

After the 1780s, as industrialisation drove up (*augmenter*) the burning up of fossil fuels in the developed world, carbon dioxide levels rose. At first the rise was slow. It took about a century and a half to reach 315 parts per million (ppm). Accelerating during the twentieth century, levels reached 330 ppm by the mid-1970s; 360 ppm by the 1990s; 380 ppm today... And if current trends (*la tendance actuelle*) continue, by about 2050 atmospheric carbon dioxide levels will have reached more than 500 ppm, nearly double pre-industrial levels.

*Anniversary address* delivered in November 2005 by Lord May of Oxford, the President of the Royal Society

climate ['klaɪmɪt] science, climatology

la climatologie

[klaɪmə'tɒlədʒɪ]

the climate crisis

la crise climatique

climate advocates

les défenseurs du climat

man-made, anthropogenic

anthropogénique

a climate scientist, a climatologist

un climatologue

global warming

le réchauffement de l'atmosphère,  
de la planète

a rise in temperatures ['temprɪtʃəz]

une augmentation des températures

to forecast ['fɔ:kɑ:st]

prévoir

a weather station

une station météorologique

a weather balloon [bə'lu:n]

un ballon-sonde

rain patterns

régime des précipitations

to monitor temperatures

surveiller l'évolution des températures

The **Kyōto Protocol** is an international treaty that was signed in 1997 and that sets concrete targets for developed countries to reduce the greenhouse gas emissions that contribute to global warming. More than 180 countries are party to it. Under the Kyōto Protocol, developed countries are subject to legally binding (*juridiquement contraignant*) commitments to curb their emissions of the main greenhouse gases. The United States, although a signatory to the Kyoto Protocol, has neither ratified nor withdrawn from the Protocol. Unable to meet its target, Canada became the first signatory to withdraw from the Protocol in 2012. Another milestone was the **Paris Agreement** (2016) which aims to hold the increase in global temperatures to less than 2°C above pre-industrial levels.

the burning of fossil fuels [fjuəlz]  
carbon dioxide [daɪ'ɒksaɪd], CO<sub>2</sub>  
to emit carbon dioxide  
the greenhouse effect [r'fekt]  
greenhouse gases [gæsls]  
greenhouse gas emissions

carbon emissions  
to cut, to curb carbon emissions  
to reduce one's carbon imprint  
overconsumption

la combustion d'énergies fossiles  
le dioxyde de carbone, CO<sub>2</sub>  
émettre du CO<sub>2</sub>  
l'effet de serre  
les gaz à effet de serre  
les émissions, les rejets de gaz  
à effet de serre  
les émissions de dioxyde de carbone  
réduire les émissions de carbone  
réduire son empreinte carbone  
la surconsommation

The **Intergovernmental Panel on Climate Change** (or IPCC; in French "*Groupe d'experts intergouvernemental sur l'évolution du climat*", *GIEC*) is a scientific intergovernmental body set up in 1988 to evaluate the risk of climate change caused by human activity. The IPCC does not carry out research but publishes special reports on topics relevant to the implementation (*application*) of the UN Framework Convention on Climate Change.

the sea level  
a rise in sea level  
to flood [flʌd]  
a flood  
above / below sea level

le niveau de la mer  
une élévation du niveau de la mer  
inonder  
une inondation  
au-dessus / en-dessous du niveau  
de la mer

The campaign to address climate change has undeniably gained momentum in the past few years. It is now a major concern for many people throughout the world thanks to the scientists who have been ringing alarm bells and to activists like **Greta Thunberg**, a Swedish schoolgirl who decided at age 15 to skip classes in order to call for stronger action against global warming. Movements such as **Extinction Rebellion**, an organization founded in the UK in 2018, have been advocating civil disobedience and organizing protests, blockading bridges etc. to urge world leaders to take radical action now, with limited success up to now.

damage ['dæmɪdʒ]  
to cause damage, to do damage  
harmful  
to be at risk, in danger

des dégâts  
provoquer, causer des dégâts  
nocif, néfaste  
être en danger, menacé

**An Inconvenient Truth** is the title of a film by Al Gore (2006) whose purpose was to raise awareness of global warming. In 2007 Al Gore and the IPCC were jointly awarded the Nobel Peace Prize for their efforts "to disseminate knowledge about man-made climate change." *An Inconvenient Sequel: Truth to Power* (2017) is another documentary film which deals with Gore's efforts since 2006 to persuade governments worldwide to invest in renewable energy.

a glacier ['glæsiə]  
the polar icecap

un glacier  
la calotte glaciaire, polaire



the North / South Pole  
icefield, ice floe [fləʊ]  
a polar bear  
to thaw  
thaw [θɔː]  
to melt  
fresh water, freshwater  
sea water  
groundwater

le pôle Nord / Sud  
la banquise  
un ours polaire, un ours blanc  
fondre, dégeler  
dégel  
fondre  
l'eau douce  
eau de mer  
la nappe phréatique

Greens like to point to polls in which people say they would happily pay higher taxes on environmentally unfriendly things such as jet travel and large cars, or to buoyant (*en pleine expansion*) sales of rooftop wind turbines, as proof that the public has been converted. But Peter Kellner, the boss of YouGov, a polling firm (*un institut de sondages*), counsels caution. "The public is convinced about the science of climate change", he says. "But most of the things they're willing to do are ones that are either easy or that other people pay for."

*The Economist*, March 15th, 2007

to cap  
carbon trading

plafonner, imposer un plafond à  
le commerce des droits d'émission  
du carbone

cap and trade

plafonner et échanger  
(les quotas d'émissions)

a green tax

une taxe verte

to introduce a carbon tax

instaurer une taxe carbone

a climate change denier,

un climatosceptique

a climate sceptic [skep.tɪk]

The **Green New Deal** is a policy initiative sponsored by Democratic Congresswoman Alexandria Ocasio-Cortez in early 2019. Its name is a reference to President's F. D. Roosevelt's New Deal, a set of policies and public works projects designed to combat the Great Depression in the 30s. Similarly, the Green New Deal is a set of economic and social policies aimed at fighting economic inequality as well as making the US carbon-neutral—net zero carbon emissions—in 10 years. It would not end the use of fossil fuels but would offset (*compenser*) any remaining greenhouse gas pollution with forests that absorb carbon dioxide.

to stop wasting energy  
low-energy lightbulbs  
to switch off electrical appliances  
to insulate ['ɪnsjuleɪt] a room  
insulation

arrêter de gaspiller l'énergie  
des ampoules basse consommation  
éteindre les appareils électriques  
isoler un pièce  
l'isolation (thermique)

to cycle ['saɪkl] to work

aller au travail en bicyclette

a bicycle-sharing system

un système de vélos en libre-service

climate justice

justice climatique

to make people aware of a problem

sensibiliser le public à un problème

an awareness(-raising) campaign

une campagne de sensibilisation

**Emissions trading (or cap and trade)** is an administrative approach used to control pollution by providing economic incentives (*incitations*) for achieving reductions in the emissions of pollutants. A central authority (usually a government or international body) sets a limit or cap on the amount of a pollutant that can be emitted. Companies or other groups are issued (*reçoivent*) emission permits (or credits, or allowances) which represent the right to emit a specific amount. Companies that need to increase their emission allowance must buy credits from those who pollute less. The transfer of allowances is referred to as a trade. In effect, the buyer is paying a charge for polluting, while the seller is being rewarded (*récompensé*) for having reduced emissions by more than was needed. Thus, in theory, those who can reduce emissions most cheaply will do so, and pollution reduction is achieved at the lowest possible cost.

## IDIOMS & PROVERBS

**to sound the alarm** tirer la sonnette d'alarme

**to give the alert** donner l'alerte

**a wake-up call** un avertissement

**to pay lip-service to a cause** faire des promesses sans prendre de mesures concrètes

**to put your money where your mouth is** joindre le geste à la parole

**actions speak louder than words** les gestes sont plus éloquents que les mots



**01. Trouver le mot manquant dans les expressions suivantes.**

climate.....	la climatologie
the.....of fossil fuels	la combustion d'énergies fossiles
a low-.....lightbulb	ampoule basse consommation
greenhouse.....emissions	rejets de gaz à effet de serre
a bicycle-.....system	système de vélos en libre-service

**02. Former des noms composés avec le mot «carbon».**

1. le dioxyde de carbone • 2. les émissions de dioxyde de carbone • 3. l'empreinte carbone  
4 le commerce des droits d'émission du carbone • 5. une taxe carbone

**03. Compléter les phrases avec la préposition ou particule adéquate.**

- The rise ..... temperatures over the past few decades is worrying.
- Island countries such as the Seychelles or the Maldives are most ..... risk from rising global temperatures.
- If the level of the water rose significantly, entire areas in countries like Bangladesh could find themselves ..... sea level.
- You will save electricity by switching ..... your TV and your computer when you don't use them.
- Some people have decided to cycle ..... work in order to save the planet.

**04. Associer les mots suivants pour former cinq noms composés et les traduire.**

greenhouse - ice - icecap - climate - polar - gases - water - scientist - floe - fresh

**05. Donner la traduction des mots suivants qui sont à la fois noms et verbes.**

	VERBE	NOM
rise	.....	.....
flood	.....	.....
damage	.....	.....
thaw	.....	.....
tax	.....	.....

### Traduire en français

1. As the world warms up, permafrost, which underlies the Arctic tundra, thaws, which releases methane, a greenhouse gas.
2. In the opinion of many scientists, we can either have international aviation growth on the present rate or we can have a stable global climate: we cannot have both.
3. Charcoal offers a convenient way to extract CO<sub>2</sub> from the atmosphere, burying it and improving the soil on the way.
4. Winter in Moscow typically lasts from October to March, although recent years have seen unusually mild weather which some have blamed on global warming.
5. Hewlett-Packard is shifting from air to sea transport wherever possible in order to reduce carbon emissions.
6. The US has always refused to ratify the Kyoto Protocol because its implementation would have been too costly.
7. The objective of the cap and trade system is to reduce greenhouse gas emissions at the lowest possible cost.
8. Polls show people say they would happily pay higher taxes on environmentally unfriendly things such as jet travel or large cars.
9. The abolition of ozone-destroying CFC gases in the 1980s may have been a big mistake because the HFCs that replace them are accelerating global warming.
10. The magnitude of the problem we face is such that there is no single answer, but rather a wide range of actions must be pursued.

### Traduire en anglais

1. La combustion d'énergies fossiles est responsable de l'augmentation des températures de la planète.
2. Tout le monde n'est pas d'accord pour considérer l'effet de serre comme un problème grave et urgent.
3. Certains scientifiques continuent même à nier la réalité du réchauffement de la planète.
4. Le protocole de Kyoto, qui a été signé en 1997, avait pour but de réduire les émissions de gaz à effet de serre.
5. La hausse du niveau de la mer pourrait provoquer des inondations catastrophiques dans des pays comme le Bangladesh ou les Pays-Bas.
6. En fait, c'est la planète toute entière qui est en danger.
7. L'industrie aérienne mondiale s'est engagée à réduire d'ici 2050 ses émissions en dioxyde de carbone de 50 % par rapport au niveau de 2005.
8. Si la calotte glaciaire continue de fondre à la même vitesse, les ours polaires vont bientôt disparaître.
9. On peut se demander si les phénomènes climatiques extrêmes que l'on a connus ces derniers temps sont dus à l'effet de serre.
10. Faut-il instaurer de nouvelles taxes ou bien peut-on compter sur les gens pour qu'ils arrêtent de gaspiller l'énergie ?

### Questions

- How serious is the threat posed by climate change?  
How have politicians reacted to climate change in various countries?  
What more could we do to tackle climate change?



## 35 — POLLUTION

Translation from English into French

1. In 1970 Canada passed its Clean Air Act which regulated the release of four pollutants: asbestos, lead, mercury and vinyl chloride. **En 1970, le Canada a adopté sa loi sur la propreté de l'air pour régler les émissions de quatre polluants : l'amiante, le plomb, le mercure et le chlorure de vinyle.**
2. Not removing asbestos from public buildings is dangerous as it may be released by accidental damage or vandalism. **Ne pas désamianter les bâtiments publics est dangereux parce que l'amiante peut se propager en cas de dégâts accidentels ou de vandalisme.**
3. The explosion of a chemical plant in the Indian city of Bhopal in 1984 is viewed as the worst industrial disaster ever. **L'explosion d'une usine chimique dans la ville indienne de Bhopal en 1984 est considérée comme la plus grave catastrophe industrielle ayant jamais eu lieu.**
4. Often, we don't discard things because they are broken but because we have fallen out of love with them. **Souvent, on ne jette pas les choses parce qu'elles sont cassées mais parce qu'on ne les aime plus.**
5. After the disaster at the Chernobyl nuclear reactor in 1986, people reported heavy black rain and there were allegations that residents suffered radiation poisoning. **Après le désastre du réacteur nucléaire de Tchernobyl en 1986, il y aurait eu de fortes pluies noires et on a prétendu que des habitants auraient subi des radiations toxiques.**
6. By 2030, Chinese people will produce three times as much trash as they did in 2009. **D'ici 2030, les Chinois produiront trois fois plus d'ordures qu'en 2009.**
7. China has banned shops from giving out free plastic bags and has called on consumers to use baskets instead. **La Chine a interdit aux magasins de distribuer gratuitement des sacs en plastique et a fait appel aux consommateurs pour qu'ils utilisent des paniers à la place.**
8. One may wonder whether the collection and transportation of waste materials requires more energy than it saves. **On peut se demander si le ramassage et le transport des déchets ne demandent pas plus d'énergie qu'ils n'en économisent.**
9. Critics say recycling is based on the belief that everything has value, everything is worth saving, except your time. **Les adversaires du recyclage disent qu'il est fondé sur la croyance que tout a une valeur, que tout mérite d'être économisé, sauf votre temps.**
10. As voters, people claim to worry about the planet but as consumers, they hate paying for rubbish disposal. **En tant qu'électeurs, les gens prétendent qu'ils se préoccupent de la planète, mais en tant que consommateurs, ils détestent payer pour l'élimination des déchets.**

1. Tout le monde pense, à tort ou à raison, que les États-Unis sont le pire pollueur de la planète. **Everyone thinks, rightly or wrongly, that the US is the planet's worst polluter.**
2. Moins on fera d'efforts pour réduire la pollution de l'air, plus il y aura de gens qui voudront fuir les centres-villes. **The less effort will be made to curb air pollution, the more people will want to get away from urban centres.**
3. Chaque fois qu'il fait beau, les asthmatiques ont plus de mal à respirer. **Whenever the weather is nice, asthmatics have more difficulty breathing.**
4. Les dégâts provoqués par l'amiante sont incalculables. **The damage caused by asbestos is incalculable.**
5. Les engrais ont provoqué la prolifération des algues dans les rivières et la contamination des nappes phréatiques. **Fertilizers brought about the proliferation of algae in rivers and the contamination of groundwater.**
6. Exxon Valdez est le nom du pétrolier responsable de la marée noire qui a tué des milliers d'oiseaux en Alaska en mars 1989. **Exxon Valdez is the name of the oil tanker responsible for the oil slick that killed thousands of birds in Alaska in March 1989.**
7. La société de consommation dans laquelle nous vivons produit de plus en plus d'ordures ménagères. **The consumer society we live in produces more and more household refuse.**
8. On sait depuis longtemps que l'enfouissement des déchets n'est pas la meilleure façon de les éliminer. **It has long been known that the burying of waste is not the best way to dispose of it.**
9. Le nucléaire est parfois présenté comme la source d'énergie la plus sûre, ce qui est un comble ! **Nuclear energy is sometimes presented as the safest energy source, which takes the biscuit!**
10. On peut se demander si traiter les déchets n'est pas plus onéreux que de les brûler, par exemple. **It may be wondered whether processing waste is not more costly than burning it, for example.**