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# **Climate Change Policy Beyond Kyoto**

**A new global plan**

Clive Hamilton

Justin Sherrard

Alan Tate

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## Foreword

This discussion paper draws on papers prepared by The Australia Institute to inform the deliberations of the International Climate Change Taskforce. The Taskforce is a unique collaboration between three think tanks, the Institute for Public Policy Research in London, the Center for American Progress in Washington DC and The Australia Institute in Canberra.

For the post-2012 period, the paper recommends the development of a new global plan that builds on the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, and works to involve all countries in action on climate change at the international level over the coming decades. It would be developed as part of the ongoing UN climate negotiations.

The main elements of the new global plan presented here were adopted by the Taskforce in its report, *Meeting the Climate Challenge*, released around the world on 25<sup>th</sup> January 2005.

In presenting a new global plan careful consideration has been given to the difficult political circumstances surrounding climate change negotiations. Among these considerations, the proposed framework accommodates the concerns expressed by the governments of the US and Australia in refusing to ratify the Kyoto Protocol.

It is well understood that, as the nation responsible for a quarter of global greenhouse gas emissions, the participation of the US is critical to long-term efforts to control climate change. But Australia too is a significant force internationally. Its unwillingness to ratify gives greater apparent legitimacy to the US position. And as a wealthy nation with the highest greenhouse gas emissions per capita among developed countries, Australia's refusal to participate in the international agreement means that developing countries will be less likely to make commitments to reduce their own emissions in the longer term.

In considering how to balance the concerns of various governments and blocs of nations, the authors take the view that protecting the gains made in the UNFCCC is paramount. The hard-won progress embodied in the Kyoto Protocol should also be preserved. It is envisaged that negotiations and implementation of the proposed plan of action would occur under the UNFCCC. While the focus of the new plan is to build a global climate regime for the post-Kyoto period, discussions, preparatory actions and negotiations could commence immediately, in advance of the Kyoto Protocol's first commitment period.

As climate scientists ring the alarm bells ever more loudly, an approach that breaks the deadlock is urgently needed.

## **Acknowledgements**

In writing this paper, we have benefited from discussions with and comments from dozens of experts, not least the members of the International Climate Change Taskforce and the Secretariat supporting the Taskforce.

However, the views expressed in this paper are those of the authors alone.

## Summary

With the imminent entry into force of the Kyoto Protocol, 141 ratifying nations are due to take action to begin tackling the enormous problem posed by global climate change. But the size of the challenge means the Protocol is just a beginning; much more will need to be done to dramatically reduce greenhouse gas emissions over time. It is imperative that we find ways to allow nations that have not joined the Kyoto Protocol to participate in the global effort.

This paper proposes a new global plan for international action on climate change. In developing the framework we have been guided by four fundamental considerations:

- recognition of the requirements of fairness between nations ;
- the central importance of the Kyoto architecture;
- the long-term need to move towards equal per capita emission rights; and
- political feasibility.

The proposed framework would enable all countries to work together to achieve deep cuts in global greenhouse gas emissions over the next decades. It involves industrialised nations accepting deeper mandatory cuts and includes abatement actions by developing countries.

Drawing on a number of so-called multistage approaches, the elements of the global framework are as follows.

1. It accepts that a commitment to a long-term global target is needed to meet the UNFCCC's ultimate objective of preventing human-induced climate change from reaching a 'dangerous' level.
2. It envisages the allocation of each country to a stage. There are three stages for developing countries reflecting differences in national circumstances. Developed countries fall into two stages: already industrialised (Annex II) and economies in transition.
3. The US and Australia would proceed on a transitional parallel track, which converges with the Kyoto system. The adoption by the US and Australia of domestic emissions trading systems, harmonised with the EU or Kyoto trading system, is at the centre of the US/Australian track.
4. Developed countries would accept deeper emission reduction commitments following the first commitment period of the Kyoto Protocol (2008-2012). These countries, which have a high capability to mitigate, will also agree to transfer technology and financial resources to developing countries.
5. Developing countries would operate under a flexible system based on three progressive stages, broadly reflecting current states of development. Those countries in the initial stages agree to align climate and development objectives and receive financial and technology assistance from developed countries. The middle stage is characterised by energy sector reform and agreed carbon

intensity targets. The final stage requires binding emission reduction targets coupled with access to the Kyoto Protocol's flexibility mechanisms. For all developing countries there is a clear focus on sustainability in the energy sector aimed at enabling development to proceed but with declining dependence on greenhouse-gas intensive technologies, along with concerted action on adaptation.

The parallel US/Australia track enables the US and Australia to re-engage with international efforts. In addition to joining international negotiations, both countries would develop and implement mandatory domestic abatement programs. In the US the most promising domestic approach is a national cap-and-trade system along the lines proposed in the McCain-Lieberman Bill. The US and Australian emissions trading systems would be designed to harmonise with the European system (or possibly the Kyoto system) with a view to trading between the systems beginning during or immediately after the first commitment period. This will require some parity in the levels of the caps in the systems.

The Kyoto countries and the US and Australia would agree to negotiate terms under which the US/Australia track and the Kyoto system converge fully in a new global agreement under the auspices of the UNFCCC, to which all parties would agree to be bound. In addition the US and Australia would be encouraged to participate in UNFCCC and Kyoto mechanisms designed to assist developing countries to limit emissions and adapt to climate change.

In the post-2012 period developed countries take on deeper, legally binding emissions reduction commitments, which would be successively negotiated over coming decades with reference to the long-term global climate target. Transfers to developing countries of technological and financial resources for mitigation and adaptation would occur through the effective operation of the mechanisms established under the UNFCCC, the Kyoto Protocol and associated agreements.

The allocation of developing countries initially to one of the three stages would be guided by two main criteria: capability to mitigate (measured, for example, by GDP per capita) and potential to mitigate (measured, for example, by the degree of energy efficiency). Two other considerations would also be taken into account. The first is the historical responsibility of countries for their contribution to the climate change problem. Secondly, account should be taken of the size of a country's total emissions even if its per capita emissions and per capita income are relatively low. This applies particularly to major emitters, notably China, India and Brazil.

It is proposed that negotiations begin as early as COP 11 in 2005. The aim would be for all parties to develop a set of commitments and actions founded upon the UNFCCC and Kyoto Protocol and consistent with the concepts outlined in this paper. Ideally the US would offer to host the final stage of these negotiations, which would consolidate the proposed new global plan and set out the agreed commitments and actions for the post-2012 period.

## 1. Political context

The Kyoto Protocol will enter into force on 16th February 2005 when it will become legally binding on the 141 ratifying nations. The emission reduction targets agreed by industrialised countries under the Kyoto Protocol apply to the first commitment period which runs from the beginning of 2008 to the end of 2012. In 2005, ratifying parties are expected to begin negotiations for emission reductions and other commitments to apply in the second commitment period after 2012. There is widespread recognition, backed by increasingly worrying climate science, that much deeper emission reductions will be needed in the second and subsequent commitment periods. The need for these 'deep cuts' provides another reason for giving new consideration to a more comprehensive climate change regime now. Some major developed country signatories have already begun aggressive emission reduction programs that will give great impetus to the global effort to reduce emissions and are expected to have far-reaching implications for the corporate world as well as for ordinary citizens.

British Prime Minister Tony Blair holds the presidency of the G8 and chair of the EU in 2005, and has made climate change one of two key priorities. Backed by the launch of the European Union's Emissions Trading Scheme (EU ETS) and entry into force of the Kyoto Protocol, and driven by increasing recognition of the need for deep cuts in emissions, Prime Minister Blair's global leadership on climate change during 2005 could be pivotal in securing international agreement to step up action.

Any proposal for a new global plan of action that builds on the achievements of the Kyoto Protocol will face sizeable hurdles, notably the willingness of the US Government to work towards a new global agreement, the willingness of developing countries to accept the US into a new plan on terms different from those agreed under the Kyoto Protocol, and the willingness of European political leaders to use the EU ETS as a bridge between European and US action on climate change. We consider each of these briefly.

### *US willingness*

Although the Bush Administration has categorically rejected ratification of the Kyoto Protocol, some levels of government in the US are eager to pursue measures aimed at tackling climate change. Eleven north eastern and mid-Atlantic states are working together on developing a regional cap-and-trade system for power plants, with the proposed design and arrangements expected to be published in April 2005. The starting point for the 11 states has been a regional agreement to stabilize greenhouse emissions at 1990 levels by 2010 and to achieve a ten per cent reduction by 2020.

In October 2003, a group of influential Republican and Democrat senators introduced the McCain-Lieberman Bill to the US Senate (as an amendment to the Climate Stewardship Act) that would have required major emitters in the US to adhere to mandatory, economy-wide emission caps. The Bill proposed the introduction of a cap-and-trade system across the US that would begin on 1<sup>st</sup> January 2010 and apply in the first instance for the six years to 2016.<sup>1</sup> It proposed capping emissions at year 2000 levels over the period 2010-2016, and in subsequent years reducing them to 1990 levels.

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<sup>1</sup> <http://www.ecdel.org.au/pressandinformation/ClimateChange2.htm>

The caps would apply to all major emitters of CO<sub>2</sub> and other industrial greenhouse gases and cover more than 70 per cent of all US CO<sub>2</sub> and industrial greenhouse gas emissions. Transport emissions would be tackled by requiring refineries and importers of petroleum to hold allowances for each ton of carbon dioxide that would be emitted in the combustion of their products.

The Senate vote on the McCain-Lieberman Bill was lost 43 to 55. Most observers were surprised at how narrowly it was lost, and some senators who voted against the Bill nevertheless spoke in favour of it. The fact that it was introduced at all clearly showed the widespread concern about the Bush Administration's position on climate change within the US and the closeness of the vote reflected the strong feeling in the community that climate change cannot be ignored. Washington observers believe that support for a comparable Bill will continue to grow and it is very likely that similar proposals will become law in the next three to five years. This does not imply that the US is likely to ratify the Kyoto Protocol soon but it does point strongly to serious emission reduction measures being implemented by the US in the foreseeable future.

#### *Developing country positions*

Most developing countries have indicated they are unwilling to accept binding emissions targets until there is demonstrable action on emission reductions on the part of all Annex I countries. This concern could be accommodated by accepting a lag between the demonstration of action by Annex I countries and the acceptance of binding commitments by developing countries. Some developing countries are also likely to push for a stronger and earlier emphasis on per capita emission entitlements, at least in principle, before agreeing to binding commitments.

#### *European trading system*

On 1<sup>st</sup> January 2005 the European Union implemented a cap-and-trade emissions reduction program, the biggest and boldest pollution trading scheme ever developed. The first phase, applying to the new EU complement of 25 countries, will run until the end of 2007 and is known as the 'warm-up' phase. The second phase will begin in 2008 and end in 2012, coinciding with the first commitment period of the Kyoto Protocol.

Under the Emissions Trading Directive, member states are required to set an emissions cap for all installations covered by the scheme, estimated to number more than 12000 and accounting for 46 per cent of total EU CO<sub>2</sub> emissions. Each EU member has an overall emissions target determined by the burden-sharing arrangements the EU has adopted to implement the requirements of the Kyoto Protocol.

The current position of the European Commission is that non-parties to the Kyoto Protocol cannot trade in the EU ETS, at least until they adopt a binding emissions target. Politically, the objective is to maintain pressure on non-parties to ratify Kyoto and to ensure the benefits of emissions trading are shared only between Kyoto parties. Practically, before full integration the EU would need to be certain of the stringency of emission reductions under another cap-and-trade system, such as that envisaged by the McCain-Lieberman Bill in the US. There would be considerable anxiety about full integration if a US cap is significantly weaker than Kyoto targets because of the risk of undermining the environmental integrity of the EU's commitments.

## 2. Principles of a new plan

Three main tasks face the international community in its efforts to consolidate a comprehensive global climate regime that will meet the goal of preventing dangerous anthropogenic climate change in the long term, or at least minimising the damage.

1. The first is to ensure that the US - which accounts for 25 per cent of annual global greenhouse gas emissions - and Australia play a role in tackling global climate change commensurate with their contributions to global emissions and their economic and strategic importance.

President Bush is not expected to send the Kyoto Protocol to the Senate for ratification during his second term in office. However, moves to implement domestic abatement programs, including a possible national emissions trading system, would provide an opportunity to reconsider the evolution of an international policy framework based on an agreed timetable for the US to converge with the global effort, a prospect discussed in further detail below.

2. The second task facing the international community is to ensure that Kyoto Protocol negotiations for the second commitment period (due to begin in 2005) lead to emission reduction measures that go substantially further than those of the first commitment period and aim to set the world on a long-term endeavour to stabilise the atmospheric concentration of greenhouse gases. This will require industrialised nations to accept deeper mandatory cuts and will need to include abatement actions by a number of developing countries.
3. The third task involves the need for major developing countries to undertake substantive action ranging from mandatory measures for those most capable and with the highest emissions to non-binding enabling measures for others. The aim must be to decouple emissions growth from economic development in a concrete way leading to the peaking of emissions from developing countries within two decades. Several instruments are feasible including carbon-intensity targets and sectoral caps for the energy sector constructed in such a way that emissions abatements in these sectors might enter the international trading market.

These three tasks are closely linked. Developing countries are more likely to adopt measures if the US and other industrialised countries demonstrate good faith, and international re-engagement by the US is more likely if developing countries indicate their willingness to adopt measures to reduce their emissions.

There are five principles that should underpin the development of a future international climate change plan of action.<sup>2</sup>

1. *Fairness in target setting.* Fairness must be the main consideration in setting country targets within an agreed global target. To achieve this, short-term criteria for setting targets should include the capacity to pay for mitigation (approximated by national income per capita) and current and historical

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<sup>2</sup> These principles were discussed and agreed at the Windsor meeting of the International Climate Change Taskforce in March 2004.

responsibility for emissions (including total emissions and per capita emissions). Historical responsibility for national emissions may be accounted for from the time that climate change became recognised as a significant problem (i.e. 1990).

2. *Centrality of the Kyoto architecture.* The Kyoto Protocol represents an enormous amount of political, institutional and intellectual effort and should serve as the foundation for any new or revised global plan of action. Key achievements of Kyoto include: specified and legally binding commitments; differentiated national commitments with the developed world acting first; least cost mitigation through flexibility mechanisms; and a six gas 'basket approach'. Any new plan should build on these achievements but also tackle the disadvantages of Kyoto: limited participation; absence of a long-term strategy; small initial emission reductions; and insufficient focus on adaptation.
3. *Long-term targets.* The world community needs to set a long-term target to limit dangerous climate change. It is expected that the Fourth Assessment Report of the UN Intergovernmental Panel on Climate Change, due in 2007, will address the issue of 'dangerous climate change'. Detailed consideration of long-term climate objectives has been undertaken by the Institute for Public Policy Research in parallel with the preparation of this paper, and it proposes a target to limit global average warming to 2°C above the pre-industrial global mean temperature.<sup>3</sup>
4. *Long-term criteria for burden sharing.* In the long-term, burden sharing should move to a system of equal per capita rights to use the absorptive capacity of the atmosphere, with national per capita emissions converging over time. Arguments for some variation to a strict per capita regime, such as a convergence corridor, should be considered.
5. *Linking short and long-term commitments.* To ensure nations are moving towards an agreed long-term global reduction target, short-term targets need to be consistent with long-term goals.

In addition, any regime should attempt to achieve agreed reductions in greenhouse gas emissions at the lowest cost and with as much flexibility as is feasible without compromising environmental integrity. In pursuit of this objective, the Kyoto Protocol allowed for emissions trading amongst participating countries, recognising that with suitable limits, trading permits a lowest-cost approach. This does not preclude the development and implementation by participating countries of a range of policies and measures, some of which will serve economic goals in addition to greenhouse gas mitigation, for example employment creation and technological development. It should be recognised too that a least-cost approach, such as a carbon tax, is not always the fairest one. Moreover, it is highly likely that the requirements of the future international climate regime will need to be integrated with existing international trade and investment treaties.

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<sup>3</sup> S. Retallack, *Setting a long term climate objective*. A paper for the International Climate Change Taskforce, Institute for Public Policy Research, London, UK, 2005  
<http://www.ippr.org.uk/publications/files/Setting%20a%20long%20term%20climate%20objective.pdf>

### 3. A new global plan

In order to build on the principles set out above and enable the long-term target to be reached, the future global policy framework needs to incorporate progressively deeper cuts in emissions from a growing number of countries as well as stronger action on adaptation, particularly in the countries that are most vulnerable to the effects of climate change.

Having reviewed the main options discussed internationally and aimed at building a more effective climate policy regime, we believe that a ‘multistage approach’ provides the best way forward. It accommodates the essential principle of fairness including differentiated commitments between countries on the basis of their national circumstances that reflect the ‘common but differentiated responsibilities and respective capabilities’ that nations agreed to respect under Article 3.1 of the UNFCCC. The development of the multistage approach is summarised next.

#### 3.1 Origins of the multistage approach

The aim of the multistage approach is to ensure that countries with similar national circumstances assume similar responsibilities and commitments under a climate regime. The approach defines potential changes in a nation’s commitments according to agreed measures of national circumstances. The approach is dynamic in the sense that nations undertake higher abatement commitments over time.

An early multistage approach was developed some years ago by researchers at RIVM in the Netherlands as a global application of the Brazilian historical responsibility approach.<sup>4</sup> It identified four groups of nations with progressively greater obligations: those without quantitative targets; those with intensity targets; an emissions stabilisation stage; and a final group with absolute emissions reduction obligations.

A refined design, proposed by the Climate Action Network, allocates nations to one of three ‘tracks’.<sup>5</sup> The first track requires industrialised nations to commit to absolute emissions reduction, with levels of commitment driven in the long-term by an equal per capita objective, but in the short-term influenced by both income and historical responsibility variables. The second track applies to most developing countries and aims at the rapid introduction of low-carbon technologies with assistance from countries in the first track. The third track groups together least developed nations and small island states and requires industrialised countries to provide assistance to these nations for both adaptation and mitigation. Countries would make the transition from lower to higher stages depending on changes in income, emission levels and (perhaps) historical responsibility.

Most recently, the Wuppertal Institute and Energy Research Centre (South Africa) supported by the German Federal Ministry for Economic Cooperation and Development have sponsored a new proposal in which countries are divided between six groups based

<sup>4</sup> M. den Elzen, M. Berk, P. Lucas, B. Eickhout and D. van Vuuren. *Exploring climate regimes for differentiation of commitments to achieve the EU climate target*. RIVM report 728001023/2003, Bilthoven, Netherlands 2003 <http://www.rivm.nl/bibliotheek/rapporten/728001023.html>

<sup>5</sup> Climate Action Network, *A viable global framework for preventing dangerous climate change*. CAN Discussion Paper: COP9, Milan, Italy, 2003 [http://www.climateactionnetwork.org/docs/CAN-DP\\_Framework.pdf](http://www.climateactionnetwork.org/docs/CAN-DP_Framework.pdf)

on the multistage approach.<sup>6</sup> This we refer to as the South-North dialogue approach. Three criteria guide allocation of countries and, therefore, the depth and timing of commitments. The potential to mitigate determines the level of reduction a nation undertakes. To enable mitigation in developing countries, financial and technological transfers from developed countries are determined by historical responsibility in combination with capability to mitigate.

### 3.2 Developing the multistage approach

In developing a new global plan based on the multistage approach, the specific design challenges that must be addressed are:

1. Creating a politically feasible global plan that brings together all developed and developing nations;
2. Defining a sufficient number of stages so as to differentiate adequately between countries' national circumstances without creating unnecessary complexity;
3. Establishing criteria to guide the consideration of national circumstances and the movement of nations between stages, including a timetable for reviewing changes in national circumstances;
4. Assigning policies and measures or commitments that would apply in each stage and ensuring that national targets, individually and collectively, meet the agreed long-term target; and
5. Building flexibility into the approach to ensure economic effectiveness in achieving deep emissions cuts in the long term.

In adopting a multistage approach we have drawn on the South-North dialogue proposal with three significant additions:

- A. *A long-term target.* An agreed long-term global target is needed to meet the ultimate objective of the UNFCCC to prevent 'dangerous anthropogenic interference with the climate system'. Ideally, this target would be translated into an emissions limit and provide the reference point in establishing commitments and obligations for all countries.
- B. *Developing country action.* The proposed plan encompasses a three-stage process under which all developing countries are enabled to reduce the carbon intensity of their economies progressively while ensuring their right to economic development.
- C. *A transitional parallel track for the US and Australia.* Assuming that these countries do not change their positions on ratifying the Kyoto Protocol, as a transitional arrangement they would be placed on a parallel track with the aim of integrating them within the global effort as soon as possible after 2012. A key

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<sup>6</sup> South-North Dialogue on Equity in the Greenhouse. *A proposal for an adequate and equitable global climate agreement.* Wuppertal Institute for Climate, Environment and Energy and the Energy Research Centre. Financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) 2004  
[http://www.wuppertalinst.org/download/1085\\_proposal.pdf](http://www.wuppertalinst.org/download/1085_proposal.pdf)

mechanism of this initiative would be connecting US and Australian emissions trading systems to the European or the Kyoto trading systems, which would demonstrate the willingness of both countries to rejoin a multilateral system. This would pave the way for the substantial agreements necessary if a fully global system is to be operational at the start of the second commitment period.

### 3.3 Overview of the proposed global plan

The new global plan enables all countries to contribute to solving the problem of climate change in an equitable manner by allocating countries to stages that reflect their national circumstances.

1. Developed countries fall into two stages: those already industrialised (listed in Annex II of the UNFCCC) and economies in transition (listed in Annex I but not in Annex II).
2. The US and Australia are placed on a transitional parallel track aimed at integration with the global framework as soon as possible after 2012.
3. Developing countries progress through a three-stage process that initially aligns climate and development objectives and subsequently ensures limits on their greenhouse gas emissions; they move from stage to stage at a rate reflecting changes in their national circumstances.

An agreed long-term global target is needed to meet the ultimate objective of the UNFCCC which is to prevent dangerous interference with the climate system. Ideally, this target would be translated into an emissions limit to provide the reference point in establishing commitments and obligations for all countries. Whilst it may not be feasible to reach a global consensus on such a target in the shorter term, at the very least countries or regional groups should be encouraged to develop, as a matter of priority, levels of climate change they consider to be dangerous. The International Climate Change Taskforce has recommended a limit of 2°C above the pre-industrial global mean temperature as the long-term climate objective.<sup>7</sup>

A global carbon budget can be constructed with reference to the long-term target, and taking future emissions pathways into consideration, interim milestones can also be defined which will represent commitment periods of the new global plan. All countries will contribute to meeting the long-term objective and interim milestones but it is an inherent characteristic of the new plan that countries in the higher stages (i.e. Annex II) will do more to meet the milestones sooner than the least developed countries. Based on the interim milestones, carbon budgets should be agreed for each stage of the new global plan and these can then be shared among the countries at each stage, recognising that even within stages there will be differences in national circumstances, for example in per capita emissions.

Countries in every stage will need to develop and fund adaptation measures which will account for a greater proportion of overall effort on climate change in developing

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<sup>7</sup> International Climate Change Taskforce. 2005, *Meeting the climate challenge: Recommendations of the International Climate Change Taskforce*, IPPR, CAP and TAI. [http://www.tai.org.au/Publications\\_Files/Papers&Sub\\_Files/Meeting%20the%20Climate%20Challenge%20FV.pdf](http://www.tai.org.au/Publications_Files/Papers&Sub_Files/Meeting%20the%20Climate%20Challenge%20FV.pdf)













*Determining commitments on adaptation*

Under the new global plan all developing countries would include a focus on adaptation as part of their climate change commitments and activities. Most developing countries will need access to adaptation funds, with activities focused on:

- understanding impacts;
- building capacity to assess and manage impacts, along with developing adaptation strategies;
- awareness raising across the community, in government agencies and with industry; and
- integrating adaptation into national development strategies.

The least developed countries need a particularly strong emphasis on adaptation as they are most vulnerable to the impacts of climate change and have least capacity.

Developed countries, including the US and Australia, have both the capacity and the resources to develop and implement effective adaptation strategies and would be required to make financial contributions to adaptation funds, established to help enable developing countries to address adaptation.



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### **Philosophy**

The Institute was established in 1994 by a number of individuals from various sections of the community. They share a deep concern about the impact on Australian society of the priority given to a narrow definition of economic efficiency over community, environmental and ethical considerations in public and private decision-making. A better balance is urgently needed.

The Directors, while sharing a broad set of values, do not have a fixed view of the policies that the Institute should advocate. Unconstrained by ideologies of the past, the purpose of the Institute is to help create a vision of a more just, sustainable and peaceful Australian society and to develop and promote that vision in a pragmatic and effective way.

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