

# LET'S TAKE ACTION!

## Civil society in movement



**Many participants from civil society** are taking action for the climate.



**Certification** is awarded to the most creative, ambitious and innovative initiatives. You can recognise them with this label.



**Hundreds of events,** backed by a variety of civil society organisations, are being held in France and worldwide in 2015 to mark COP21.

## Civil society and COP

• **Civil society**, in all its diversity, has been very present and active in climate negotiations for many years. While the COPs bring together negotiators from 195 countries and the European Union, they are also open to thousands of observers from businesses, environmental NGOs, local authorities, indigenous populations/communities, research institutes, trade unions, Women and Gender organisations, youth organisations...

• What's more, France has chosen to build **Generations climate spaces dedicated** to conference sessions, debates, exhibitions, screenings, stands etc. at the Paris-Le Bourget site. Open to the public with no need for accreditation, these spaces will help young people in particular understand the issues behind the conference. You are all welcome!

**Improve your knowledge about COP21** quiz, glossary, exhibition... in the COP21/CMP11 tools

**On the road to Paris Climate 2015** shows a timeline of the main events on the site's home page

To find out more about COP21, visit our official website

**[www.cop21.gouv.fr/en](http://www.cop21.gouv.fr/en)**

And follow us on the social networks



COP21fr



@COP21  
#COP21 #Paris2015



COP21



## The next United Nations climate conference, COP21, will be one of the biggest international summits.

The stakes are high: managing the climatic disruption that threatens our societies and our economies. The conference should lead to the adoption of a universal agreement that will provide a framework for transition towards low-carbon societies and economies able to withstand climate change.

*"Climate fatalism is dangerous, and would lead to a disaster scenario of 3 to 6 °C of warming by the end of the century [...]. We are gambling with the future of the planet and the survival of certain countries."*

Laurent Fabius,  
Minister of Foreign Affairs  
and International Development

*"We must set an example and lead other countries to make a common commitment against climate disruption."*

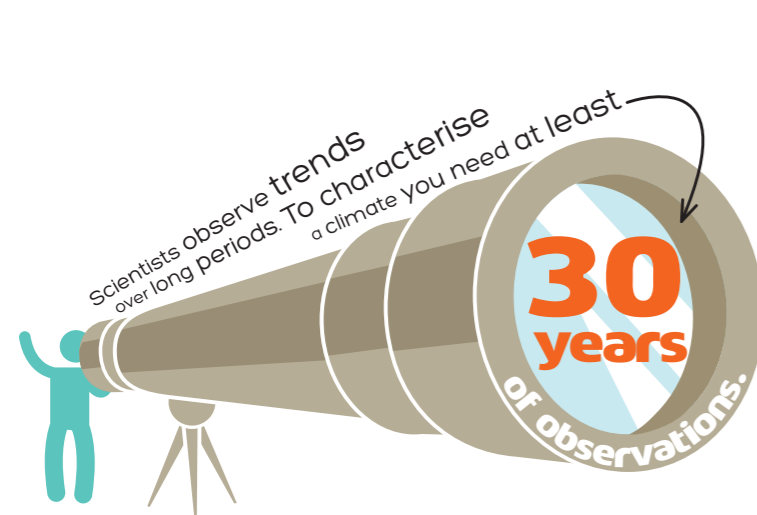
Ségolène Royal,  
Minister of Ecology, Sustainable  
Development and Energy

*"States need to know that a robust, long-term agreement will be an opportunity to usher in an era of growth that will be good for their populations, good for prosperity and good for the planet."*

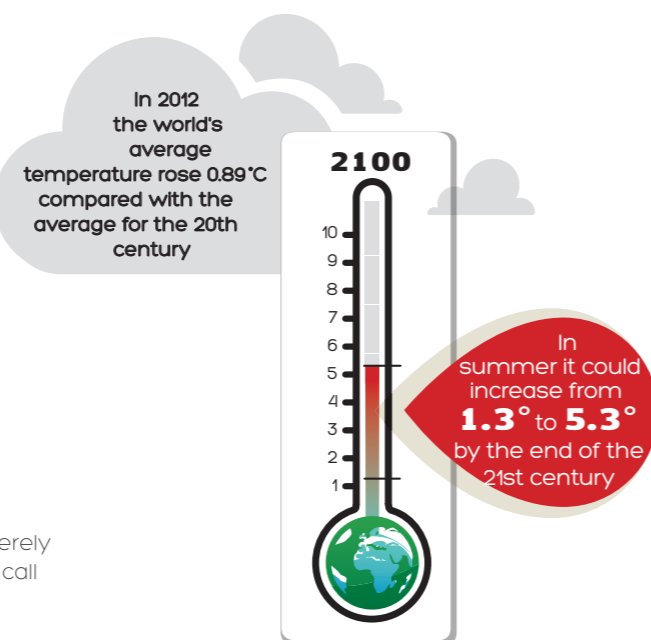
Christiana Figueres,  
Executive Secretary of the United  
Nations Framework Convention  
on Climate Change (UNFCCC)

# A complex PHENOMENON is under way

In 2012 the world's average temperature had risen 0.89°C compared with the average for the 20th century. It could go up to 5.3°C during the 21st century if we do not control our greenhouse gas emissions.

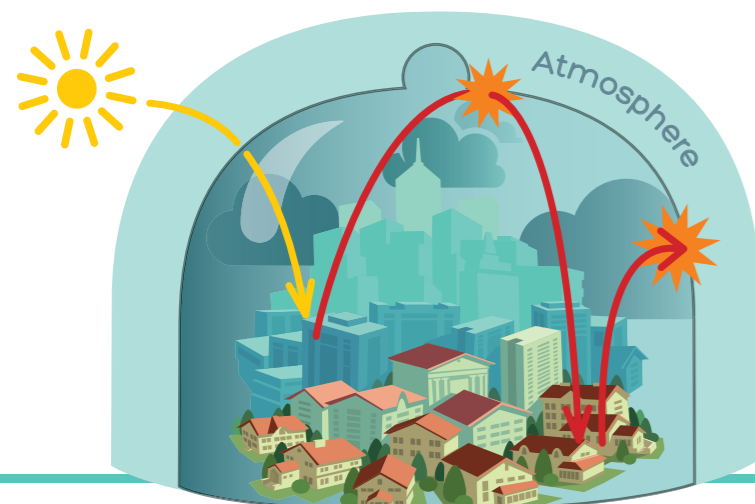


Episodes of exceptional weather (harsh winter or wet summer) merely illustrate short-term climate variability (season, year). This does not call the long-term warming trend into question.



## The greenhouse effect

The greenhouse gases in the atmosphere play an important role in regulating the climate. They prevent a large amount of solar energy (infra-red radiation) being sent into space from the Earth. This is known as the greenhouse effect. Because of this, the average temperature on the Earth is about 15 °C. Without it, it would be -18 °C.



## The impact of human activities

The greenhouse effect is unbalanced by human activities. These cause the concentrations of greenhouse gasses in the atmosphere to increase artificially and, consequently, accentuate the warming of our planet. CO<sub>2</sub> (carbon dioxide) accounts for almost 2/3 of global greenhouse gas emissions caused by human activities. This is why the effect of other greenhouse gases is usually measured in CO<sub>2</sub> equivalent (CO<sub>2</sub>e). Current CO<sub>2</sub> emissions will have an impact on concentrations in the atmosphere and on global temperature for decades.

# THE CULTURAL HERITAGE and climate change

Climate and climate change not only have an impact on the natural heritage but also on monuments and sites.

Historic buildings are intimately linked to their environment. Their durability greatly depends on their stability. The increased frequency of very heavy rainfall, flooding, salt water intrusion and greater instability of the soil (compression / dilatation) are problems for their conservation.

While the architectural heritage of adobe structures is particularly vulnerable, stone structures are also affected by climate change: changes in the cycles of wet and dry periods and periods of freezing and thawing speed up the decomposition of porous materials, including stone. Organic building materials, such as wood, are also under threat from certain parasites which have been observed to be migrating to altitudes and latitudes where they have not been seen until now.

In the north of Canada, the temporary thawing of frozen ground or ice is threatening Inuit villages. By weakening the foundations of homes and infrastructure, many villages are becoming increasingly difficult to live in. Some sites, where human settlement has been attested for 9000 years, are likely to disappear due to the thawing of frozen ground.

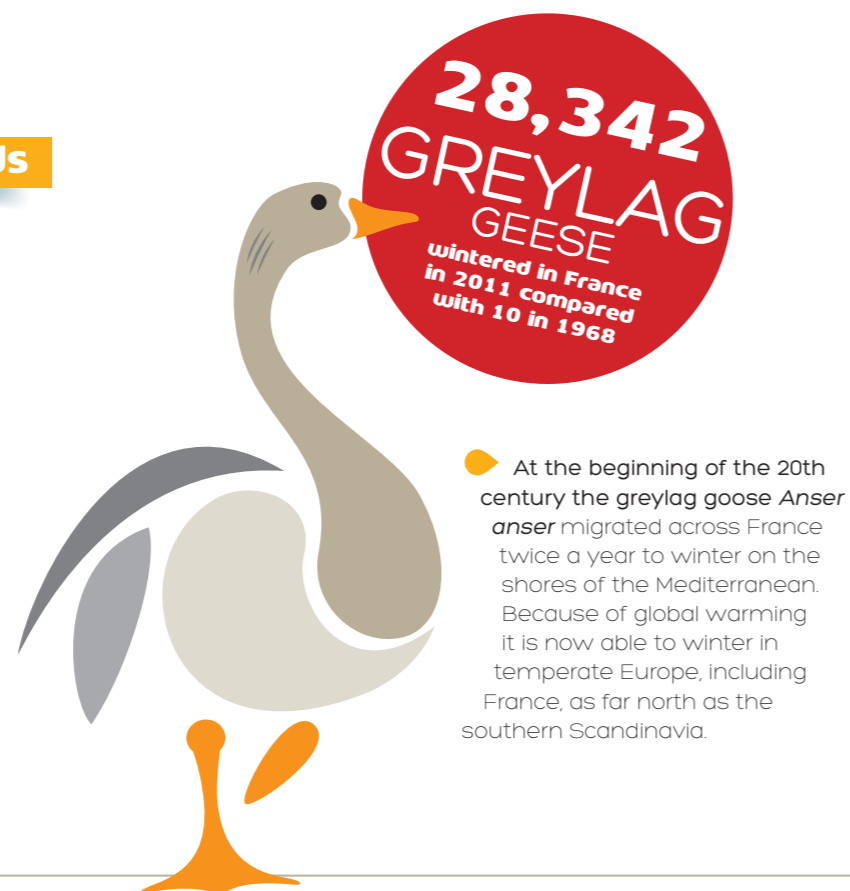


# Impacts already visible on BIODIVERSITY

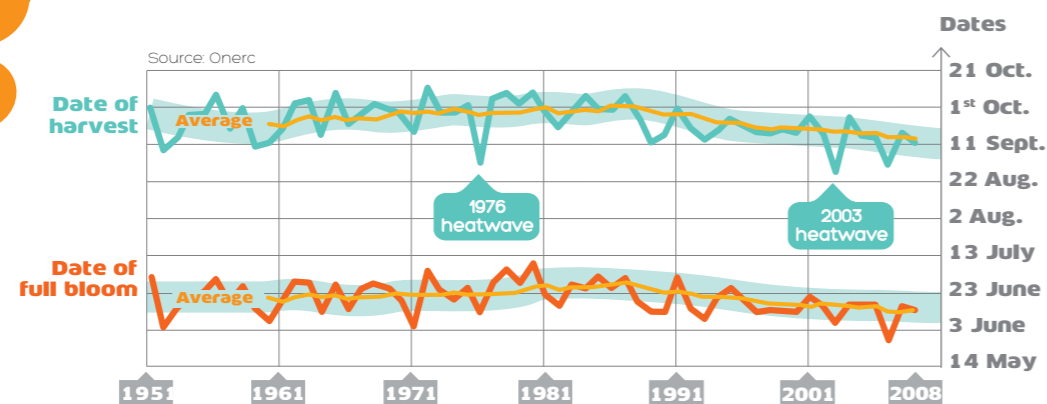
Many changes have been observed in the natural world: some birds are migrating and starting to lay their eggs earlier, some animal and plant species are moving towards higher latitudes or higher altitudes.

## Animal species are moving northwards

● Sensitive to the rise in temperature and probably a growing shortage of certain insects, passerines, such as the wood warbler or the willow tit, are moving to more northerly parts of Europe. In France, their numbers have already fallen by 20 to 80%, depending on the species, over the course of the last twenty years.



## The life cycles of plants are speeding up



# A global ISSUE

Historically, the developed countries have made the greatest contribution to climate change. But nowadays, some emerging countries emit as much greenhouse gases (GHG) per head of population as France.

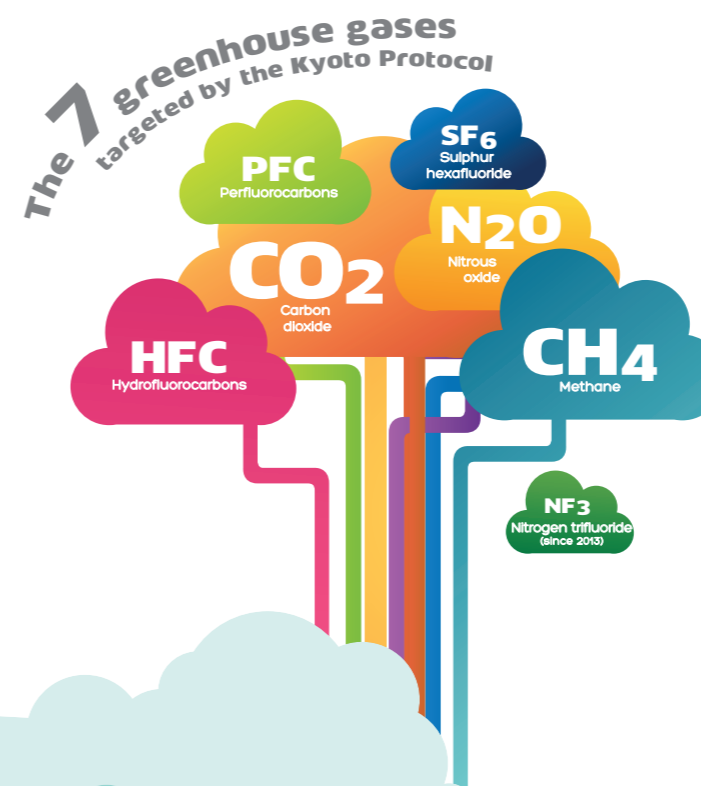
## Meeting the challenge of climate change

### At international level

- 1992**  
Earth Summit in Rio: start of global climate negotiations
- 1997**  
Signing of the Kyoto Protocol requiring 6 GHGs to be cut by 5.2% by 2012
- 2015**  
21<sup>st</sup> annual conference of the United Nations on Climate Change in Paris

### At European level

- 2001**  
European Climate Change Programme
- 2005**  
EU emissions trading system
- 2008**  
Climate and energy package setting the 3 targets for 2020, known as 3x20: 20% renewable energy, 20% reduction in energy consumption, 20% cut in GHGs



## Emissions per head of population of the main GHG emitting countries in 2011\*

\*tCO<sub>2</sub> per capita

According to the IPCC's 5th report, global GHG emissions caused by human activities rose to **49 Gt\*** of CO<sub>2</sub> equivalent in 2010.  
\* 1 gigatonne = 1 billion tonnes

Sources: EAA (European countries) - CAIT/WRI (other countries)

# International NEGOCIATIONS

In 1992, the United Nations and its member states, alerted to the seriousness of global warming by the scientific community, decided to take steps at global level. They established a UN framework convention on climate change, the UNFCCC, which provided the starting point for increased monitoring of climate change.



## RESPONSABILITIES THAT ARE shared but differentiated

All greenhouse gas emissions have an impact on climate change. States have responsibilities that are shared but differentiated according to three criteria: historical responsibility, capacity and potential for reducing emissions.

## Highlights

**1992**

Adoption of the UNFCCC at the Rio Earth Summit. It came into force in 1994.

**1997**

Signature of the Kyoto protocol, the first legally binding global climate agreement.

**2005**

The Kyoto protocol comes into force.

**2009**

Validation of a shared target aiming to limit global warming to +2 °C by 2100 compared with the pre-industrial era.

**2010**

Creation of dedicated institutions, such as the Green Climate Fund.

**2014**

First capitalisation of the Green Climate Fund: 10.2 billion dollars (9 billion euros).

**2015**

COP21 in Paris: the UNFCCC signatories have to reach an international climate agreement that will apply to all of them from 2020.

## COP, what's that?

They are the Conferences of the Parties, the signatories to the UNFCCC. One a year has been held since 1995.

## And CMP?

CMP (Conferences of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol) refers to meetings of the Parties to the Kyoto protocol. There has been one a year since 2005, when the protocol came into force.

# 196 signatories

(195 states + the European Union)

These signatories are designated as Parties to the UNFCCC, and meet every year under the leadership of the UN. They have their own scientific body, the IPCC (Intergovernmental Panel on Climate Change).



# Impacts already visible in the OCEANS and IN COASTAL AREAS

The ocean has been warming up since the 1970's and the average sea level is rising at an increasingly rapid pace. In the meantime, sea water is getting more acid.

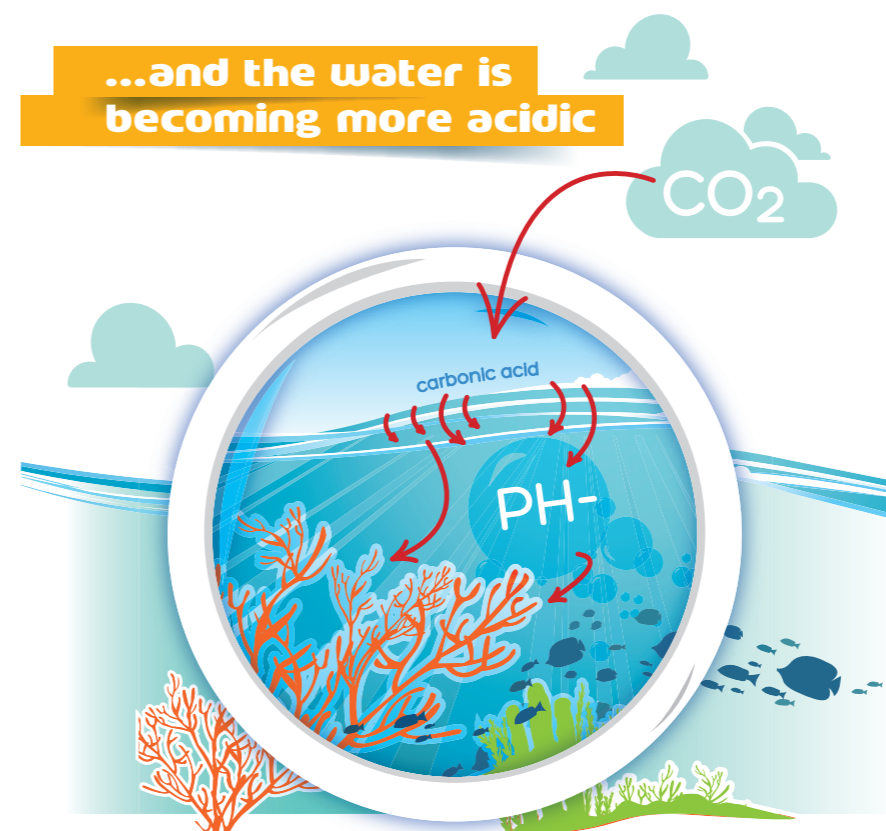
## The sea level is rising...

Between 1870 and 2000 the sea level rose 18 cm globally. 6 cm of that rise was in the last 20 years.



By 2100, the average sea level could rise from 26 cm to 82 cm. This rise in sea level will affect islands, deltas and very low lying coastal areas such as Bangladesh, the Netherlands or France (Languedoc-Roussillon).

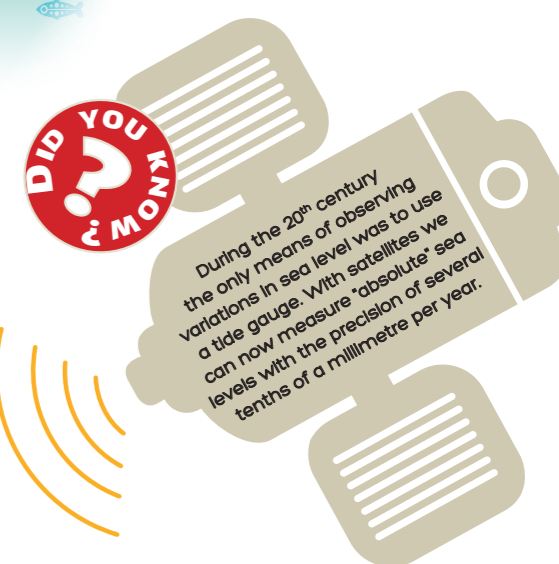
## ...and the water is becoming more acidic



The increased concentration of CO<sub>2</sub> (carbon dioxide) in the atmosphere leads to greater absorption of CO<sub>2</sub> by the oceans. Consequently, sea water is becoming more acidic, as CO<sub>2</sub> is changed into carbonic acid on contact with the water.

Between 1751 and 2004 the pH (potential hydrogen) of the surface water of the oceans fell from 8.25 to 8.14.

This acidification represents a major risk for coral reefs and some types of plankton, threatening the balance of numerous ecosystems.



During the 20<sup>th</sup> century the only means of observing variations in sea level was to use a tide gauge. With satellites we can now measure "absolute" sea levels with the precision of several tenths of a millimetre per year.

# IMPACTS

## already visible

Climate change is a reality. Disturbances are already being seen in the ecological balance of large ecosystems: a changing physical environment and living things that are trying to adapt or disappearing. We are also beginning to envisage the consequences for human societies: forced migrations, an increase in the number of conflicts (use of water resources, appropriation of fertile soils, etc.).

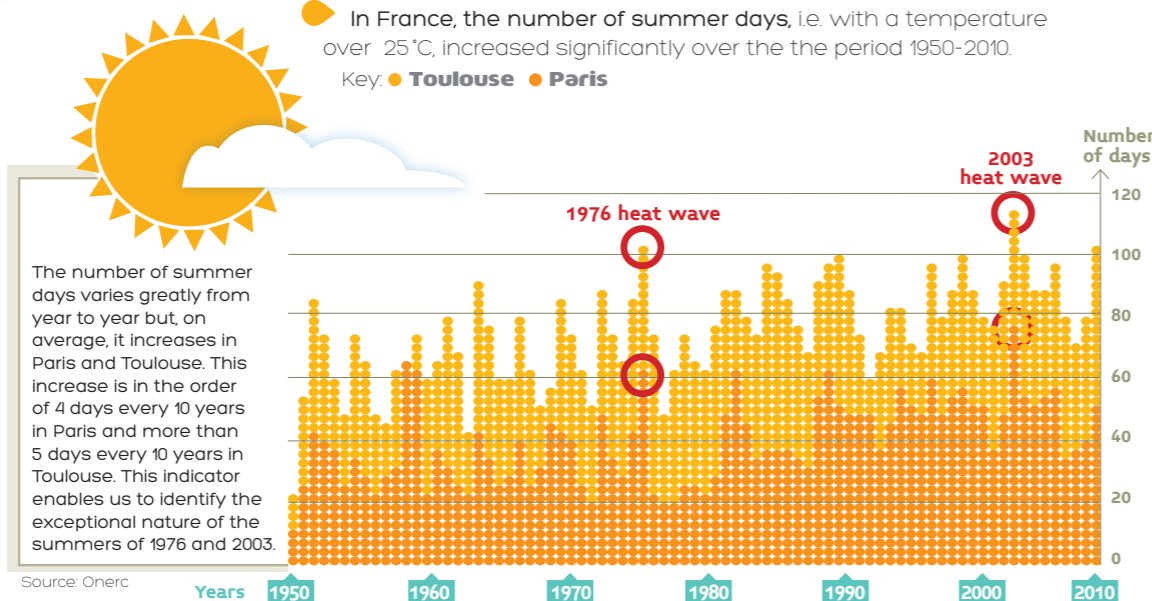
### The main impacts

The impacts of climate change may vary considerably from one region to another, but they will affect the whole planet. The consequences can already be predicted.



The increase in air temperature is one of the most visible signs of climate change. This is why the term **global warming** is often used.

In France, the number of summer days, i.e. with a temperature over 25°C, increased significantly over the period 1950-2010.  
Key: ● Toulouse ● Paris



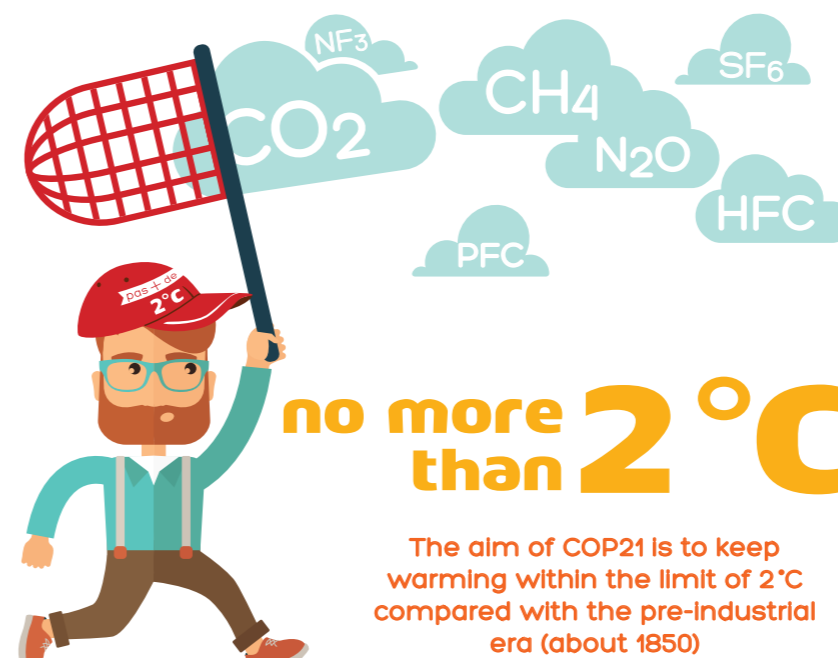
# PARIS CLIMATE 2015

## challenges

COP21/CMP11 aims to achieve a new climate agreement that will apply to all countries from 2020 and establish tools for responding to the challenges.

### Emissions reduction targets

- The future international agreement will first of all have to deal in a balanced way with attenuation - i.e. efforts to reduce greenhouse gas emissions - and adapting societies to existing climate disruption. Before COP21, each country must publish its national contribution, presenting the efforts it intends to undertake. This is a new feature of these negotiations.
- A summary of the contributions, putting forward the cumulative effect of all the countries' efforts, will be published before the conference.



### Financial support for developing countries



Another essential goal in Paris is to mobilise 100 billion dollars a year (about 78 billion euros) contributed by states, international organisations and the private sector from 2020. This commitment will enable developing countries to fight climate disruption while promoting fair and sustainable development.

### Implementing ambitious solutions

Many large-scale initiatives are currently being developed by a variety of non-governmental bodies: cities, regions, businesses, associations etc. This is what is described as the Solutions Agenda. Since the New York Climate Summit in September 2014, positive momentum has been growing in various fields - forestry, energy, transport, adaptation etc. - through concrete action, exchanges of best practice and knowledge transfer. This action will supplement the states' commitments and convey a message of economic and social opportunity to reinforce everyone's ambition.

# PARIS CLIMATE 2015

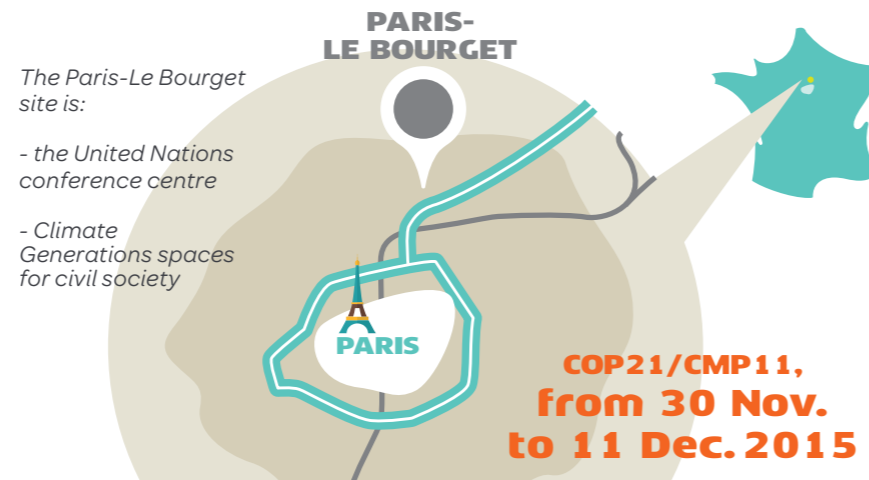
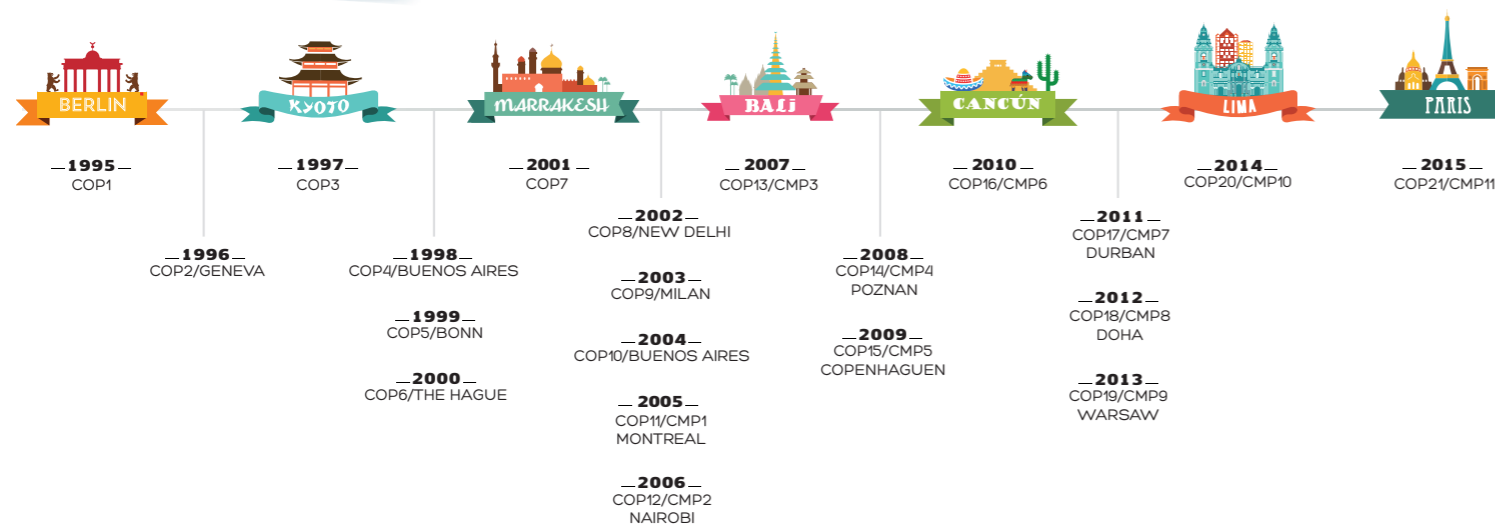
## France is hosting COP21

COP21/CMP11, also known as Paris Climate 2015, is the twenty-first Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and the eleventh meeting of the Parties to the Kyoto protocol. The event will be held at the Parc des Expositions in Paris-Le Bourget (Seine-Saint-Denis) from 30 November to 11 December 2015.

- COP21 is the biggest diplomatic event that France has ever hosted. It is also **one of the biggest climate conferences**.
- It will bring together national delegates, observers and members of civil society. In all, the organisers are expecting:



### All the COPs



### France's dual responsibilities

- Welcoming all the participants under the best conditions for work and discussion.
- Facilitating debates between countries and ensuring a transparent and inclusive negotiation process to favour the adoption of an agreement. This will not be an easy task, as decisions can only be taken unanimously.

## What can we do about it?

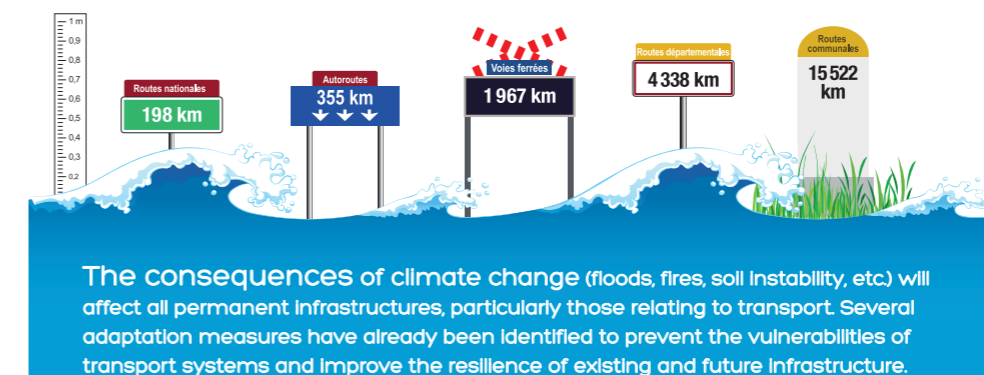
# ADAPTATION

Adaptation policies aim to reduce our vulnerability to the impacts of climate change.

France has had a national climate change adaptation plan since 2011. The recommended measures concern all sectors of activity around four objectives:

- Protecting people and property
- Preventing risk inequalities
- Cutting costs and reaping benefits
- Preserving the natural heritage

### Adapting infrastructures



Source: Onerc

Bellegarde-sur-Valserine (Ain) has the first **bioclimatic station**, naturally ventilated summer and winter thanks to a double cupola.

They have found solutions!

Using **solar-powered air-conditioning** a wine cellar in Banuyis-sur-Mer (Pyrénées-Orientales) has reduced its annual energy consumption by nearly 40%.

In Basse-Terre, Guadeloupe, a 1,000m<sup>2</sup> office block uses a **solar air-conditioning technique**. A system which cuts the electricity consumption needed for air-conditioning by one third each year.

### Adapting the forests

- As well as the increased frequency of exceptional events, certain animal species are spreading and there are also fundamental changes (rising temperatures, lower rainfall, etc.). Preparing forests for the future means improving their resistance to climate change from now on. This can be done by identifying the best adapted tree varieties, keeping forests in good ecological condition and ensuring genetic diversity is as broad as possible.

# What can we do about it?

## MITIGATION

In view of climatic inertia, a rise in temperature by the end of the century is inevitable and all parts of the world are affected. But it is still possible to limit the rise in temperature on the Earth.

no more than  
**2°C**  
compared with the  
pre-industrial era



This is the aim of member countries of the United Nations Framework Convention on Climate Change, as they think a further rise in temperature would have devastating effects.

Tackling the causes of climate change by controlling greenhouse gas (GHG) emissions, is what is known as mitigation. GHG emissions can be reduced in all sectors.



### Energy production

Reduce fossil fuel consumption (coal, oil, gas), control energy consumption (energy efficiency of products and low-carbon economy), develop use of renewable energies, etc.

### Industrial production

Promote processes with lower GHG emissions, etc.

### Transport

Encourage the use of low-carbon vehicles, pool means of transport, develop means of transport with lower GHG emissions, etc.

### Agriculture

Limit the use of nitrogen fertilisers, promote methanisation, etc.

### Waste and water treatment

Manage the quantities of waste produced, capture methane emissions, etc.

### Residential and commercial buildings

Renovate the existing stock and build new energy efficient buildings, etc.

### Tropical deforestation

Only import wood from sustainably managed forests, etc.

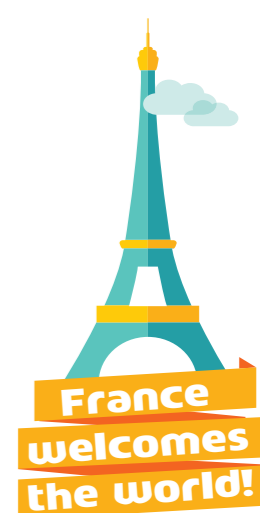
Global GHG emissions by sector (%)

Source: IPCC 2014

# PARIS CLIMATE 2015

## an exemplary COP

As the host country for COP21/CMP11, France intends to make the conference an environmental example. It will implement a programme of work to reduce as far as possible its impact in terms of natural resource consumption and greenhouse gas emissions.



COP21 is an opportunity for France to share and promote its skills, its culture, its gastronomy and its ability to welcome the international community.

# WHAT IS the IPCC?

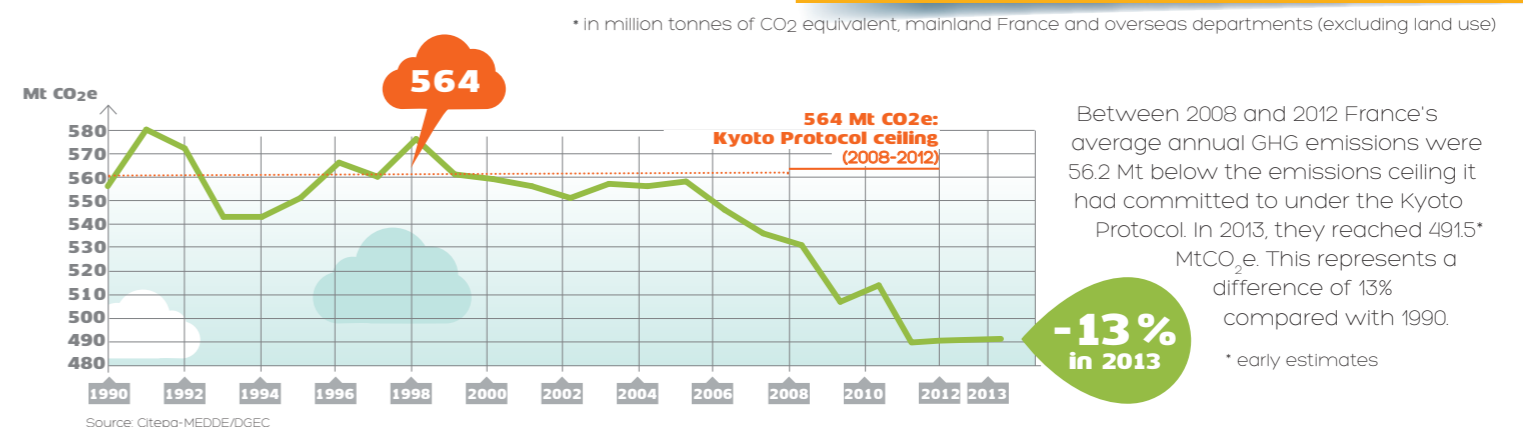
At the international level, the Intergovernmental Panel on Climate Change (IPCC) was created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).



# France COMMITTED to the fight

France is one of the industrialised countries with the lowest greenhouse gas (GHG) emissions. It accounts for only 1.2% of global GHG emissions yet it contributes 4.2% of the global GDP.

## France's total GHG emissions from 1990 to 2013\*



## Tackling climate issues in France

Since the end of the 1990s the most actively engaged local authorities have taken voluntary measures, including some aspects of climate policy, particularly in the form of agenda 21 programmes (practical action plans for sustainable development on a regional scale).

