



**Decarbonisation** refers to the process of reducing carbon dioxide ( $\text{CO}_2$ ) emissions and transitioning to a low-carbon economy. The vast majority of carbon emissions come from five sectors: power generation, industry, transport, buildings, agriculture, and land use.

## Strategies for Decarbonisation

- **Implementing carbon taxes** to incentivise emission reduction
- **Setting strict emission standards** for industries, vehicles, and buildings
- **Renewable energy transition:** investing in solar, wind, hydro and other renewable energy sources to replace fossil fuels
- **Promoting low-carbon technologies and innovations** across sectors
- **Raising awareness and encouraging sustainable practices** among individuals and communities

## Challenges

- **Economic and Social Barriers:** Transitioning to low-carbon economy requires significant investment and may face resistance from industries and communities
- **Policy and Governance:** Effective policies and governance frameworks are crucial to ensuring a just and equitable transition

## Benefits

- Reduced greenhouse gas emissions and improved air quality
- Creation of green jobs and opportunities in renewable energy and sustainable industries
- Enhanced public health and resilience to climate impacts



## Nature-based approaches

### Forest Conservation and Reforestation

Protecting existing forests and planting new trees to absorb (CO<sup>2</sup>) from the atmosphere. Ireland has been focusing on afforestation and forest management.



### Wetland restoration

Restoring wetlands, such as peatlands, which are highly effective carbon sinks. Projects like the National Peatlands Strategy refocus on rewetting drained peatlands to reduce emissions and enhance biodiversity.



### Sustainable Agriculture

Adapting practices such as agroforestry and reduced tillage to enhance soil health and store carbon. These practices align with Ireland's goal under the Climate Action Plan 2024.



### Urban Green Spaces

Integrating green roofs, parks, and urban forests to reduce urban heat and sequester carbon.



### Coastal Flood Protection

Efforts to protect and restore coastal ecosystems, including salt marshes are underway and play a crucial role in capturing and storing carbon.



Source:

- [https://www.oecd.org/en/publications/a-framework-to-decarbonise-the-economy\\_4e4d973d-en.html](https://www.oecd.org/en/publications/a-framework-to-decarbonise-the-economy_4e4d973d-en.html)
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- <https://www.npws.ie/sites/default/files/general/Final%20National%20Peatlands%20Strategy.pdf>
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