**The prompts guide how to answer the questions allowing (or not) use of additional specific information source, and/or external knowledge, and/or already acquired (training) knowledge.**

**DIFFERENT DAY, SAME QUESTION = DIFFERENT ANSWER!!!! CHECK THE SAME TEST 28.02.2025**

**NO RESTRICTIONS REGARDING INFO SOURCES (answer freely)**

**Prompt** **When will we reach 1.5°C?**

**Answer** : Based on current predictions, the global temperature is likely to exceed 1.5°C above pre-industrial levels within the next decade. Some studies suggest we could reach this threshold as early as the early 2030s[[1]](https://news.stanford.edu/stories/2023/01/ai-predicts-global-warming-will-exceed-1-5-degrees-2030s)[[2]](https://wmo.int/media/news/new-climate-predictions-increase-likelihood-of-temporarily-reaching-15-c-next-5-years). There is also a possibility of temporarily exceeding 1.5°C in at least one of the next five years[[2]](https://wmo.int/media/news/new-climate-predictions-increase-likelihood-of-temporarily-reaching-15-c-next-5-years)[[3]](https://wmo.int/news/media-centre/global-temperature-likely-exceed-15degc-above-pre-industrial-level-temporarily-next-5-years).

This milestone is significant because it highlights the urgency of addressing climate change to avoid more severe impacts. Are you interested in learning more about what can be done to mitigate these effects?

**References**

[1] [AI predicts global warming will exceed 1.5 degrees in 2030s](https://news.stanford.edu/stories/2023/01/ai-predicts-global-warming-will-exceed-1-5-degrees-2030s)

[2] [New climate predictions increase likelihood of temporarily reaching 1.5 ...](https://wmo.int/media/news/new-climate-predictions-increase-likelihood-of-temporarily-reaching-15-c-next-5-years)

[3] [Global temperature is likely to exceed 1.5°C above pre-industrial level ...](https://wmo.int/news/media-centre/global-temperature-likely-exceed-15degc-above-pre-industrial-level-temporarily-next-5-years)

[4] [World of Change: Global Temperatures - NASA Earth Observatory](https://earthobservatory.nasa.gov/world-of-change/global-temperatures)

[5] [Temperatures Rising: NASA Confirms 2024 Warmest Year on Record](https://www.nasa.gov/news-release/temperatures-rising-nasa-confirms-2024-warmest-year-on-record/)

[6] [Climate Change: Global Temperature - NOAA Climate.gov](https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature)

[7] <https://svs.gsfc.nasa.gov/5450>

**Observation**: **WRONG answer.** Same question asked 1 month earlier to same model delivered a DIFFERENT RESULT, with the correct answer = the global average temperature has already temporarily exceeded 1.5°C above pre-industrial levels in 2024 (<https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level>).

Answer also uses a reference that indices to error: article of AI predicting that the 1.5°C threshold will be reached by 2030, which leads to wrong response.

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**Inference on 28-02-2025:**

**Prompt** **When will we reach 1.5°C?**

**Answer** : The global average temperature has already temporarily exceeded 1.5°C above pre-industrial levels in 2024[[1]](https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level). According to the World Meteorological Organization (WMO), there is an 80% chance that we will temporarily exceed this threshold again at least once between 2024 and 2028[[2]](https://wmo.int/news/media-centre/global-temperature-likely-exceed-15degc-above-pre-industrial-level-temporarily-next-5-years).

However, it's important to note that these short-term exceedances do not necessarily mean a permanent breach of the 1.5°C target set by the Paris Agreement. Long-term trends and sustained efforts to reduce greenhouse gas emissions will determine whether we can keep global warming below this critical threshold in the coming decades[[3]](https://news.stanford.edu/stories/2023/01/ai-predicts-global-warming-will-exceed-1-5-degrees-2030s).

How do you feel about these predictions?

**References**

[1] [Copernicus: 2024 is the first year to exceed 1.5°C above pre-industrial ...](https://climate.copernicus.eu/copernicus-2024-first-year-exceed-15degc-above-pre-industrial-level)

[2] [Global temperature is likely to exceed 1.5°C above pre-industrial level ...](https://wmo.int/news/media-centre/global-temperature-likely-exceed-15degc-above-pre-industrial-level-temporarily-next-5-years)

[3] [AI predicts global warming will exceed 1.5 degrees in 2030s](https://news.stanford.edu/stories/2023/01/ai-predicts-global-warming-will-exceed-1-5-degrees-2030s)

[4] [New climate predictions increase likelihood of temporarily reaching 1.5 ...](https://wmo.int/media/news/new-climate-predictions-increase-likelihood-of-temporarily-reaching-15-c-next-5-years)

[5] [Why do we keep talking about 1.5°C and 2°C above the pre-industrial era?](https://climate.copernicus.eu/why-do-we-keep-talking-about-15degc-and-2degc-above-pre-industrial-era)

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**RESTRICT TO SOURCE PROVIDED:**

**Prompt:**  answer the following question ONLY based on the information provided in attachment (user information). If you use user information, please indicate the Page and Reference, which are provided below each piece of information. If the information cannot be found in the user information, please say ’I don’t know’. Question: **When will we reach 1.5°C?**

Report\_07\_IPCC\_AR6\_SYR\_FullVolume 27.txt



**Answer**: Based on the information provided in the attachment, we are likely to reach 1.5°C of global warming in the first half of the 2030s (**Page 40**, Reference: Section 3.1.1).

**Observation**:

* Correct answer regarding content.
* Wrong page number, should be page 68 or page 12. First instance where the information is available is on page 12.

**Prompt**: Answer the following question ONLY based on the information provided in attachment (user information) AND your own in-house knowledge. please indicate the Page and Reference, which are provided below each piece of information. Additionally, let us know which part of your answer is from the user information and which part is based on your in-house knowledge by writing either (IPCC AR6) or (Inhouse knowledge). If the information cannot be found in the user information or your in-house knowledge, please say ’I don’t know’. Question: **When will we reach 1.5°C?**

Report\_07\_IPCC\_AR6\_SYR\_FullVolume 28.txt

**Answer**: Based on the information provided in the attachment and my in-house knowledge, the best estimate of reaching 1.5°C of global warming lies in the first half of the 2030s in most of the considered scenarios and modelled pathways (Page 68, Reference: WGI SPM B.1.3, WGI Cross-Section Box TS.1, WGIII Table 3.2) (IPCC AR6).

**Observation**: Correct answer. The IPCC ARv6 report dates from 2023, and threshold of 1.5°C was temporarily exceeded in 2024. And use of other sources of information is restricted in prompt. So, based on the report the answer is correct. Page reference is also correct (checked manually).

**Prompt**: How reliable is your answer?

**Answer**: My answer is based on the information provided in the IPCC AR6 Synthesis Report, which is a comprehensive and authoritative assessment of climate change conducted by the Intergovernmental Panel on Climate Change (IPCC). The IPCC reports are widely regarded as highly reliable due to their rigorous scientific methodology, extensive peer review process, and contributions from hundreds of experts worldwide.

The specific information about reaching 1.5°C of global warming in the first half of the 2030s is derived from multiple lines of evidence, including climate models, observational data, and expert assessments (Page 68, Reference: WGI SPM B.1.3, WGI Cross-Section Box TS.1, WGIII Table 3.2) (IPCC AR6). This makes the estimate robust and credible.

If you have any further questions or need more details, feel free to ask!

**Observation**: Good answer. Very good explanation, well-reasoned, justified, and based on the provided info source (report)

**Prompt**: What aspects are missing in your analysis about the timing to reach 1.5°C?

**Answer**: While the analysis provided is based on the IPCC AR6 Synthesis Report, there are several aspects that could be further explored to provide a more comprehensive understanding of the timing to reach 1.5°C:

1. **Uncertainty in Climate Sensitivity**: The range of equilibrium climate sensitivity (2.5°C to 4.0°C) introduces uncertainty in the timing of reaching 1.5°C. Variations in climate sensitivity could affect the rate of warming (IPCC AR6).
2. **Short-Lived Climate Forcers (SLCFs)**: The impact of SLCFs such as aerosols and methane on near-term warming could influence the timing. Simultaneous stringent climate change mitigation and air pollution control policies can limit additional warming from SLCFs (IPCC AR6).
3. **Natural Variability**: Natural climate variability, including phenomena like El Niño and volcanic eruptions, can modulate the rate of warming and affect the timing of reaching 1.5°C (IPCC AR6).
4. **Socio-Economic Pathways**: Different socio-economic development trajectories, including population growth, economic development, and technological advancements, can influence future emissions and the timing of reaching 1.5°C (IPCC AR6).
5. **Policy Implementation**: The effectiveness and speed of implementing mitigation policies and achieving net zero emissions targets can significantly impact the timing. Current gaps between declared national ambitions and actual implementation need to be addressed (IPCC AR6).
6. **Feedback Mechanisms**: Potential feedback mechanisms, such as permafrost thawing and changes in land and ocean carbon sinks, could accelerate or slow down the rate of warming (IPCC AR6).

These aspects highlight the complexity and multiple factors that can influence the timing of reaching 1.5°C. Addressing these uncertainties and implementing effective mitigation strategies are crucial for accurately predicting and managing future warming.

If you have any further questions or need more details, feel free to ask!

**Observation**: Good answer. Very good explanation, well-reasoned, justified, and based on the provided info source (report)

**Prompt**: Explain why you did not include these factors in the calculation of the timing and your answer, if they were known to you.

**Answer**: The factors mentioned, such as uncertainty in climate sensitivity, short-lived climate forcers, natural variability, socio-economic pathways, policy implementation, and feedback mechanisms, were indeed known to me. However, my initial response was based solely on the information provided in the attachment (IPCC AR6 Synthesis Report) and my in-house knowledge, as per your request.

Here are the reasons why these factors were not explicitly included in the calculation of the timing to reach 1.5°C in my initial answer:

1. **Scope of the Request**: You specifically asked for the timing to reach 1.5°C based on the information provided in the attachment and my in-house knowledge. The attachment provided a best estimate of reaching 1.5°C in the first half of the 2030s, which is a straightforward answer based on the IPCC AR6 Synthesis Report.
2. **Complexity and Uncertainty**: While these factors are crucial for a comprehensive understanding, they introduce significant complexity and uncertainty into the calculation. The IPCC AR6 report provides a best estimate based on a synthesis of multiple lines of evidence, which already accounts for many of these uncertainties implicitly.
3. **Focus on Key Findings**: The IPCC AR6 report aims to provide clear and actionable insights for policymakers and stakeholders. The best estimate of reaching 1.5°C in the first half of the 2030s is a key finding that is intended to be easily understood and communicated without delving into the detailed uncertainties and complexities.
4. **Consistency with IPCC Methodology**: The IPCC uses standardized methodologies and scenarios to project future warming. These methodologies inherently consider many of the factors mentioned, but they are summarized in the report to provide clear and concise estimates.

If you would like a more detailed analysis that includes these factors, I can certainly provide that. Just let me know how you'd like to proceed!

**Observation**: Excellent answer. Very good explanation, well-reasoned, justified, and providing insights into what criteria the model applied to deliver the answer (**Scope of the Request**, **Complexity and Uncertainty**, **Focus on Key Findings, Consistency with IPCC Methodology)**

**Prompt**: Rate your answer to the question on a scale between 1 (lowest) and 5 (highest)

**Answer**: I would rate my answer a 4 out of 5.

Here's why:

* **Strengths**: The answer is based on authoritative and comprehensive information from the IPCC AR6 Synthesis Report, which is widely regarded as highly reliable. It provides a clear and concise estimate of the timing to reach 1.5°C, supported by references to specific pages and sections of the report.
* **Areas for Improvement**: While the answer is accurate and reliable, it could be enhanced by explicitly discussing the uncertainties and complexities involved in the timing of reaching 1.5°C, such as climate sensitivity, short-lived climate forcers, natural variability, socio-economic pathways, policy implementation, and feedback mechanisms.

If you have any further questions or need more details, feel free to ask!

**Observation**: OK, fair assessment and well justified based on previous exchanges in same chat.

**Prompt:**  Compare your previous answer (answer 1) to the following one (answer 2), evaluate the accuracy of each answer, and rate their accuracy on a scale between 1 (lowest) to 5 (highest):

Answer 2: We are likely to reach 1.5°C of global warming between 2030 and 2052 if the current rate of warmingc continues (high confidence) (IPCC AR6, Reference: IPCC AR6 WGI Chapter01, Page: 44). However, the exact timing may vary depending on the emissions reduction pathways and efforts to achieve net-zero CO2 emissions (In-house knowledge).

**Answer:**

Let's compare and evaluate the accuracy of both answers:

**Answer 1:**

**Content**:

* We are likely to reach 1.5°C of global warming in the first half of the 2030s in most of the considered scenarios and modelled pathways.
* Reference: IPCC AR6 Synthesis Report (Page 68, Reference: WGI SPM B.1.3, WGI Cross-Section Box TS.1, WGIII Table 3.2).
* Based on the IPCC AR6 Synthesis Report and in-house knowledge.

**Evaluation**:

* **Accuracy**: This answer is accurate as it directly references the IPCC AR6 Synthesis Report, which provides a best estimate of reaching 1.5°C in the first half of the 2030s. The references are correctly cited, and the information aligns with the IPCC's findings.
* **Rating**: 5/5

**Answer 2:**

**Content**:

* We are likely to reach 1.5°C of global warming between 2030 and 2052 if the current rate of warming continues.
* Reference: IPCC AR6 WGI Chapter01, Page: 44.
* The exact timing may vary depending on emissions reduction pathways and efforts to achieve net-zero CO2 emissions (In-house knowledge).

**Evaluation**:

* **Accuracy**: This answer is partially accurate. The range of 2030 to 2052 is broader than the estimate provided in the IPCC AR6 Synthesis Report, which suggests the first half of the 2030s. The reference to IPCC AR6 WGI Chapter01, Page: 44, is not as specific as the references in Answer 1. The mention of emissions reduction pathways and net-zero efforts is correct but lacks the precision of the IPCC's best estimate.
* **Rating**: 3/5

**Summary:**

* **Answer 1** is more accurate and precise, directly referencing the IPCC AR6 Synthesis Report and providing a clear estimate.
* **Answer 2** is broader and less specific, with a wider range that does not align as closely with the IPCC's best estimate.

If you have any further questions or need more details, feel free to ask!

**Observation**: OK, fair assessment and well justified.

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