CDP Cities 2017 - Hsinchu County Government

Module: Introduction

Page: Introduction

0.1

Please give a general description and introduction to your city including your city's boundary in the text box below.

Administrative boundary	Description of city
County	Hsinchu County is in the northwest of Taiwan, the beautiful Formosa Island. To the west is the Taiwan Strait and the Xueshan Mountain Range and Dabajian Mountain lie to the east. Mountains surround the county in three directions. The land area totals 1,427.5931 km2. Besides the alluvial plains at the estuaries of Fongshan River and Toucian River and certain river valleys, hills, plateaus and mountains form the most part of the topography of the county. Transportation is convenient. The Hsinchu Station of the Taiwan High Speed Rail is situated in the county's Zhubei City from where it takes only 30 minutes to Taipei Station, The county is becoming the new center of northern Taiwan. In the pass twenty years, Hsinchu County government efforts to promote the environmental protection work, such as air pollution prevention, control of water Pollution, waste management, and Eco-Green…etc. In carbon reduction, we promote community toward a low-carbon community forward including equipment, energy saving, resource recycling, low-carbon living, building energy-saving, and renewable energy development…etc.

0.2

Emissions Accounting Choice

Reporting emissions is optional for all cities. By checking the boxes below you are indicating that you have fuel and/or greenhouse gas (GHG) emissions data to report at this time.

Select 'Government' to report emissions from your local government operations (sometimes referred to as 'corporate' or 'municipal' emissions).
Select 'Community' to report emissions from the entire city area over which the city government can exercise a degree of influence through the policies and regulations they implement (sometimes referred to as 'geographic' or 'city-wide' emissions).
Select both boxes to report fuel and/or emissions for both inventories.

IF YOU HAVE NO FUEL AND/OR GREENHOUSE GAS EMISSIONS TO REPORT DO NOT CHECK EITHER BOX.

Government

M0.0

Would you like CDP to use the responses provided in the main questionnaire as your city's submission to the Global Covenant of Mayors for Climate and Energy (Compact of Mayors)?

My city is not participating in the Global Covenant of Mayors

Module: Governance

Page: City Details

0.3

Please provide information about your city's Mayor in the table below.

Leader title	Leader name	Current term start	Current term end	Total time in office (years)
Magistrate	Ching-chun Chiu	2010	2018	

0.4

Please provide details of your city's annual operating budget.

Annual operating budget	Currency	Budget year start	Budget year end
1135226858	USD US Dollar		

0.5

Please provide details of your city's current and projected population.

Current population	Current population year	Projected population	Projected population year
537948	2015		

0.6

Please provide details of your city's GDP.

GDP	Currency	Year of GDP	Source
529515000000		2014	

0.7

Please provide further details about the geography of your city.

Average annual temperature (in Celsius)	Land area (in square km)	Average altitude (m)	Longitude (e.g. -120.9762)	Latitude (e.g. 41.25)
22	1427	27	122	22.5

Page: Governance

1.0

Please describe the impact of national and/or regional climate change activities on your city's own climate change activities.

In rainfall aspect, it has increased in rainy years, and decreased in dry years. The rainy and dry cycle has shortened. The number of days of heavy rain has increased by typhoon.

1.1

Please describe how your city manages overall responsibility for climate change mitigation (emissions reduction) and adaptation (climate risk reduction).

Hsinchu County has used the technology industry characteristics and resources to establish Hsinchu County Green Industry Alliance in Taiwan, as well as developing green energy photovoltaic and promoting ESCO reach energy saving equipment to reduce greenhouse gas emissions.

1.2

Does your city incorporate desired sustainability goals and targets (e.g. GHG reductions) into the master planning for the city?

Response	Description
Yes	Hsinchu County greenhouse gas emissions has decreased 5% in 2021 than the base year.

Module: Risks & Adaptation

Page: Climate Hazards

2.0

Has a climate change risk or vulnerability assessment been undertaken for your local government area?

Yes

2.0a

Please attach and provide details on your climate change risk or vulnerability assessment. Please provide details on the boundary of your assessment, and where this differs from your city's boundary, please provide an explanation.

Publication title	Year of publication	Attach the document	Web link	Boundary of assessment relative to city boundary (reported in 0.1)	Explanation of boundary choice	Primary author of assessment
Hsinchu County Climate Change Adjustment Plan	2013					Consultant

2.0b

Please select the primary process or methodology used to undertake the risk or vulnerability assessment of your city. If your city uses a combination of methodologies, please select the main methodology used.

Primary methodology	Description
IPCC climate change impact assessment guidance	

2.1

Do the current and/or anticipated effects of climate change present a significant risk to your city?

Yes

2.1a

Please list the most significant climate hazards currently faced by your city and indicate the probability and consequence of these hazards.

Climate hazards	Probability of hazard	Consequence of hazard
Rain storm	Medium	Low
Extreme hot days	Medium	Low
Drought	Medium	Low
River flood	Medium	Medium
Coastal flood	Medium	Medium
Extreme winter conditions	Low	Low

2.1c

Please identify how you expect climate change to affect the frequency and intensity of the hazards faced by your city and when you expect to experience those changes.

Climate hazards	Change in frequency	Change in intensity	Anticipated timescale
Rain storm	Increasing	Increasing	Medium-term
Extreme hot days	Increasing	Increasing	Medium-term
Drought	Increasing	Increasing	Medium-term

Climate hazards	Change in frequency	Change in intensity	Anticipated timescale
River flood	Increasing	Increasing	Medium-term
Coastal flood	Increasing	Increasing	Medium-term
Extreme winter conditions	Increasing	Increasing	Medium-term

Page: Climate Hazards II

2.1d

Please describe the magnitude of the impact of these hazards and identify three critical assets or services that may be most impacted.

Climate hazards	Magnitude of impact	Impact description	Asset or service	Asset or service	Asset or service
Rain storm	Less serious		Other: Water	Food and agriculture	Other: Health and community
Extreme hot days	Less serious		Other: Water	Food and agriculture	Other: Health and community
Drought	Less serious		Other: Water	Food and agriculture	Other: Health and community
River flood	Less serious		Other: Water	Food and agriculture	Other: Health and community
Coastal flood	Less serious		Other: Water	Food and agriculture	Other: Health and community
Extreme winter conditions	Less serious		Other: Water	Food and agriculture	Other: Health and community

2.2

Do you consider that the effects of climate change could threaten the ability of businesses to operate successfully in your city?

Response	Explanation
Don't know	

Page: Adaptation

3.0

Has the Mayor or local government committed to adapting to climate change across the geographical area of the city, town or settlement?

In progress

3.1

Does your local government have a plan that addresses climate change adaptation?

In progress

3.1b

Please explain why not and/or any future arrangements you have to create a plan.

According to the risk and vulnerability assessment results of each field through the preliminary planning, to promote adjustment strategies. The goal is to "overcome the risk of climate, create fun Hakka villages."

3.2

The Global Covenant of Mayors requires cities to complete these additional questions on the climate hazards affecting your city and your city's plans to adapt to these hazards. Other cities wishing to disclose further detail about their adaptation efforts are also encouraged to fill out the download.

Click here to download the additional questions.

3.3

Please describe the actions you are taking to reduce the risk to, or vulnerability of, your city's infrastructure, citizens, and businesses from climate change as identified on the previous page.

Climate hazards	Action	Action description
Rain storm		
Extreme hot days		

Climate hazards	Action	Action description
Drought		
River flood		
Coastal flood		
Extreme winter conditions		

Page: Social Risks

4.0

Does your city face any social risks as a result of climate change?

Yes

4.0a

Please complete the table

Social risks	Anticipated timescale in years	Impact description
Increased demand for public services (including health)	Medium-term	

Module: Opportunities

Page: Opportunities

5.0

Does climate change present any economic opportunities for your city?

Don't know

5.0a

Please indicate the opportunities and describe how the city is positioning itself to take advantage of them.

Economic opportunity	Describe how the city is maximizing this opportunity
Increased energy security	
Increased attention to other environmental concerns	
Increased infrastructure investment	

5.1

Does your city collaborate with businesses in your city on sustainability issues or projects?

Response	Description
No	Hsinchu County has used the technology industry characteristics and resources to establish Hsinchu County Green Industry Alliance in Taiwan, as well as developing green energy photovoltaic and promoting ESCO reach energy saving equipment to reduce greenhouse gas emissions.

5.2

List any climate change-related projects for which you hope to attract private sector financing, and provide any details on the estimated overall costs and status of the project. If your city does not have any relevant projects, please select None under Project Area.

Project area	Status of project	Status of financing	Project description	Total cost of project (USD$)	Total investment cost needed (USD$)
Infrastructure improvement					
Renewable energy					
Waste recycling					
Water management					

Module: Emissions - Local Government Operations

Page: Local Government - Methodology

LGO1.0

Please state the dates of the accounting year or 12-month period for which you are reporting a GHG measurement inventory for your local government operations.

Tue 01 Jan 2013 - Tue 31 Dec 2013

LGO1.1

Please indicate the category that best describes the boundary of your municipal GHG emissions inventory.

LGO1.2

Please indicate which of the following major sources of emissions are included in your municipal GHG emissions inventory.

Source of emissions	Status
Airport(s)	
Buildings	Included
Buses	
Electricity generation	
Electricity transmission and distribution	
Employee commuting	Included
Incineration of waste	
Landfills	
Local trains	
Maritime port	
Municipal vehicle fleet	
Regional trains	
Roads / highways	
Street lighting and traffic signals	
Subway / underground	
Thermal energy	
Waste collection	
Wastewater treatment	
Water supply	
Unknown source	
Total	

LGO1.3

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

Primary protocol	Comment
International Emissions Analysis Protocol (ICLEI)	

LGO1.4

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

CO2
CH4
N2O
HFCs

Further Information

Page: Local Government - Energy Data

LGO1.5

Please give the total amount of fuel (refers to Scope 1 emissions) that your local government has consumed this year.

Source	Fuel	Amount	Units

LGO1.6

How much electricity, heat, steam, and cooling (refers to Scope 2 emissions) has your local government purchased for its own consumption during the reporting year?

Source	Type	Amount	Units

Page: Local Government - GHG Emissions Data

LGO1.7

Please provide total (Scope 1 +Scope 2) GHG emissions for your local government's operations, in metric tonnes CO2e.

25529.17

LGO1.8

If applicable, please provide the following GHG emissions.

Scope 1: All direct GHG emissions
Scope 2: Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling.

Total Scope 1 activity in metric tonnes CO2e emitted	Total Scope 2 activity in metric tonnes CO2e emitted
4907.67	20621.5

LGO1.9

Do you measure Scope 3 emissions?

Yes

LGO1.9a

Please complete the table.

Source of Scope 3 emissions	Emissions (metric tonnes CO2e)	Comment
Emissions from Contracted Services	62.85	

LGO1.11

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

Department / Facility / Source / Other	Scope	Emissions (metric tonnes CO2e)
Energy-Residential and commercial	Scope 1	2114.03
Energy-Residential and commercial	Scope 2	20621.5
Energy-Transportation	Scope 1	2525.8
Energy-Other emissions	Scope 1	267.9

LGO1.12

Please indicate if your emissions have increased, decreased, or stayed the same from the previous year, and please describe why.

Change in emissions	Reason for change
This is our first year of calculation	

Page: Local Government - External Verification

LGO1.13

Has the GHG emissions data you are currently reporting been externally verified or audited in part or in whole?

No

LGO1.13b

Please describe your plans to verify your emissions in the future.

Module: Strategy

Page: GHG Emissions Reduction - Local Government Operations

6.0

Do you have a GHG emissions reduction target in place for your local government operations?

No

6.0b

Please explain why you do not have a local government operations emissions reduction target.

Hsinchu County does not set reduction targets, with Taiwan Government Four Energy Saving Project (gas, electricity, water, and paper), every year decreases the amount of 1%.

6.1

What actions are you undertaking to reduce your emissions in your local government operations?

Emissions reduction activity	Anticipated emissions reduction – cumulative over the lifetime of the action (metric tonnes CO2e)	Action description
Transportation demand management		Promoting employees carpooling.
Building performance rating and reporting		Imporving energy consumption lamps. Using energy saving devices. Electricity management and monitor.
Recycling or composting collections and/or facilities		Waste reduction and recycling.

Page: GHG Emissions Reduction - Community

7.0

Does your city have a climate change action plan for reducing GHG emissions?

No

7.0b

Please describe any future plans to create a city climate change action plan.

We are revising City Climate Change Action Project at present.

7.1

Do you have a GHG emissions reduction target in place for your community? Tick all that apply.

Base year emissions (absolute) target

7.1a

Please provide details of your total city-wide base year emissions reduction (absolute) target. In addition you may provide details of your sector-specific targets, by providing the baseline emissions specific to that target.

Sector	Baseline year	Baseline emissions (metric tonnes CO2e)	Percentage reduction target	Target date	Comment
	2011		5%	2020	
	2011		10%	2025	

7.2

What actions are you undertaking to reduce emissions city-wide?

Emissions reduction activity	Anticipated emissions reduction – cumulative over the lifetime of the action (metric tonnes CO2e)	Action description
Carbon emissions reduction from industry	95000	1. Improve factory process. 2. Monitor, manage, and control factory energy system. 3. Use inverter timing control energy to replace consumption devices.
Transportation demand management	35200	1. Enhance public transportation use. 2. Establish bike stop station. 3. Promote low-carbon tourism. 4. Promote low-carbon transportation system use and carpooling.
Waste prevention policies and programs	11000	1. Recycle and reduce the amount of waste. 2. Treat sewer and sewage that increase by 80%.

Page: Renewable Energy

8.0

Please indicate the energy mix of your electricity consumed at the city-wide scale.

Energy source	Percent
Coal	
Gas	
Oil	
Nuclear	
Hydro	
Biomass	
Wind	
Geothermal	
Solar	
Unknown sources	

8.1

Does your city have a renewable energy or electricity target for consumption and/or production of energy?

No

8.1b

Please explain why you do not have a renewable energy target or a renewable electricity target and any plans to introduce one in the future.

Page: Water Supply Risks

9.0

Do you foresee substantive risks to your city's water supply in the short or long term?

No

9.0b

Please explain why you do not consider your city to be exposed to any substantive water-related risk.

Page: Water Supply Management

Please note

If you did not select anything in the dropdown list for Q9.0 on the Water Supply Risks page, nothing will be displayed on this page.

Please go back to the Water Supply Risks page to confirm your choice or continue to the next section.

Module: Compact of Mayors

Page: COM Overview

Page: COM GHG Emissions Inventory

Page: COM GHG Emissions Reduction

Page: COM Climate Hazards

Page: COM Climate Hazards II

Page: COM Adaptation

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