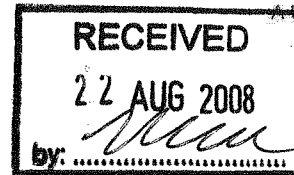


Climate Action Network Australia submission to the Joint Standing Committee on Treaties Review into the Kyoto Protocol



It is in Australia's interest to secure a good global agreement on climate change for the post 2012 period. As the developed country most at risk from climate change, Australia stands to gain more than other countries from an effective global agreement. Australia could be crucial to the success of the international negotiations by showing leadership and playing a positive role in establishing a fair and effective global agreement that will ensure a safe climate.

The Bali meeting agreed a process to negotiate a good climate change agreement, with an end date of 2009 in Copenhagen. This is the climate's last chance. We must take this chance in both hands and ensure that our children will look back proudly at the stance that Australia took to forge an effective global agreement to prevent dangerous climate change.

The international climate negotiations are at a crucial stage, where governments must agree on a comprehensive deal that will prevent dangerous climate change. Australia is in a strong position to play a positive role in influencing these negotiations that will include an agreement on the emission reduction targets for developed countries.

This submission will respond to the question posed by the Joint Standing Committee on Treaties of *the position Australia should be taking to future international negotiations concerning the 'second commitment period' (beyond 2012), both for itself and other nations.*

At the international climate negotiations the post-2012 negotiations are currently split between the Kyoto Protocol, primarily focused on targets for Annex 1 countries, and the United Nations Framework Convention on Climate Change (UNFCCC), in which contributions from non Annex 1 countries to the post-2012 regime are being negotiated. These two processes are inter-related and this submission will cover both processes and present a broad response as to what Australia's post-2012 position should be.

Climate Action Network Australia (CANA) is a network of over 50 Non Government Organisations working together on climate change, and is the Australian branch of the global Climate Action Network with over 400 members in 85 countries. CANA welcomes the opportunity to present its views to the Joint Standing Committee on Treaties.

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Table of Contents

International Situation.....	3
Level of Ambition / Shared vision / global goal.....	4
Mitigation Developed Countries.....	6
Land Use, Land Use Change and Forestry (LULUCF).....	8
Mitigation Developing Countries.....	11
Reduced Emissions from Deforestation and Degradation in Developing Countries.....	14
Sectoral Approaches.....	16
Adaptation.....	17
Technology Transfer.....	21
Financing for mitigation and adaptation.....	23
Clean Development Mechanism (CDM).....	26
Greenhouse Gases, Sources and Sectors.....	28
Annex 1: LULUCF detailed principles.....	29
Climate Action Network Australia (CANA).....	31

International Situation

The Kyoto Protocol is one of the most complicated international treaties ever agreed. And yet the new agreement must use the basis of the Kyoto Protocol and go much further, including new areas and new commitments. This is a herculean negotiation task, which must be completed in two years. Without an effective international agreement at Copenhagen, it is very unlikely that we will be able to prevent dangerous climate change. Whilst all players agree that we need a global solution to fix the global problem of climate change, there are a number of barriers to getting a good global agreement:

a) The Bush Administration.

The Bush Administration has spent nearly eight years blocking and undermining progress on an international climate change agreement. The Major Economies Meetings, or Major Emitters Meetings, were set up by the Bush Administration in order to undermine the Kyoto Protocol and UNFCCC negotiations, and instead to push for a sectoral, "bottom-up" approach to climate change. This has not been effective, with countries recommitting themselves to the Kyoto Protocol and the UNFCCC negotiations. There is no chance that the Bush Administration will agree to an effective global deal on climate change. This does not need to impede the international climate negotiations as, with only a few months left until a US election (November 4), the current US Administration will be irrelevant for an agreement at Copenhagen.

Both US Presidential Candidates support mandatory cuts in greenhouse gas emissions: Obama supports 80% cuts by 2050, and McCain was lead author of a bill to reduce emissions 65% by 2050¹. Whoever wins the Presidential election, the US will adopt far more progressive policies than the current Administration. However a new US Administration will take some time to put its house in order in regards to the international climate negotiations. High level bureaucrats, including the US delegation, are appointed by the US President and therefore there will be a complete changeover once the new President is inaugurated (January 09). Whilst Australia must work with the new US Administration, and ensure that they take a comparable level of action to other developed countries, it is possible that the new US Administration will not be in a position to ratify the post-2012 agreement. Australia must be willing to commit itself to the post-2012 agreement without the US ratifying as a pre condition.

b) Developed countries demanding that developing countries take action, without developed countries committing to real and serious targets themselves, and without showing concrete support for developing country action through technology transfer and financing.

Developed countries have yet to show that their commitment to prevent dangerous climate change is more than rhetoric. The principles enshrined in the UNFCCC require that countries take action in line with their historic responsibilities, and their capacity to act, ensuring that equity is used as the guiding principle. It is clear that developed countries must take action first, as supported by the Garnaut Review², yet all but a few have failed to take action commensurate to the problem. Australia is a case in point, with a target to increase our greenhouse pollution by 8% by 2012 (from 1990 levels). Unless and until Australia commits to targets commensurate to the size of the problem, and in line with what is our fair share of the global burden, it is unconscionable for Australia to call for poorer and less developed countries, who have contributed less to the problem, to take action.

The most helpful action Australia could take at the international negotiations, is to build trust by committing Australia to a fair target, and encouraging other developed countries to take targets. These fair targets should not be contingent upon developing country action.

Australia should commit to a greenhouse gas reduction target of 40% by 2020 (from 1990 levels), without making this contingent upon developing country action. Australia should consistently use language that reflects the fact that developed countries have historical responsibility and the capacity to take action on climate change. Australia should work with developing countries to

¹ The League of Conservative Voters, Candidate Guide <http://lcv.org/voterguide/> (accessed March 08)

² Garnaut Draft Report, pp. 312 - 314

develop mechanisms that will deliver measurable, reportable and verifiable technology transfer and financial support to enable developing country mitigation.

Level of Ambition / Shared vision / global goal

It is in Australia's interests to keep the temperature rise as low as possible. According to the CSIRO, even relatively low temperature rises will cause further bleaching of the Great Barrier Reef from increased sea temperatures, increased coastal erosion and inundation from higher sea levels, impacts on public health and infrastructure, and increased severity of impacts from tropical cyclones, heat waves and extreme precipitation events³.

Professor Ross Garnaut has noted that "If any developed country has got a strong interest in making sure that the global community doesn't drop the ball, it's Australia".⁴

Australia has a bigger interest in addressing climate change than any other developed nation because it is a hot and dry country and small variations in temperature and rainfall have a much bigger impact here than on other developed countries. Furthermore, the structure of Australia's economy means its terms of trade will be damaged more by climate change than those of any other developed country. Professor Garnaut has also noted that Australia's neighbours are mainly fragile developing countries, and under an extreme climate change scenario "The problems of our neighbours would inevitably become our problems".

To prevent dangerous anthropogenic climate change, CANA believes that global average temperature increases must be kept as far below 2°C as possible, compared with preindustrial levels.

The European Union has acknowledged the need to keep warming below 2°C:

"Once the global temperature increase exceeds 2°C, climate impacts on ecosystems, food production and water supply are projected to increase significantly and unexpected response of the climate becomes more likely and irreversible catastrophic events may occur."⁵

Our Pacific Island neighbours have also called for climate change to be kept below 2°C: "Any package of mitigation-related activities must be sufficient to ensure that long-term temperature increases are stabilized well below 2 degrees Celsius. Even a 2°C increase compared to preindustrial levels would have devastating consequences on Small Island Developing States (SIDS) due to resulting sea level rise, coral bleaching, coastal erosion, changing precipitation patterns and the impacts of increasingly frequent and severe weather events."⁶

The IPCC's Fourth Assessment Report concluded that, for 2° to 2.4°C warming scenarios, global emission reductions in the range of 50 percent to 85 percent by 2050 (compared to 2000 levels) are required⁷. To keep global warming well below 2°C, the global community must aim

³ CSIRO (2007), Climate change in Australia: Technical report 2007, Commonwealth Scientific and Industrial Research Organisation, Canberra; Preston, B. and Jones, R. (2006), Climate Change Impacts on Australia and the Benefits of Early Action to Reduce Global Greenhouse Gas Emissions: A consultancy report for the Australian Business Roundtable on Climate Change, CSIRO, Canberra.

⁴ Garnaut, R (2007), Transcript Professor Ross Garnaut, National Press Club Address, Draft Report Launch, 4 July 2008. [www.garnautreview.org.au/CA25734E0016A131/WEBObj/NationalPressClubAddress-Garnaut-Transcript-4July2008/\\$File/National%20Press%20Club%20Address%20-%20Garnaut%20-%20Transcript%20-%204%20July%202008.pdf](http://www.garnautreview.org.au/CA25734E0016A131/WEBObj/NationalPressClubAddress-Garnaut-Transcript-4July2008/$File/National%20Press%20Club%20Address%20-%20Garnaut%20-%20Transcript%20-%204%20July%202008.pdf) [accessed August 2008]

⁵ European Union (2005) Winning the battle against climate change. MEMO/05/42 Page 4

⁶ Association of Small Island States (AOSIS) submission to the fourth workshop under the Dialogue on Long Term Cooperative Action to address climate change by enhancing implementation of the Convention

⁷ IPCC (2007a), Fourth Assessment Report: Summary for Policy Makers, International Panel on Climate Change, Geneva, available at http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf. And IPCC (2007b), Contribution of Working Group II to the Fourth Assessment Report: Summary for Policy Makers, International Panel on Climate Change, Geneva (p.19), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4->

for the upper end of this range. This was confirmed more recently by Martin Parry, Co-Chair of the Working Group II of the IPCC Fourth Assessment Report, who also highlighted the need for global cuts of 80% by 2050⁸. We need the IPCC to identify emission pathways that will keep warming below 2°C, taking into account the peer reviewed science that has been published since the Fourth Assessment Report.

Australia should call for global temperature increase to be kept as far below 2°C compared with pre industrial temperatures as possible. Australia should call for the IPCC, and commission the CSIRO, to identify emission reduction pathways in line with this 2°C goal. Australia should call for short, medium and long term global targets to be set in line with this objective, including a peaking of global emissions by 2015 at the latest and a reduction of at least 80% in global emissions by 2050.

Table I. Characteristics of greenhouse gas stabilization scenarios

Category	CO ₂ equivalent concentration (parts per million CO ₂ equivalent)	Global mean temperature increase above pre-industrial at equilibrium using 'best estimate' climate sensitivity ^a (°C)	Change in global CO ₂ emissions in 2050 (% of 2000 emissions)	Range of reduction in GDP in 2050 because of mitigation (%)	Allowed emissions by Annex I Parties in 2020 (% change from 1990 emissions)	Allowed emissions by Annex I Parties in 2050 (% change from 1990 emissions)
I	445-490	2.0-2.4	-85 to -50	Decrease of up to 5.5	-25 to -40	-80 to -95
II	490-535	2.4-2.8	-60 to -30			
III	535-590	2.8-3.2	-30 to +5	Slight gain to decrease of 4	-10 to -30	-40 to -90
IV	590-710	3.2-4.0	+10 to +60	Gain of 1 to decrease of 2	0 to -25	-30 to -80
V	710-855	4.0-4.9	+25 to +85			
VI	855-1,130	4.9-6.1	+90 to +140			

Source: IPCC Fourth Assessment Report (AR4), Contribution of Working Group III. Columns 1-4, table SPM.5; column 5, table SPM.6, columns 6 and 7, box 13.7.

^a According to the AR4, the best estimate of climate sensitivity is 3 degrees Celsius.

Table source: UNFCCC, Synthesis of information relevant to the determination of the mitigation potential and to the identification of possible ranges of emission reduction objectives of Annex I Parties. Technical paper FCCC/TP/2007/1. 26 July 2007

Mitigation Developed Countries

Developed countries are currently and historically responsible for a disproportionate and unsustainable level of greenhouse gas emissions.

Within the global community, the wealthy developed countries must respond to the scientific projections with ambitious emission reduction targets. Their combined efforts must result in collective emission reductions by at least the upper end of the 25 to 40% range by 2020, based on 1990 emission levels.

A large majority of this effort must be made domestically in order to lay the ground for the much deeper cuts (in the order of 95%) required by 2050. Without strong domestic effort, the economy will not have the time to restructure and move in a gradual and planned way toward a near zero carbon economy. The shock pathway that could be forced upon developed countries to meet 95% reductions by 2050 is likely to cause great hardship, unless strong interim targets prepare the way. It is simply not responsible for current governments to leave to future governments the burden of restructure, which can at present be made in a methodological and calculated fashion minimising the economic burden.

The international climate negotiations are at a crucial stage, where governments must agree on a comprehensive deal that will prevent dangerous climate change. Australia is in a strong position to play a positive role in influencing these negotiations that will include an agreement on the emission reduction targets.

If Australia is to demonstrate its leadership on climate change, it must set Australian targets that reflect its fair share of the contribution to keeping global warming as far below 2°C as possible. To achieve this, the Federal Government should adopt the following emission reduction targets, with the majority of emission reductions being delivered domestically:

2010 peak emissions, to decline thereafter.

2020 at least 40 percent emission reductions below 1990 levels

2050 at least 95 percent emission reductions below 1990 levels

These emission reduction targets acknowledge that globally we are at a dangerous point of climate change, at which serious and urgent decisions must be made. They acknowledge that peer-reviewed scientific analyses since the IPCC's Fourth Assessment report suggest that observed climate impacts and emissions increases are tracking at the very top of, or above, IPCC projections. They acknowledge that Australia, as one of the wealthiest and most polluting countries on a per person basis, has a responsibility to take the most stringent action. These emission pathways have economic costs that will make them politically difficult but not impossible to deliver. While these targets do not guarantee us a safe climate for our children and our planet, they offer us a realistic chance of achieving it as part of a global agreement.

These targets are difficult, but achievable. With strong targets set within Australia's Carbon Pollution Reduction Scheme, as well as a series of complementary measures including: a 25% by 2020 Mandatory Renewable Energy Target; a strong energy efficiency program across households and industry; investment in public transport; reducing emissions by preventing degradation of native forests and woodlands; and a range of other measures⁹.

Energy efficiency has the potential for massive emissions reductions in industrial, electricity, housing, heating and cooling and transport sectors, at low, or even negative net costs. Substantially increasing the use of renewable sources of energy is vital for countries to successfully decarbonize their economies. Developed country investment in development and deployment of these important technologies helps to buy down the costs through mass production, making them more affordable and therefore accessible for developing countries, assisting developing countries to reach higher living standards without following our carbon

⁹ See CANA's Turning Down the Heat: A Climate Change Action Agenda for Australia, June 2007 for a full set of policies required on climate change, www.cana.net.au/Policies_positions/TurningDowntheHeatWEB.pdf

intensive pathway.

Acknowledging the Convention's principles of equity, common but differentiated responsibilities and capabilities, CANA notes there are a number of countries whose levels of development is such that they have the capability to take on quantified emission reduction/limitation obligations. Indeed, it would be inequitable for them not to do so. The United States and newly developed countries that fulfill a graduation criteria, that should be agreed by the negotiations, must also be required to accept binding caps. The graduation of such newly developed countries to take targets should be based on clear and objective criteria, based on the principles of the Convention, such as those put forward in the South-North Dialogue proposal¹⁰.

Countries who might be eligible to be included in this category are Singapore, the United Arab Emirates, Brunei, Kuwait and Qatar ranked in the top 20 wealthy countries by the World Bank and the IMF, but not currently included in Annex 1¹¹.

In its submission to the UNFCCC: *Views on the Work Programme for the Ad Hoc Working Group on Long Term Cooperative Action, March 2008*¹² the Australian Government recognised the need to expand the countries taking mitigation action under Annex 1. However, it listed the countries Brazil, China, Iran, Korea, Mexico, and South Africa without acknowledging that Australia is a much wealthier and more developed country and therefore has a responsibility to take more stringent action than these other countries. Australia should, in all its communications, make it clear that as one of the wealthiest and polluting countries it will take more stringent action than countries that are still bringing their populations out of poverty, as required by the principles within the Convention and in order to do what is our fair share.

The base year for countries currently listed within Annex 1 should stay as 1990. This is the year from which all negotiations to date have occurred, the time at which we fully understood the impacts of our greenhouse emissions and had the opportunity to reduce them. It is extremely unfortunate that Australia has not taken stronger action earlier which would place us in a better position to be closer to the 1990 baseline, or below it, but it is not fair to other countries who have taken early action to move the goal posts now, and it would create a misleading perception of the relative actions that countries have taken. Any attempt to change the base year will be perceived as moving the goal posts – an attempt to run a 100 metre race from the 25 metre line. Australia should go to the negotiations with a clear position to keep the baseline for countries currently within Annex 1 as 1990.

Australia should commit to a target of at least 40% below 1990 levels by 2020 and encourage other developed countries to take targets in the range of 25-40% below 1990 levels by 2020. Australia should meet the majority of this target domestically. Australia should commit to maintaining the base year for Annex 1 countries of 1990.

¹⁰ South-North Dialogue on Equity in the Greenhouse, A proposal for an adequate and equitable global climate agreement, May 2004, available http://www.wupperinst.org/uploads/tx_wiprojekt/1085_proposal.pdf

¹¹ http://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28PPP%29_per_capita

¹² Available at <http://unfccc.int/resource/docs/2008/awgca1/eng/misc01a02.pdf>

Land Use, Land Use Change and Forestry (LULUCF)

This sector includes emissions from logging of forests and land clearing and our comments are focussed on these areas.

The vital role natural forests play in climate change mitigation and adaptation is being increasingly recognised. Addressing emissions from forestry in developed countries can help to limit warming below 2°C. A recent ANU report found that forests of South East Australia contained 3 times more carbon than the Intergovernmental Panel on Climate Change (IPCC) default values. Australia is yet to properly measure or account for the carbon stored in its native forests.

Perhaps the most significant impact of the Kyoto Protocol on land management in Australia is that it helped to bring in legislation to regulate land clearing. This is estimated to have the potential to reduce emissions by about 20 million tonnes of greenhouse gases annually. However, in NSW the unravelling of landclearing regulations could mean Australia will miss its Kyoto Protocol target. Problems inherent in the Kyoto Protocol for the LULUCF sector include:

- Creating a loophole for emissions from so called "wood waste" bioenergy which threatens the enormous stores of Carbon in our native forests.
- Failure to recognise or account for the carbon lost from natural forests when they are converted to biofuel crops.
- Failure to include provisions to protect biodiversity and the rights of indigenous people both of which can be negatively affected by unsustainable greenhouse gas emissions mitigation activities.
- Failure to provide incentives to protect from logging the enormous carbon storage potential of native forests.
- Allowing countries to pick and choose which LULUCF activities to account for. This has proved to be an invitation for countries to game the system by including sinks and excluding emissions.

Australia is considering changes to articles governing this sector as part of the international negotiations for the post 2012 agreement. The Copenhagen agreement should ensure that articles relating to LULUCF:

- Only count avoidable emissions (It should not credit business as usual activities or natural effects such as vegetation thickening).
- not substitute emissions reductions in LULUCF activities for deep cuts in emissions from the fossil fuel sector.
- encourage the maintenance of the carbon storage capacity of our forests. This is crucial to avoiding dangerous climate change
- not give credits for Harvested Wood Products as this will encourage further logging, which will reduce the carbon storage capacity of our forests.
- make LULUCF activities mandatory to prevent gaming of the system by countries picking sinks and excluding sources.
- provide incentives to reduce wetland and peatland degradation.

In order to ready itself for an environmentally effective system of LULUCF rules in the post 2012 climate agreement, countries such as Australia should upgrade their reporting of greenhouse emissions to IPCC Tier 3 accounting, the highest level recognised by the UNFCCC.

Australia uses only Tier 3 to account for emissions from land clearing and plantations. It should apply the same standard to Managed Native Forests.

Australia should recalibrate the National Carbon Accounting System with more accurate data on carbon stocks in native forests. An ANU report found that the National Carbon Accounting System seriously underestimates the carbon stocks in Australia's native forests¹³.

Land Clearing – will Australia squander its Kyoto free kick?

LULUCF has had a crucial role in keeping Australia on track to meet its Kyoto target. By claiming 1990 as its base year Australia was able to take advantage of a 60 million tonne reduction in landclearing emissions that occurred in the mid 1990s. This reduction had occurred long before Australia agreed to a target under the Kyoto Protocol (1997). The rate of land clearing has continued at its immediate pre Kyoto level since the mid 1990s. The latest estimate of land clearing emissions from the National Carbon Accounting System is for 2005 and this figure is higher than the emission recorded from the late 1990s. Most of the clearing since the 1990s was carried out in Queensland and NSW. However, we do not have data from NCAS that is recent enough to determine the effectiveness of land clearing legislation in Queensland and NSW. Nevertheless, other evidence suggests that NSW is suffering from regulatory and administrative failure and has been unable to reduce land clearing. **In the 2005 inventory, 3% of Australia's total greenhouse gas emissions came from land clearing in NSW. This figure is large enough to threaten Australia's success in reaching its Kyoto Target.**

Clearing of regrowth forest is counted under the Kyoto Protocol but is not covered by Queensland land clearing legislation. This is an important emission counted under Australia's binding treaty commitment that has fallen through the cracks. Regulation and incentives should be put in place to limit the clearing of regrowth.

An ecologically and environmentally consistent definition of forests under the Kyoto Protocol

The current definition used for reporting and accounting purposes under the Kyoto Protocol (hereafter, KP) is structurally based comprising:

- A minimum area of land of 0.05 hectares with tree crown cover (or equivalent stocking level) of more than 10 per cent with trees with the potential to reach a minimum height of 2 metres at maturity *in situ*.
- It includes (i) young stands of natural regeneration; (ii) all plantations which have yet to reach a crown density of 10-30 per cent or tree height of 2-5 metres; (iii) areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest.

This definition makes no distinction between, among other things, planted crops of monoculture perennial woody plants and complex biodiverse native forests.

The KP definition has already led to significantly perverse accounting and reporting outcomes. For example, where primary native forests are cleared and converted to short rotation fuel and fibre crops, but this land cover change is not classed as deforestation nor the emissions from the land cover change accounted for. However, atmospheric forcing occurs from the increased emissions as it would if deforestation had technically occurred, and it will take hundreds of years to repay the carbon debt.

Further to existing concerns, proposals being put forward for 'land-swapping' by parties for the post 2012 commitment period would see even more perverse outcomes entrenched under the current definition.

CANA proposes a set of definitions that will, as a minimum, prevent perverse outcomes associated with plantation development under both LULUCF and Reduced Emissions from Deforestation and Degradation in Developing Countries (REDD). Under this proposal the existing structural definition

¹³Mackey B, Keith H, Berry S and Lindenmayer D, Green Carbon: The role of natural forests in carbon storage, 2008, http://epress.anu.edu.au/green_carbon_citation.html

is retained and two sub categories created.

These categories, 1 native forests and 2 Plantations, would be separately accounted and reported for with Plantations treated as agriculture. This would avoid the current perverse outcomes because conversion would be treated as the same as any other agriculture conversion and reported as deforestation and / or degradation.

Native forests : *A native forest is a terrestrial ecosystem generated and maintained primarily through natural ecological and evolutionary processes. native forests are an essential part of the global carbon cycle, and have played, and continue to play, a major role in modulating the strength of the greenhouse affect.*

Plantations : *A plantation is a crop of trees planted and regularly harvested by humans, and is best thought of as an agricultural land use.*

Australia should review in detail how the Kyoto Protocol and post 2012 agreements could contribute to ecologically sustainable land management options such as management of wetlands and peatlands, management of the clearing of regrowth vegetation, biomass energy and savannah burning. The social, ecological and climate benefits around savannah burning are discussed in The Nature of Northern Australia¹⁴.

Australia should

1. Promote the inclusion of LULUCF issues in the Copenhagen agreement in compliance with the principles and definitions listed above.
2. Promote a definition of both Natural Forest and Plantations that fully recognises the importance of native forests
3. Ensure that harvested wood products do not receive credit in the post 2012 agreement because that would act as a dis-incentive to store Carbon in native forests.

We have attached a set of more detailed principles and definitions on LULUCF in Annex 1, at the end of this submission.

¹⁴ Woinarski, J, Mackey, B, Nix H and Trill B, The Nature of Northern Australia, available <http://www.oblong.net.au/northaus/>

Mitigation Developing Countries

Annex I mitigation action alone can not bring about the emissions reductions needed to fulfill the imperative to keep global temperature increase below 2°C: developing countries will need to undertake mitigation action in the post 2012 commitment periods. This was acknowledged in the Bali Action Plan (CP/13) where developing countries agreed to take measurable, reportable and verifiable nationally appropriate mitigation actions, supported and enabled by technology, financing and capacity-building from wealthy countries.

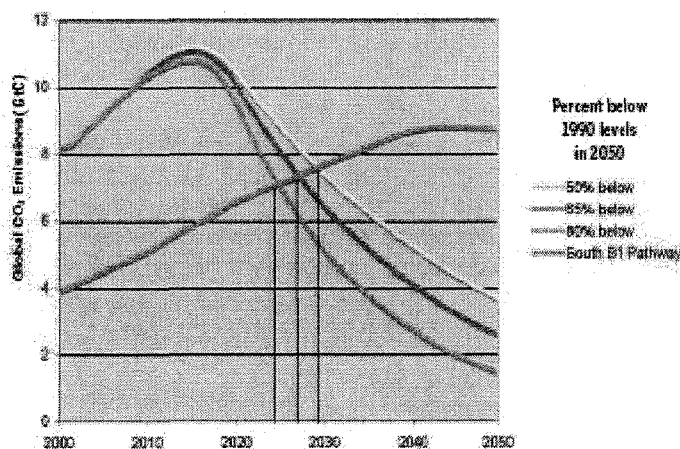


Figure 2. Available global emissions budget under three increasingly stringent reduction scenarios. All peak in 2015, and fall, respectively, to 50%, 65%, and 80% below 1990 levels by 2050. (See Section 2). All are plotted along with southern emissions (according to the IPCC's B1 scenario).

The Ad Hoc Working Group on Long Term Cooperative Action under the Convention (AWG-LCA), which will negotiate the mitigation actions for developing countries, must be given appropriate scope, resources and time to do so.

CANA recommends a process with submissions on potential nationally appropriate mitigation efforts and criteria for “measurable, verifiable, reportable” by developing countries (with appropriate technical and financial support for developing countries to be able to input submissions), to be followed by an in-session workshop submissions of views by Parties and experts, to be compiled into a synthesis paper. This work must happen with urgency, and we recommend the submission and analysis process be complete by the end of 2008, in order to input into negotiation to occur in 2009.

Several considerations must guide negotiations about any actions on the part of developing countries:

Adequacy: An adequate agreement is one that limits global warming to below 2°C – the threshold for unacceptable climate risks that poor people will suffer first and worst. To achieve this, the best available science tells us that broader participation in emissions reductions efforts is required – including by some developing countries.

Adequacy: Many developing countries are already taking steps to address their emissions and, in some cases their own voluntary efforts go farther than those of rich countries. China has vehicle emissions standards that are far more rigorous than those in the US and China has an energy efficiency target which Australia does not have. These efforts should be recognised in any negotiations concerning future commitments.

Global equity: All countries are committed under the Climate Convention to the principle of “common but differentiated responsibilities and respective capabilities.” This means that actions must be based on peoples' per-capita, historical emissions and their ability to assist in the transition to a low

carbon future. At the moment, any objective analysis of responsibility and capability shows that an overwhelming proportion (about 80%) of the global burden should fall on rich countries, and they must commit to reduce their own emissions first and fastest – for Australia this is 40% below 1990 levels by 2020. But as fast growing developing countries ramp-up their emissions year-on-year, their share of responsibility is growing. Rich and poor countries must be judged by these same criteria.

Equity across developing countries: There's a huge difference between levels of responsibility and capability within developing countries. Some countries such as Qatar, Singapore and South Korea should join other rich countries and take on binding targets. Least Developed Countries (LDCs), on the other hand, should clearly not be burdened with binding targets. Even amongst rapidly-growing economies there is a big difference: South Africa's per capita emissions are far higher than China's, which in turn are far higher than India's. Measures these countries commit to must reflect this difference.

Equity within developing countries: Inequality is a key concern, and any efforts to reduce overall emissions need to take account of poverty reduction priorities and a minimum threshold of development that all people have the right to achieve. More equitable distribution of resources – including access to modern energy services – within developing countries can help both reduce poverty and a country's overall emissions levels. Any system for allocating global commitments for action on climate change must include a development threshold below which individuals are exempted from shouldering burdens.

Any new mechanisms and financial obligations in the post 2012 agreement must also contribute to sustainable development in the recipient countries, and have the effectiveness and environmental integrity not to undermine the global mitigation effort.

The post 2012 negotiations will have to consider a range of mechanisms to help developing countries switch from dirty to sustainable development through, for example, sectoral emission reduction targets, national energy efficiency goals, and incentives to reduce emissions below business as usual levels.

Other appropriate mitigation action may include implementing a set of Sustainable Development Policies and Measures (SD-PAMs), meeting targets within a sector, improvement and expansion of the Clean Development Mechanism (CDM), or no lose targets¹⁵.

Further analysis of the CDM is contained in a later section of this paper (p26).

As was acknowledged in the Bali Action Plan mitigation action from developing countries must be supported by capacity building, technology transfer and financing from developed countries. Australia must actively champion new mechanisms within the UNFCCC and the Kyoto Protocol to provide this support. For instance, at time of writing, there were fully five proposals for scaling up financial support for developing countries that have been made as part of the climate change negotiations post Bali. They include auctioning a percentage of AAUs, a levy on greenhouse gas emissions, or a levy on some countries according to various formulas. Many countries have made these proposals and have made their thoughts on the proposals known in a proactive and constructive fashion. Australia does not have its own proposal, does not have a position on these proposals, and has made no comment on the proposals on the table. Without active and constructive engagement from countries such as Australia on increasing the finance available for developing countries for mitigation, technology transfer, reducing deforestation and adaptation there is little hope that we will cover the ground necessary to achieve a successful outcome at Copenhagen. Australia should make its position on these proposals clear, and if necessary, make an alternative proposal that meets the principles outlined in this document before the Poznan meeting in December 2009.

¹⁵ A no lose target is one where a baseline is set, and emissions reductions below the baseline are rewarded (possibly by making credits available to sell, possibly through a payment from a fund). Emissions above the baseline are not penalised – hence the "no lose" target. The target may apply across the economy, or across a sector of the economy. This form of target is only appropriate for developing countries, and not appropriate for developed countries, who have the responsibility and the capacity to take economy wide binding emissions reductions targets.

Garnaut notes the UNFCCC estimate that by 2030 additional global investment and financial flows of US\$200 billion annually will be needed, with flows to developing countries in the order of US\$100 billion annually to finance mitigation that leads to constraining emissions at 2030 to current levels. Garnaut notes that "While the bulk of these investment flows are expected to come from the private sector, until international carbon markets are established there will be a need to be greater reliance on public sector funding".¹⁶ Garnaut notes that it is Australia's obligation, as a high-income country, to provide its share to adequate global funding for this purpose.¹⁷

Australia should actively champion mechanisms to provide measurable, supportable and verifiable capacity building, technology transfer and finance to developing countries to enable their mitigation efforts. Australia should proactively engage on means to provide finance and technology transfer, by providing its own proposals and commenting on proposals of other Parties already on the table. Australia should always acknowledge that developed countries have a greater responsibility than developing countries to take mitigation action, and champion developing country mitigation action that acknowledges the difference in responsibility and capacity of developing countries to take action.

¹⁶ Garnaut Climate Change Review (2008), *Draft Report*, p.313.

¹⁷ Garnaut Climate Change Review (2008), *Draft Report*, pp.313-314

Reduced Emissions from Deforestation and Degradation in Developing Countries

Reducing emissions from deforestation and degradation in developing countries (REDD) can contribute significantly to the mitigation of dangerous climate change.

REDD must be demonstrably consistent with the 2°C goal and the environmental integrity of the UNFCCC and KP.

REDD negotiations must be informed by a clear understanding of the implications of different policy options for the stability, equity, effectiveness and environmental integrity of the international post-2012 regime.

Capacity building and support needs to be undertaken as a priority.

Indigenous rights and social responsibilities

Parties must ensure the rights of local and indigenous communities, *inter alia* by establishing the same provisions for participation as those of the Convention on Biological Diversity (CBD) and the United Nations Permanent Forum on Indigenous Issues (UNPFII).

The development and implementation of REDD mechanisms must be in full accordance with the UN Declaration on the Rights of Indigenous Peoples and other relevant human rights instruments.

REDD mechanisms must support sustainable development.

Any mechanism must ensure that benefits, including funds, reach the local level in order to effectively address a range of drivers of deforestation and degradation.

Biodiversity

REDD must contribute to the conservation of biodiversity; explicitly consider the biodiversity impacts of REDD activities, rules, and modalities; and discourage the conversion of native forests to industrial forests or plantations.

REDD must encourage the retention of carbon in native forests, especially those of high conservation value, and exclude the conversion of native forests to plantations.

Scope

REDD should focus on reducing emissions from deforestation and forest degradation.

REDD must set positive incentives for countries with currently low deforestation and degradation to protect their native forests.

The enhancement of forest carbon stocks would be more effectively dealt with via another mechanism.

REDD should not be a part of a project based CDM.

National and Sub-national Approaches

National approaches (e.g. national-level accounting, regulatory frameworks, reference levels, monitoring and enforcement systems) must be adopted in order to reduce transaction costs, address domestic leakage and ensure the integrity of baselines. National approaches are the most effective scale to address issues of permanence, through measures such as debiting, insurance, risk pooling, and buffers. International rules on permanence must be reflected in national rules.

The role of sub-national activities undertaken under a national accounting framework should be examined. The potential role and impacts of non-credited, time-bound sub-national activities as part of a strategy to develop a national level approach should also be examined.

Addressing international leakage requires additional measures and mechanisms, particularly for countries that have historically low deforestation rates.

Methodologies

Remote sensing methodologies should be coupled with ground-based measurements for robust assessment of changes in deforestation and especially degradation.

Finer resolution methodologies to measure degradation should be continually assessed by an appropriate UNFCCC or affiliate body and applied to strengthen the robustness of REDD.

The IPCC Good Practice Guidance for LULUCF should be revised for application to REDD.

Definitions

“Deforestation” - Direct, human-induced conversion of natural forest to non-forest land or mono cultural tree plantation. The canopy cover threshold, demarcating the transition from native forest to non-forest land, should be defined for specific forest ecosystems.

“Degradation” - A reduction in the natural carbon carrying capacity and carbon stocks of natural ecosystems

Rules and Modalities

A gross accountancy methodology should be used for measuring emissions; emissions from deforestation cannot be offset by any removals from other forest based activities.

REDD rules and modalities must protect the integrity of emission reduction commitments against the uncertainty associated with forest carbon fluxes and inventories.

REDD methodologies must account for all significant sources of emissions from deforestation, including those from soils in peat land forests.

Australia should provide additional funding for capacity building for REDD activities, support the application of the principles listed above in the REDD negotiations and promote a definition of both Natural Forest and Plantations that fully recognises the importance of native forests.

Sectoral Approaches

There are a range of discussions underway on so-called "sectoral approaches." This refers to measures that might apply to a particular sector of the economy, eg: steel production, aluminium production. Specifically, there seem to be three main areas where sectoral approaches are being discussed:

- 1) Sectoral commitments in Annex I countries as a replacement for national caps on emissions
- 2) Global sectoral commitments for internationally competitive sectors based on benchmarking or other approaches, with no differentiation between developed and developing countries
- 3) Sectoral commitments in developing countries instead of national caps.

In regards to the approach described in number one, sectoral approaches must not in any way undermine the necessary Kyoto-style binding national, economy-wide absolute emissions caps for developed countries in the second commitment period. CANA welcomes the Australian Government's clarification that it does not accept sectoral approaches as a replacement for national emission reduction caps for developed countries. Developed countries, are of course welcome to develop sectoral policies and measures, either as national policies and measures to achieve their commitments, or as part of a legally enforceable regional system.

CANA recognizes that global sectoral agreements, subordinate to these absolute emissions caps in developed countries, may be appropriate for certain internationally competitive industrial sectors to help address competitiveness concerns and to help to avoid leakage.

Developing country participation in such global sectoral targets should be predicated on suitable support and incentives. This will then replace any CDM activities in that sector for a participating country.

In addition, developing country sectoral commitments in non-internationally competitive sectors eg power sector, are also a welcome evolution of approach in developing countries where it is not yet suitable to implement a national cap. As noted in the Bali Action Plan, such enhanced actions must be supported by capacity building, technology and finance from developed countries.

Adaptation

Equitable and fair climate change adaptation policy is crucial for poor women and men and those most vulnerable to the impacts of climate change. It is also a vital building block for any post 2012 international climate treaty, to be treated on a par with mitigation efforts. However, international negotiations continue to be marred by entrenched inequities in power relations, an ongoing lack of consideration for affected communities by rich developed nations, and a disregard for the principles of equity and justice.

Costs borne by those least responsible

'The largest producers of greenhouse gases must bear responsibility for the damage being caused ... in particular to the vulnerable countries whose sustainability and very existence are increasingly threatened by their actions.'

– Prime Minister Stephenson King of Saint Lucia, 2007¹⁸

In 2007, damages from severe flooding alone in Northern Fiji cost FJ\$10m (\$7.1m)¹⁹. In Tuvalu king tides destroyed many homes and contaminated food supplies²⁰. In the 2004-5 cyclone season the Cook Islands incurred millions of dollars of damage from five cyclones in one single month, heavily affecting its economy and infrastructure²¹.

Around the world the costs of adapting to climate change in developing countries are likely to be in the tens of billions of dollars per year, and the cost of this is disproportionately borne by countries *not* causing the problem²². Australia's fair share of this amount is US\$1.5bn (\$1.7bn) per year. The costs to vulnerable developing economies are not only unaffordable; they are also a setback to achieving sustainable development and the Millennium Development Goals.

Rich countries have been harming others in the developing world for many decades with unabated greenhouse gas pollution. We know that the impacts are already putting lives and livelihoods of poor women and men in developing countries at risk - across Africa, Asia, Latin America, and the Pacific. Worse still, even if global emissions are cut rapidly starting today, the impacts of climate change will worsen until at least 2030, due to the levels of greenhouse gases (GHG) already in the atmosphere, forcing people to adapt. For those already being affected, the need for finance to support adaptation is urgent.

Current funding woeful

To date, international funding efforts have been woeful. In 2007, the Intergovernmental Panel on Climate Change (IPCC) issued its direst warnings to date of the impacts of climate change on vulnerable developing countries. In the same year, the rich and high-polluting countries increased their contribution to the Least Developed Countries Fund (LDCF) for urgent adaptation needs by a mere US\$43m (\$48m) bringing the total amount pledged to a mere US\$163m (\$181m)²³. Since September 2007, the rich and high-polluting countries have increased their contributions to the Least Developed Countries Fund by only US\$9.54m (\$10.6m) bringing the total pledged to US\$172.84m (\$192m)²⁴. Only US\$91.84m (\$102m) has actually been delivered to the LDCF²⁵. Oxfam's estimate for urgent adaptation needs which should come from this fund is at least US\$2 billion (\$2.2bn), leaving a yawning gap between what's needed and what has been delivered.²⁶ As of March 2008, the situation in the Special Climate Change Fund is just as dire, with US\$75 million

¹⁸ Prime Minister Stephenson King (2007).

¹⁹ Naicker (2007).

²⁰ Ibid

²¹ Ibid

²² Various estimates for the global costs of adaptation in developing countries include; Oxfam- at least US\$50bn per annum, UNDP- US\$86 billion annually by 2015.

²³ These figures are sourced from the Global Environment Facility, as of September 2007.

²⁴ These figures are sourced from the Global Environment Facility, as of May 2008.

²⁵ Ibid. Australia's contribution to the LDCF is US\$6.6m.

²⁶ This figure is based on a scaling up of all existing NAPAs (of which there are 31 as of June 2008) to all 49 LDCs.

pledged to the program on adaptation.²⁷

Under the Kyoto Protocol (KP), the key opportunity for adaptation financing is the Adaptation Fund (AF). It has the capacity to offer the best sources of reliable funding for developing country adaptation. However, in its current state, it will never be able to provide the level of funding required because revenue raised is limited to one mechanism - a 2% levy applied to the Clean Development Mechanism (CDM). The total funding this is expected to raise by 2012 is only US\$100-500m (\$110-550m). The global costs for adaptation in developing countries are estimated to be in the tens of billions of dollars per annum²⁸. Given the paucity in financing available, and the need for developing countries to access billions more, there is much debate about how additional funding should be raised and disbursed.

Principles for international policy on adaptation financing

Article 4.4 of the UNFCCC commits rich countries to, 'assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects'²⁹. In this statement it places the responsibility for action on adaptation squarely on the shoulders of rich developed nations. When putting forward or considering any new proposals for adaptation financing, the Australian Government should see this article as central. Additionally all policy must be fair, adequate and reliable, as well as sustainable for the world's poor:

1. **All multilateral financing for climate adaptation to be managed under the UNFCCC.** This is because funds under the UNFCCC have the best structure and governance to:
 - prioritise the most vulnerable countries and communities;
 - ensure developing country ownership;
 - ensure effective and accountable delivery;
 - ensure funds will be managed according to principles agreed by all countries, as part of building developing country ownership and international trust.
2. **All financing for adaptation to be underpinned by the 'polluter pays' principle.** This states that all contributions should be based on a country's historical responsibility for greenhouse gas pollution, and the capacity of that country to pay for adaptation³⁰;
3. **Financing to be raised through new binding funding mechanisms to guarantee adequate funds for adaptation.** Current funding for adaptation misses the mark spectacularly. Of the US\$1.5bn (\$1.7bn) that is required on an annual basis from Australia, only a fraction has been committed, and the majority of this has been through Official Development Assistance (ODA);
4. **Financing to be unconditional.** Financing to be given as grants not loans, and to be additional to overseas development aid to ensure that we meet existing Millennium Development Goals (MDGs) without diverting already committed funding³¹;
5. **Financing to reach the most vulnerable.** The greatest need for financial and technical support is in the poorest and most vulnerable communities. It is crucial that any funding allocated reduces climate change vulnerability.

Australia, like other rich nations has a responsibility to act. We can demonstrate leadership and fulfil our obligations to poor women and men in vulnerable communities so they can plan and adapt to the unavoidable impacts effectively and in a timely manner.

²⁷ Global Environment Facility, *Status Report on the Climate Change Funds as of March 4, 2008*, LDCF/SCCF Council Meeting, April 25, 2008, GEF Doc GEF/LDCF.SCCF.4/Inf.2 (2008).

²⁸ Harmeling & Bals (2008); Oxfam (2007a).

²⁹ UNFCCC (1992).

³⁰ Oxfam International (2007); Bauer et al (2007); Tearfund (2007).

³¹ Oxfam International (2007); Make Poverty History (2008).

Raising and disbursing funds

The Australian Government should raise funds for adaptation using the 'polluter pays' principle, provided it's in line with its responsibility for emissions and financial capability. The proposed Carbon Pollution Reduction Scheme (CPRS) is a significant mechanism whereby the Government can raise funds at the level needed, as revenues from auctioning can be significant. Revenue from the sale of the permits should be used to:

1. Reduce Australia's own greenhouse gas emissions;
2. Assist low-income people in Australia with the resulting increased costs, and
3. Fund Australia's fair share of assisting developing countries to address climate change.

Equal priority should be given to achieving these three objectives. This includes assisting developing countries with following a low carbon growth path and reducing their industrial emissions from business as usual and through reducing deforestation as well as adapting to the unavoidable impacts of climate change. CPRS revenues should be used to contribute to the UN Adaptation Fund because it is best placed to fulfil the principles set out above.

Revenues earmarked for developing countries from Australia's CPRS should not be used for investments in Clean Development Mechanism (CDM) projects, as these projects happen primarily with a view to achieving reduction targets of developed countries. Further information on the CDM is contained later in this submission (p26).

In disbursing funds and addressing global adaptation needs, the Australian Government should use the following areas as a guide. This includes:

- engaging with business to a) raise awareness on the intersection of business and community risk due to climate change; b) develop products and services which build resilience in poor countries and c) support adaptation financing policies;
- providing expertise to developing country governments in developing high-quality national adaptation programs of action (NAPAs);
- recognising that adaptation strategies are location specific, and will be aided by working closely with affected communities - seeking their input and knowledge of effective adaptation strategies;
- reducing barriers to relevant information and technology;
- targeting investment in local capacity to manage the economic, public health and other consequences of climate change;
- expanding existing disaster preparedness measures, including both partner country systems and Australian response capability, and
- developing new livelihoods programs targeting resilience in the agricultural sector and alternative livelihoods for small producers whose farming becomes untenable.

A coherent framework

Action on adaptation under a future climate change regime should be carried under a **coherent framework** of action on adaptation; elements under different tracks need to be brought together where possible. For the establishment of such a framework the following elements should be considered:

1. **The establishment of a permanent adaptation body** under the Convention with the specific task to give guidance to the preparation and implementation of NAPs (see below), consider progress of adaptation implementation and propose and negotiate further action under the Convention. That body could take the form of an adaptation implementation expert group, an adaptation committee or a similar institutional form. One of the tasks of this group would be to support and guide the work of the regional adaptation centres (see 3

below.)

2. **The development of National Adaptation Plans (NAPs) for all developing country Parties** to include vulnerability assessments, prioritising the poorest, most vulnerable groups and communities and outlining priorities for both urgent short-term and longer term action, integration of adaptation into sectoral and national planning, development of disaster reduction strategies in collaboration with the disaster risk management community, building on experience *inter alia* gained through the development of the NAPAs (but going beyond urgent needs, to include the integration of longer term adaptation needs in development planning and Poverty Reduction Strategies).
3. **The establishment of regional adaptation centres and regional information systems on short, medium and long-term climate change risks in developing countries**, to facilitate effective adaptation in the regions by linking adaptation practice to national policy and the learning from the NWP.
4. **Establishment of mechanisms to generate predictable and adequate financial resources for adaptation measures.** The mechanism should raise a minimum of \$50bn annually ³² (in addition to existing ODA commitments) based on indicators of responsibility and capability. The volume of finance required for adaptation has an inverse relationship with, and should be adjusted according to, the global emission reductions achieved.
5. **Revenues from this mechanism and other mechanisms that may generate funding for adaptation should go into one fund.** This could be a new fund, e.g. a Convention Adaptation Fund (as proposed by AOSIS), or it could be a strengthened existing Adaptation Fund, which sits under the KP. Management of the enlarged fund must be transparent and representative of all Parties, with a majority representation of developing countries – as reflected in the governance structure of the recently established AF.
6. **The revenues raised through this mechanism would be used to finance the preparation and implementation of NAPAs for developing countries and the establishment and operation of the regional adaptation centres.**

Ongoing work on adaptation

The work of the Nairobi Work Program (NWP) being conducted through the Subsidiary Body on Implementation (SBI) should be encouraged to consider concrete implementation activities, including:

- an expert meeting to identify best practices and lessons learned in integrating adaptation into cross-sectoral and sector-specific planning;
- increasing the dialogue with disaster risk reduction communities in the work on adaptation at the national and regional levels.

The NWP's work during its second period should also focus on capacity building and research on matters linked to adaptation that are essential for the negotiations under the Bali Action Plan including:

- Prioritisation of actions
- Assessment of costs
- Use of socio-economic information
- Economic diversification for building resilience to climate change impacts
- Vulnerability and impact assessment
- Broad stakeholder engagement in planning.

Australia should proactively push for adequate, predictable and sustainable funds for adaptation in line with the principles outlined above, by calling for the establishment of a binding funding mechanism, set up using the polluter pays principle and managed under the UNFCCC prioritising

³² This is the order of magnitude estimated by UNFCCC, UNDP and Oxfam

the most vulnerable. The Australian Government should predicate a percentage of the revenue from the CPRS to international adaptation in line with the areas identified above. Australia should support developing country calls for a coherent adaptation framework, including the establishment of a permanent adaptation body, regional adaptation centres, and funding for development and implementation of National Adaptation Plans of Action.

Technology Transfer

A technology revolution is required – a world wide wholesale shift to the best existing low-carbon technologies and energy efficiency, and spurring new technological advances – is key to keeping below 2°C while ensuring sustainable development in developing countries.

A key element of the post-2012 package will be massively scaled up technology transfer from developed countries to developing countries, enabled and supported through the establishment of effective mechanisms and new and additional funding under the UNFCCC and Kyoto Protocol.

As noted earlier, and acknowledged by the Garnaut Draft Report, significant new public and private financing along with other means are needed to support building capacity in developing countries to absorb, adapt, and develop new technologies in pursuit of mitigation, adaptation and development strategies.

Work will need to be done on what factors make mechanisms successful conduits for technology deployment, which can then feed into a discussion on appropriate international mechanisms to encourage technology transfer, possibly with relationships to mitigation measures and funding mechanisms.

To help ensure financing under the convention is used effectively, policy frameworks are needed in all countries to promote a shift of investments away from carbon-intensive technologies and into technologies that improve energy efficiency and utilize renewable energy, including policy changes such as strengthened standards and regulatory frameworks, appropriate to their level of development, to support a revolution in energy efficiency and renewable energy.

Where Intellectual Property Rights (IPRs) are recognized as a barrier, an approach is needed that maintains incentives for technological advancement, but recognizes the need for rapid and affordable diffusion of existing and new advanced technologies needed to sharply reduce emissions in industrialized countries and allow low-emissions development and adaptation in developing countries. This will include, but not be limited to, using existing IP flexibilities and exceptions, as well as prevent anti-competitive practices that limit access.

Developed countries have commitments under Article 4.5 of the UNFCCC to promote and finance the transfer of environmentally sound technologies. Australia must ensure that these obligations are incorporated in the post-2012 framework as part of an ambitious agenda for the decarbonization of developing country economies, but also for effective adaptation, paying particular attention to the following questions:

- Scale of resources: mobilization of technological and financial resources at a magnitude sufficient to shift investments into environmentally sound, low-carbon technologies that can contribute to sustainable development in developing countries and ensure that global average warming is less than 2° C above preindustrial levels
- Technology choices: investments related to mitigation in the energy sector must be directed primarily into renewable energy and the most efficient and sustainable technologies available, rather than nuclear power and CCS
- Mechanisms for technology deployment: factors that make such mechanisms successful conduits for technology deployment
- Governance: ensure effective, transparent and democratic governance of funding and other mechanisms for technology transfer, involving donor and recipient parties, the private sector and civil society. Such governance is necessary to build trust and enable the full engagement of all countries and actors in the global effort to prevent dangerous climate change
- Integration of efforts: ensure coordination and synergies between the specific financing and mechanisms for tech transfer under the Convention, and other mechanisms and processes both inside and outside the climate regime.

Australia should aggressively push for technology transfer mechanisms, and policy settings to

create supportive and enabling environments for technology development, deployment, demonstration and transfer. Australia must recognise that developed countries have an obligation to provide technology to developing countries for them to follow a low carbon path to development, and that establishing effective mechanisms for this to occur is a precursor to developing countries undertaking mitigation action.

Australia is in a position to use its strategic relationships with China and other developing countries, to create cross developed-developing country partnerships in the area of technology transfer, and could have a significant impact on the international negotiations by developing joint proposals with China, or other developing country partners, on this issue.

As already noted, and reinforced below, the Australian Government should commit a portion of funds raised through the sale of emission permits to international climate change initiatives, including in clean technology in developing countries.

Financing for mitigation and adaptation

According to the International Energy Agency's World Energy Outlook 2005 US-\$17 trillion will be invested world-wide in energy-infrastructure by 2030. If largely invested in the CO2-intensive and related infrastructure this will result in a global lock-in that will neutralize climate mitigation measures and increase destructive CO2 emissions.

Furthermore, the UNFCCC financial flows paper predicts that by 2030 US \$210 billion will have to be invested in global mitigation efforts in non-Annex 1 countries. Yearly tens of billions need to be invested in adaptation efforts in developing countries.

To achieve the goal of a peak and deep cuts of global emissions there is a need to shift investments and finance towards a low-carbon economy while promoting equity and helping the poorest to gain access to energy. Part of this financing is necessary to support Reduced Emissions from Deforestation and Degradation in Developing countries (REDD).

In addition to fulfilling their existing obligations under the Convention and the Protocol, Annex 1 countries also agreed in the Bali Plan of Action to additional measurable, reportable and verifiable support for technology transfer and financial support for adaptation and mitigation in non-Annex 1 countries.

While public finance is crucial for the financing of public goods that the market cannot deliver, private sector investments will play an important role, especially in the field of mitigation. This calls for financial mechanisms integrated in the new "long, loud, and legal" global framework which will facilitate and mobilize private sector action on mitigation, adaptation, and technology innovation and transfer while providing stable and predictable public funding.

The UNFCCC and Kyoto mechanisms must not only work towards mitigation efforts, but also contribute towards the funding of adaptation, technology transfer and tropical deforestation reduction (REDD) measures, based on the polluter pays and historical responsibility principles.

As an initial step, Australia should unilaterally commit to allocating a share of the Carbon Pollution Reduction Scheme revenue to international climate change initiatives. These funds should be used in to enable developing countries to cut greenhouse gas emissions, reduce deforestation and degradation and adapt to the adverse effects of climate change. Once this commitment is made, Australia should push for other countries with domestic emission trading schemes to make a similar commitment.

International Rules for Financing

Important elements in the considerations of new innovative financing flows are

- New financing flows from Annex 1 countries should be adequate, sustainable and predictable and that they should be reported to the COP yearly during its session.
- mitigation and adaptation funding need to be new and additional to existing Overseas Development Aid.
- The polluter pays. Measures should be developed in such a manner that those that gain the most from polluting activities also carry the majority of the cost.
- Investment and finance for non-Annex 1 should be additional to absolute reduction targets in Annex 1.

The criteria presented above should enable making an informed decision on new innovative financing mechanisms. In this context, CANA calls for full consideration of the following options for inclusion in the post-2012 climate change treaty:

- Placing a levy on each of the three flexible mechanisms of the Kyoto Protocol, so that the burden of funding to the Adaptation Fund is broadly and fairly shared. Currently a 2% levy is limited to the CDM. This could be spread to emissions trading and joint implementation, and

any new flexible mechanisms created in the future. The total amount generated would depend both on the size of the market and the level of the levy set, which must be set from a comprehensive assessment of adaptation needs.

- Auctioning of Assigned Amount Units: Under the Kyoto Protocol, each industrialised country agreed to binding emission targets. Emissions up to this agreed target are known as assigned amounts and are divided into "assigned amount units" (AAUs). Under the Kyoto Protocol, AAUs are distributed freely to countries, but can be traded between countries through international emissions trading. It has been proposed that all or a portion of AAUs be auctioned to countries, providing another revenue stream to enable fair and equitable funding of climate change activities in developing countries. This option is under review as part of the Article 9 Review, as agreed at Bonn 2008.
- Auctioning of the emission permits for international aviation and maritime transport. This option will have the dual benefit of targeting emissions from one of the fastest growing sectors, and providing a new revenue stream for mitigation and adaptation in developing countries. It will be crucially important to ensure any such measure is designed in a way that avoids regressive economic impacts on small island developing states and other developing countries that are particularly dependent on international transport.;
- An international aviation levy; (ticket tax; or freight charges, differentiated after country groups). This option would provide an alternative to the previous option, but again must be designed to avoid regressive economic impacts on developing countries;
- A levy on greenhouse gas emissions from all, or some, countries;
- A levy on countries, based on a formula that includes historical and current emissions, taking into account per capita emission levels, and capacity to pay, along the lines of the Greenhouse Development Rights framework, or the South North Dialogue on Equity in the Greenhouse.

Australia should support the reviews and explorations of these ideas for new adequate, reliable and predictable funds in a proactive and constructive fashion. At the recent Bonn negotiations intelligence indicated that in the closed door sessions Australia opposed the exploration of auctioning a percentage of AAUs being inserted into the Article 9 review.

While the Kyoto mechanisms need to be used to generate some of the finance required to achieve the objectives of the Convention, additional, non-market sources of funding, including governmental contributions, need to be increased and can help to leverage and catalyze additional funding. Ending fossil fuel subsidies and redirecting them to fund clean technologies would be a good start. Exploration of means to leverage private sector and multilateral bank funding flows in support of the aims and operation of the UNFCCC process should also be done. Any funds must be governed through fair representation of Parties in the decision-making process.

Management of Finance: governance principles for funds

Public funds can leverage private investments through measures contributing to the reduction of risk and increase of returns, promote public-private partnerships and provide stable and predictable funding for public goods where markets cannot deliver. To ensure broad political support and increase the environmental and sustainable development impact of these funds, governance is key.

Agreement should be reached on the principles of governance for multilateral and other climate related funds.

Governance discussions should not be limited to handing over authority and governance of funding to existing institutions, which have not managed to meet the needs of the parties. CANA supports the call of Brazil, Mexico and China for a new suite of operational entities, and believes the struggles of Least Developed Countries (LDCs) and Small Island Developing States (SIDS) for adaptation funds through the Global Environment Facility (GEF), and the solution found for governance of the Adaptation fund, as well as the Multilateral Fund for the Implementation of the

Montreal Protocol offer important lessons for management of future scaled-up funding.

Australia should call for management of funds to take place according to the following principles

- **Inclusive Representation.** The funds must operate under the authority and guidance of and be accountable to the COPMOP and the governance structure must include a majority of non-Annex 1 countries. Boards or other management bodies of funds should be open to a range of participants including civil society organizations.
- **Transparency.** Decisions made by management bodies on investments should be based upon objective criteria and open for public scrutiny. This increases the quality of the decisions as decision making procedures can be reflectively developed.
- **Accountability.** The management bodies should be accountable to and report to the COP. This is in order to ensure that decisions are in line with the goals of the COP.

Allocation of finance and investment

Needs assessment: REDD, adaptation, tech transfer

A general overview of the need for finance and technology in developing countries contributes to the mobilization of finance and investment. However, the needs assessment should not detract from the goal of contributing to adaptation and mitigation by being too time and financially intensive.

Generic guidelines for financial needs assessment for addressing adaptation and mitigation (including REDD and Technology Transfer) should be developed. The Ad Hoc Working Group on Long Term Cooperative Action (AWG-LCA) should discuss what these guidelines should be and how a monitoring system can be developed to evaluate if funds are adequate for adaptation and mitigation measures.

Creating positive incentives for climate related investments within non-Annex 1 countries

Increasing and redirecting finance and investment towards a low carbon economy can be promoted by increasing the finance available and by setting an adequate regulatory framework and policies in place while lowering risk and increasing returns on investments in non-Annex 1 countries.

Key questions that should be explored in the UNFCCC process include:

- How can non-Annex 1 countries be assisted to create enabling environments for climate related investments. Are policies that increase returns and reduce risk adequate, and what additional national and international policies and measures should be taken?
- How to create fast track procedures for easy access to funding?
- How can leapfrog-technologies for efficiency and renewable energy be identified and their introduction facilitated?

Barriers to investment

Increasing the attractiveness of low carbon alternatives also includes overcoming policy barriers that limit investment. Such barriers include subsidies for fossil fuel use and less efficient products and processes, Intellectual Property Rights that may increase the cost of technologies, trade rules that limit the possibility of countries to financially support low carbon development schemes, and lack of leadership within some countries themselves.

The AWG-LCA should discuss how to overcome barriers to investments both internationally and within non-Annex 1 countries.

Clean Development Mechanism (CDM)

The Clean Development Mechanism (CDM) was created by the UNFCCC to provide industrialised countries with a way to meet parts of their emission reduction targets more cheaply, by investing in emission reduction projects in the developing world and to provide sustainable development benefits to the host countries of these projects. CANA has serious concerns about the current structure and functioning of the CDM. In terms of emission reductions, the CDM at best only offsets Annex I emissions, and without effective additionality testing and rigorous baselines, allows global emissions to increase in absolute terms.

A report by the Oko-Institut in November 2007 found that 20% of emissions reductions certified under the initiative may have happened even without CDM financing.

An assessment by International Rivers found that the majority of hydropower projects in China applying for CDM registration - 370 projects comprising 11.7 GW of power and 9.4% of total expected annual CDM credits worldwide - were mostly non-additional.³³ This means they would have occurred anyway, without crediting via the CDM.

There are also concerns that in many cases sustainable development objectives have often been overlooked. Evidence suggests that since the sustainability component of the CDM has no monetary value, no differentiation is made between projects that contribute to the sustainable development of local communities and those which do not.

It is imperative to ensure that the CDM in the future moves beyond offsetting and in fact yields real, additional, net reductions in global emissions, as well as real benefits for sustainable development, **additional** to strong domestic emissions reductions in Annex I countries.

CANA supports the recommendations outlined in the Oko-Institut³⁴ to improve the CDM:

- Step up spot checks on Designated Operational Entities (DOEs) and publicising the results using a transparent set of assessment criteria;
- Sanction (suspend/withdraw accreditation) DOEs with a poor track record;
- Hold liable DOEs by requiring them to replace certified emission reductions (CERs) proven excessive in the case of non-conformities;
- Provide guidance for DOEs on verification and validation that promotes consistency, transparency and a high quality of validation and verification;
- Make the guidance on demonstrating additionality of small-scale projects more explicit while keeping transaction costs low;
- Improve the barrier, common practice, and investment tests in the additionality tool so as to reduce the margin of interpretation for DOEs;
- Exclude HFC/N₂O destruction projects from CDM as they do not move countries close to supporting a low-carbon economy; and
- Currently projects can be registered many years after they started operation. It is suggested that projects can only request registration if the project started no earlier than one year before.

However, if the environmental integrity of uncapped trading cannot be assured, it should be abandoned and other means of financing and technology transfer be explored. Whatever the mechanism used to achieve this, it will need to be substantially better designed and larger in scale

³³ Haya B. 2007. Letter to the members of the CDM Executive Board, RE: Concerns about the large number of Chinese hydropower projects currently undergoing CDM validation, October 12, 2007 (www.internationalrivers.org/en/china/china-other-projects/letter-cdm-executive-board-non-additional-chinese-hydros)

³⁴ Oko-Institut (2007) Is the CDM Fulfilling its environmental and sustainable development objectives? An Evaluation of the CDM and Options for Improvements, http://assets.panda.org/downloads/oeko_institut_2007_is_the_cdm_fulfilling_its_environmental_and_sustainable_developme.pdf

and scope than the current CDM if it is to deliver large emissions reductions and large scale changes in technological investments in developing countries.

CANA therefore suggests that the post 2012 negotiations explores shifting away from the project-by-project approach to more comprehensive approaches, variously discussed as policy-based or sectoral approaches, and that Australia supports this review.

The CDM, and any future variants, must ensure a strong link to sustainable development as well as emissions reduction. Therefore allowed methodologies, or projects, *must* be in line with sustainable development, and improve the social, economic, and environmental wellbeing of the local community.

CCS in the CDM

Currently carbon capture and storage (CCS) is excluded from the CDM, however there are a number of countries, including Australia, advocating for its inclusion. While CCS may in the future play a role in reducing greenhouse gas emissions there are currently too many unresolved issues surrounding the inclusion of CCS in the CDM, which pose higher risks to the environmental integrity, and effectiveness of the Kyoto compliance and post-2012 climate regime than the perceived advantages of including CCS. CANA therefore continue to oppose the inclusion of CCS in the CDM for the reasons outlined below:

1. Before including CCS in the CDM in developing countries, it is important to first show in developed countries that this technology works. So far, this has not been the case on a large scale.
2. CDM timelines of maximum 21 years are not enough to address potential leakage or seepage from stored CO₂.
3. There needs to be a strong legislation in place, covering liability, monitoring and verification requirements for stored carbon underground. Also, civil society needs to be involved substantively for acceptance and sustainable development implementation of any CDM project. Unfortunately, this is not occurring in most if not all potential CCS-candidate countries in the developing world.
4. Mandatory Environmental Impact Assessment is strongly needed for CCS projects but are not part of the CDM criteria.
5. CCS has not yet demonstrated that sustainable development benefits can be created. Although this is also not the case in many other unfortunately non-additional CDM projects approved so far, this criteria should be tightened not weakened. The current lack of sustainable development components stands against the inclusion of CCS in the CDM.

Until the above issues are resolved CANA recommends the Australian Government withdraw its support for coal fired power plants with CCS being included in the CDM³⁵.

CDM in Australia

If the Australian Government is to allow CDM credits within the Carbon Pollution Reduction Scheme, CANA recommends that:

- The majority of a 40% reduction target by 2020 (on 1990 levels) for Australia should be achieved with domestic effort.
- Australian Government through the Carbon Pollution Reduction scheme should ensure all external credits meet strict environmental, social and additionality criteria. Therefore, only credits which, as a minimum, come from projects which meet the Gold Standard accreditation and/or equivalent quality criteria should be allowed entry.

The Gold Standard certifies credits only from renewable energy and end-use energy efficiency projects. Indeed, the goal of the Gold Standard is to mitigate climate change, promote (local) sustainable development and contribute towards a transition to non-fossil energy systems.

³⁵ For further reading see – IEEP (2007) CO₂ Capture and Storage in Developing Countries and the Role of the Clean Development Mechanism.

Greenhouse Gases, Sources and Sectors

Greenhouse Gases (GHGs)

CAN believes that the list of the gases included in Annex A of the Protocol is incomplete and that additional gases, included in the analysis of the IPCC's Fourth Assessment Report, should be included in the mitigation obligations for the second commitment period. Annex A needs to include all perfluorinated compounds (at least two species nitrogen trifluoride (NF₃), trifluoromethyl sulfur pentafluoride (SF₅CF₃) are not included), and all fluorinated ethers and perfluoropolyethers.³

The global warming potentials used in the Kyoto Protocol also need to be updated based on the latest scientific assessment. At present the GWPs are from the IPCC SAR and the AR4 indicates substantial changes. Revised GWPs would be applied in the flexible mechanisms.

Sectors

Key sectors that are explicitly missing from Annex A are international aviation and maritime emissions. Both sectors are fast-growing and significant sources of emissions.

In its' 1999 report, the IPCC projected that "Global passenger air travel, as measured in revenue passenger-km, is projected to grow by about 5% per year between 1990 and 2015, whereas total aviation fuel use-including passenger, freight, and military is projected to increase by 3% per year, over the same period". For aviation, since the radiative forcing effects results not only from the greenhouse gas emissions, but also from the contrails and cirrus cloud formation, it is important that a multiplier reflecting the true radiative forcing is included in emissions accounting.

A technical workshop on bunker emissions held last year in Oslo concluded that there are no insurmountable methodological or data barriers to an agreement on how to allocate emissions from international aviation to states. Such an agreement should be vigorously pursued, and CAN believes the most appropriate allocation method, consistent with other sectors, is to account for emissions according to the point of sale of the fuel. CAN also regards Tuvalu's proposal, to generate revenue from airfares and maritime freight charges by charging a small fixed percentage of these to finance adaptation work, as meriting further discussion.

Maritime transport is responsible for 13% of the world's total transport GHG emissions at the moment. Projections foresee a growth of 35–45 % in absolute levels between 2001 and 2020, based on expectations of continued growth in world trade. Several unique features of the industry mean that a sector-specific approach is likely to be the most appropriate way to address emissions from shipping. The proposal by Norway to raise adaptation revenue through a charge on CO₂ emitted during international maritime operations also merits further discussion, alongside the paper by Tuvalu.

For some countries, aviation and maritime emissions from the military represent a significant subset of emissions and should not be exempt. Other military greenhouse gas emissions should also be included in Annex A.

Inclusion of new sectors and sources to the post 2012 agreement will necessitate additional deeper emissions reduction targets to effect the necessary structural changes in the energy use and consumption patterns of developed countries' economies in the existing source and sector categories.

Annex 1: LULUCF detailed principles

These principles should guide and enhance the development of rules and methodologies to increase the effectiveness of LULUCF and its contribution to sustainability.

Factoring Out

CAN proposes that the following criteria be applied to any factoring out approaches that are considered:

- Parties must be responsible for reducing business as usual emissions from the LULUCF sector.
- Factoring out approaches must not introduce significant uncertainty to LULUCF accounting.
- Factoring out approaches should focus the responsibility of Parties to account for emissions that are avoidable and the result of direct human activity.

Symmetry in accounting of emissions and removals

Accounting must be symmetrical, in particular, if a removing activity is accounted for, accounting for the opposite emitting activity must also be accounted for (e.g. revegetation and devegetation).

Co-benefits, including biodiversity

LULUCF should contribute to the conservation of biodiversity

Examples include: by explicitly considering the biodiversity impacts of the various approaches in the development of rules and modalities, by discouraging the conversion of native forests to commercial forests or to plantations, by encouraging retention of carbon in native forests rather than in harvested wood products and by protecting and restoring native forests in preference to plantation establishment.

Moving to net-net accounting (and including emissions and removals from forest management in the base year)

A move to net-net accounting is only acceptable if an emission reduction obligation for the LULUCF sector exists (e.g. through including LULUCF emissions in National totals or establishing a specific LULUCF reduction target).

Moving to net-net and estimating base year emissions and removals using a base period

A base period could be considered if 1990 continues to be the anchor for the base period and if Parties are not allowed to pick and choose the duration or years of the base period.

Moving to net-net and applying forward-looking baselines

We do not support this approach because it introduces too much uncertainty.

Remaining gross-net and applying discount factors

We would like to evaluate specific proposals for this approach.

Limiting the magnitude of land use, land-use change and forestry for Annex-1 compliance

We would like to be able to evaluate specific proposals for this approach.

National circumstances

Consideration of national circumstances should not lead to rules and modalities with inconsistent application between countries.

Land-based approach based on the reporting under the Convention

CAN does not believe that at this stage there is the capacity to undertake full carbon accounting across the whole sector.

Harvested wood products

Harvested wood products should not be adopted as a new accounting activity or a new carbon pool under forest management accounting because of the credits it creates for business as usual activities and the resulting disincentive to maintain forest carbon in Annex 1 countries.

Additional and all activities to be mandatory

Annex 1 countries must account for emissions resulting from forest and peatland degradation

Land-use flexibility

We do not support land-use flexibility.

Temporary removal from the accounting of areas subjected to natural disturbances

We would like to evaluate specific proposals for this approach.

Treatment of harvested wood products as part of the consideration of forest management and Article 3, paragraph 4, activities

Harvested wood products should not be adopted as a new accounting activity or a new carbon pool under forest management accounting because of the credits it creates for business as usual activities and the resulting disincentive to maintain forest carbon in Annex 1 countries.

Wetland management, restoration and degradation

Annex 1 countries must account for emissions resulting from forest and peatland degradation.

Provided emissions from wetland degradation are included, we support inclusion of emissions/removals from wetland management and restoration.

Devegetation

To ensure symmetry with revegetation, devegetation should be included as an activity under 3.4.

Forest degradation

Annex 1 countries must account for emissions resulting from forest and peatland degradation. Forest degradation should be defined as any human land use activity that reduces the carbon stocks of a forested landscape below its natural carbon carrying capacity.

Climate Action Network Australia (CANA)

CAN is the world's largest non-governmental organization (NGO) network focused on climate change. It plays a critical role as the only NGO network connecting organizations working on climate advocacy and policy development at the local, national and international levels of the debate - all of which are becoming increasingly interdependent.

For the past two decades CAN has played an absolutely essential role in the coordination of NGOs engaged into the global climate negotiations.

Climate Action Network Australia members include:

Aidwatch	Greenpeace Australia Pacific
Arid Lands Environment Centre	Institute for Sustainable Futures
Association for Berowra Creek	Jubilee Australia
Australian & New Zealand Solar Energy Society	Locals Into Victoria's Environment (L.I.V.E)
Australian Marine Conservation Society	Mineral Policy Institute
Australian Student Environment Network	Moreland Energy Foundation
Australian Youth Climate Coalition	National Parks Association of NSW
Cairns and Far North Environment Centre	Nature Conservation Council of New South Wales
Caritas Australia	North Coast Environment Council
Catholic Earthcare Australia	Oxfam Australia
Central West Environment Council	Rainforest Information Centre
Climate Action Newcastle	Rising Tide Newcastle
Climate Action Now Wingecarribee	Sisters of Mercy - Earth Link
Climate Action Tomaree	Sisters of the Good Samaritans
Climate Change Australia	Social Action Office
Climate Change Balmain Rozelle	Sunshine Coast Environment Council
Conservation Council of South Australia	Sustainable Living Tasmania
Conservation Council of the South East Region and Canberra	Tasmanian Conservation Trust
Conservation Council of Western Australia	Tear Australia
Edmund Rice Centre	The Wilderness Society
Environment Centre of the Northern Territory	Total Environment Centre
Environment East Gippsland	Uniting Church, Justice and International Mission Unit, Synod of Victoria and Tasmania
Environment Victoria	UnitingJustice Australia
Environmental Defender's Office New South Wales	Urban Ecology Australia
GetUp!	Wollongong Climate Action Network
	World Vision Australia