anticipate your region will experience the identified effect from climate change between 2026 and 2050.
   o   Long term - if you anticipate your region will experience the identified effect from climate change after 2051

◥ **Level of risk:** Risk to your water supply can be assessed in a variety of ways. For the purposes of this survey, CDP asks regions to assess their level of risk by estimating the potential impact from the anticipated effect of climate change to their water supply and the likelihood of that effect occurring. The categories of risk are general and all that is necessary is an estimate. Four options are available to describe the level of risk:

  o Extremely serious: If you anticipate that the expected effect of climate change to your water supply poses the highest level of potential concern to your region. For example, you might choose this option if fresh water resources around your region are projected to be depleted in a short timeframe.

  o Serious: If you anticipate that the expected effect of climate change to your water supply poses a significant level of concern to your region. For example, you might choose this option if your region expects frequent and intense droughts periods to have a significant impact on the availability of water in your area within a medium time frame.

  o Less serious: If you anticipate that the expected effect of climate change will have a lower impact within a longer timescale.

  o Other.

◥ **Risk description:** The final field gives you an opportunity to comment on the risks you have identified.

5.4b: *If no:* **Please explain why you do not consider your region to be exposed to any substantive water-related risk.**

This question gives you the opportunity to explain why your region does not face future risks to its water supply and your process for evaluating current or future risks.

5.5: *If yes to 5.4***: Please describe the actions you are taking to reduce the risks to your region's water supply.**

This question is relevant only if you have answered "yes" to 5.4. The purpose of this question is to understand the actions you are taking to reduce the risks to your water supply which you have identified in question 5.4a.

◥ **Risks**

◥ **Adaptation action**
  This field provides an opportunity to detail the adaptation you are taking in relation to the water supply risk which you identified.

5. Risks and adaptation

◥ Action Description

In this field, please provide any additional information about your adaptation action.

If the adaptation action you are taking is not in the list provided please select "other" and specify your action in the Action Description field.

Box 12: Example answer to Q 5.5 on supply side risk management actions.

Risks	Adaptation action	Action description
Declining water quality	Greenspace and watershed preservation	In order to increase the water quality of the river we are ensuring that no pesticide is used in parks bordering water streams

Section 5 – Platform page 3 of 4 – Social risks

This risks and adaptation sub-section concerns information regarding the social risks from climate change in your region. For help answering this section, please consult the guidance document at the base of the platform page.

5.6:   Does your region face any social risks as a result of climate change?

Please respond by selecting "yes", "no" or "don't know" from the drop down menu. If you answer "yes" or "don't know" you will be directed to Q 5.6a, if you answer "no" you will be directed to Q 5.6b

Regions may encounter social risks as a result of climate change. Some social risks may be based on demographics, socio-economic factors, institutional frameworks, or the strength of services targeted to certain populations. Examples of social risks might include health and wellbeing, (e.g. susceptibility to disease vectors or heat-related morbidity and mortality), crime, social unrest, migration, or quality of life. Additional entries can be made in the question, using the 'Add another' button at the base of the question.

5.6a: *If yes or don't know:* **Please complete the below.**

This question is structured as a group of fields. The first field describes a number of possible social risks of climate change which can be selected from the drop down menu.

◥ **Social risks**
  o   Fluctuating socio-economic conditions
  o   Increased incidence and prevalence of disease
  o   Increased demand for public services (including health)
  o   Increased risk to already vulnerable populations
  o   Increased conflict and/or crime
  o   Increased resource demand
  o   Loss of traditional jobs
  o   Migration from rural areas to cities
  o   Population displacement
  o   Other

◥ **Anticipated timescale in years**
  o   In the second field please choose the timescale by which you expect to experience social risks arising from climate change.
  o   The field offers four choices for timescale:
  o   Current - if your region is already experiencing the identified effect from climate change

- Short term - if you anticipate your region will experience the identified effect from climate change by 2025.
- Medium term - if you anticipate your region will experience the identified effect from climate change between 2026 and 2050.
- Long term - if you anticipate your region will experience the identified effect from climate change after 2051.

◥ **Impact Description**

In the third field describe the risk. You may wish to describe the effect experienced / anticipated, the level of risk, anticipated timescale and sectors affected. Please provide in this field any additional information about any social risk you perceive.

Additional entries can be made in the question, using the 'Add another' button at the base of the question.

Box 13: Example answer to Q 5.6a on social risk:

Social Risk	Anticipated timescale in years	Impact Description
Increased risk to already vulnerable populations	Medium term	With longer heat events, at-risk populations that have limited access to cooling centers or do not have air-conditioning units within their place of residence are more susceptible to facing heat-related illnesses or death
Increased conflict and/or crime	Short term	In addition, loss of power after extreme weather events, such as hurricanes, can mean higher incidence of crime (e.g. looting and theft)

5.6b: *If no:* **Please explain why your region is not exposed to any social risks as a result of climate change.**

If climate change does not present social risks to your region, please detail why not.

Section 5 – Platform page 4 of 4 – Assessment and planning

This risks and adaptation sub-section allows you to upload documents concerning climate change risk and adaptation actions taken by your region. For help answering this section, please consult the guidance document at the base of the platform page.

5.7:   Has a climate change risk or vulnerability assessment been undertaken for your region? ^

[Radio buttons: Yes, No, In progress]

Please respond by selecting "yes", "no" or "in progress" from the drop down menu.

5.7a: *If yes:* Please upload your climate change risk or vulnerability assessment. ^

The size of the file should not exceed 10-megabytes.

5.7b: *If yes:* Please select the primary process or methodology used to undertake the climate change risk or vulnerability assessment to your region. ^

This is a question with two fields. Answering this question will provide important information for other regions which are assessing the physical risks from climate change for the first time and may be interested in the methodology you used.

In the first field you are able to choose from a list of the most commonly used methodologies and types of methodologies on which your assessment is based. Select 'Other' to report something not covered in the existing list of values. Selecting other will allow you to write in the name of the methodology used. Select 'Unknown' if you do not know on which methodology the assessment was based and select 'No evaluation done' if a vulnerability assessment has not been carried out.

◤ **Primary methodology**
   o IPCC models and climate change impact assessment guidance
   o OECD Strategic Environmental Assessment and Adaptation to Climate Change
   o UNDP climate risk management methodologies
   o ICLEI climate adaptation methodology (ADAPT)
   o UK Climate Impacts Partnership Framework (UKCIP)
   o World Bank Urban Risk Assessment (URA)
   o Shaping climate resilient development: A framework for decision making (ECA)
   o State or region vulnerability and risk assessment methodology
   o Agency specific vulnerability and risk assessment methodology
   o Other: Proprietary Methodology

- o Unknown
- o No evaluation done
- o Other

◥ **Description**

Use the second field to provide more details on how the assessment was carried out. If you choose 'Proprietary Methodology' or 'Other' to describe your methodology in the first field, please provide details so that others may understand your approach.

The following resources provide further information about physical risks and the methodology of risk assessment:

- o The [IPCC Fifth Assessment Report (Working Group II: Impacts, Adaptation and Vulnerability)](#)
- o [The OECD Strategic Environmental Assessment and Adaptation to Climate Change](#)
- o UNDP climate risk management methodologies: [http://www.undp.org/content/dam/undp/library/crisis%20prevention/disaster/3Disaster%20Risk%20Reduction%20-%20Climate%20Risk%20Management.pdf](#)
- o ICLEI climate adaptation methodology (ADAPT) e.g. [http://www.icleiusa.org/tools/adapt](#) and [http://archive.iclei.org/index.php?id=adaptation-toolkit0](#) .
- o UK Climate Impacts Partnership Framework (UKCIP)([http://www.ukcip.org.uk/tools/](#))
- o World Bank Urban Risk Assessment (URA) [http://elibrary.worldbank.org/content/book/9780821389621](#)
- o A report of the Economics of Climate Adaptation (ECA) Working Group: [Shaping climate resilient development: A framework for decision making](#)
- o An example of a national vulnerability assessment is the Swedish Commission on Climate and Vulnerability report titled *Sweden facing climate change – threats and opportunities*
- o An example of an agency specific vulnerability and risk assessment methodology is the US Department of Transportation's [Federal Highways Administration Methodology](#).

5.8: Do you have a plan that addresses climate change adaptation? ^

Please respond to indicate whether your region has produced an adaptation plan by selecting "yes" or "no" from the drop down menu. If you select "yes" you will be directed to Question 5.8a and 5.8b. If you select "no" you will be directed to Question 5.8c.

A resilience plan (also known as climate adaptation plan) can be defined as a planned response across the region's services and departments in order to address and manage future climate change

risks. 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 the Government of South Australia's "Prospering in a changing climate" which can be found here: http://www.sa.gov.au/__data/assets/pdf_file/0011/10901/CC_framework_2012_web_V3.pdf

5.8a: *If yes:* **Please provide the below details concerning your climate adaptation plan. ^**

If you have a climate adaptation plan please provide additional details about it in this question. Please indicate the title of the most recent climate adaptation plan, the publication year and its hyperlink.

Box 14: Example answer to Q 5.8a on climate adaptation plans:

Publication title	Publication year	Publication hyperlink
Climate adaptation plan for Example region – Phase 1	2013	https://www.climateadaptationplan.com

5.8b: *If yes:* **If not available CDP's, please upload you climate adaptation plan. ^**

This question gives you the opportunity to upload your climate adaptation plan. The maximum file size is 10 megabytes.

5.8c: *If no:* **Please explain why you do not have a climate adaptation plan and detail any future arrangements you have to create a plan. ^**

Some regions have not created an adaptation plan for a variety of reasons. Others are still in the process of completing their adaptation plan. This question gives you the opportunity to explain why you have not created an adaptation plan.

5.9 **Please describe any adaptation goals you have for your region. ^**

[Text field]

Your goals can be of any type. Please just use the text field to provide as much explanation on what your main goals are for adaptation.

Section 6 – Platform page 1 of 2 – Regional planning

This governance sub-section concerns information regarding your government's master planning for handling climate change in your region. For help answering this section, please consult the guidance document at the base of the platform page.

General guidance

This section provides an opportunity for you to report on the management structure and processes for handling climate change in your region.

6.1: **Please describe the process by which your regional government reviews its progress and manages overall responsibility for climate change.**

The intent of the question is to understand how climate change action steps and progress are measured, monitored and managed. If relevant, details offered could include the following: department, committee, or person responsible for climate change-related activities; information on frequency of actions or disclosing; next steps for governance and planned future changes; governance challenges encountered; and stakeholder engagement processes.

6.2: **Please describe the impact of national activities on your region's own climate change activities.**

Current and/or expected national or global governmental policy on climate change may influence directly or indirectly the region's climate change policies. Regulations for instance may inhibit the ability of a region to meet financial targets or to enact regionally appropriate programs for mitigating greenhouse gas emissions. Or regulations could dictate the emissions reduction targets for your region.

The intent of this question is to understand the dynamic between the regional government and national government. How are the region's actions and targets influenced by the national government?

6.3: **Does your region incorporate desired GHG reductions into the master planning for the region?**

A good definition of a master plan comes from the Scottish government: "A master plan describes and maps an overall development concept, including present and future land use, urban design and landscaping, built form, infrastructure, circulation and service provision. It is based upon an understanding of place and it is intended to provide a structured approach to creating a clear and

consistent framework for development." Please answer by selecting "yes" or "no" from the drop down menu provided. If you select "yes" you will be directed to Question 6.3a.

6.3a: *If yes:* **Please describe the ways that the master plan is designed to reduce GHG emissions.**

This question only applies if you have selected "yes" in answer to Question 6.3. The intent of this question is to understand how the region uses a master plan to reduce GHG emissions. For instance, regions may encourage the use of public transportation by designing transportation hubs so that citizens live within walking distance of a train or bus stop. The use of electric vehicles may be encouraged by developing EV infrastructure like charging stations.

Section 6 – Platform page 2 of 2 – Regional opportunities

This governance sub-section concerns information regarding the financial investments and business opportunities linked to climate change in your region. For help answering this section, please consult the guidance document at the base of the platform page.

6.4: Does your region provide incentives for management of climate change issues, including the attainment of greenhouse gas (GHG) reduction targets?

Regions must respond to this question by selecting "yes" or "no" from the drop down menu. Responding "yes" drives Question 6.4a below. Incentives are defined as any reward offered for attaining certain agreed performance goals. For example, a regional government might offer its officials financial remuneration, a prize or public recognition for achieving climate change-related performance goals.

6.4a: *If yes:* **Please describe the incentives.**

This question only appears if you answer "yes" to Question 6.4 (see above).

◤ **Who is entitled to benefit from these incentives?**
- Regional government employees
- Regional government agencies/departments
- Large commercial and industrial facilities
- Businesses
- Citizens
- Other

◤ **Type of incentives**
- Monetary: a bonus or some form of financial remuneration
- Recognition (non-monetary): employee award (e.g. employee of the year) or career progression scheme, but not tied directly to any form of financial remuneration
- Other non-monetary reward: including increased holiday allowances, special assignment, etc.
- Other: if none of the options above correspond to the type of incentives your region has in place

◤ **Incentive description**

Multiple incentives can be added using the "Add another" button to the base of the question.

Please see the example below in Box 13 for reference. **Example of incentives for management of climate change**

Who is entitled to benefit from these incentives?	Type of incentives	Incentive description
Regional government employees	Recognition (non-monetary)	Energy managers are featured in our internal newsletter and named 'energy ambassador' when their facility reduces electricity use by 10% compared to baseline.
Regional government agencies/departments	Monetary	Schools receive a 50% refund of all cost reductions achieved by energy savings through behavior changes (by pupils and teachers), for free use by the school.
Citizens	Other non-monetary reward	Citizens can win t-shirts and other memorabilia for participating in meatless Monday

6.5: **Please list any climate change-related projects for which you hope to attract private sector involvement.**

6.6: **Does climate change provide any economic opportunities for your region?**
Please respond by selecting "yes", "no" or "don't know" on the drop down menu.

6.6a: *If yes or don't know:* **Please indicate the opportunities and describe how the region is positioning itself to take advantage of them**

For some regions with a strong foundation in scientific and technology research and development, advanced / precision manufacturing, export facilities, or those well-endowed with renewable energy resources (wind, solar, geothermal, marine, and biomass), financial opportunities to develop new goods and services may be realized.

- **Economic opportunity**
    - o Development of new business industries (e.g. clean tech)
    - o Additional funding opportunities
    - o Improved efficiency of operations
    - o Increased energy security
    - o Increased attention to other environmental concerns
    - o Increased infrastructure investment
    - o Other

- **Describe how the region is maximizing this opportunity**

6.6b: *If no:* **If no, why not?**

Thank you for completing the information request. Further information is below.

Appendix A – Climate actions

1. Agriculture sector (1 possible action)

Agriculture > Promote sustainable farming practices (e.g. low-till, waste reduction, etc.)

2. Buildings & Lighting sector (18 possible actions)

Buildings > Improve heating and cooling efficiency (e.g. audits, insulation, HVAC maintenance, white roofs, etc.)
Buildings > Increase awareness/engage public on energy efficiency/clean energy programs
Buildings > Install biomass heating
Buildings > Install clean cook stoves
Buildings > Install combined heat and power
Buildings > Install energy efficient lighting systems (e.g. LED, CFL, etc.)
Buildings > Install geothermal heating
Outdoor Lighting > Install more efficient luminaires in streetlights/traffic lights (e.g. LED)
Buildings > Install smart energy meters/sub-meters
Buildings > Install solar electricity
Buildings > Install solar heating/hot water
Buildings > Promote building energy performance rating/certification/benchmarking
Buildings > Promote energy efficient appliances
Buildings > Set/strengthen appliance efficiency standards
Buildings > Set/strengthen building energy codes/standards
Buildings > Set/strengthen HVAC efficiency standards
Buildings > Set/strengthen lighting efficiency standards
Buildings > Switch from heating oil to natural gas

3. Energy sector (21 possible actions)

Energy > Enable net metering
Energy > Expand/improve transmission to integrate renewables
Energy > Install natural gas power
Energy > Install biomass power
Energy > Install carbon capture and storage (CCS)
Energy > Install combined heat and power (CHP) or trigen
Energy > Install energy storage system
Energy > Install fuel cell power
Energy > Install hydropower
Energy > Install microgrids
Energy > Install nuclear power
Energy > Install smart grids
Energy > Install solar power (e.g. PV, CSP)
Energy > Install geothermal power
Energy > Install wind power (e.g. onshore, offshore)
Energy > Install ocean/tidal/wave power
Energy > Measure energy productivity (e.g. GDP per unit of energy)

Energy > Promote demand-side management programs

Energy > Reform utility revenue policies and rate structures
Energy > Replace coal-fired/inefficient power stations
Energy > Set energy efficiency resource standards (EERS)

4. Finance & Economy sector (15 possible actions)

Finance & Economy > Adopt feed in tariff for renewables
Finance & Economy > Adopt reverse auction for renewables
Finance & Economy > Enable PACE (long term property tax based loans) financing
Finance & Economy > Establish GHG trading program
Finance & Economy > Increase awareness/engage public on financing mechanisms and incentives for energy efficiency/clean energy
Finance & Economy > Invest in clean tech R&D
Finance & Economy > Issue green bonds
Finance & Economy > Promote on-bill financing
Finance & Economy > Provide green mortgages
Finance & Economy > Provide loans/guarantees for energy efficiency/clean energy
Finance & Economy > Provide tax incentives for clean energy
Finance & Economy > Support clean tech clusters
Finance & Economy > Support clean tech companies
Finance & Economy > Support green manufacturing
Finance & Economy > Tax GHG emissions

5. Governance sector (4 possible actions)

Governance > Collaborate with cities/local governments in reducing emissions/increasing resilience
Governance > Collaborate with national governments in reducing emissions/increasing resilience
Governance > Collaborate with other states/regions in reducing emissions/increasing resilience
Governance > Support businesses in reducing emissions/increasing resilience

6. Industry sector (5 possible actions)

Industry > Establish region-wide plan to reduce short-lived climate pollutants (i.e. methane, black carbon, O3, HFCs)
Industry > Improve energy efficiency of industrial processes
Industry > Promote industrial symbiosis/industrial ecology programs
Industry > Promote reduced packaging
Industry > Tax GHG-heavy industrial fuel consumption

7. Land use sector (6 possible actions)

Land use > Establish GHG reduction plan for LULUCF (e.g. REDD+, etc.)
Land use > Promote conservation efforts for natural areas
Land use > Promote sustainable forest management
Land use > Promote sustainable coastal ecosystem management
Land use > Undertake environmental impact assessment

Land use > Establish guidelines for siting renewable power

8. Transport sector (17 possible actions)

Mass Transit > Adopt bus rapid transit
Mass Transit > Adopt high speed rail
Mass Transit > Improve bus services (e.g. increase routes, improve stops, reduce fares, etc.)
Mass Transit > Improve fuel efficiency of trains (e.g. efficient engines, regenerative braking, energy storage, etc.)
Mass Transit > Improve metro services (e.g. increase routes, improve stations, reduce fares, etc.)
Mass Transit > Improve rail services (e.g. increase routes, improve stations, reduce fares, etc.)
Mass Transit > Promote smart logistics (e.g. real-time information)
Mass Transit > Switch freight from trucks to rail
Private Transport > Increase awareness/engage public on private transport measures
Private Transport > Install electric vehicle charging infrastructure (i.e. home, work, highways, etc.)
Private Transport > Promote alternative fuel production (e.g. biofuels, natural gas, hydrogen, etc.)
Private Transport > Set/strengthen fuel economy standards for cars/trucks
Private Transport > Set GHG emissions standards
Private Transport > Set low-carbon fuel standard
Private Transport > Set manufacturing requirements (e.g. zero-emission vehicle standard)
Private Transport > Switch to electric/hybrid vehicles in cars/taxis/government fleets
Private Transport > Switch to other lower-carbon fuel in cars/taxis/government fleets (e.g. biofuels, natural gas, hydrogen, etc.)

9. Waste sector (9 possible actions)

Waste > Adopt source separation policies (e.g. collection for dry recyclables, organic compostable waste, etc.)
Waste > Establish waste reduction/recycling plan
Waste > Increase awareness/engage public on waste reduction/recycling measures
Waste > Install advanced thermal treatment/waste to energy
Waste > Install anaerobic digestion
Waste > Install landfill gas management/landfill gas to energy
Waste > Install mechanical biological treatment
Waste > Install municipal recycling points or centers (for residents or businesses)
Waste > Install waste heat recovery

10. Water sector (3 possible actions)

Water > Adopt wastewater to energy initiatives (e.g. methane recovery for reuse)
Water > Install smart water meters
Water > Promote water recycling or reclamation

Appendix B – Actions to reduce vulnerability

Flood mapping
Heat mapping and thermal imaging
Landslide risk mapping
Sea level rise modelling
Biodiversity monitoring
Real time risk monitoring
Crisis management including warning and evacuation systems
Crisis planning and practice exercises
Public preparedness (including practice exercises/drills)
Community engagement/education
Projects and policies targeted at those most vulnerable
Testing/vaccination programmes for vector-borne disease
Disease prevention measures
Air quality initiatives
Incorporating climate change into long-term planning documents
Restrict development in at risk areas
Resilience and resistance measures for buildings
Hazard resistant infrastructure design and construction
Diversifying power/energy supply
Economic diversification measures
Flood defences – development and operation & storage
Storm water capture systems
Additional reservoirs and wells for water storage
Soil retention strategies
Tree planting and/or creation of green space
Green roofs/walls
White roofs
Shading in public spaces, markets
Cooling systems for critical infrastructure
Retrofit of existing buildings
Cooling centers, pools, water parks/plazas
Cool pavement
Water extraction protection
Promoting low flow technologies
Water butts/rainwater capture
Xeriscapes – low water landscaping design
Maintenance/repair – leaking infrastructure
Optimizing delivery fuel mix of water supply
Improve water supply distribution method
Promoting and incentivizing water efficiency
Water use restrictions and standards
Water efficient equipment and appliances
Water smart metering
Water use audits
Awareness campaign/education to reduce water use; Diversification of water supply; Other.

CDP has been making information requests on behalf of institutional investors to corporations on carbon and climate change since 2002, water since 2010, and forests since 2013. CDP has been making information requests to cities since 2010 and regions since 2014. To find out more about CDP and the previous responses from these organizations, please refer to our websites on www.cdp.net or data.cdp.net

What are the financial implications of responding?

CDP has charitable status and seeks to use its limited funds effectively. Consequently, responses must be prepared and submitted at the expense of responding regions. CDP also reserves the right, where it deems it appropriate in view of its charitable aims and objectives, to charge for access to or use of data and/or reports it publishes or commissions.

What is the basis of participation and what will happen to the data received?

Regions responding to CDP's 2016 states and regions information request make no claim of ownership in the data they submit and agree that CDP has an irrevocable license to use and copy the responses and their contents without restriction and to authorize others to do the same.

Responding regions agree that CDP is free to make use of the data including as described below and with respect to public response sections otherwise without restriction whatsoever in furtherance of its charitable mission. Responding regions also agree that CDP will own the databases in which that data is stored, as well as the contents of those databases.

Responding regions are given a choice as to which sections of their response are public or non-public. We strongly encourage regions to make the sections of their response public, which means that the these sections of the response will be made publicly available from the CDP website as outlined below. Non-public sections of the response will not be made publicly available and will only be used as outlined below.

Public response sections

Regions agree that public response sections will be used by CDP in furtherance of its charitable mission and that the response may be:
1. Made available as soon as it is received by CDP to its partners, appointed report writers, the UNFCCC and any other parties that CDP deem appropriate;
2. Made publicly available on the CDP website and stored and preserved on CDP's servers indefinitely thereafter;
3. Distributed through selected partners;
4. Compiled in CDP databases and made available in original, modified or adapted form (for a fee or otherwise) for use by commercial and non-commercial organizations ;
5. Amalgamated with information about the responding region from other public sources;
6. Used as a best practice example in CDP literature and research;
7. Used individually or as part of aggregate results in CDP's reports and in any other research conducted or commissioned by CDP; and,

8. Used in any other way that accords with CDP's charitable mission.

Non-public response sections

Regions agree that non-public response sections may be:

1. Made available as soon as it is received by CDP to its partners and appointed report writers but not to any other parties; and,
2. Used in production of aggregate or anonymous statistics in any CDP authored or co-authored report.

What if a region wishes to change or update a response?

Submissions and revisions must be made by regions by 15 July 2016 to be included in the annual CDP reports where applicable. CDP cannot guarantee that changes made after 15 July 2016 will be reflected in the reports.

What is the legal status of CDP?

CDP Worldwide (CDP) is a UK Registered Charity no. 1122330 and a company limited by guarantee registered in England no. 05013650. In the US, Carbon Disclosure Project (North America) Inc has United States IRS 501(c)(3) charitable status.

CDP is an independent not-for-profit organization holding the largest collection globally of self-reported climate change, water and forest-risk data.

Thousands of organizations from across the world's major economies measure and disclose their environmental information through CDP. CDP puts this information at the heart of financial and policy decision-making and its goal is to collect and distribute high quality information that motivates investors, corporations and governments to take action to prevent dangerous climate change and protect our natural resources.