

Climate Change Information Document

Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the mid-20th century, climate change has been primarily driven by human activities.

Key Facts about Climate Change:

1. The Earth's average temperature has increased by about 1.1°C since the pre-industrial era.
2. Carbon dioxide levels in the atmosphere are higher than at any point in the last 800,000 years.
3. The rate of sea level rise has doubled from 1.4 mm per year throughout most of the 20th century to 3.6 mm per year in the last decade.
4. The Arctic is warming about twice as fast as the global average.

Impacts of Climate Change:

- More frequent and intense drought, storms, heat waves, rising sea levels, and melting glaciers
- Oceans are warming, becoming more acidic, and losing oxygen
- Plants and animals are migrating to higher elevations or toward the poles
- Some species are at increased risk of extinction
- Food security threatened in many regions

Mitigation Strategies:

- Transition to renewable energy sources (solar, wind, hydro)
- Improve energy efficiency in buildings, transportation, and industry
- Protect and restore forests and other carbon sinks
- Develop sustainable agriculture practices
- Implement carbon pricing mechanisms

The Paris Agreement, adopted in 2015, aims to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels.

Recent studies show that to meet the 1.5°C target, global carbon emissions need to be reduced by 45% by 2035.