International Pledges on Climate Change Action: The Future

89 countries have pledged to limit their emissions.

These account for over 80 per cent of global emissions and over 90 per cent of the global economy.

No single way of comparing pledges tells the full story.

Australia's effort is a serious undertaking and puts us 'in the pack' of countries regarding the level of action.

The number of countries pledging to limit their emissions has grown in recent years. 89 countries now have international pledges. These countries account for over 80 per cent of global emissions and over 90 per cent of the global economy. The ambition of these pledges can be assessed in many ways. One measure cannot tell the full story of a country's effort.

At the December 2010 United Nations (UN) Climate Conference in Cancun, Mexico, pledges to reduce national emissions were put forward by both developed and developing countries for the first time in the UN. This signified an important step toward a stronger, more effective response to climate change with the involvement of all major emitters.

Some country pledges, like Australia's, are in the form of a range (figure 2.1). Generally, countries will do more—the higher end of their range—if other countries also do more. Countries expressed their pledges in different ways. Some countries such as Australia pledged absolute emission reduction targets, usually a percentage below their emissions in a past year. Other countries pledged to reduce emissions intensity (greenhouse gases produced per unit of economic output) or reduce emissions below 'business as usual' (future emissions without any climate change policies).

Figure 2.1 2020 pledges by major economies under the Cancun Agreements[1]

Reduction in	Country	Target (%)	Relative to
Carbon intensity	China	40 to 45	2005
Emissions intensity	India	20 to 25	
Absolute emissions	European Union	20 to 30	1990
	Japan	25	
	Russian Federation	15 to 25	
	Australia	5 to 15 or 25	2000
	Canada	17	2005
	United States	17	
	Brazil	36.1 to 38.9	business as usual
	Indonesia	26	
	Mexico	30	
	South Africa	34	
	Republic of Korea	30	

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1 The detailed conditionality of country pledges and additional commitments varies across countries and can be found in the United Nations Framework Convention on Climate Change 2011 reports: "Compilation of economy wide emission reduction targets to be implemented by Parties included in Annex I to the Convention" and "Compilation of economy wide emission reduction targets to be implemented by Parties not included in Annex I to the Convention".

The strength of some pledges is quite evident, such as the recent announcement by the UK Government to cut UK emissions by 50 per cent from 1990 levels by 2025. But comparing individual country pledges and the relative ambition of country targets can be challenging. There are many factors that influence how hard a particular target is to achieve such as:

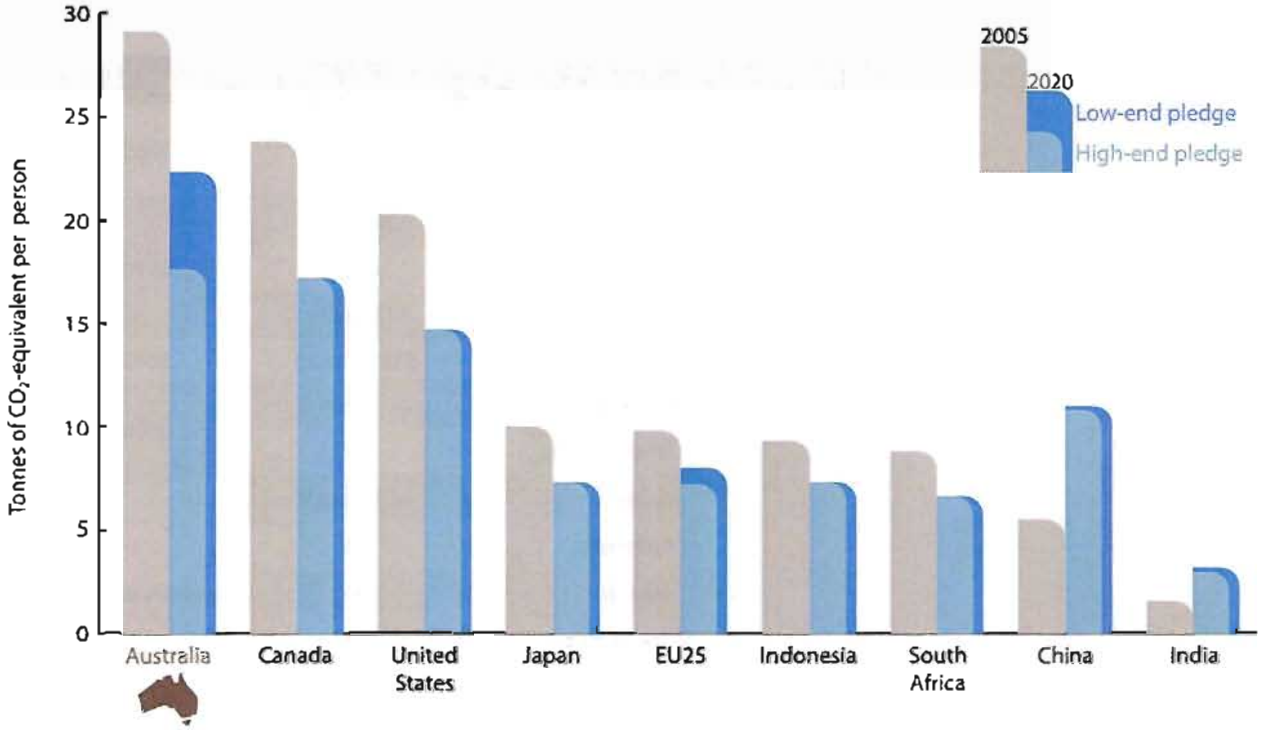
- Stage of development: All countries have a responsibility to act but the capacity to act varies enormously across countries. Developing countries have less capacity to act than developed countries.
- National circumstances: Population growth, access to technology, industrial base and a country's endowments of renewable and fossil fuel resources are all factors that influence how hard a target is to achieve. These factors affect the cost and range of opportunities available to reduce emissions.

It is important to consider these factors when placing pledges on a common footing. For instance countries like Australia, Canada and South Africa that have a greater reliance on energy and emissions intensive sectors as a result of an abundance of fossil fuel resources like coal will face relatively larger changes as the economy transitions to a low carbon future. Equally, some countries including Australia and China have greater opportunities given access to abundant renewable energy sources such as solar, wind and geothermal.

Considering countries' pledges on a range of metrics gives a broad sense of how they measure up.

Emissions per capita: Australia has high emissions per capita; with the highest per capita emissions in the developed world. While significant declines are expected, Australia's per capita emissions are still projected to be high compared to most countries in 2020 (figure 2.2). As an example, at the low end of Australia's 2020 target range (5 per cent below 2000 levels by 2020), Australia's per capita emissions are expected to be twice as high as China's. Although China's pledges are expected to reduce per capita emissions relative to what they would otherwise be, China's per capita emissions as a developing country are expected to grow in the near term as China strives to pull millions of its people out of poverty.

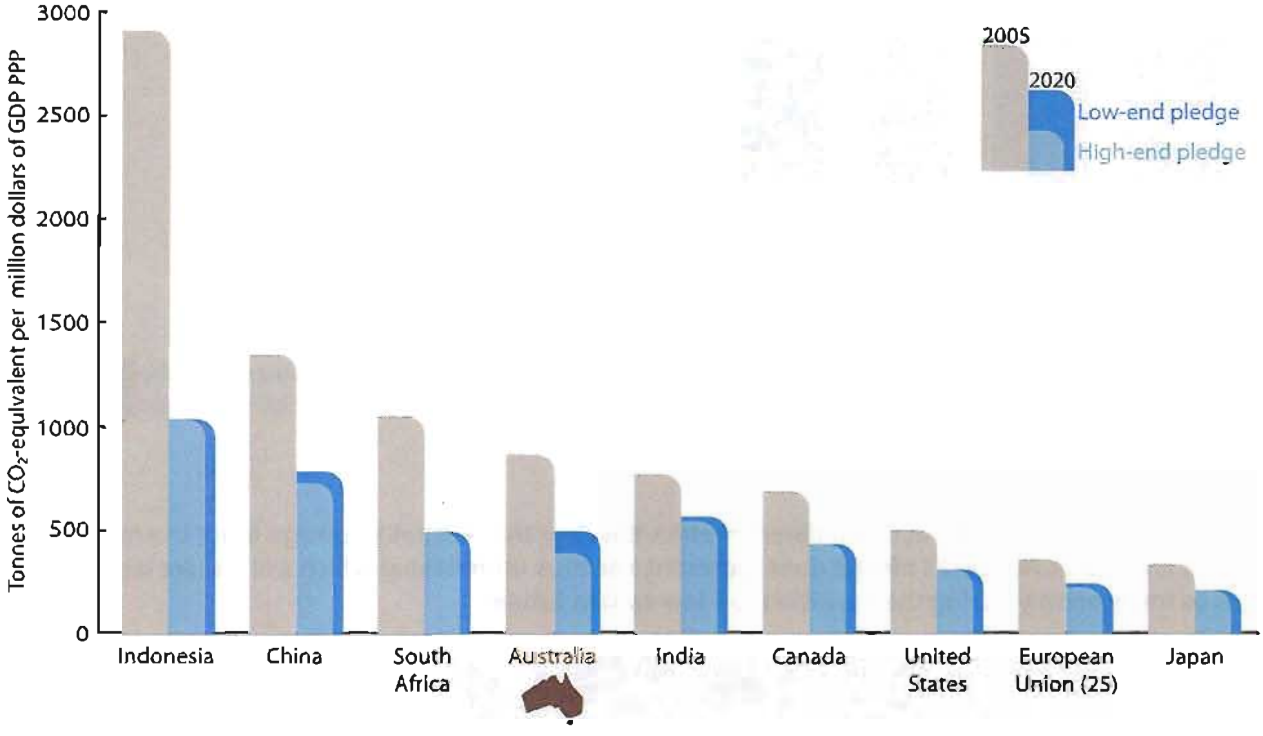
Figure 2.2 Per capita emissions of key economies in 2005 and 2020 (low and high end pledge)[2]



2 Note on data for figures 2.2, 2.3 and 2.4: Historical greenhouse gas emissions data (including land use, land use change and forestry) are sourced from the online UNFCCC emissions database for Annex I countries (Australia, Canada, US, EU and Japan) and from the Climate Analysis Indicators Tool (CAIT) Version 8.0 from the World Resources Institute, 2010. Land use data not available for India, South Africa or Japan. Historical GDP data sourced from the International Monetary Fund, Economic Database 2011. Growth in emissions and GDP is projected using outputs from the Australian Treasury. All population data sourced from the United Nations report, World Population Prospects: The 2008 Revision. Australian data (excluding historical GDP) sourced from the DCCEE report Australia's Emissions Projections 2010. Emissions projections under the pledges are adjusted to account for varying sectoral and gas coverage across countries where this information is available.

Emissions intensity: India and China have both pledged reductions in emissions or carbon intensity. When comparing pledges on this basis it can be seen that Australia has fairly high emissions intensity (emissions per unit of GDP) relative to other developed countries', but it is relatively low compared to many developing countries (figure 2.3). All countries are expected to reduce their emissions intensity substantially under their Cancun pledges as economies move to cleaner sources of fuels, more efficient production technologies are used and structural adjustment occurs. By 2020, under its 5 per cent pledge, Australia's emission intensity is expected to be similar to that of South Africa but still above Canada, countries which both have a heavy reliance on the energy sector like Australia.

Figure 2.3 Emissions intensity of key economies in 2005 and 2020 (low and high end pledge)[3]

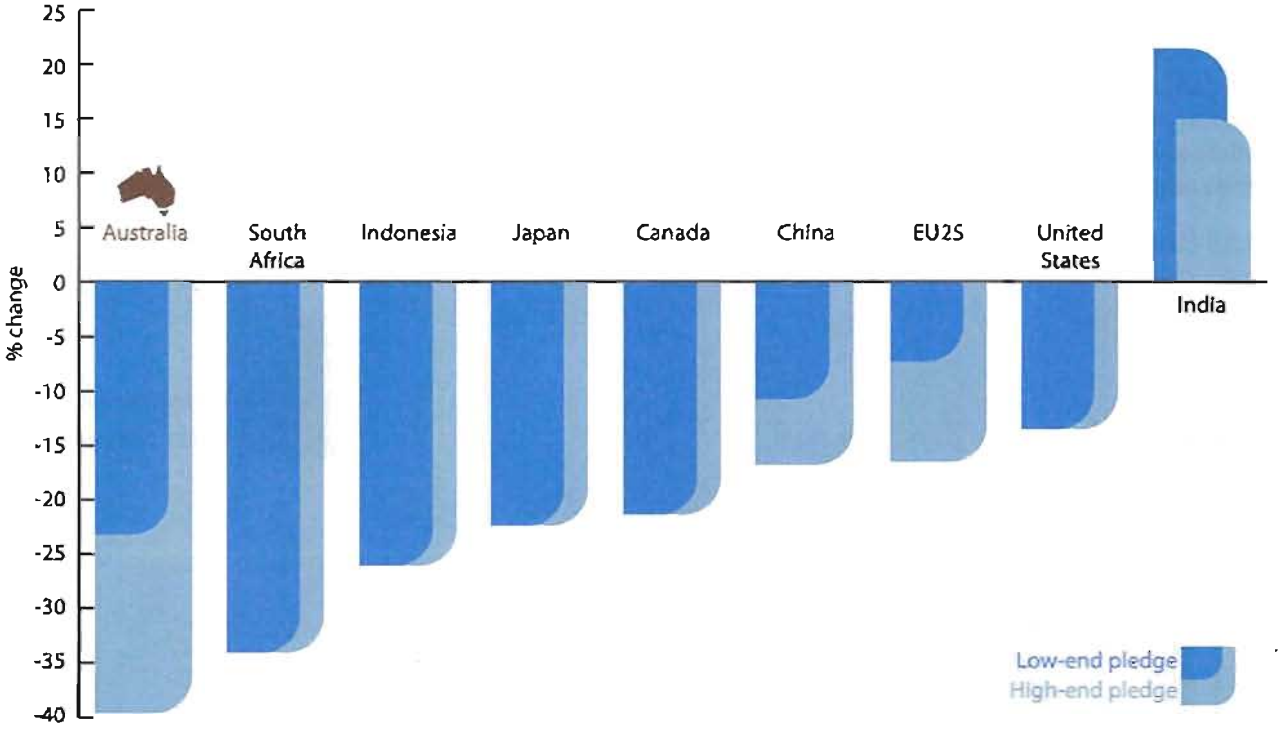


Change relative to business as usual: Country pledges can be compared against 'business as usual' emissions or against the emissions that would happen in the absence of emissions reduction efforts (figure 2.4). Australia's 25 per cent pledge—the high end of its target range—is the most ambitious of the major economies analysed under this measure. Under the 5 per cent pledge Australia has similar reductions in emissions relative to business as usual as Japan and Canada.

This analysis also indicates that India's emissions after the pledges have been achieved are expected to be higher than business-as-usual at 2020. This reflects great uncertainty in the levels of expected growth in India's economy and emissions in a business-as-usual scenario.

3 GDP PPP is gross domestic product purchasing power parity in current international dollars.

Figure 2.4 Percentage change in emissions under Cancun pledges, relative to business as usual at 2020



By considering country pledges across different metrics it is clear that Australia's pledge is not the most or the least ambitious. Australia's pledge does represent a serious undertaking which will require large changes to the economy during the transition to a low carbon future.

Image: Kirsten Duncan.

For more information on what the Australian Government and other countries are doing on climate change go to www.climatechange.gov.au.