

## Intended Learning Objectives

- Gain a clear understanding of what climate change adaptation and mitigation entail, including definitions, examples, and their respective importance today and in the future.
- Comprehend the rationale behind integrating adaptation and mitigation strategies, including the potential synergies, benefits, and challenges associated with such an integrated approach
- Understand key findings and lessons from the IPCC AR6 cycle and foreseen developments in AR7 regarding effective adaptation and mitigation strategies and their integration.
- Formulate actionable policy recommendations and strategies for integrating adaptation and mitigation efforts, considering the barriers and enabling factors highlighted in the IPCC AR6 cycle.























We face unavoidable multiple climate hazards over the next two decades with global warming above 1.5°C, but how these will affect nature and people depends on how we adapt.



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decade. The adaptation finance needed to implement domestic adaptation priorities is estimated at US\$387 billion/yr.

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NZE targets, but there are conflicts with land use ecosystem services.
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Bioenergy and land-based CDR strategies are effective options to support

 Overview

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## Tools and strategies for effective integration based on AR6 findings

- Climate Risk Assessments: Use climate risk assessments to inform both adaptation and mitigation strategies.
- Decision-Support Tools: Implement decision-support tools that incorporate both adaptation and mitigation considerations.
- Integrated Planning Frameworks: Develop integrated planning frameworks that address climate risks and opportunities across sectors.
- Capacity Building: Invest in training and resources to enhance the capacity of policymakers and practitioners to integrate adaptation and mitigation.

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## Challenges, solutions, and future directions

- Policy Fragmentation: Overcome fragmentation by developing cohesive policies that address both adaptation and mitig
- Funding Limitations: Address funding challenges through innovative financing mechanisms and prioritisation of climate investments
- Data Gaps: Improve data availability at regional levels and quality to support integrated planning.
- Institutional Silos: Break down institutional silos by fostering inter-scientific communities' collaboration.
- Emerging trends and areas for future research and development
- Nature-Based Solutions: Explore the potential of nature-based solutions to provide both adaptation and mitigation benefits.
   Technological Innovations: Intrestigate novel and land-based CDR to evaluate potential synergies and trade-offs between adaptatio
   and mitigation efforts.
- Integrated Modelling: Develop new narratives and parameterisation of scenarios to incorporate climate impacts into long-term miligation pathways.
- Social Dimensions: Research the social dimensions of climate change, including equity and justice, to ensure that integration strategies
  are inclusive and effective.

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