



Global  
Platform for  
Sustainable  
Cities

Resource  
Team

# Cities, the Climate Crisis & Opportunity

How cities can play a key role in the  
global fight against climate change,  
while securing a better future for us all

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Partnerships at C40 Cities





1. What's happening  
to the planet and  
where are we  
headed?

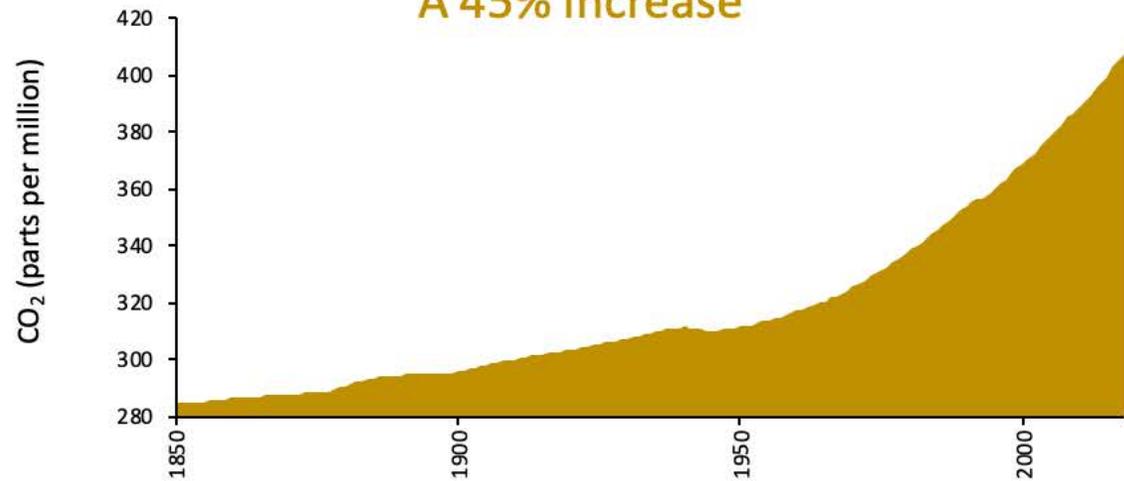
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# The kids are right - we are in a **CLIMATE EMERGENCY**

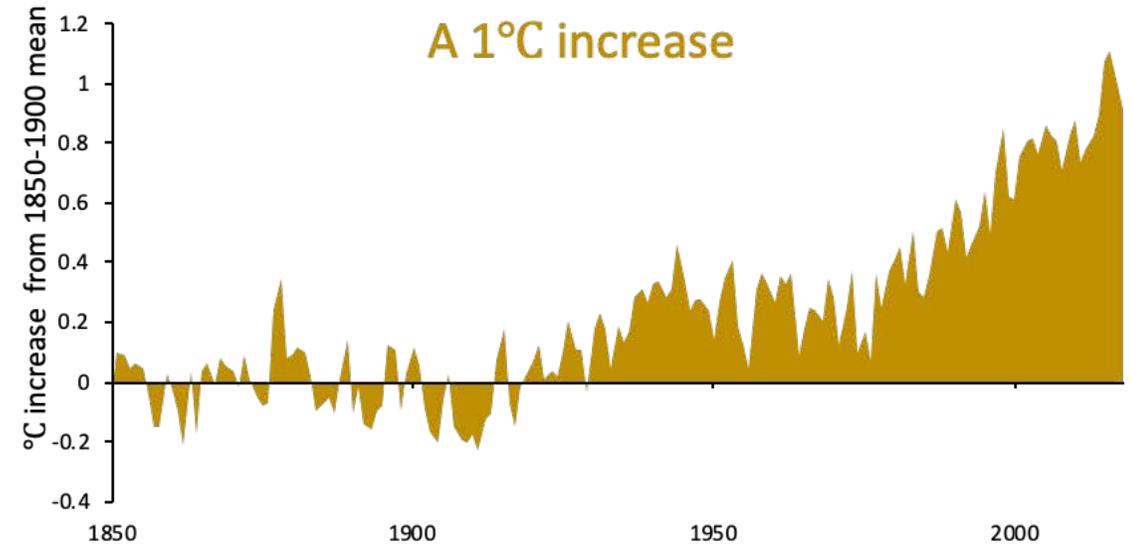


# Climate change is already here

Global atmospheric CO<sub>2</sub>  
A 45% increase



Global surface temperature  
A 1°C increase

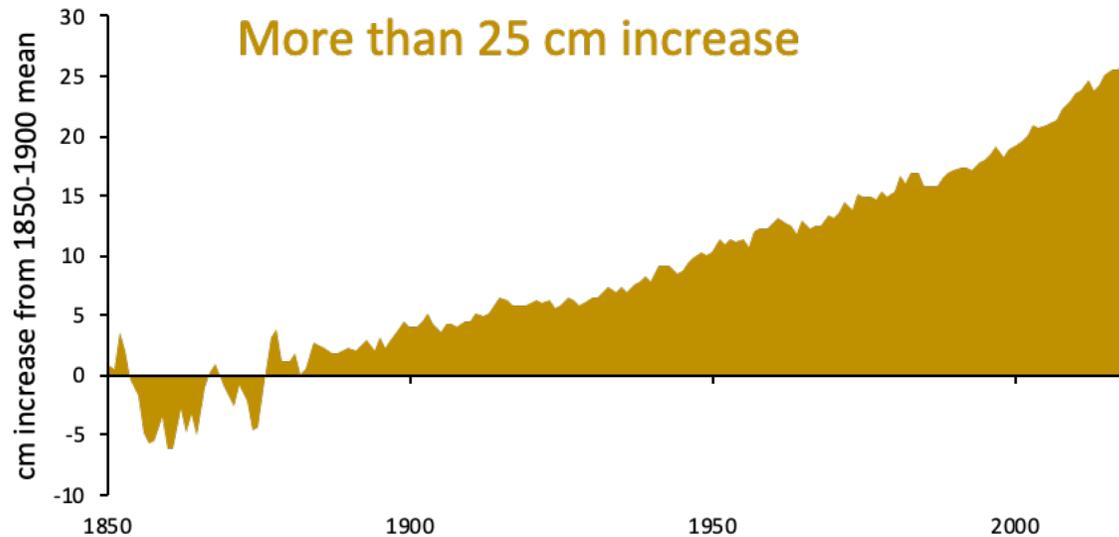


Source: Cambridge University

# Climate change is already here

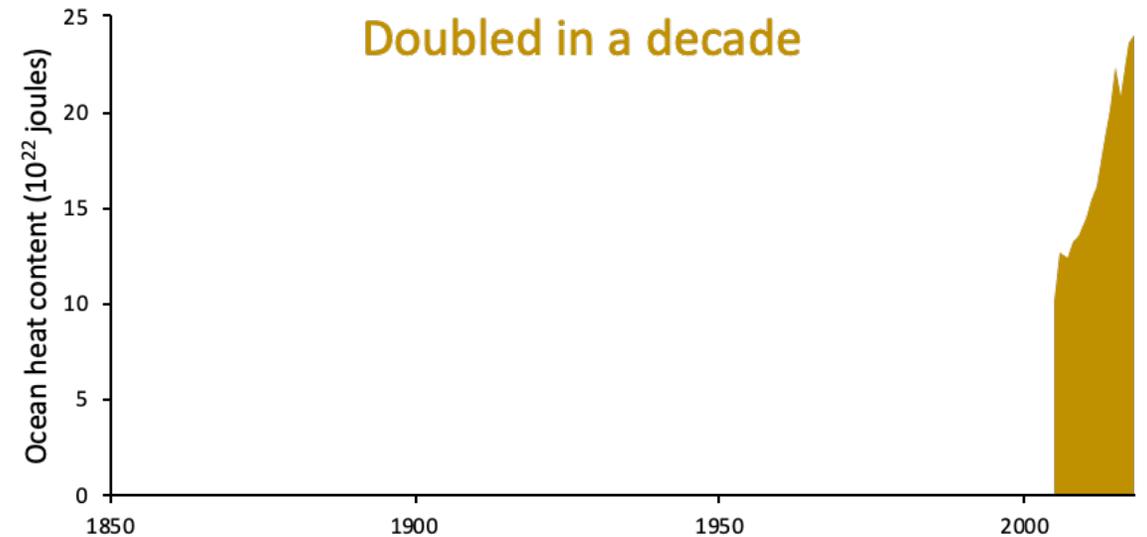
Global sea level

More than 25 cm increase



Ocean heat content (0-2000m)

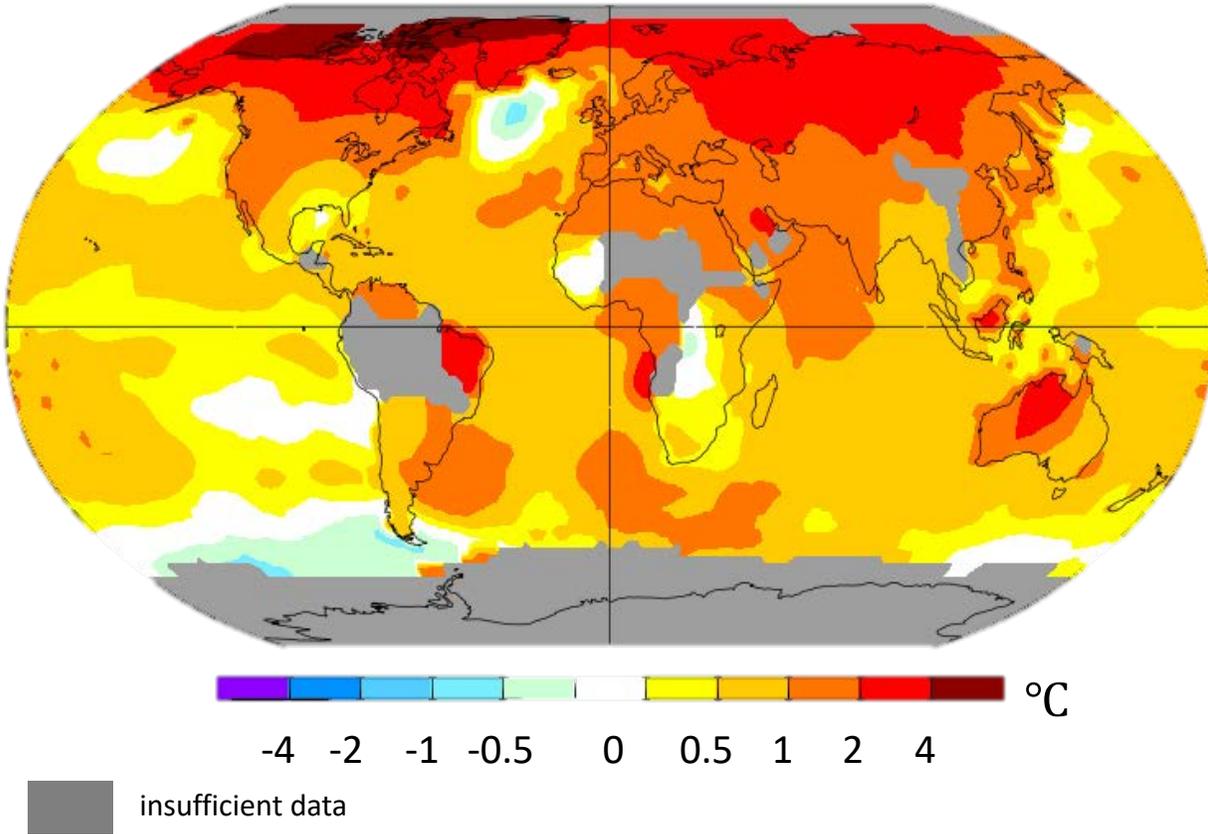
Doubled in a decade



Source: Cambridge University

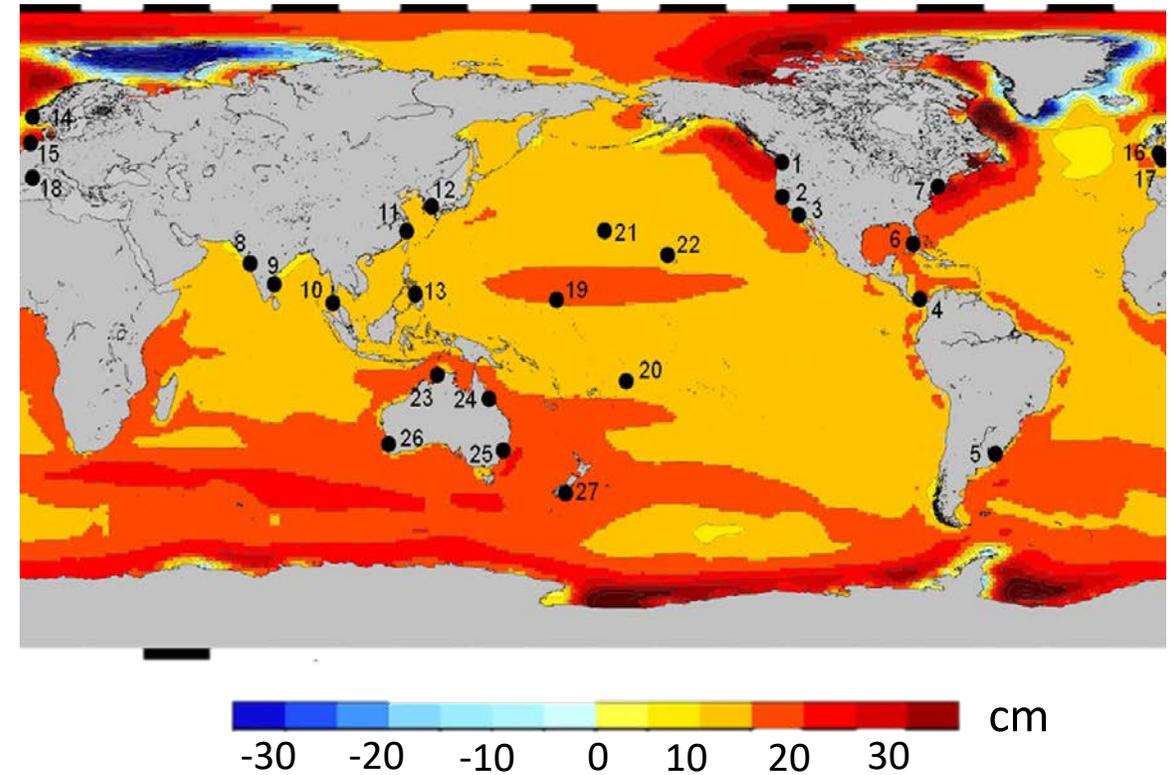
# But how climate change affects differ regions varies significantly

### Temperature 2007-2017 vs 1880-1900



Source: NASA

### Sea level 1996-2015 vs 1901-1920



Source: Meyssignac et al, 2017

# The effects of climate change can be seen across the globe with devastating consequences for communities

Cyclone Idai and floods hit Southern Africa: the reality of climate change



## Hurricane Dorian: 2,500 listed missing in Bahamas sparking fears death toll from devastating storm will climb

SEAN MORRISON | 3 days ago | 0 comments

Like Click to follow The Evening Standard

Hurricane Dorian - In pictures



## France's summer heatwave killed 1,500 people, health minister announces

Country saw 18 days of heatwave recorded during June and July, Agnes Buzyn says

### EUROPEAN HEAT WAVE

**BLAST FURNACE** Paris to hit hottest temperature in history at 42C today as Europe sizzles in new heatwave



# Climate change is unfair – people who are least responsible are suffering the most



## The few privileged are the highest emitters

- The actions of 10% of the world's population are responsible for 50% of global emissions.



## The poorest and most vulnerable at risk

- Climate events expected to force 100 million people into extreme poverty in next 10 years.
- In the United States, 2/3 of the jobs lost from Hurricane Katrina were held by women.



## Rising levels of climate migrants

- Climate events expected to create 200 million climate migrants by 2050.

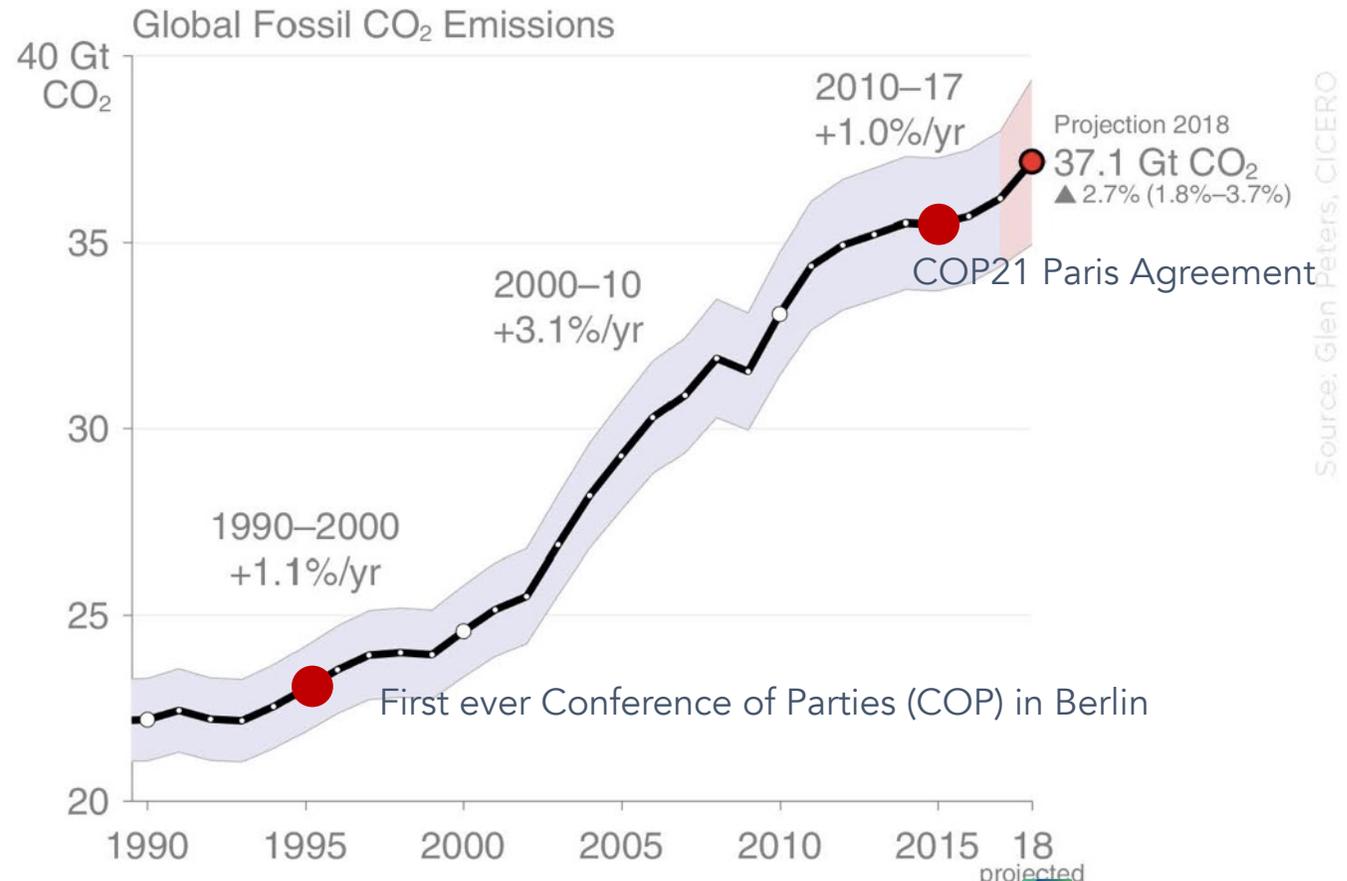


2. What are our  
leaders doing  
and is it enough?

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For 25 years, national governments have gathered together each year to determine how to address global warming

If action had been taken back then, we could have made a much easier transition to a zero carbon future



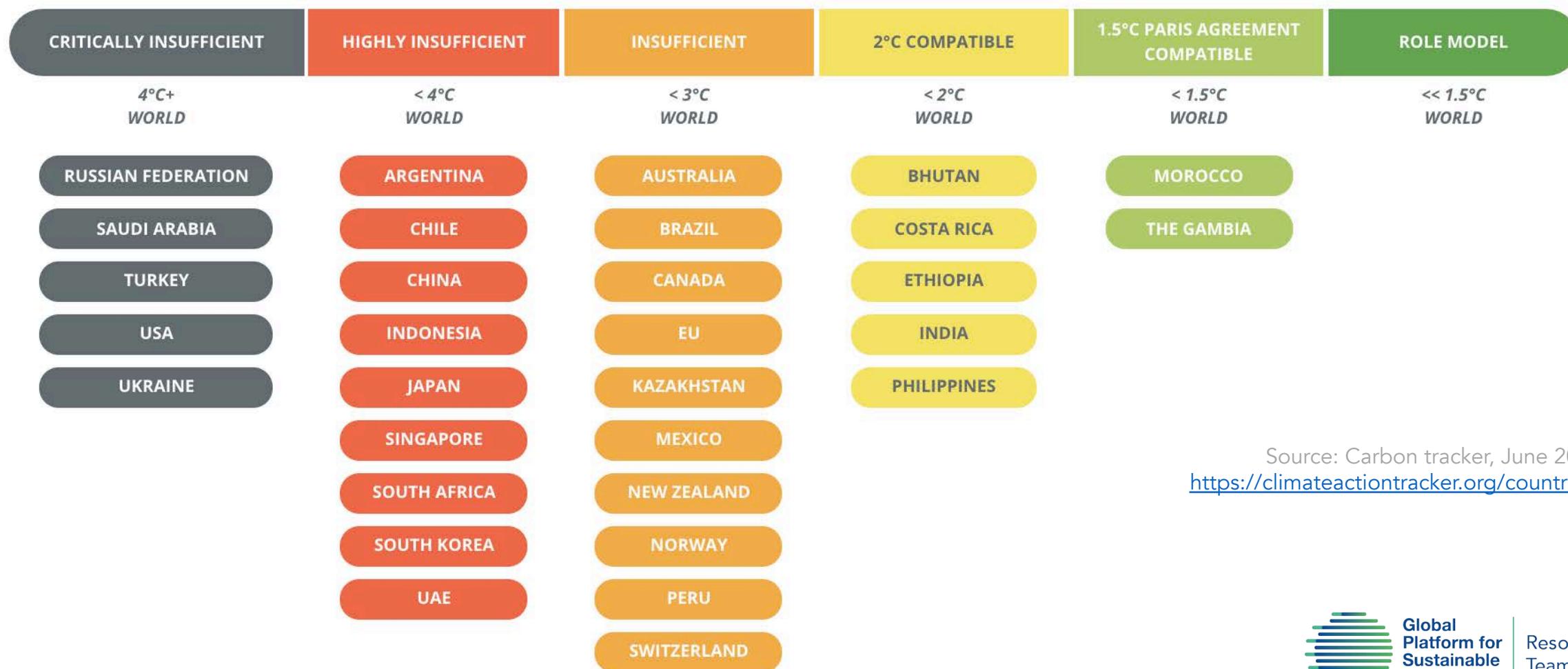
Source: Glen Peters, CICERO

# The 2015 Paris Agreement provides a framework to tackle climate change at a global scale



Nations have agreed to limit global warming to 2 degrees Celsius above pre-industrial levels and adapt to climate change, and strive for no more than 1.5 degrees celsius

# The Agreement relies on strong commitments by nation states to limit warming to 1.5 degrees



Source: Carbon tracker, June 2019  
<https://climateactiontracker.org/countries/>

National leaders have continued to fail to act

**Trump Pulls U.S. Out of Paris Climate Agreement**

***E.U. Leaders Fail to Strengthen Climate Target***

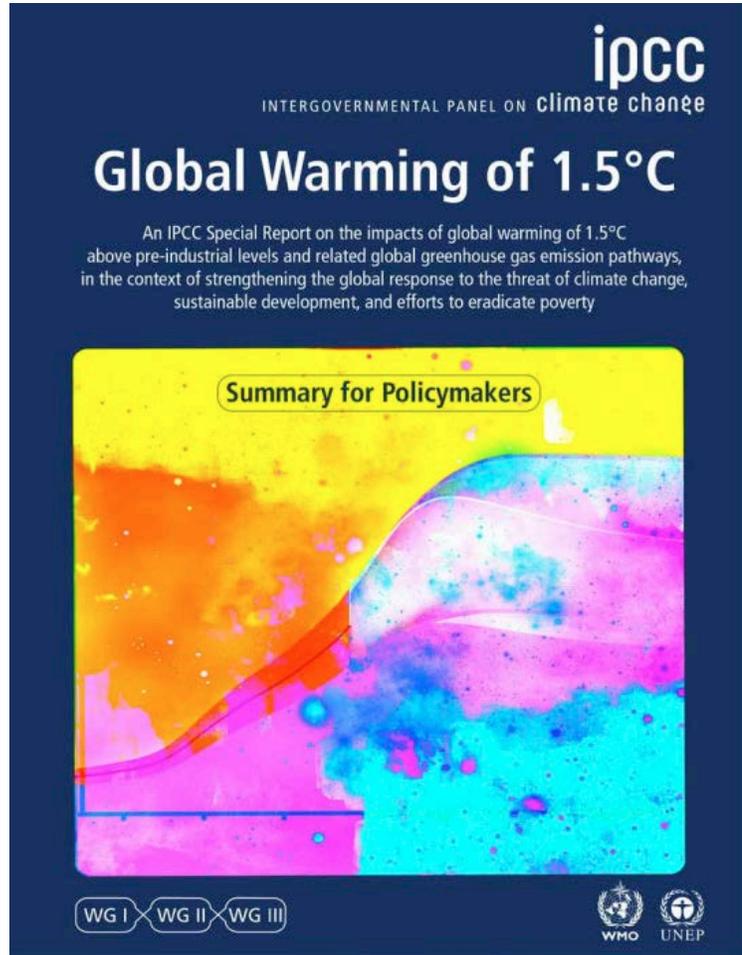
G20 lags in making real commitments to tackling the climate crisis.

**Brazil foreign minister says 'there is no climate change catastrophe'**

# Citizens are protesting on the streets and attempting to disrupt "business as usual"



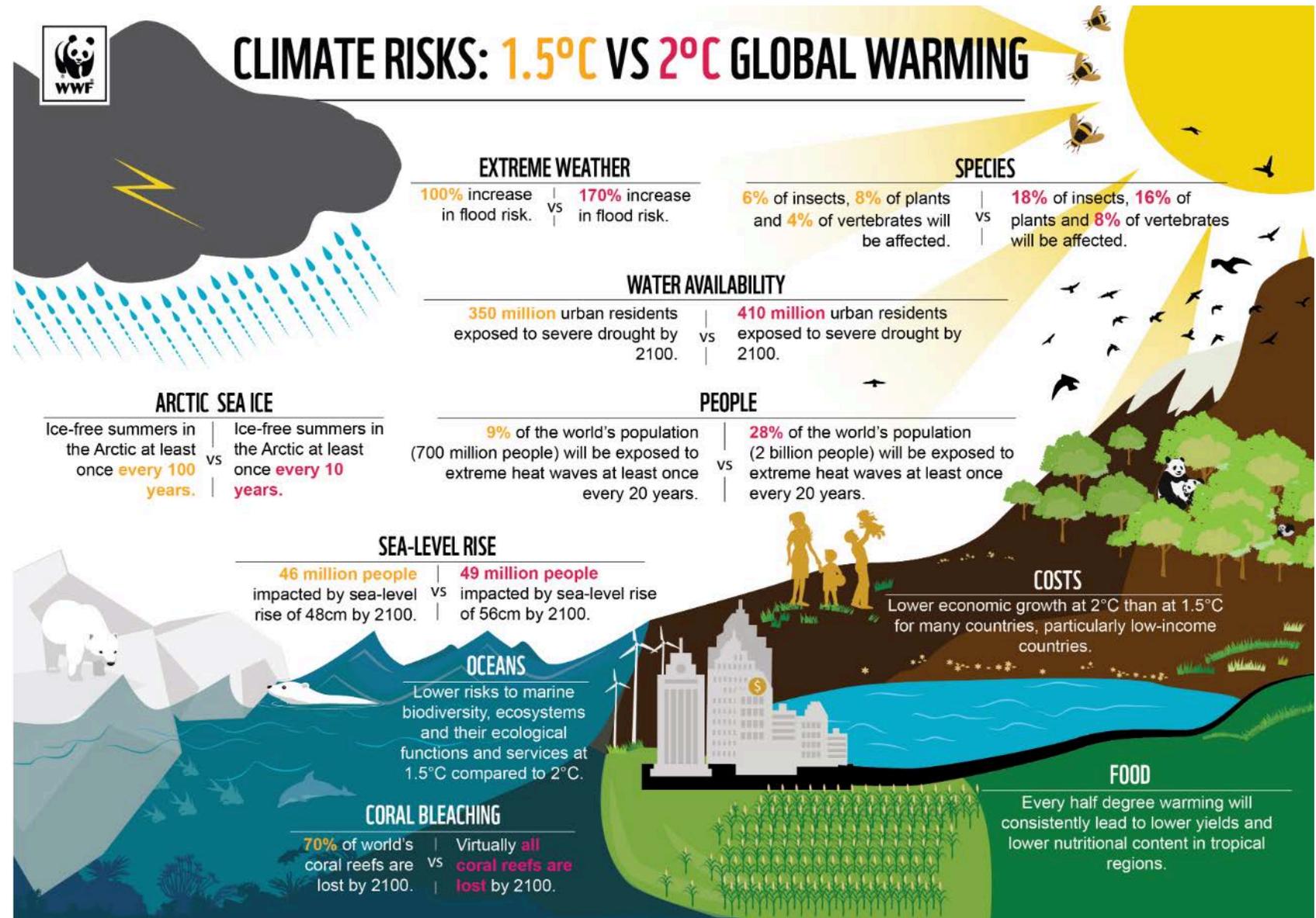
# We are running out of time



# 1.5 degree warming is not safe for all, but risks are much lower than 2 degrees

The IPCC report:

- Identified **catastrophic consequences** of aiming for 2 degrees versus 1.5
- Reaffirmed the need to set **1.5 as the global target**
- Determined that we have **until 2030** to place the planet on the right course
- For the first time, **URBAN SYSTEMS** identified as one of 4 systems key to transformational change



## All actors (including cities) must shift to a 1.5 degree pathway

By 2020,  
carbon  
emissions  
peak

By 2030,  
carbon  
emissions  
must be cut  
in half

By 2050,  
carbon  
emissions  
must reach  
net-zero

# Next week is a key milestone to set us on the right course

- The UN Secretary General (UNSG) has been warning of a global climate emergency
- The UNSG has called world leaders to come to NYC next week for a global climate action summit
- Governments will present new commitments– hopefully align their targets with a 1.5 degree scenario
- City, regional, business and industry leaders will also showcase bold steps they are taking





2. What does  
this mean for  
cities?

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With just 1 degree of warming - cities are experiencing a new climate reality



**LIMA FLOODS**



**CAPE TOWN DROUGHT**



**LOS ANGELES FIRES**

# The impact on cities will only grow worse



## SUMMARY OF GLOBAL NUMBERS

Vulnerability	Time Period	Population Estimate	City Estimate
EXTREME HEAT	Present Day	Over 200 million people	Over 350 cities
	2050s	Over 1.6 billion people	Over 970 cities
EXTREME HEAT AND POVERTY	Present Day	Over 26 million people	Over 230 cities
	2050s	Nearly 215 million people	Over 490 cities
WATER AVAILABILITY	2050s	Over 650 million people	Over 500 cities
FOOD SECURITY	2050s	Over 2.5 billion people	Over 1,600 cities
SEA LEVEL RISE	2050s	Over 800 million people	Over 570 cities
SEA LEVEL RISE AND POWER PLANTS	2050s	Over 450 million people	Over 230 cities

# How important are cities to addressing the climate crisis?

CITIES ARE  
RESPONSIBLE FOR  
**70% OF GLOBAL  
ENERGY-RELATED  
CARBON EMISSIONS**

SUSTAINABLE CITY DEVELOPMENT –  
FROM BUILDINGS CODES, LAND USE  
PLANNING AND TRANSPORT TO  
WASTE AND WATER MANAGEMENT –  
**CAN DRIVE STRONG REDUCTIONS IN  
CARBON EMISSIONS**

MAYORS IN OFFICE NOW ARE KEY TO  
MAKING THE CHANGES NEEDED BY  
2030

# How important are cities to addressing the climate crisis?

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C40'S DEADLINE 2020 RESEARCH OUTLINES THE PATHWAY NEEDED, CALLING FOR CITIES TO **PEAK EMISSIONS BY 2020**, **CUT EMISSIONS BY HALF BY 2030** AND REACH **NET ZERO BY 2050**. IF ALL CITIES DID THIS, WE COULD DELIVER **40%** OF THE PARIS AGREEMENT 1.5 TARGET

# How important are cities to addressing the climate crisis?

CITIES GENERATE **80%**  
**OF GLOBAL GDP** AND  
ARE HOME TO OVER  
**50% OF THE WORLD'S**  
**POPULATION**

CITIES ARE WHERE THE **RISKS** OF CLIMATE CATASTROPHE ARE MOST FELT – FROM A HUMANITARIAN, DEVELOPMENT AND ECONOMIC PERSPECTIVE. URBAN ADAPTATION IS ESSENTIAL FOR A **SAFE, HEALTHY AND RESILIENT COMMUNITY**

CONVERSELY, CITIES ARE WHERE THE **ECONOMIC OPPORTUNITIES** AND THE **SOCIAL BENEFITS** OF SHIFTING TO A CLEAN ECONOMY ARE THE GREATEST. CLIMATE ACTION IN CITIES CAN HELP IMPROVE QUALITY OF LIFE, HEALTH, **EQUITY** AND CREATE A MORE **JUST, SUSTAINABLE SOCIETY**

## How important are cities to addressing the climate crisis?

CITIES ARE RAPIDLY GROWING ADDING ABOUT **70 MILLION RESIDENTS** EVERY YEAR FOR THE NEXT 3 DECADES

THE CARBON FOOTPRINT OF MANY CITIES IN THE GLOBAL SOUTH MAY BE LOW NOW.

BUT IF A CITY DOESN'T HAVE A **SUSTAINABLE URBAN DEVELOPMENT PLAN** IN PLACE, ECONOMIC GROWTH AND MASSIVE POPULATION INCREASE CAN PLACE THE CITY ON A HIGH CARBON PATHWAY IN THE FUTURE— CREATING WITH IT TRAFFIC CONGESTION, POOR AIR QUALITY, HIGH ENERGY COSTS, ETC.

INTEGRATED, SUSTAINABLE URBAN DEVELOPMENT CAN ENABLE A CITY TO IMPROVE WELLBEING, LIVABILITY, PRODUCTIVITY, SAFETY AND HAPPINESS OF ITS RESIDENTS WHILE REDUCING EMISSIONS AND ADDRESSING CLIMATE RISKS

# How can cities do their part to support the shift to 1.5 degrees?

A **public commitment by a mayor** to develop a mitigation and adaptation plan that is aligned with the Paris Agreement can be a powerful way to show your city's support to addressing the global climate crisis and the risks to your city



## Mayor de Blasio Signs Executive Order to Adopt Goals of Paris Climate Agreement for New York City

June 2, 2017

*City pledges to double down and deliver on climate goals as President Trump abdicates American leadership*

**NEW YORK**—Mayor Bill de Blasio signed an executive order today that promised New York City would commit to the principles enshrined in the Paris Climate Agreement following President Trump's announcement that he would formally withdraw the nation from the accord

## Demonstrating your commitment as a city

Over 100  
cities

Have committed to developing a Paris compatible plan – both to mitigate along a 1.5 degree pathway and adapt to a changing climate

With us today: [Abidjan](#) – [Dakar](#) – [Joburg](#) – [Lima](#)!

# Demonstrating your commitment as a city

About  
9,000  
cities



**REGISTER COMMITMENT.**  
A mayor may register on either of the Compact's standard reporting platforms—carbonn Climate Registry or CDP—or email a letter of intent to [info@compactofmayors.org](mailto:info@compactofmayors.org). Following its submission, a city will be contacted by the Compact support team.



**TAKE INVENTORY.**  
Within one year, a mayor must assess the current impacts of climate change in his/her city. To do so, the city must 1) Build and complete a community-wide GHG inventory with a breakdown of emissions for buildings and transport sectors, using the GPC standard; 2) Identify climate hazards; and 3) Report on both via the CDP or carbonn Climate Registry questionnaires.



**CREATE REDUCTION TARGETS AND ESTABLISH A SYSTEM OF MEASUREMENT.**  
Within two years, the registered city must update its GHG inventory to also include a breakdown of emissions from waste sector; set a target to reduce its GHG emissions; conduct a climate change vulnerability assessment consistent with Compact guidance; and report in its chosen platform.



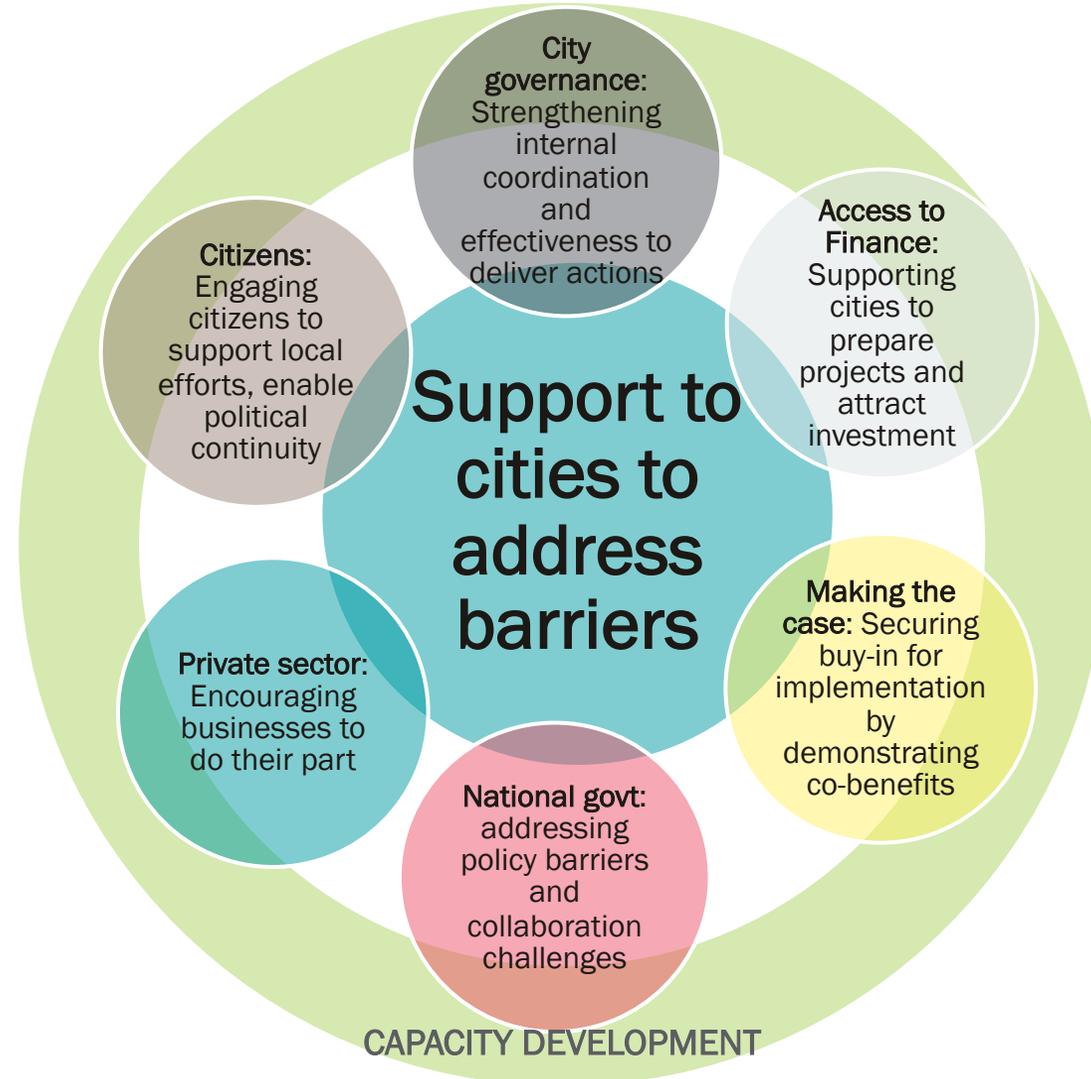
**ESTABLISH AN ACTION PLAN.** Within three years, a city's strategic action plan must show how it will deliver on its commitment to reduce greenhouse gas emissions and adapt to climate change.

# What is the benefit of developing an ambitious Climate Action Plan (CAP)?

A CAP is opportunity to:

- Build internal consensus on your city's climate strategy
- Develop shared understanding of your city's vulnerabilities and how to address them
- Start aligning your resources around key priorities
- Communicate what your city needs other levels of government to do
- Give citizens, civil society and business a role in shaping your vision
- Ask for more power, budget, resources, finance for implementation
- Generate broad support and a mandate for action

# We know there are barriers and challenges



# But the benefits are significant



## Exercise

Imagine you have a meeting with your mayor where you would like to convince him to develop an ambitious climate action plan addressing mitigation and adaptation in your city. For cities that have already made this commitment, imagine you are meeting with the newly appointed mayor to discuss this.

What arguments could you use to make the case for ambitious climate action in your city? What benefits of climate action planning are particularly relevant to your city?

