



Mains Practice Question

Q. Climate change is a threat to the future of our planet, but there is still time for us to 'adapt' to it and 'mitigate' its effects. Bring out the differences between the two strategies for Climate Change solution. (250 words)

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Approach

- Begin with a brief introduction
- Discuss the differences between them with examples
- Conclude by underlining the importance of linking both the strategies

Introduction

Climate change is the long-term alteration of temperature and typical weather patterns in a place. Climate change could refer to a particular location or the planet as a whole. It may cause weather patterns to be less predictable. The most important factor responsible for Climate Change is anthropogenic activities and the strategies to counter or reducing the impact of Climate Change could be broadly divided into two categories: Mitigation and Adaptation.

Body

Differences between mitigation and adaptation strategies

- **Mitigation** - reducing climate change - involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases or enhancing the "sinks" that accumulate and store these gases. Whereas adaptation involves- adapting to life in a changing climate - i.e. adjusting to actual or expected future climate.
- The difference between climate change mitigation strategies and climate change adaptation is that mitigation is aimed at tackling the causes and minimising the possible impacts of climate change, whereas adaptation looks at how to reduce the negative effects it has and how to take advantage of any opportunities that arise.
- The goal of mitigation is to avoid significant human interference with the climate system, and "stabilize greenhouse gas levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change, ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner." In the context of India, the examples of mitigation strategies includes-Nationally Determined Commitment (NDC) targets under the Paris Agreement, Afforestation, promotion of electric vehicles etc.
- The goal of adaptation is to reduce our vulnerability to the harmful effects of climate change (like sea-level encroachment, more intense extreme weather events or food insecurity). It also encompasses making the most of any potential beneficial opportunities associated with climate change. This includes strategies to develop Climate Resilient Agriculture, Infrastructure and City Planning.
- Mitigation solutions are global and not localised. But Adaptation solutions vary from place to place, are difficult to predict, and involve many trade-offs.
- Mitigation strategies are long term and adaptation strategies are short term

Conclusion

Many adaptation and mitigation options can help address climate change, but no single option is sufficient by itself. Effective implementation depends on policies and cooperation at all scales and can be enhanced through integrated responses that link mitigation and adaptation

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