



# Climate Change: Implications for Extractive and Primary Industries

Key Findings from the  
Intergovernmental Panel on Climate Change  
Fifth Assessment Report

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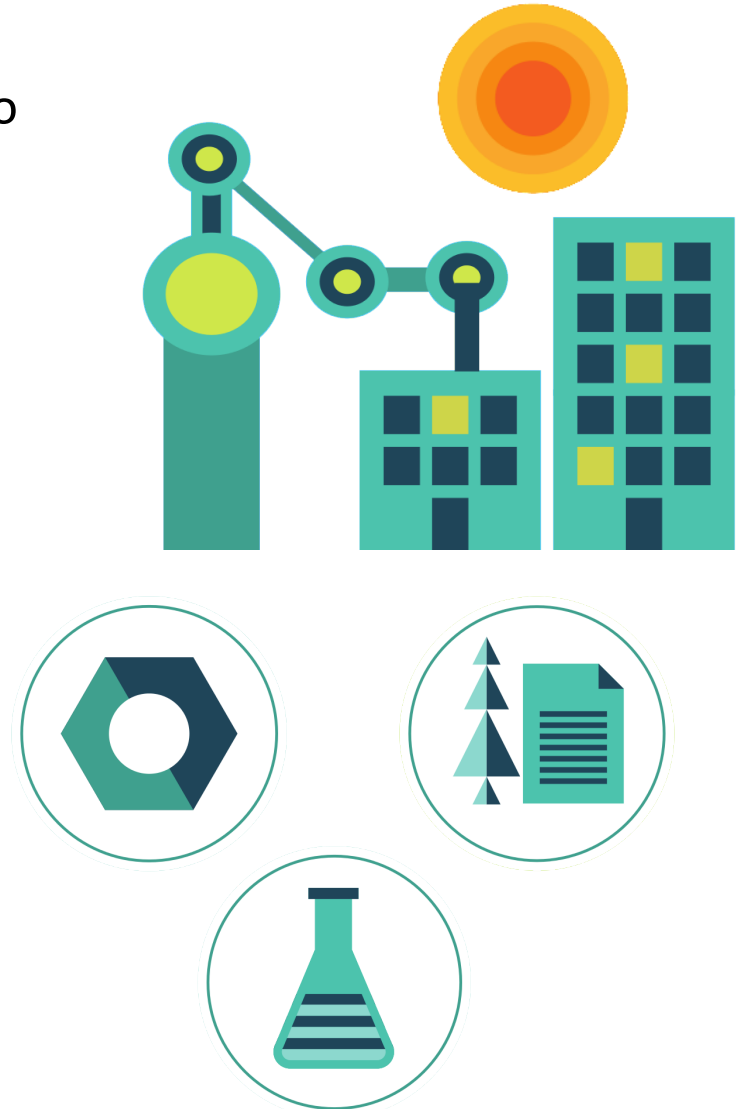
# Climate Change: Key Findings

Climate change impacts are projected to raise **global average surface temperature 2.6–4.8°C** by 2100.

Impacts of climate change on primary industries are **wide ranging**.

**Industrial sectors** reviewed:

- Mining
- Cement
- Iron and steel
- Chemicals
- Aluminium
- Pulp and paper



# Climate Change: Key Findings

Most sector scenarios project that **global demand for industrial products will increase by 45–60% by 2050** relative to 2010 production levels.

This reflects the **steady growth in world production trends for extractive mineral industries and primary industries**, despite their declining share of global GDP.

Rising demand could create **pressures to increase industrial emissions**.



Total greenhouse gas (GHG) emissions from industry **almost doubled between 1970 and 2010**.

# Climate Change: Key Findings

**Global demand could rise** for some products:

- Products that **reduce GHG emissions**  
e.g. insulation materials for buildings
- Products for **adaptation to climate impacts**  
e.g. materials for flood protection

**Physical impacts to industry** are likely to include:

- Damage to **infrastructure** and **industrial capital assets**
- Reduced availability of **renewable natural resources**, including water



# Climate Change: Key Findings

**An absolute reduction in GHG emissions** by primary industry will require implementation of **a broad range of mitigation strategies.**

**Mitigation opportunities** include:

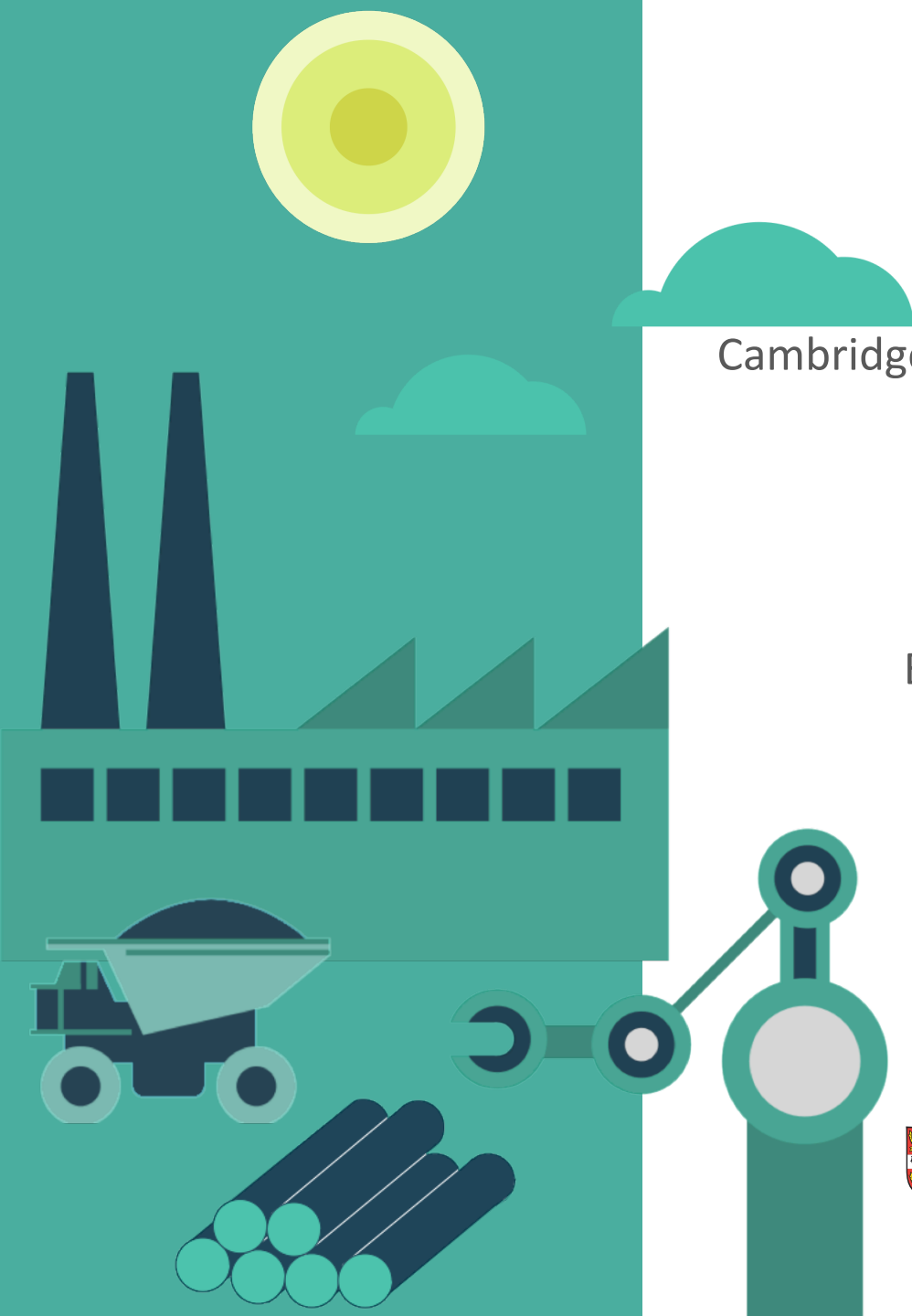
- **Production-related strategies**  
Improving industrial process efficiencies
- **Demand-related strategies**  
Reducing the overall use of product material

**Adaptation and mitigation investments** are in many cases **cost-effective.**



Options for mitigation:

- Emission efficiency
- Energy efficiency
- Material efficiency
- Product-service efficiency
- Demand reduction



## For more information

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