

Classification: Public

Key Decision: No

Gravesham Borough Council

Report to: Climate Change Advisory Board

Date: 10th May 2022

Reporting officer: Sarah Parfitt, Director (Corporate Services)

Subject: IPCC Sixth Assessment Report Update

Purpose and summary of report:

To provide the Climate Change Advisory Board with an update on the progress of the work of the IPCC in forming their Sixth Assessment Report.

Recommendations:

This is an information only report.

Key Implications:	
Item	Implications
Legal	N/A– this is an information only report.
Finance and Value for Money	N/A – this is an information only report.
Corporate Plan	N/A – this is an information only report.
Climate Change	Whilst this is an information only report, its content should be of interest to Members and officers and used as a basis to inform the activities of the council, particularly in relation to borough policy-making and decisions regarding climate change adaptation and sustainability of development.

1. Introduction and Background

- 1.1 The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 and is the United Nations body for assessing the science relating to climate change. It provides policymakers with regular scientific assessments on the current state of knowledge about climate change.

2. IPCC Sixth Assessment Report

2.1 The IPCC is currently preparing its Sixth Assessment Report (AR6). Assessments Reports are prepared by the IPCC every 5-7 years and are drawn together from the contributions of three working groups, formed of hundreds of scientists from across the world.

- Working Group I – The Physical Science Basis
- Working Group II – Impacts, Adaptation and Vulnerability
- Working Group III – Mitigation of Climate Change

The research findings of the three Working Groups will be synthesised into the final, Sixth Assessment Report which is expected to be completed later in 2022.

3. Working Group I – The Physical Science Basis

3.1 Working Group I published its contribution to the Sixth Assessment Report on 9th August 2021, and a report on this was prepared and presented to the council's Climate Change Cross Party Member Working Group in October 2021.

IPCC Working Group I report key points

- 3.1.1 Global surface temperature was 1.09C higher in the decade between 2011-2020 than between 1850-1900.
- 3.1.2 The past five years have been the hottest on record since 1850.
- 3.1.3 The recent rate of sea level rise has nearly tripled compared with 1901-1971.
- 3.1.4 Human influence is "very likely" (90%) the main driver of the global retreat of glaciers since the 1990s and the decrease in Arctic sea-ice.
- 3.1.5 It is "virtually certain" that hot extremes including heatwaves have become more frequent and more intense since the 1950s, while cold events have become less frequent and less severe.

3.2 In the words of the UN Secretary-General, the report was "a code red for humanity".

4. Working Group II – Impacts, Adaptation and Vulnerability

4.1 Working Group II published its contribution on 28th February 2022.

IPCC Working Group II report key points

- 4.1.1 Across the world, 3.3 to 3.6 billion people are highly vulnerable to climate impacts and half the world's population suffers severe water shortages at some point each year.
- 4.1.2 One in three people are exposed to deadly heat stress, and this is projected to increase to between 50% to 75% by the end of the century.

- 4.1.3 Half a million more people are at risk of serious flooding every year, and a billion living on coasts will be exposed by 2050.
- 4.1.4 Rising temperatures and rainfall are increasing the spread of diseases in people, such as dengue fever, and in crops, livestock and wildlife.
- 4.1.5 Even if the world keeps heating below 1.6C by 2100 – and we are already at 1.1C – then 8% of today's farmland will become climatically unsuitable, just after the global population has peaked above 9 billion. If global heating continues and little adaptation is put in place, 183 million more people are projected to go hungry by 2050.
- 4.1.6 The ability to produce food relies on the water, soils and pollination provided by a healthy natural world. Animals and plants are being exposed to climatic conditions not experienced for tens of thousands of years. Half of the studied species have already been forced to move and many face extinction.
- 4.1.7 Maintaining the resilience of nature at a global scale depends on the conservation of 30% to 50% of Earth's land, freshwater and oceans. Today, less than 15% of land, 21% of freshwater and 8% of oceans are protected areas, and some regions, like the Amazon, have switched from
- 4.1.8 The changes and impacts within the report are not uniform across countries and communities. Places of highest human vulnerability are recorded as West, Central and East Africa, South Asia, Central and South America, small
- 4.1.9 There is a need to act now, and the world is not on track to make the changes required.

5. Working Group III – Mitigation of Climate Change

- 5.1 Working Group III published its contribution on 4th April 2022.

IPCC Working Group I report key points

- 5.1.1 There must be "rapid, deep and immediate" cuts in carbon dioxide (CO₂) emissions.
- 5.1.2 Even if all the policies to cut carbon that governments had put in place by the end of 2020 were fully implemented, the world will still warm by 3.2C this century.
- 5.1.3 There would have to be a peak in greenhouse gas emissions before 2025 and after that, actions to reduce them very rapidly. If emissions aren't curbed by 2030, it will make it virtually impossible to limit warming later this century.
- 5.1.4 There would have to be proactive action to enable negative emissions or carbon dioxide removal in the second half of the century, shortly after 2050, in order to limit warming to 1.5C.
- 5.1.5 Positive action can be taken in a "viable and financially sound manner", but will require significant changes to energy production, industry, transport, our consumption patterns, farming practices, diets and lifestyles and the way we treat nature.

6. Appendices

6.1 There are no appendices.

7. Background Documents

7.1 The following background documents were used:

- 7.1.1 Working Group I contribution: <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>
- 7.1.2 Working Group II contribution: <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>.
- 7.1.3 Working Group III contribution: <https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>

Lead Officer: Sarah Parfitt

Email: sarah.parfitt@gravesham.gov.uk

Secondary Implications	
Risk Assessment	N/A – this is an information only report.
Data Protection Impact Assessment	<i>A data protection impact assessment (DPIA) should be carried out at the start of any major project involving the use of personal data or if you are making a significant change to an existing process.</i>
	<p>a. Does the project/change being recommended through this paper involve the processing of personal data or special category data or criminal offence data? A definition of each type of data can be found on the Information Commissioner’s Office website via the above links. N/A – this is an information only report.</p>
	<p>b. If yes to question a, have you completed and attached a DPIA including Data Protection Officer advice? N/A</p>
	<p>c. If no to question b, please seek advice from your nominated DPIA assessor or the Information Governance Team at gdpr@medway.gov.uk. N/A</p>
Equality Impact Assessment	<p>a. Does the decision being made or recommended through this paper have potential to cause adverse impact or discriminate against different groups in the community? If yes, please explain answer. N/A – this is an information only report.</p>
	<p>b. Does the decision being made or recommended through this paper make a positive contribution to promoting equality? If yes, please explain answer. N/A</p>
	<i>In submitting this report, the Chief Officer doing so is confirming that they have given due regard to the equality impacts of the decision being considered, as noted in the table above</i>
Crime and Disorder	N/A – this is an information only report.
Digital and website implications	N/A – this is an information only report.
Safeguarding children and vulnerable adults	N/A – this is an information only report.