

MAKEPOVERTYHISTORY

Submission to

Joint Standing Committee on Treaties

**Inquiry into the Treaty
text: Kyoto Protocol to
the United Nations
Framework Convention
on Climate Change**

15 August 2008

With reference to:

Terms of Reference One: The position Australia should be taking to future international negotiations concerning the 'second commitment period' (beyond 2012), both for itself and other nations.

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RECOMMENDATIONS

Australian leadership in international negotiations

Australia should:

1. Demonstrate leadership in international negotiations by working more closely with those developing countries which are set to suffer first and worst.
2. Commit to take on its fair share of mitigation and encourage other developed countries to commit to mitigation targets so that the combined efforts of developed countries will reduce their collective emissions by at least the upper end of the 25 – 40% range by 2020 based on 1990 emission levels.
3. Use its influence with countries such as the United States, Canada and Japan to change their positions and become more pro-active in working towards a fair and equitable post-2012 agreement.
4. Commit to fund its fair share of adaptation, technology transfer and mitigation efforts in developing countries. Australia should support proposals to generate the volume of funds required in these areas – which will be in the tens of billions of dollars per year globally.
5. Be clear that it does not expect developing or emerging economies like China, Mexico, Brazil or South Africa, to take absolute emission reduction targets. Rather, Australia should encourage these countries to take action to reduce their greenhouse gas emissions where that action is funded by rich developed countries.

Australia's contribution to equitable emission reductions in line with a less than 2°C temperature rise

Australia should:

6. Adopt a national framework for urgently reducing Australia's greenhouse gas emissions by at least 95 per cent below 1990 levels by 2050, and by at least 40 per cent by 2020, by socially equitable means.
7. Ensure that domestic greenhouse gas emissions peak no later than 2010.
8. Play a lead role in reducing emissions from deforestation:
 - End broad-scale land clearing in Australia;
 - Increase funding for reducing deforestation in the Asia Pacific region to \$400 million over five years, prioritising support for community-based forest management;
 - Address the drivers of deforestation, including implementation of Labor's election promise to stop all illegally logged timber being sold in Australia;
 - Support the Forest Stewardship Council certification as a minimum international standard; and
 - Ensure free, prior and informed consent with Indigenous communities as a mandatory requirement of any scheme to address deforestation.

9. Promote and support action on global emissions to peak and fall by 2015 at the latest and be reduced by 50-80 per cent at the very least (below 1990 levels), by 2050. Australia should support the Intergovernmental Panel on Climate Change (IPCC) undertaking work to identify greenhouse gas emission reductions needed to keep global temperature rise below 2°C.

Just Adaptation

Australia has a responsibility to assist developing countries to adapt to climate change. It can do this by:

10. Publicly committing within international negotiations to the following principles:
 - All multilateral financing for climate adaptation is managed under the United Nations Framework Convention on Climate Change (UNFCCC);
 - All financing for adaptation is underpinned by the 'polluter pays' principle;
 - Financing is raised through new binding funding mechanisms to guarantee adequate funds for adaptation;
 - Financing is unconditional; and
 - Financing reaches the most vulnerable.
11. Publicly committing to work towards paying its fair share of adaptation financing, including equitable distribution which is at least \$300 million in 2008/9, scaling up to \$1.7 billion per annum by 2015.
12. Using revenue from the Emissions Trading Scheme (ETS) to finance mitigation within Australia, as well as adaptation and mitigation in developing countries.
13. Addressing global adaptation needs comprehensively, including:
 - reduced barriers to relevant information and technology;
 - targeted investment in local capacity to manage the economic, public health and other consequences of climate change;
 - expansion of existing disaster preparedness measures, including both partner country systems and Australian response capability; and
 - new livelihoods programs targeting resilience in the agricultural sector and alternative livelihoods for small producers whose farming becomes untenable.

Technology Transfer

The Australian Government should play a leading role in the sharing of technology to reduce emissions, assist developing countries to adapt to the unavoidable impacts of climate change, and allow for development to support rapid poverty reduction while minimising emissions. Specifically, Australia should:

14. Support international mechanisms to ensure that developing countries gain access to technologies that they need, both to avoid emissions and to cope with the impacts of climate change.

15. Ensure adequate technical and financial assistance to developing countries to access clean technologies for the efficient use and generation of energy from renewable sources.
16. Develop industry-wide programs to implement clean technologies and phase out high emission and energy inefficient technologies. This could include assisting developing countries with the formulation of appropriate legislation and regulation that sets standards on emission reductions and compels those foreign companies undertaking business in the developing country to meet certain standards.
17. Take concrete and ambitious measures to increase technology cooperation between developed and developing countries in the fields of research, development and deployment of low-carbon technologies.

Support for 'Climate Change Refugees'

The Australian Government should assist in the development of regional and national responses to assist communities displaced by the impacts of climate change refugees. Specifically, Australia should:

18. As part of the development and implementation of the Pacific Climate Change Strategy:
 - Support training to assist members of communities which have to be fully evacuated.
 - Work with other countries to establish an international coalition to accept 'climate change refugees' when a country becomes uninhabitable because of rising sea levels, damage to coastal infrastructure or reduced food security and water supplies.
 - Provide assistance to preserve the cultural heritage of those who are evacuated.
 - Work with other countries to establish a Pacific Climate Change Alliance to add greater momentum to global efforts to deal with climate change.
19. Establish an immigration program with a quota for 'climate change refugees' which is additional to our current humanitarian quota.
20. Undertake a high-profile educational program to educate the Australian public about 'climate change refugees' to ensure that the public has an understanding of why they need to move and of Australia's responsibility to respond due to our historical emissions.
21. Advocate for a new legal instrument and funding mechanism under the UNFCCC specifically for the protection, compensation and resettlement of 'climate change refugees'.

Introduction

1. This Submission addresses the first term of reference to the Committee's Inquiry: the position Australia should be taking to future international negotiations concerning the 'second commitment period' (beyond 2012), both for itself and other nations.
2. Climate change is already beginning to undermine poverty reduction and sustainable development objectives under the Millennium Development Goals (MDGs), and is set to get worse.¹ It cuts across all development issues and seriously threatens the lives and livelihoods of poor people around the world.² It affects all sectors of development, including food and water security, health and sanitation, displacement and migration, and conflict and disasters.³
3. Developing countries are more vulnerable to climate change because they are more dependent on their natural resources than developed countries, and have a lower capacity to cope with environmental hazards and shocks.⁴
4. The debates on climate change, and Australia's response, must include issues of social justice, equity and responsibility, in addition to science and economics. For poor people in developing countries who currently lack a voice, these issues are a matter of life and death. Their voices must be heard in order for international policy to reflect their urgent needs, and not just the economic arguments.
5. The reality is that climate change is one of the biggest moral and ethical issues facing our planet today. How we rise to the challenge of asking *and answering* the ethical questions, will play a significant part in determining the future of the world's poor.

Australian Leadership in the International Negotiations

6. The United Nations international climate negotiations are at a crucial stage. Governments have less than 18 months to agree a comprehensive deal that will prevent dangerous climate change.
7. This agreement will be one of the most complicated ever agreed to at an international level. It must include ambitious mitigation targets for developed countries that are responsible for the vast majority of the climate change we've experienced up to date. It will also need to involve a fundamental restructuring of the majority of economies, as well as a fair adaptation program, including substantial funding from developed countries for adaptation in affected countries. To be successful, it will also need to include significant technology transfer and finance mechanisms of a magnitude greater than any current programs. What the treaty will eventually look like is currently unknown to any of the players – we are in new and precarious territory.

¹ Oxfam Australia (2007).

² Ibid.

³ Ibid.

⁴ UNDP (2007).

8. However, Australia is in a good position to play a positive role in the international climate negotiations. As a developed country significantly at risk from climate change, an effective international agreement will have substantial benefits for Australia.
9. Australia could ally itself with developing countries who will suffer similar problems such as water shortages and droughts, to create new alliances within the international negotiations. These alliances could put joint submissions, proposals and non-papers to the negotiations, and lobby jointly around points of agreement, effectively building bridges between the developed and developing world. One example would be in supporting the Association of Small Island States' position for keeping warming below 2°C.
10. Australia has traditionally played an active role in international negotiations, 'punching above our weight'. Since the election of the Rudd Government, Australia has made a number of submissions to the UN Framework Convention on Climate Change (UNFCCC). We have strong negotiators, and cover most aspects of the negotiations. Therefore, a positive position from Australia could be magnified in importance.
11. However, Australia has traditionally allied itself with those countries least willing to take meaningful action on climate change in the international negotiations: the United States, Canada and Japan. Australia should use its influence with these countries to change their positions, and become more pro-active in working towards a fair and equitable post 2012 agreement.
12. One way for Australia to move the negotiations forward is to put a European-style set of targets for emission reduction on the table: one target for unilateral action that Australia will take regardless of what others do, and a second target if other developed countries take on targets to do their fair share of emission reduction. Australia must make it clear that it is the responsibility of rich developed countries to lead and take binding greenhouse gas reduction targets first and fastest, and that other countries should take other forms of action provided that these are funded by rich developed countries.
13. Australia should give full consideration to the range of proposals for multilateral funds to finance technology transfer, mitigation and adaptation tabled at recent UNFCCC negotiations.
14. Taking a leadership role amongst developed countries would have a significant, positive impact on the negotiations, and assist the world to achieve a global deal that will deliver a securer future for generations to come.

Delivery of equitable emission reductions in line with less than a 2°C temperature rise

Why 2°C?

15. According to the Intergovernmental Panel on Climate Change (IPCC), global temperatures have already risen by around 0.76°C, with a further 0.6°C locked in due to past emissions even if all future emissions were to

remain at today's levels.⁵ Future 'business as usual' emissions would therefore make it very likely we would pass the 2°C warming threshold unless emissions are drastically reduced.

16. Why does the threshold of 2°C above pre-industrial levels matter? It matters because, while by no means a 'safe' level of warming, 2°C is widely recognised as being a temperature level which would result in dangerous climate change.
17. The overwhelming momentum of the international economic system is sending emissions well beyond this temperature. Current emissions are tracking at the highest levels expected by the most energy intensive scenarios envisioned by the IPCC.⁶ The International Energy Agency has concluded that the momentum of the international system is such that if the current 'business as usual' path of emissions expected by 2030 was to continue until around 2100, we would reach warming of between 4.9-6.1°C.⁷
18. As the IPCC has shown, 3°C of warming would result in many more millions of people being short of water, widespread famines, major species extinctions, and extreme sea-level rises. Such dramatic changes would be highly likely to trigger large movements of people and armed conflicts. 2°C has such serious consequences that we should not consider exceeding it⁸.
19. There is great risk in imagining that we can simply weigh up the costs and benefits and target a particular temperature above 2°C, such as 3.5°C, as being more 'practical'. Such an approach is naïve, since the Earth's climate system is not a simple linear system in which we could rely on coasting to a 'soft landing' at a temperature of our choosing. Instead it is a highly complex nonlinear system with interacting dynamic feedback paths and critical thresholds. Once these thresholds are crossed, the system can flip rapidly into a different state.⁹
20. One of the most significant dangers of crossing the 2°C threshold is that we will unleash a cascade of self-reinforcing processes that guarantee that we reach much higher temperatures and much higher sea-level rises no matter what we try to do. In other words, 2.5°C of warming may lead inexorably to 3°C, 4°C, 5°C, and even 6°C as rainforests dry out and burn, Arctic ice disappears allowing the Arctic ocean to absorb far more heat, and the tundras of northern Russia and Canada thaw out, releasing millions of tonnes of greenhouse gases.
21. The humanitarian and security implications of the impacts of climate change, such as protracted droughts, sea-level rise and water shortages constitute perhaps the largest 'hidden cost' of allowing climate change to run its course. The IPCC has indicated that, if we continue on our current path, around one billion people in Asia are likely to be suffering water shortages by the 2050s, as the river systems previously fed by Himalayan glaciers decline and rainfall decreases in some areas.¹⁰ There are enormous humanitarian and security implications of widespread water shortages across Turkey, Iraq, Iran, Pakistan, Afghanistan, Northern India and Western China, and the costs are likely to be enormous.

⁵ IPCC (2007a), p. 5, (2007b), p. 19.

⁶ Raupach *et al.* (2007).

⁷ IEA (2007), pp. 206-207.

⁸ IPCC (2007b), Figure SPM.2, p. 16.

⁹ Lenton *et al.* (2008).

¹⁰ IPCC, (2007b) p. 13.

22. Economic analyses of the 'costs' of mitigation which neglect the costs of failing to mitigate climate change may be worse than useless, since they give the grossly misleading impression that substantial and urgent mitigation measures are 'expensive' compared with delaying action or doing nothing.
23. Strong action now to mitigate climate change is not the 'net cost' it is so often made out to be in analyses which use baseline projections that assume climate change is not happening. Responding inadequately to the threat of climate change virtually guarantees that our economy will take a far larger hit in the future from the systemic consequences of climate change than the 'costs' of serious mitigation measures today.
24. Recognising the serious consequences of crossing the threshold of 2°C warming, in January 2007 the European Commission drew a line in the sand, recommending that the EU adopt policies to avoid this threshold.¹¹

Emission reductions targets

25. The IPCC has indicated that, to achieve the goal of keeping warming to between 2 to 2.4°C, the reductions in greenhouse gas emissions required from the rich countries are 25-40 per cent below 1990 levels by 2020 and 80-95 per cent below 1990 levels by 2050.¹²
26. We can summarise our situation in three points:
 - We are currently on a totally unsustainable path that will have horrific repercussions for both poor and rich countries if it is allowed to continue. In other words, we are facing a global emergency, the likes of which we have never before seen.
 - We need to restrict warming as much as possible, and 2°C is generally acknowledged as a threshold we should not cross.
 - Massive reductions in emissions are required to achieve this goal – including substantial absolute reductions from rich countries, and significant reductions below what their 'business as usual' path would have been for poor countries.
27. How should Australia respond to this predicament? Should we start mainly from the question 'What can the economy cope with?', or from the question, 'What is needed to avoid disaster and how can we make it happen?'
28. Before we answer, it is worth pausing to contrast the timidity with which mitigation measures are proposed today to deal with a planetary emergency, compared with the rapid general mobilisation a previous generation undertook during the Second World War.¹³ To meet this challenge, we should not be thinking merely in terms of tinkering around the edges of economic policy – but rather calling for another General Mobilisation. The economics of wartime are different from the business-as-usual economics of peacetime – better market signals are of course needed, but alone they are not enough. A General Mobilisation requires governments to take the threat seriously, to show leadership in

¹¹ European Commission (2007).

¹² Gupta et al. (2007), Box 13.7, p. 776.

¹³ Walker (1944).

communicating to the public and to industry what needs to be done, and to make tough decisions about how to achieve it.

29. What would our children and grandchildren think of our generation if we responded to this emergency by trying to ensure that we were not inconvenienced and did not have to make many sacrifices - and as a result left them a legacy of dust and ashes? Our generation faces a stark choice: to recognise and face the scale of the threat facing us and to mobilise accordingly – or to keep our heads in the sand, hoping for the best.
30. In February 2008, McKinsey & Company released *An Australian Cost Curve for Greenhouse Gas Reduction*, showing that Australia could achieve 30 per cent reductions in its greenhouse gas emissions below 1990 levels by 2020, and 60 per cent below 1990 levels by 2030 – without any significant lifestyle sacrifices, technological breakthroughs or massive investments in public transport.¹⁴
31. What would be possible if we took the climate change emergency and the dire threat it poses to the world's poor seriously and demanded a General Mobilisation? What if we did make some sacrifices? What if we did undertake massive investments in public transport? What if we invested hugely in solar, geothermal and wind generation, positioning Australian industries to ride the wave of global refitting in the 2020s and 2030s? Could we achieve at least 40 per cent reductions in our emissions by 2020 under a General Mobilisation? Do we have any excuse that we could explain to our grandchildren why we should not try?

Reducing emissions from deforestation

32. Deforestation currently accounts for approximately 20 per cent of global greenhouse gas emissions¹⁵. This is largely being driven by external demands for timber, beef production and crops including biofuels.
33. Developing countries are the stewards of the world's tropical forests. About 1.4 billion people are dependent on forests to sustain their livelihoods.¹⁶ A majority of these are impoverished and marginalised communities. Past experience has shown that any successful effort to prevent deforestation and land clearing needs the support and involvement of local communities.
34. An essential step in curbing the market that drives destruction of our forests is for countries such as Australia to ban the importation of timber and wood products from illegal sources. The Government has promised a suite of measures to curb illegal logging but is yet to implement them.
35. Accreditation schemes can also be effective in combating illegal logging. For timber certification schemes to be effective they must be transparent and open to independent scrutiny. At present, the Forest Stewardship Council (FSC) is the only body with a certification scheme which provides a credible chain-of-custody to track the flow of certified timber from the forest to the shelf – something which is essential to avoid the laundering of illegal timber into the supply chain. While FSC certification does not always guarantee that timber has been sustainably logged, it provides a minimum standard for timber that can be imported into Australia.

¹⁴ McKinsey & Company (2007).

¹⁵ Raymond et al (2007).

¹⁶ Consultative Group in International Agricultural Research (2006)

36. Schemes to reduce deforestation need to acknowledge the vital role that Indigenous and tribal forest communities play as custodians of the world's rainforests. The right to free, prior and informed consent is a fundamental principle in the UN *Declaration on the Rights of Indigenous Peoples*. Failure to ensure this right risks violation of human rights and customary land rights.

Just adaptation

37. 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

38. In 2007, damages from severe flooding in Northern Fiji cost FJ\$10 million (\$7.1 million)¹⁷. In Tuvalu, king tides destroyed many homes and contaminated food supplies¹⁸. 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 infrastructure¹⁹.
39. 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. These costs are disproportionately borne by countries *not* causing the problem.²⁰ It has been estimated that Australia's fair share of these costs is around US\$1.5 billion (\$1.7 billion) per year.²¹ The costs to vulnerable developing economies are not only unaffordable; they are also a setback to achieving sustainable development and the Millennium Development Goals.
40. 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.

¹⁷ Naicker (2007).

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Various estimates for the global costs of adaptation in developing countries include; Oxfam- at least US\$50 billion per annum, UNDP- US\$86 billion annually by 2015.

²¹ Oxfam International, 'Financing Adaptation: why the UN's Bali Climate Conference must mandate the search for new funds', 4 December 2007. See:

<http://www.oxfam.org/files/financing%20adaptation.pdf>

Current funding woeful

41. To date, international funding efforts have been woeful. In 2007, the 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\$43 million (\$48 million) bringing the total amount pledged to a mere US\$163 million (\$181 million).²² Since September 2007, the rich and high-polluting countries have increased their contributions to the Least Developed Countries Fund by only US\$9.54 million (\$10.6 million) bringing the total pledged to US\$172.84 million (\$192 million)²³. Only US\$91.84 million (\$102 million) has actually been delivered to the LDCF.²⁴ Oxfam's estimate for urgent adaptation needs which should come from this fund is at least US\$2 billion (\$2.2 billion), leaving a yawning gap between what's needed and what has been delivered.²⁵
42. 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\$100-500 million (\$110- 550 million).
43. The global costs for adaptation in developing countries are estimated to be in the tens of billions of dollars per annum²⁶. 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

44. 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'²⁷. This statement 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. Make Poverty History adds to this the need for all policy to be fair, adequate and reliable, as well as sustainable for the world's poor:

- (a) **All multilateral financing for climate adaptation should 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; and

²² These figures are sourced from the Global Environment Facility, as of September 2007.

²³ These figures are sourced from the Global Environment Facility, as of May 2008.

²⁴ Ibid. Australia's contribution to the LDCF is US\$6.6m.

²⁵ 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.

²⁶ Harmeling & Bals (2008); Oxfam (2007a).

²⁷ UNFCCC (1992).

- ensure funds will be managed according to principles agreed by all countries, as part of building developing country ownership and international trust.
- (b) **All financing for adaptation should 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 adaptation.²⁸
- (c) **Financing should be raised through new binding funding mechanisms to guarantee adequate funds for adaptation.** Current funding for adaptation misses the mark spectacularly. Of the US\$1.5 billion (\$1.7 billion) 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).
- (d) **Financing should be unconditional.** Financing should be given as grants not loans, and should be additional to overseas development aid to ensure that we meet existing Millennium Development Goals (MDGs) without diverting already committed funding.²⁹
- (e) **Financing must 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.

45. 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.

Raising and disbursing funds

46. 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 national Emissions Trading Scheme (ETS) is a significant mechanism whereby the Government can raise funds at the level needed, as revenues from auctioning can be significant. Make Poverty History believes that, as far as possible, all permits should be auctioned to create a real incentive for companies to invest in emission reductions at the installation level. Revenue from the sale of the permits should be used to:

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

47. Equal priority should be given to achieving these three objectives. This includes assisting developing countries with reducing their emissions and adapting to the unavoidable impacts of climate change. ETS revenues should be used to contribute to the UN Adaptation Fund because it is best placed to fulfil the principles set out above.

²⁸ Oxfam International (2007); Bauer et al (2007); Tearfund (2007).

²⁹ Oxfam International (2007); Make Poverty History (2008).

48. Revenues earmarked for developing countries from Australia's ETS 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. The Clean Development Mechanism (CDM) is one of the carbon reduction strategies developed under the Kyoto Protocol. It enables developed countries to pay for emission reductions in developing countries rather than domestically. CDM projects include methane extraction from landfills, gas capture, hydro-electric dams, afforestation and reforestation, and energy and energy projects.
49. In disbursing funds and addressing global adaptation needs, the Australian Government should:
- engage with business to a) raise awareness of 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;
 - provide expertise to developing country governments in developing high-quality national adaptation programs of action (NAPAs);
 - recognise 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;
 - reduce barriers to relevant information and technology;
 - target investment in local capacity to manage the economic, public health and other consequences of climate change;
 - expand existing disaster preparedness measures, including both partner country systems and Australian response capability; and
 - develop new livelihoods programs targeting resilience in the agricultural sector and alternative livelihoods for small producers whose farming becomes untenable.

Technology Transfer to Developing Countries to address Climate Change

50. The need for technology transfer was emphasised in 1992 in Agenda 21 and the UNFCCC Articles 4.3, 4.5 and 4.7. Article 4.5 states that developed country Parties and other developed parties included in Annex II shall:

"...take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other parties, particularly developing country Parties, to enable them to implement the provisions of the Convention."

Article 4.7 states:

"The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology"

and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.”

51. Transfer of environmentally sound technology is crucial for keeping global warming below 2°C, reducing developing countries' vulnerability to climate change and assisting them to adapt.

Developing Countries' need for Technology Transfer

52. The International Energy Agency (IEA) has estimated that US \$16,000 billion (\$18,000 billion) in new investments in the global energy supply infrastructure alone would be required between 2001 and 2030. Almost 60 per cent of these investments would occur in developing countries and economies in transition which continue to face considerable challenges in attracting private sector funding.
53. Developing countries need to “leapfrog” a technological generation or two if greenhouse gas concentrations are to be stabilised. They must avoid, as far as possible, the trap of reliance on fossil fuels and move directly to environmentally sound technology. Those developing countries with limited research capacity of their own are more likely to rely on technology transfer.
54. Technologies for adaptation must be specific to local contexts and appropriate for communities. Many of the technologies need to go beyond traditional 'hard' technologies such as infrastructure development and include 'soft' technologies such as knowledge, know-how and organisational capacity.
55. There is also a need to assist governments in being able to monitor their own industries and know who is undertaking what activity with what levels of greenhouse gas emissions. If a government does not know what its industries are doing, then it is very hard for it to assist or pressure those industries to adopt cleaner technologies.
56. One of the key issues forming a barrier to technology transfer is a lack of financial capacity by some developing countries to be able to buy technologies they need, combined with the desire of those who have the technology to make a profit from it.

Mechanisms for Technology Transfer

57. Carbon markets and prices have been shown to help drive the adoption of lower carbon technology and can assist in the transfer of technology if designed and implemented appropriately. It must be recognised that markets on their own will not be sufficient to facilitate all the technology transfer that is needed.
58. Many developed country governments, including Australia, prefer to leave funding for technology transfer up to the market. In contrast, many developing countries would prefer the governments of developed countries to play a more active role in facilitating technology transfer.
59. Often developed countries, including Australia, see any funding they provide for technology transfer to developing countries as an expense that

should come out of existing overseas aid budgets. This has the potential to reduce the amount spent on measures to address poverty reduction and fails to address Australia's obligations under the UNFCCC. Developed nations have a clear responsibility to ensure that technological assistance for climate change mitigation and adaptation is based on *transparent additional* financing, so that it can be integrated with, rather than detracting from, other programs for development and poverty alleviation.

60. The complexity in dealing with technology transfer also comes from the interplay involving both governments and private companies. Developed countries have tended to argue that the technology is in the hands of private companies and they are not in a position to force private companies to share the technology and certainly not to share it for free.
61. Further, the recipients of technology transfer may need to be companies in developing countries, which are private entities in themselves rather than state run enterprises.

Australia's actions to date

62. The Australian Government has viewed technology transfer largely as something to leave to the private market - if developing countries need certain technologies to deal with climate change they need to be able to pay for them. The Australian Government has seen a role for itself in public-private sector partnerships to develop new technologies and to assist in the funding of demonstration projects.
63. There have been some small-scale technology transfer projects through the aid budget, such as installation of solar panels in the Pacific, and the Australian Government has assisted China in developing renewable energy laws.
64. Australia has supported the use of multilateral funding to help developing countries to be able to put together project proposals for their technology needs to deal with climate change.
65. The Asia-Pacific Partnership on Clean Development and Climate (AP6 or APP) is a technology transfer program. It involves Australia, Canada, China, India, Japan, the Republic of Korea and the United States with the stated aim of addressing the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty. APP is focused on the development and deployment of cleaner, more efficient technologies and involves technology sharing. Australia committed to funding of \$100 million over five years, with \$60 million committed so far to 44 projects. Some of these projects are directed to continuing the use of fossil fuels, but at lower emissions intensities (i.e. emissions per unit of energy produced). There is clearly a great need for Australia to do more to advance technology transfer.

'Climate Change Refugees'

66. Pacific Island nations are increasingly vulnerable to extreme weather events, collapsing ecosystems and the contamination of their fresh water and crops with salt water³⁰. The entire nation of Tuvalu faces the prospect of total inundation by rising sea levels, as do islands in Vanuatu, Kiribati,

³⁰ Friends of the Earth Australia (2007).

the Marshall Islands, the Federated States of Micronesia and islands of Papua New Guinea.

67. Since 2000, two villages in the Pacific Island nation of Kiribati have been evacuated,³¹ while the people of the Carteret Islands are now preparing to permanently relocate to Bougainville. These 'climate change' refugees are the first of what will be large movements of people within our region as a result of the effects of climate change. While it is difficult to ascertain to what degree climate change has caused sea-level rise experienced to date, it is undoubtedly a significant contributing factor. Furthermore, the fact that impacts are being felt now highlights the vulnerability of people living in low-lying areas to rising sea levels caused by climate change.
68. As one of the largest per capita greenhouse gas polluters in the world, Australia should develop and implement policies which accept our responsibility for 'climate change refugees'.

Australia's role in assisting 'Climate Change Refugees'

69. Australia should develop and implement all of the policies relating to climate change in the Pacific outlined in Labor's 2007 National Platform.³² In relation to 'climate change refugees', these policies are:

- Assistance with intra-country evacuations when citizens have to be moved from low-lying areas to higher ground;
- Establishing an international coalition to accept 'climate change refugees' when a country becomes uninhabitable because of rising sea levels, damage to coastal infrastructure or reduced food security and water supplies;
- Assistance to preserve the cultural heritage of those who are evacuated, and
- Training to assist citizens of countries that have to be fully evacuated.

70. In addition, Australia should:

- Establish an immigration program with a quota for 'climate change refugees' which is additional to our current humanitarian quota; and
- Undertake a high-profile educational program to educate the Australian public about 'climate change refugees', why they need to move and what our responsibilities to them are.

Assistance with intra-country evacuations

71. For Least Developed Countries (LDCs) and Small Island Developing States (SIDS), relocation of displaced communities will place an enormous burden on governments if they are not provided with financial assistance. The cost of relocating and resettling approximately 3,000 people from the Carteret islands in Papua New Guinea to Bougainville will be approximately \$5.6 million over seven years. Tulele Peisa NGO, a non-government organisation based in Bougainville, is facilitating the relocations.

³¹ Reuters (2007).

³² Australian Labor Party (2007).

72. A large range of considerations will need to be taken into account when communities are relocated including: environmental suitability; land tenure and legal issues; social and economic suitability; proximity to water, good agricultural land and transport, and whether the community will remain together at the new site(s).³³ Particular consideration will need to be given to culturally distinct groups of people who are displaced from their homes. It is also important that relocated communities be involved in decision-making processes and that there is appropriate consultation with recipient communities. Ongoing resourcing will need to be provided in many instances beyond the initial relocation phase.
73. As with other forms of adaptation and mitigation in developing countries, funding for relocation must be provided according to historical responsibility for emissions and capacity of countries to pay. Australia's historical emissions are far higher than those of most nations in our region. The Australian Government should therefore provide funding for relocation and disaster relief related to climate change and take responsibility for funding culturally sensitive relocation for other people affected by rising seas in our region.

An Australian immigration program for 'Climate Change Refugees'

74. Australia must start now to develop immigration policies which will be prepared for the eventuality of people displaced from their nations due to climate change, before it is an emergency situation. This will need to be done in consultation with the governments of Pacific Island nations like Tuvalu and Kiribati to ensure that Australia can meet the needs of their populations. It is also essential that a quota for 'climate change refugees' is additional to existing quotas in Australia's current humanitarian program.

International Protection for 'Climate Change Refugees'

75. The Australian Labor Party's 'Our Drowning Neighbours' policy discussion paper states that:

'Australia should help to develop a coalition of Pacific Rim countries willing to accept climate change refugees', and that 'Australia should be working at the UN to ensure appropriate recognition of climate change refugees in existing conventions, or through the establishment of a new convention on climate change refugees'.³⁴

76. In the short term, Australia should work with other nations in the Pacific region to establish a coalition of nations to accept 'climate change refugees' from nations which become uninhabitable due to the impacts of climate change. On current projections, Tuvalu is likely to be the first country that is fully evacuated due to climate change, but ultimately Kiribati, the Marshall Islands and others may also have to confront this scenario.

77. In the long-term, protection for 'climate change refugees' needs to be included in international law. One option would be to expand the definition

³³ Campbell, Goldsmith and Koshy (2005).

³⁴ Sercombe and Albanese (2006).

of 'refugee' currently enshrined in the 1951 *United Nations Convention relating to the Status of Refugees*. However, there are potential problems with this approach: such a development could result in a dilution of the current definition of 'refugee', and possibly reduce the level of protection afforded to political refugees, strain the already limited resources of the United Nations High Commissioner for Refugees (UNHCR), and leave many 'climate change refugees' who are internally displaced, unprotected.

78. An alternative, proposed by Biermann and Boas in 2007, is a new legal instrument and funding mechanism under the UNFCCC specifically for the protection, compensation and resettlement of 'climate change refugees'.³⁵ This proposal does not take into account other (non-climate) 'environmental refugees' and would include 'climate change refugees' who are displaced both internally and externally.

³⁵ Biermann and Boas (2007).

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