



10 KEY POINTS from the latest IPCC report

Group 1 - The physical science basis

1 UNPRECEDENTED CHANGES

We are experiencing a breach within the natural climate fluctuations of the past. The changes are rapid, unprecedented for thousands of years and some are already irreversible. Global warming has reached 1.1°C over the last decade [2010-2019] compared to the pre-industrial era [1850-1900]. The concentration of CO₂ in the atmosphere is at its highest in at least 2 million years.

2

HUMAN RESPONSIBILITY

Human influence accounts for 100% of the global warming observed today. Human activities, through the use of fossil fuels (oil, gas and coal) and land use changes (mainly deforestation), are leading to changes that are affecting all regions of the world and are intensifying.



3 AN INCREASE IN EXTREME EVENTS

Human influence is already making some extreme events more frequent, more intense, longer and changing their seasonality. There is no doubt that the number and severity of land and sea heat waves, heavy precipitation events, droughts, and events involving several of these extremes, have increased since the pre-industrial era



4 CO₂ IS ACCUMULATING

Each additional tonne of CO₂ in the atmosphere contributes to further global warming. If we stop emitting CO₂ today, the global temperature would stabilize at its current level. The later carbon neutrality (i.e. net zero CO₂ emissions) is achieved, the greater the level of warming, and associated risks.

5 ACT NOW

Even in a deep emission reduction scenario, emissions will inevitably lead to further warming in the next two decades and the 1.5°C threshold will be crossed during the 2030s. The extent of climate change beyond 2040 and the risks for ecosystems and human societies, on the other hand, depend on today's choices and actions.

6 VERY LONG-TERM EFFECTS

Changes to the world's oceans and frozen areas are irreversible on a multi-generational scale, but their rate can be slowed by limiting warming, which is essential for adaptation. Sea levels will continue to rise over millennia and glaciers will continue to melt for decades, even after global warming stabilises.



7 EVERY TENTH OF A DEGREE COUNTS

Each additional increment of warming continues to intensify many changes in our climate: extremes, the water cycle, sea level rise are directly related to the level of warming. A heatwave that had a 1 in 50 chance of happening before the industrial era will be 9 times more likely to happen at 1.5°C of global warming, and 14 times more likely at 2°C.

8 CARBON SINKS ARE BEING TESTED

The ocean and biosphere now absorb half of all human-induced CO₂ emissions. Stronger warming would reduce the share of carbon they absorb

9 CONSIDER EVERYTHING

Some low-probability events need to be considered for adaptation and risk assessment because they would have very serious consequences for ecosystems and societies. For example, the rapid dieback of the Amazon rainforest, abrupt changes in ocean circulation or the melting of the polar ice caps. The higher the level of warming, the greater the risk of such events.



10 RAPID BENEFITS

Measures taken to reduce greenhouse gas emissions have immediate public health co-benefits. Reducing the use of fossil fuels and changing agricultural practices to decarbonise improve air quality. Moreover, limiting methane emissions not only limits short-term warming but also surface ozone, an air pollutant that harms health and agricultural yields.





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Group 2 - Impacts, adaptation and vulnerability

1 CLIMATE CHANGE IS ALREADY IMPACTING NATURE AND SOCIETIES

Adverse impacts of climate change are being observed worldwide. The cascading risks induced limit the resilience of our systems.

3 GROWING AND THREATENING IMPACTS IN EUROPE

Despite progress in adaptation, humans and nature are already being impacted worldwide. Average temperatures have risen by 2°C in Europe compared to the global average of 1.1°C, with, for example, a tripling of crop losses over the past 50 years and negative impacts on human health, infrastructure, energy, water resources and the economy. Climatic events on other continents can affect Europe via globalised markets.

5 BIODIVERSITY UNDER THREAT WORLDWIDE

Ecosystems on which we depend have already reached the point of no return, notably due to water stress and heat waves on land and at sea (e.g. coral reefs). Up to 20% of terrestrial species are threatened with extinction if a global warming of 3°C is reached. Unsustainable use of land and ocean resources is having destructive effects on ecosystems on which we depend.

6 ADAPTATION SOLUTIONS EXIST AND THEIR APPLICATION NEEDS TO BE STRENGTHENED

Limiting loss and damage requires rapid deployment of adaptation solutions that are proven to be effective and feasible. Agro-ecology, forest management, water resource management and the mobilisation of local people's knowledge can help prevent risks and identify solutions based on local ecosystems

9 A TRANSITION TO CLIMATE-RESILIENT DEVELOPMENT CAN ONLY BE SYSTEMIC, INCLUSIVE, JUST AND EQUITABLE

Governments, people and private actors reduce risks more effectively through a coordinated, systemic and inclusive approach. A just and equitable transition facilitates adaptation and mitigation, while reducing inequalities.

2

HALF OF HUMANITY IS HIGHLY VULNERABLE

Poor people and developing countries are the most vulnerable to climate change, even though they have contributed little to current warming. Adaptation and transition assistance aims to compensate for this injustice.

4 RISKS IN ALL REGIONS AND SECTORS

Climate risks increase with the level of global warming. The main risks in Europe are heat waves and their consequences for human and ecosystem mortality and morbidity; agricultural yield losses due to heat waves and droughts; water shortages, especially around the Mediterranean; and coastal and storm flooding. These risks are generally exacerbated in urban and coastal environments, particularly in the overseas territories.

7 ADAPTATION ALONE IS NOT ENOUGH TO LIMIT THE INCREASE IN CLIMATE RISKS

The "hard limits" of sea level rise, heat waves and droughts mean that mitigation of GHG emissions is urgent. Every tenth of a degree of global warming makes adaptation more complex

8 THE WINDOW FOR ACTION IS NARROWING

Some of the impacts of climate change are irreversible. Adaptation is progressing, but it remains woefully inadequate in the face of rapid change. Any further delay in mitigating and adapting to climate change risks missing the short window of opportunity to secure a sustainable future..

10 SYNERGIES BETWEEN ENVIRONMENTAL & SOCIAL LEVERS

Many adaptation levers, for example related to food or urban planning, support the achievement of the UN Sustainable Development Goals: reduction of poverty, hunger, inequality, loss of biodiversity and access to low-carbon energy. Climate change adaptation and greenhouse gas mitigation can be mutually reinforcing.





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Group 3 - Emissions reduction

1 EMISSION TRAJECTORIES

While some countries have succeeded in reducing their national emissions and to align with +2°C trajectories, **global greenhouse gases (GHG) emissions are still rising**. Without **new climate policies**, warming could reach **+2.2 to +3.5°C** by the end of the century! To keep it below +1.5°C, we need to reduce our emissions by at least 43% by 2030 and reach peak emissions before 2025.

3 EMISSIONS DISTRIBUTION

Emissions are **unevenly distributed**. The **richest 10%** emit between **36 and 45%** of all greenhouse gases. People in developed countries emit **13 tonnes of CO₂/year** on average, vs. **1.7 tonnes a year** for those in less developed countries.



5 AVOID/TRANSFORM/IMPROVE

Technological progress is necessary, however, it will not be enough, and must be monitored to **avoid the rebound effect**. For instance, long-distance mobility should be avoided (by plane especially), while mass transportation, walking or biking should be favored.

Finally, improving **energy efficiency** is important, particularly for buildings and industry.

6 LEVERS FOR ACTION

One of the main levers for action is **structural lifestyle transformation**. Individual action, albeit will only have an impact if supported by far reaching overall **change**.

This transformation would allow a **40 to 70% reduction in emissions**, in particular through **sufficiency policies** (*set of policies and daily practices that avoid demand for energy, materials, land and water while delivering human well-being for all within planetary boundaries*)

It is also crucial to :

- **Stop using fossil fuels** through electrification coupled with the decarbonisation of electricity
- **Stop deforestation** and increase **land restoration**

9 REGULATION & FINANCE

More than half of global emissions are unregulated, yet this is a **key and under-utilised lever**. For example, a **carbon price of \$100 per tonne of CO₂** would encourage mitigation measures that could halve global emissions by 2030. Overall, **current investments in transition are insufficient**. An enormous challenge will be to bolster regulation in order to redirect available capital

2 URGENT NEED FOR ACTION

We are already on track to exceed the +1.5°C carbon budget by 2030, based on the current energy mix. Yet new fossil fuel energy investments are still underway.

WE NEED TO ACT QUICKLY, shut down existing fossil plants and ban fossil fuel investments.



4 TECHNOLOGICAL SOLUTIONS & SOCIETAL CHANGE

Recent and rapid technological developments are facilitating the energy transition :

renewable energies

electric mobility

low-carbon buildings

The challenges are technological and physical but also and **above all societal and political**.

Fundamental change in our food choices towards a **less meat-intensive diet** is an example of a powerful tool

7 CO₂ REMOVAL

Deployment of CO₂ removal to offset **hard-to-abate residual emissions** is inevitable to achieve **carbon neutrality** but substantial challenges lie ahead (with respect to technology, land-management, and social acceptability, among others)

8 CITIES

Cities and current urbanisation trends are a key driver of greenhouse gas emissions. A **systemic transformation of our urban habits** is needed and could reduce our emissions by **26%** by 2030.

10 HUMAN HEALTH

GHG reduction also goes **hand in hand with many sustainable development goals**, especially regarding human health : indoor and outdoor air quality, active mobility, healthy diets, and others.

