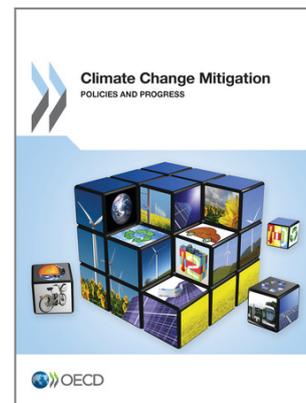


OECD *Multilingual Summaries*

Climate Change Mitigation

Policies and Progress

Summary in English



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Tackling climate change is a difficult political challenge requiring a high level of trust and co operation between countries. Global greenhouse gas (GHG) emissions need to be 40-70% below 2010 levels by 2050 and near zero or negative by 2100 to hold the rise in global average temperature to below 2 °C. If current trends continue, there is a high probability of significantly greater temperature rises, increasing the risk of severe and irreversible impacts on ecosystems, significant disruptions to agricultural systems and impacts on human health in this century and beyond.

This report presents trends and progress on climate change mitigation policies in the 34 OECD member countries, the European Union and 10 partner economies (Brazil, the People's Republic of China, Colombia, Costa Rica, Indonesia, India, Latvia, Lithuania, the Russian Federation and South Africa). It is intended to increase transparency and improve understanding of mitigation goals and the extent to which carbon pricing instruments and other policies to address GHG emissions have been implemented across different economic sectors.

The following key developments relating to climate change mitigation policies are identified:

- **Aggregate GHG emissions from the countries studied have been increasing since the 1990s, although GHG emissions per unit of gross domestic product (GDP) have decreased in nearly all cases.** In several cases, emissions declined in recent years in the wake of the financial crisis, but have since rebounded due to increased economic activity or changes in nuclear energy policy following the Fukushima nuclear accident. While some countries have reduced their emissions, more ambition is needed by all, in line with the principles of the UN Framework Convention on Climate Change (UNFCCC), to avoid dangerous human-caused climate change.
- **While use of low-carbon energy sources is increasing, most countries still rely on fossil fuels to power their economies and continue to support the production and consumption of fossil fuels.** In particular, coal – the most carbon-intensive fuel – still accounted for 45% of electricity generation in the countries studied in 2012. Although several countries have made progress on reforming subsidies for fossil-fuel consumption, many countries continue to support fossil-fuel production and consumption.
- **Taxes on energy are gradually being re-oriented to reflect the carbon content of fuels and an increasing number of jurisdictions are using carbon taxes to explicitly price CO₂ emissions.** However, the share of total emissions covered by energy and carbon taxes remains low and tax rates to date have been insufficient to spur technological change and significantly alter consumer behaviour. Carbon taxes are implemented or planned at the national or sub-national level in 15 of the countries studied.
- **An increasing number of international, national and sub-national jurisdictions are implementing emissions trading systems (ETs), but allowance prices are low.** ETs have been established in the European Union and at the national level in Korea, New Zealand and Switzerland. China has launched pilot ETs in seven cities and provinces and is planning to launch an economy-wide system. Sub-national ETs have also been implemented in California and nine north-eastern US states, Quebec in Canada, and Tokyo and Saitama in Japan.
- **Several of the countries studied have recently reformed their renewable energy support policies, with decreased use of feed-in tariffs and increased use of feed-in premiums and competitive bidding processes.** Emission standards for power plants, fuel economy standards for

vehicles and energy efficiency standards for buildings are also widely used. Other objectives such as improving energy security, air quality and human health can be drivers for such policies.

- **Public spending on energy-related RD&D as a share of GDP remains low, although the share of energy-related RD&D spending allocated to low-carbon energy technologies such as energy storage, smart grids, advanced fuels and vehicles, and carbon capture and storage (CCS) is rising.** In 2012, 22 OECD member countries collectively spent around USD 13 billion on public energy-related RD&D, mainly for renewable energy sources, energy efficiency and nuclear energy. CCS accounts for over half of public RD&D spending on fossil fuels in certain countries. The private sector is also an important source of energy-related RD&D spending.
- **While most of the countries studied have taken limited action to date to reduce emissions from agriculture, some countries have made significant progress to reduce deforestation and are addressing GHG emissions from other non-energy sectors.** Agriculture, deforestation, industrial processes and waste are significant sources of GHG emissions in some countries. The emissions intensity of the agriculture sector has decreased in many countries since 1990. However, implementing mitigation policies in this sector has proven challenging partly due to the limited availability of low-cost agricultural mitigation technologies in many regions. Significant progress has been made on reducing deforestation rates in some countries (e.g. Brazil), albeit from a high starting point. Mixes of economic instruments, regulations and information programmes are being used to reduce GHG emissions from the industry and waste sectors.

Almost all of the countries studied have taken on mitigation targets or goals for 2020 in the context of the UNFCCC or the Kyoto Protocol, with the nature and ambition of these goals reflecting national circumstances. Many have also announced intended nationally determined contributions (INDCs) for the post-2020 period. At the national level, the United Kingdom has established a legally-binding, long-term mitigation target together with short-term carbon budgets, and similar approaches have been established or are under consideration in Denmark, Finland, France and Norway. Many countries have also set national targets for relevant indicators such as GHG emissions, renewable energy, energy efficiency and forest cover.

Even if the INDCs and national targets announced to date are fully achieved, the remaining global carbon budget (consistent with a below 2 °C world) will be exhausted by around 2040 unless stronger action is taken. Although most of the countries studied are making some progress towards meeting their mitigation targets and goals, many are on a trajectory that is likely to fall short in the absence of a significant acceleration in annual emission reduction rates.

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