

Climate change: Now is the moment to rebuild better

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The urgency of actions to recover from the COVID-19 crisis must not deter long-term climate objectives. The recovery efforts must seize the opportunity to increase the resilience of our society, especially to climate impacts.

Despite the ambition of the Paris Agreement on Climate Change to keep global warming well below 2°C compared to pre-industrial temperatures, greenhouse gas (GHG) emissions worldwide are still growing.

Global temperature is now over 1°C higher compared to the preindustrial era. If adequate mitigation strategies are not introduced, global warming could reach 3°C or more by the end of this century.

The death toll from extreme heat could be 30 times higher and economic damages from flooding, drought and storms could be 15 times higher than today.

The COVID-19 crisis will put a dent in the climate targets if the restoration efforts are focused on returning to a pre-crisis status quo.

Now is the time to "rebuild better". This is the moment to introduce ambitious climate mitigation and adaptation measures in the recovery policies.

The European Commission has launched an open public consultation to seek stakeholder views for the design of the new adaptation strategy.

Published on the same day, a report by the European Commission Joint Research Centre (JRC) on [climate change](#) impacts and adaptation highlights the potentially devastating effects of climate change, unless mitigation measures are taken and adaptation strategies are implemented to reduce the unavoidable impacts.

People, ecosystems, and economies in the EU will feel the consequences of unmitigated climate change

The report estimates that without climate mitigation (warming of 3°C or more above pre-industrial temperature), each year nearly 300 million citizens in the EU and UK would be exposed to deadly heatwaves.

If no adaptation measures are taken, this would result in 90 000 deaths

each year from extreme heat, compared to 3 000 at present.

An additional 15 million Europeans living in the proximity of wildland would be exposed to high fire danger for at least 10 days each year.

At the same time, each year over 2.5 million people living in flood and coastal plains would be exposed to floods, and flood losses would amount to EUR 285 billion per year.

The alpine tundra would contract by 84% and practically disappear in the Pyrenees, shrinking vulnerable ecosystems and impacting biodiversity in those areas.

The natural climatic tree line would shift vertically up by up to 8 meters per year.

Exposing the present EU economy to a global warming of 3°C would result in an annual welfare loss of at least EUR 175 billion (1.4% of GDP).

Climate change burden shows a clear north-south divide

The south of Europe is expected to suffer relatively more than other parts of Europe.

For instance, the frequency of heatwaves will increase more dramatically in the south of Europe.

In countries such as Spain and Greece, human exposure to severe heatwaves would be 40 to 50 times higher compared to today.

During summer, [water availability](#) would be nearly halved in southern Europe, which already suffers from water scarcity.

The majority of the people and economic activities in these regions would face water scarcity and increasing drought conditions, affecting agriculture, energy and water supply sectors.

Reaching Paris agreement targets is necessary to mitigate impacts

The study shows that all [climate impacts](#) can be reduced significantly if the mitigation policies outlined in the Paris Agreement are implemented.

The number of people exposed to heatwaves would be reduced by 200 million each year, resulting in 60 000 fewer annual deaths.

The increase in the number of people exposed to high-to-extreme fire danger would be limited to 5 million per year, compared to the 15 million in the 3°C global warming scenario.

In the southern regions, water scarcity would be much less severe.

One million fewer people each year would be exposed to river and coastal flooding and flood damage would be more than halved to EUR 135 billion per year.

Climate change adaptation strategies can reduce unavoidable impacts

Mitigation alone is not enough to avoid all adverse climate change impacts.

Even if global warming is limited to well below 2°C, there will still be some unavoidable impacts in the EU, also because Europe heats faster than the global average.

The JRC report points to some adaptation strategies to reduce climate change impacts in a cost-efficient way, and to enhance overall resilience to climate change.

For instance, flood peaks can be reduced by installing retention reservoirs. Scientists project that by doing this, the annual flood damage could be reduced by nearly EUR 40 billion and 400 000 fewer people would be exposed each year to river flooding.

Strengthening coastal protection in populated and economically pivotal coastal areas could help save up to EUR 220 billion in coastal flood losses each year in the EU and UK at the end of this century.

The analysis shows that the benefits of such adaptation measures are long lasting and grow over time and with increasing global warming.

Green Deal—turning an urgent challenge into a unique opportunity

Climate change is one of the biggest threats for humanity, seriously affecting people and nature.

The European Green Deal is a response to these challenges. With the Green Deal for Europe, the EU strives to keep our planet healthy and aspires to become the first carbon-neutral continent in the world by 2050.

The European Commission has already set out a clear vision of how to

achieve climate neutrality by 2050.

The Commission proposed the first European climate law on 4 March 2020, enshrining the 2050 climate neutrality objective in legislation as well as indicating the way for the EU to meet the adaptation goal set in the Paris Agreement.

As part of the European Green Deal, the Commission will adopt a new, more ambitious EU strategy on adaptation to climate change.

This is essential, as climate change will continue to create significant stress in Europe in spite of the mitigation efforts.

Work on climate adaptation should continue to influence public and private investments, and it will be important to ensure that across the EU, investors, insurers, businesses, cities and citizens are able to access data and to develop instruments to integrate [climate](#) change into their risk management practices.

Provided by European Commission, Joint Research Centre (JRC)

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