INTERGOVERNMENTAL PANEL ON Climate change

2022/08/PR

28 February 2022

IPCC PRESS RELEASE

Climate change: a threat to human wellbeing and health of the planet. Taking action now can secure our future

BERLIN, Feb 28 – Human-induced climate change is causing dangerous and widespread disruption in nature and affecting the lives of billions of people around the world, despite efforts to reduce the risks. People and ecosystems least able to cope are being hardest hit, said scientists in the latest Intergovernmental Panel on Climate Change (IPCC) report, released today.

"This report is a dire warning about the consequences of inaction," said Hoesung Lee, Chair of the IPCC. "It shows that climate change is a grave and mounting threat to our wellbeing and a healthy planet. Our actions today will shape how people adapt and nature responds to increasing climate risks."

The world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5°C (2.7°F). Even temporarily exceeding this warming level will result in additional severe impacts, some of which will be irreversible. Risks for society will increase, including to infrastructure and low-lying coastal settlements.

The Summary for Policymakers of the IPCC Working Group II report, *Climate Change 2022: Impacts, Adaptation and Vulnerability* was approved on Sunday, February 27 2022, by 195 member governments of the IPCC, through a virtual approval session that was held over two weeks starting on February 14.

Urgent action required to deal with increasing risks

Increased heatwaves, droughts and floods are already exceeding plants' and animals' tolerance thresholds, driving mass mortalities in species such as trees and corals. These weather extremes are occurring simultaneously, causing cascading impacts that are increasingly difficult to manage. They have exposed millions of people to acute food and water insecurity, especially in Africa, Asia, Central and South America, on Small Islands and in the Arctic.

To avoid mounting loss of life, biodiversity and infrastructure, ambitious, accelerated action is required to adapt to climate change, at the same time as making rapid, deep cuts in greenhouse gas emissions. So far, progress on adaptation is uneven and there are increasing gaps between action taken and what is needed to deal with the increasing risks, the new report finds. These gaps are largest among lower-income populations.

The Working Group II report is the second instalment of the IPCC's Sixth Assessment Report (AR6), which will be completed this year.



"This report recognizes the interdependence of climate, biodiversity and people and integrates natural, social and economic sciences more strongly than earlier IPCC assessments," said Hoesung Lee. "It emphasizes the urgency of immediate and more ambitious action to address climate risks. Half measures are no longer an option."

Safeguarding and strengthening nature is key to securing a liveable future

There are options to adapt to a changing climate. This report provides new insights into nature's potential not only to reduce climate risks but also to improve people's lives.

"Healthy ecosystems are more resilient to climate change and provide life-critical services such as food and clean water", said IPCC Working Group II Co-Chair Hans-Otto Pörtner. "By restoring degraded ecosystems and effectively and equitably conserving 30 to 50 per cent of Earth's land, freshwater and ocean habitats, society can benefit from nature's capacity to absorb and store carbon, and we can accelerate progress towards sustainable development, but adequate finance and political support are essential."

Scientists point out that climate change interacts with global trends such as unsustainable use of natural resources, growing urbanization, social inequalities, losses and damages from extreme events and a pandemic, jeopardizing future development.

"Our assessment clearly shows that tackling all these different challenges involves everyone – governments, the private sector, civil society – working together to prioritize risk reduction, as well as equity and justice, in decision-making and investment," said IPCC Working Group II Co-Chair Debra Roberts.

"In this way, different interests, values and world views can be reconciled. By bringing together scientific and technological know-how as well as Indigenous and local knowledge, solutions will be more effective. Failure to achieve climate resilient and sustainable development will result in a sub-optimal future for people and nature."

Cities: Hotspots of impacts and risks, but also a crucial part of the solution

This report provides a detailed assessment of climate change impacts, risks and adaptation in cities, where more than half the world's population lives. People's health, lives and livelihoods, as well as property and critical infrastructure, including energy and transportation systems, are being increasingly adversely affected by hazards from heatwaves, storms, drought and flooding as well as slow-onset changes, including sea level rise.

"Together, growing urbanization and climate change create complex risks, especially for those cities that already experience poorly planned urban growth, high levels of poverty and unemployment, and a lack of basic services," Debra Roberts said.

"But cities also provide opportunities for climate action – green buildings, reliable supplies of clean water and renewable energy, and sustainable transport systems that connect urban and rural areas can all lead to a more inclusive, fairer society."

There is increasing evidence of adaptation that has caused unintended consequences, for example destroying nature, putting peoples' lives at risk or increasing greenhouse gas emissions. This can be avoided by involving everyone in planning, attention to equity and justice, and drawing on Indigenous and local knowledge.

A narrowing window for action

Climate change is a global challenge that requires local solutions and that's why the Working Group II contribution to the IPCC's Sixth Assessment Report (AR6) provides extensive regional information to enable Climate Resilient Development.

The report clearly states Climate Resilient Development is already challenging at current warming levels. It will become more limited if global warming exceeds 1.5°C (2.7°F). In some regions it will be impossible if global warming exceeds 2°C (3.6°F). This key finding underlines the urgency for climate action, focusing on equity and justice. Adequate funding, technology transfer, political commitment and partnership lead to more effective climate change adaptation and emissions reductions.

"The scientific evidence is unequivocal: climate change is a threat to human wellbeing and the health of the planet. Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future," said Hans-Otto Pörtner.

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Notes for Editors

Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

The Working Group II report examines the impacts of climate change on nature and people around the globe. It explores future impacts at different levels of warming and the resulting risks and offers options to strengthen nature's and society's resilience to ongoing climate change, to fight hunger, poverty, and inequality and keep Earth a place worth living on – for current as well as for future generations.

Working Group II introduces several new components in its latest report: One is a special section on climate change impacts, risks and options to act for cities and settlements by the sea, tropical forests, mountains, biodiversity hotspots, dryland and deserts, the Mediterranean as well as the polar regions. Another is an atlas that will present data and findings on observed and projected climate change impacts and risks from global to regional scales, thus offering even more insights for decision makers.

The Summary for Policymakers of the Working Group II contribution to the Sixth Assessment Report (AR6) as well as additional materials and information are available at https://www.ipcc.ch/report/ar6/wg2/

Note: Originally scheduled for release in September 2021, the report was delayed for several months by the COVID-19 pandemic, as work in the scientific community including the IPCC shifted online. This is the second time that the IPCC has conducted a virtual approval session for one of its reports.

AR6 Working Group II in numbers

270 authors from 67 countries

- 47 coordinating authors
- 184 lead authors
- 39 review editors

plus

• 675 – contributing authors

Over 34,000 cited references

A total of 62,418 expert and government review comments

(First Order Draft 16,348; Second Order Draft 40,293; Final Government Distribution: 5,777)

More information about the Sixth Assessment Report can be found here.

Additional media resources

Assets available after the embargo is lifted on Media Essentials website.

Press conference recording, collection of sound bites from WGII authors, link to presentation slides, B-roll of approval session, link to launch Trello board including press release and video trailer in UN languages, a social media pack.

The website includes outreach materials such as videos about the IPCC and video recordings from outreach events conducted as webinars or live-streamed events.

Most videos published by the IPCC can be found on our YouTube channel.

About the IPCC

The Intergovernmental Panel on Climate Change (IPCC) is the UN body for assessing the science related to climate change. It was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide political leaders with periodic scientific assessments concerning climate change, its implications and risks, as well as to put forward adaptation and mitigation strategies. In the same year the UN General Assembly endorsed the action by the WMO and UNEP in jointly establishing the IPCC. It has 195 member states.

Thousands of people from all over the world contribute to the work of the IPCC. For the assessment reports, IPCC scientists volunteer their time to assess the thousands of scientific papers published each year to provide a comprehensive summary of what is known about the drivers of climate change, its impacts and future risks, and how adaptation and mitigation can reduce those risks.

The IPCC has three working groups: <u>Working Group I</u>, dealing with the physical science basis of climate change; <u>Working Group II</u>, dealing with impacts, adaptation and vulnerability; and <u>Working Group III</u>, dealing with the mitigation of climate change. It also has a <u>Task Force on National Greenhouse Gas Inventories</u> that develops methodologies for measuring emissions and removals. As part of the IPCC, a Task Group on Data Support for Climate Change Assessments (TG-Data) provides guidance to the Data Distribution Centre (DDC) on curation, traceability, stability, availability and transparency of data and scenarios related to the reports of the IPCC.

IPCC assessments provide governments, at all levels, with scientific information that they can use to develop climate policies. IPCC assessments are a key input into the international negotiations to tackle climate change. IPCC reports are drafted and reviewed in several stages, thus guaranteeing objectivity and transparency. An IPCC assessment report consists of the contributions of the three working groups and a Synthesis Report. The Synthesis Report integrates the findings of the three working group reports and of any special reports prepared in that assessment cycle.

About the Sixth Assessment Cycle

At its 41st Session in February 2015, the IPCC decided to produce a Sixth Assessment Report (AR6). At its 42nd Session in October 2015 it elected a new Bureau that would oversee the work on this report and the Special Reports to be produced in the assessment cycle.

<u>Global Warming of 1.5°C</u>, an IPCC special report on the impacts of global warming of 1.5 degrees Celsius above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty was launched in October 2018.

<u>Climate Change and Land</u>, an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems was launched in August 2019, and the <u>Special Report on the Ocean and Cryosphere in</u> <u>a Changing Climate</u> was released in September 2019.

In May 2019 the IPCC released the <u>2019 Refinement to the 2006 IPCC Guidelines for National</u> <u>Greenhouse Gas Inventories</u>, an update to the methodology used by governments to estimate their greenhouse gas emissions and removals.

In August 2021 the IPCC released the Working Group I contribution to the AR6, Climate Change 2021, the Physical Science Basis

The Working Group III contribution to the AR6 is scheduled for early April 2022.

The Synthesis Report of the Sixth Assessment Report will be completed in the second half of 2022.

For more information go to www.ipcc.ch