

Research Focus

Global climate policy: change in the air?

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Policy responses to climate change have been high on the international agenda amongst Asia-Pacific and the rest of the world in the lead up to the Bali conference of the UN Framework Convention on Climate Change (UNFCCC) in December 2007. First, the June 2007 G8 summit endorsement of the UNFCCC as the venue for negotiating a post-2012 international climate agreement, represented a significant concession by the United States. The APEC Leaders' Summit 'Sydney Declaration' reaffirmed this approach. Heads of governments meeting at the UN in late September added to the sense of purpose, clearing the way for formal negotiations. The United States re-entered the international climate talks by convening a meeting of major economies in Washington at the end of September, but the Bush Administration's stance opposing emissions targets and favouring purely technology-based approaches remains unchanged.

More than ever, science shows the risk of dangerous climate change, and the need to cut global greenhouse gas emissions drastically to limit future global warming. Climate change is now seen not just as an environmental problem, but as one affecting development and economic prosperity.

Limiting global warming to around two degrees is increasingly accepted as an adequate goal to limit the risk of dangerous climate change. That would require reductions in global greenhouse gas emissions of between 50 and 85 per cent at 2050 compared to levels in 2000, according to the latest Intergovernmental Panel on Climate Change Assessment Report. By comparison, global emissions rose by 70 per cent from 1970 to 2004. Continuing on this path would set the

globe on a trajectory substantial warming and elevated risks of large-scale, irreversible changes in earth systems.

So to mitigate climate change, the historical annual average increase in emissions of around two per cent needs to be reduced to annual decreases of around minus three per cent soon. Cutting back on economic growth is not an option in the policy mix, so climate change mitigation will require 'decarbonisation' of economies: decoupling economic activity and growth from carbon emissions.

The technology for decarbonisation exists, and will continue becoming more available and affordable. A recent study prepared for the UN negotiations put the additional investment necessary for strong global mitigation at around \$200 billion per year at 2030, around 0.3 per cent of global GDP at 2030. Different studies yield different cost estimates, but typical estimates put the future cost of global greenhouse action in the broad vicinity of one per cent of GDP by 2050. This cost would occur against the backdrop of GDP continuing to rise by perhaps three per cent a year, thus doubling in less than three decades. On this basis, to pay for climate mitigation the world might have to wait until May 2050 to be as rich as it otherwise would have been by January 2050.

If that is all it takes, why do we not see decisive action? Because climate change is the ultimate externality, with damages dispersed globally and over long time-scales; and because thorny issues of equity, responsibility and capability stand in the way of broad international cooperation. Developed countries caused much of the greenhouse

effect to date, have much higher emissions per person, and command much greater ability to pay for mitigation. India points out that its per capita CO₂ emissions are only about one twentieth of those in the United States or Australia, while its per capita income is less than one tenth. China is higher up the ladder but still below the global average. However, increases in emissions come predominantly from developing and industrialising countries. China's annual emissions have more than doubled since 1990, with growth accelerating in recent years and no slowdown in sight. US emissions increased by around one fifth since 1990, slightly faster than OECD emissions on average. China will soon overtake the United States as the largest emitter, if it has not already done so. Cutting global emissions cost-effectively requires action in all major economies and in most sectors of those economies.

The traditional stalemate in global climate policy has been characterised by poor countries demanding significant action on greenhouse gases by rich countries before committing themselves, and rich countries demanding immediate action in fast-growing poor countries. The UN Framework Convention attempted to bridge the gap by its principle of 'common but differentiated responsibilities': rich countries go first, developing countries follow. Reflecting this, the Kyoto Protocol, obliges ratifying rich countries to cut or limit emissions, and allows developing countries to undertake emissions reductions projects and to sell emissions credits. The quantitative effects of Kyoto are small relative to the challenge, but the treaty sent a signal and created market incentives to reduce emissions: CO₂ emissions now carry a price tag in many economies, and

financial flows to developing countries for greenhouse gas reductions could reach \$25 billion or more by 2012.

Kyoto's first commitment period runs out in 2012, and a more ambitious, comprehensive and flexible architecture is clearly needed after that. The European Union strongly supports retaining the Kyoto framework, expanding its mechanisms and getting more countries to commit to targets. Developing countries also generally favour continuing a Kyoto-style arrangement. Developed countries like Japan, Canada, Australia and New Zealand oscillate between support and opposition to the Kyoto Protocol, depending on the government in power or the perceived difficulty of complying with their Kyoto targets.

The opposing vision, where each country decides on its own action, with voluntary goals and international cooperation on technology, is promoted in particular by the US administration, and has been the Australian government's paradigm since about 2001. It is also attractive to those developing countries seeking to avoid pressure to adopt climate commitments. Such agreement is easier to achieve than on hard targets, especially if the goals can be reached with little or no effort. For example, the APEC Sydney Declaration's goal of reducing energy intensity (energy use per \$ of GDP) by 25 per cent from 2005 to 2030 is little different from the historical trend in energy intensity. A one per cent annual reduction in energy intensity coupled with three per cent GDP growth implies that energy use increases by two per cent, and historically emissions have been closely in line with energy use.

Despite these different positions, strong political momentum is now moving toward an inclusive climate agreement under the UN framework. An ambitious timetable for a post-2012 treaty is emerging, driven by the desire to avoid a gap between the end of the first Kyoto period and a successor agreement. Under this timetable, negotiations take place over the next two years, and an architecture would be agreed by the end of 2009. However, this would leave little time for the next US administration (from early 2009) to decide its approach and contribute to the outcome, so a delay by a year or so would not surprise.

Meanwhile, in the United States, domestic pressure on climate change is rising: voters are concerned about climate change, and business wants certainty about future greenhouse policy; several US states have announced emissions reductions goals and trading schemes; and Congress is much less opposed to greenhouse gas legislation than in the past. The winds of change are evident also in Australia, where after long opposition to emissions pricing the federal government has announced a policy for comprehensive emissions trading – a policy also pursued by the opposition, which also pledges to ratify the Kyoto Protocol.

Creativity on the architecture of a future agreement could help overcome entrenched differences between countries about the nature of future commitments. Outside the formal negotiations, an array of options under discussion include the basic building blocks of targets and trading, but add flexibility, entry-level commitments for

developing countries, and commitments tailored to national interests. For example, emissions targets could be linked to future economic growth, apply only to selected sectors, or provide an explicit opt-out clause as a safety net for developing countries. Offset mechanisms are already being expanded, and developing countries could make policy-based commitments that create revenue through international carbon markets. A broader menu of options might also be available to developed countries, through explicit recognition of public investment in low-emissions technology development, or large-scale funding aimed at reducing deforestation in tropical countries.

Whatever the architecture, the fundamental principle for effective international climate policy is that rich countries pay the incremental cost incurred in the developing world. Otherwise governments and businesses in low- and middle-income countries cannot justify investing scarce resources in the long-term global public good of climate change mitigation, in the face of more immediate and local concerns of development. Down the track, agreeing on equity principles for sharing rights to the atmosphere may be needed. The road will be difficult, but with political momentum building up, the prospects for a new climate agreement look much brighter than just a year ago.

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This article is a summary of a seminar given at the ANU's Research School of Pacific Asian Studies seminar series on 18 September 2007.

Events

8–9 October, Intra-Asia Trade and Factor Flows workshop, Singapore

26 November, Pacific Islands Update, Sydney

29 November, Pacific Islands Update, Canberra

Crawford Seminars*

2 October, Rohan Pitchford, University of Sydney, *Restructuring the sovereign debt restructuring mechanism*

9 October, Hans-Georg Petersen, Potsdam University, *Education return and financing: donated affluence as a consequence of tuition free study programs in Germany*

16 October, M. Shamsul Haque, University of Singapore, *The role of NGOs in governance, empowerment and development in Bangladesh: an alternative viewpoint*

23 October, Trevor J Ward, Greenward Consulting, *Seafood ecolabelling: sustaining the fish or the institutions?*

* Seminars are held at 12.30pm in Seminar Room 4, Crawford Building

Publications

Asia Pacific Economic Papers

368 Measuring trade and trade potential: a survey, Shiro Armstrong

To view the latest papers, please visit http://www.crawford.anu.edu.au/research_units/ajrc/ajrc_pub.php

New Books

Multinational Corporations and the Emerging Network Economy in Asia and the Pacific, Juan J. Palacios, ed., Routledge

Asia Pacific Press

Myanmar—the State, Community and the Environment, Trevor Wilson and Monique Skidmore (eds)

ISBN 978-0-7315-3811-9 Asia Pacific Press and ANU E Press
www.asiapacificpress.com

Pacific Economic Bulletin Volume 22 Number 3 Special issue on Samoa and Tonga.

This issue was launched with a series of high-level and community Updates in Samoa and Tonga in September.

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