IPCC Sixth Assessment Report

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<u>In news</u>— Intergovernmental Panel on Climate Change (IPCC) has released the **2nd part on climate impacts and adaptation** of its sixth Assessment report recently.

About the report-

- The Assessment Reports, the first of which had come out in 1990, are the most comprehensive evaluations of the state of the earth's climate.
- The four subsequent assessment reports, each thousands of pages long, came out in 1995, 2001, 2007 and 2015.
- The latest warnings have come in the second part of IPCC's Sixth Assessment Report which talks about climate change impacts, risks and vulnerabilities, and adaptation options.
- The first part of the report was released in August 2021 and was centered around the scientific basis of climate change.
- The third and final part of the report, which will look into the possibilities of reducing emissions, is expected to come out in April.
- IPCC reports form the scientific basis on which countries across the world build their policy responses to climate change.
- These reports, on their own, are not policy prescriptive and do not tell countries or governments what to do.
- They are only meant to present factual situations with as much scientific evidence as is possible.
- These reports also form the basis for international climate change negotiations that decide on the responses at the global level.
- It is these negotiations that have produced the Paris Agreement, and previously the Kyoto Protocol.
- The Paris Agreement, negotiated on the basis of the

Fifth Assessment Report, seeks to keep the rise in global temperatures "well below" 2°C from pre-industrial times, while "pursuing efforts" to limit it to 1.5°C.

 The Sixth Assessment Report, however, has presented lots of evidence to suggest that pursuing a 2°C target could be disastrous, and more ambitious actions need to be taken to keep the temperature rise within 1.5°C.

Key highlights of the report-

- In its report, the IPCC has warned of several climate change-induced disasters over the next two decades even if strong action is taken to reduce greenhouse gas emissions.
- It has said that the ability of human beings, and natural systems, to cope with the changing climate was already being tested, and further rise in global warming would make it even more difficult to adapt.
- Noting that over 3.5 billion people, over 45% of the global population, were living in areas highly vulnerable to climate change, the report identifies India as one of the vulnerable hotspots, with cities facing very high risk of climate disasters such as flooding, sea-level rise and heat-waves.
- The latest report has, for the first time, made an assessment of regional and sectoral impacts of climate change.
- It has included risks to, and vulnerabilities of, megacities around the world. For example, it has said Mumbai is at high risk of sea-level rise and flooding, while Ahmedabad faces serious danger of heat-waves.
- Such granular information was not available in previous assessment reports.
- Also for the first time, the IPCC report has looked at the health impacts of climate change.
- It has found that climate change is increasing vectorborne and water-borne diseases such as malaria or

dengue, particularly in sub-tropical regions of Asia.

- It has also said deaths related to circulatory, respiratory, diabetic and infectious diseases, as well as infant mortality, are likely to increase with a rise in temperature.
- Increasing frequency of extreme weather events like heatwaves, flooding and drought, and even air pollution was contributing to under-nutrition, allergic diseases and even mental disorders.
- The report has said that while strong actions to reduce greenhouse gas emissions in the near term, in the next 20 years, would substantially reduce the threats, and the projected damages, they would not eliminate them all.
- If the temperature rise crossed the threshold of 1.5°C from pre-industrial times, then many changes could be irreversible.
- The report has stressed that the need to take adaptation measures is very important and has said the gaps in adaptation was a result of lack of funds and political commitment, and also the absence of reliable information and a sense of urgency.

Intergovernmental Panel on Climate Change (IPCC)-

- It is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change.
- It was created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).
- The objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies.
- Thousands of people from all over the world contribute to the work of the IPCC.
- For the assessment reports, experts volunteer their time

as IPCC authors to assess the thousands of scientific papers published each year.

• The IPCC does not conduct its own research.

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