

AUSTRALIA RESPONDS: HELPING OUR NEIGHBOURS FIGHT CLIMATE CHANGE



THE CLIMATE CHANGE AND DEVELOPMENT ROUNDTABLE



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THE CLIMATE CHANGE AND DEVELOPMENT ROUNDTABLE



EXECUTIVE SUMMARY

The world's poorest people – many of whom are already experiencing the effects of climate change – will be the worst hit under climate change with impacts for the developing world predicted to be far more devastating than in industrialised nations.

Australia is certainly vulnerable to the impacts of climate change, but not as vulnerable as many of our neighbours in the Asia Pacific. As a signatory to the United Nations Framework Convention on Climate Change (UNFCCC), Australia recognises industrial economies have a historic responsibility for climate change and therefore need to take the lead role in avoiding dangerous climate change. Despite this, Australia has one of the highest per capita greenhouse emissions levels in the world and is the world's 17th largest greenhouse polluter.

Australia is also a signatory to the Millennium Development Goals, a global blueprint seeking to halve extreme poverty by 2015. A recent World Bank report noted that a quarter of its development projects are at risk from climate change¹. The report highlighted that efforts to put an end to extreme poverty through more and better aid, debt relief and trade reforms are challenged by greenhouse pollution. Thus it is crucial that the economic growth required to reduce poverty occurs sustainably and does not exacerbate vulnerability through climate change.

This is graphically illustrated by the impacts expected in our region - including threats to water security; prolonged drought; storm surges; sea-level rise; more intense tropical cyclones and other extreme weather events² – as highlighted by the CSIRO report *Climate Change in the Asia Pacific Region*.

Drawing on this CSIRO report and its own experiences, the Climate Change and Development Roundtable has also independently developed *Australia Responds: Helping Our Neighbours Fight Climate Change* which outlines recommendations that will better prepare Australia to respond to the growing regional threat of climate change and develop a proactive strategy to lessen its impacts on our regional neighbours.

This paper makes recommendations focused on the long-term causes and impacts of climate change upon developing countries in the Asia Pacific region. If ignored, these changes will undermine the value and impact of current aid spending. An inadequate response to the challenge of climate change will also lead to far greater calls for assistance for those displaced by the impacts of climate change, either in-country or as they seek to migrate across borders. Given Australia's strong record of assisting neighbouring countries in responding to natural disasters, the impacts of climate change will require us to respond far more frequently.

This report recommends that Australian aid needs to:

- Assist in a low-carbon path to development that focuses on renewable energy and energy efficiency
- Build resilience within communities to better withstand climate change impacts
- Assist with, and prepare for, the growing requirement for disaster management

In addition Australia has a domestic and regional responsibility to:

- Reduce our greenhouse gas emissions
- Assist people displaced by climate change
- Take a whole-of-government approach to climate change

The objective of Australia's aid program is to assist developing countries to reduce poverty and achieve sustainable development, in line with Australia's national interest.³ The introduction of an

environmental strategy, which includes climate change, in the recent White Paper on Australian Aid is a good first step. We welcome the recognition in the White Paper that the Asia Pacific region faces "major environmental challenges that will intensify in the coming years".⁴

Adopting the recommendations within this report will further bolster the work to achieve Australia's aid program objectives, while providing peace of mind to Australian taxpayers that Australian aid is working effectively.

This report was produced by Australia's Climate Change and Development Roundtable, comprising aid, development, church and environment NGOs. The Roundtable was formed in recognition that poor people in developing countries are particularly vulnerable to the impacts of climate change; that Australia must join with the global community in reducing greenhouse emissions, and that international aid and development agencies need to consider the implications of climate change for their programs and policies.

The key recommendations are:

- Increase Australia's overseas development assistance (ODA) in line with most other developed nations to 0.5% of GNI by 2009-10, and 0.7% by 2015.
- That the Environment Strategy being prepared for Australia's Overseas Aid program:
 - Integrate climate change considerations into all relevant parts of Australia's ODA program planning and evaluation, including assistance for internal displacement
 - Dedicate the majority of Australia's ODA energy sector spending to renewable energy and energy efficiency projects
 - Provide significant additional aid funding dedicated to renewable energy and energy efficiency projects
 - Integrate climate change risk factors into ODA projects focused on the management of freshwater resources for human consumption and more efficient water usage
 - Prioritise support for the reduction of greenhouse emissions and fostering of low-greenhouse development in ODA projects focused on implementing/strengthening of environmental regulatory regimes
- Review Australia's immigration program in light of the expected impacts of climate change. This review should consider mechanisms to support people displaced by climate change within the region.
- Make a strong commitment to support disaster risk reduction, mitigation and preparedness measures within the ODA program.
- Adopt a national framework for reducing Australia's greenhouse gas emissions by at least 60% of 1990 levels by 2050, with an implementation timetable that will provide a 20% reduction in greenhouse gas emissions by 2020.
- Fully participate in international efforts that seek to avoid dangerous climate change through mandatory means, starting with the ratification of the Kyoto Protocol.
- Ensure a whole-of-government approach to climate change
 - undertake an audit of all programs that directly or indirectly encourage greenhouse pollution increases and that raise vulnerability to climate change impacts throughout the region.⁵

1.0 INTRODUCTION

Coastal life in Papua New Guinea could change dramatically under climate change. © Oxfam Australia



The release of greenhouse gases into the atmosphere is changing the global climate.⁶ With the implications of climate change including threats to water security, sea-level rise, more intense tropical cyclones and other extreme weather events,⁷ it is clear that climate change is of great significance to the developing world and the role of Australia's foreign aid.

Communities and natural systems around the world are already experiencing the effects of climate change, and scientists warn that impacts on the developing world will be far more devastating than in industrialised nations like Australia. This is because developing countries have economies that are generally more reliant on climate-sensitive natural resources such as agriculture, fisheries and forests; that poor people do not have the resources to mitigate the impacts of climate change; and infrastructure is far less able to cope with the impacts of severe weather events. According to the World Health Organisation, climate change is already causing 150,000 deaths and 5 million extra cases of severe illness annually.⁸ The World Bank estimates people in low-income countries are four times more likely to die in natural disasters than people in high-income countries.⁹

While economic growth has reduced poverty in many Asian countries there are still hundreds of millions of poor people in the region and these rapidly developing economies have added to climate pressures. In many Pacific communities poverty has increased and population growth has added to vulnerability.

The recent White Paper, *Australian Aid: Promoting Growth and Stability*, reinforced the Australian Government's commitment to poverty reduction, sustainable development and progress towards the Millennium Development Goals (MDGs). The paper - a framework for Australia's aid over the next 10 years - has brought some welcome developments, particularly the introduction of an environmental strategy that focuses on climate change and adaptation, water, and implementing or strengthening environmental regulatory regimes. However the White Paper would have benefited from explicitly addressing the problems of deforestation linked to climate change, and the function of forests in mitigating the impacts of climate change events.

Australia now has the opportunity to take heed of scientific knowledge and undertake appropriate action to both mitigate climate change through domestic policies and assist developing nations in their responses. This will result in Australia acting to minimise the impact of climate change and Australian aid being best spent to ensure it helps recipient communities follow a low-carbon path to development, adapt to the changed conditions of climate change, and provide adequate disaster management programs.

Future Australian aid must be framed within the reality of the many changed conditions that will come with expected climate change impacts. An increasing number of scientists believe that the impacts of climate change are occurring at a much faster rate than they had anticipated¹⁰ - we have no time to lose.

2.0 THE CURRENT SITUATION

King tide in Kiribati in February 2005. The salt water washes through the crop gardens and contaminates fresh water reserves. © Greenpeace



2.1 Regional Greenhouse Pollution

The Asia Pacific region accounts for over 35% of global greenhouse gas emissions.¹¹ However between nations there are major differences in total emissions, projections of emissions growth, per capita emissions and energy use, and historical contributions to the build-up of greenhouse gases in the atmosphere. This is driven by different levels of development, wealth, population and the greenhouse intensities of energy use (Table 1).

Although the region has a profound economic, cultural, and environmental influence on the global community, much of the countries within the Asia Pacific region represent developing nations still in transition to mature market economies. This is readily demonstrated by comparing some vital statistics of Australia or a regional economic centre such as Singapore with those of the region's less developed nations (Table 1). Singapore is almost exclusively an urban nation devoted to an industrial and service economy. It has high per capita gross domestic product (GDP), high rates of education and literacy among its population, and access to secure resources such as drinking water. In contrast, other Asia Pacific nations, including Singapore's neighbours, have per capita GDPs an order of magnitude lower than that of Singapore, lower literacy rates, and lower access to safe water.

Within the Asia Pacific region Australia makes a disproportionate contribution to climate change. Despite our relatively modest population the average Australian produces more greenhouse pollution, uses more energy and has historically contributed more to the build-up in greenhouse gases in the atmosphere than the average person in any other country in the region. On average Australians create more than eight times the greenhouse pollution per person than the average Chinese person, and have contributed more than 170 times the amount of greenhouse pollution to the atmosphere than a Bangladeshi. Australia's absolute emissions are comparable to Indonesia, a country of over 200 million people.

However, China and India do have significantly higher total greenhouse levels than Australia. In this context it is worth looking at the range of government policies that the region's top emitters have implemented to curb emissions (see Table 2). Again, Australia's policies to reduce greenhouse pollution are well behind other major emitters within the Asia Pacific.

Australia is also the world's largest coal exporter and the majority of this coal is sent to our regional neighbours. By 2010, the volume of Australian coal exports is expected to reach 287 million tonnes, three times the amount of coal used in Australia each year.¹⁷ This has strongly influenced Australia's foreign policy which actively promotes the use of coal, further entrenching the region in highly polluting greenhouse technologies. For example, from 1993 to 2003, Australia's export credit agency (EFIC), gave \$7.6 billion to facilitate coal exports and fossil fuel power infrastructure. It gave just \$67 million to renewable energy, less than one per cent of its coal spending.¹⁸

2.2 Climate Change Impacts for the Asia Pacific

Climate change is a global problem, and impacts will be felt all around the globe. The Climate Change and Development Roundtable commissioned a report from the CSIRO in order to better understand the impact that climate change would have on our Asia Pacific neighbours. This region was chosen as it is the region in which the majority of Australia's aid is delivered, it is the geographic region that includes Australia, and the impacts of climate change are not well documented across the region. The CSIRO report, *Climate Change in the Asia Pacific Region*, notes the following:

- Many areas within the Asia Pacific region are vulnerable to the effects of climate change. Thus the decisions made by nations within the region in the decades ahead, and their ability to access resources to plan for a changing climate, are likely to be critical issues affecting their response to climate change over the next century.

Table 1 Vital Statistics for Selected Asia Pacific Nations ¹²

Nation	Pop. Growth Rate	GDP Per Capita ¹³	Agriculture as a share of GDP	Pop. Access to Safe Water	Adult Literacy	CO2 Emissions p/ capita (tons)
Australia	1.1%	\$23,249	3.5%	100%	-	17.3
Singapore	1.5%	\$18,707	0.1%	100%	92.5%	13.1
Bangladesh	1.9%	\$399	22.7%	75%	40.6%	0.2
China	0.6%	\$799	15.4%	77%	82.8%	2.7
India	1.6%	\$543	22.7%	86%	58.0%	1.0
Papua New Guinea	2.1%	\$971	26.9%	29%	64.6%	0.5
Vanuatu	2.0%	\$1,151	15.1%	60%	-	0.4
Vietnam	1.4%	\$171	23.0%	73%	92.7%	0.7

Table 2 National Greenhouse Policies of the Region's Top Five Emitters ¹⁴

	Reducing emissions through Kyoto Protocol ratification ⁱ	Requirements to reduce energy consumption ⁱⁱ	Targets to increase the proportion of renewable energy ⁱⁱⁱ Targets to increase the proportion of renewable energy ^{iv}	Program to explicitly price greenhouse emissions from energy use ^v	Incentives to promote clean energy R&D [†]
Australia	No ¹⁵	Some (measures largely voluntary with some exceptions in building and appliance standards)	No ¹⁶	No	Yes (includes \$500 million low emission technology fund)
China	Yes	Yes (includes target to cut energy use per unit of economic output by 20 percent by 2010 and car fuel efficiency standards comparable to Japan)	Yes (includes target to double renewable energy use to 15% by 2020)	No	Some
India	Yes	Some	Some (includes non-binding target of 10% of added power capacity by 2012 and has proposed long-term targets by the year 2032 of 15% of power capacity and 100% use of solar hot water in all possible applications)	No	Some
Japan	Yes	Yes (includes laws requiring 80% of Japanese industry to meet energy efficiency standards and preferential taxation on fuel-efficient and low-emission vehicles)	Yes (includes legislation to increase renewable energy production by four times that generated in 2002 by 2010)	Yes (includes tax on fossil fuels to equalise tax burden and take account of the amount of CO2 emitted in energy use)	Yes (include measures to promote the diffusion of solar technologies)
South Korea	Yes	Yes (includes target of 7% reduction of total primary energy consumption in 2008)	Yes (includes target to expand renewable energy generation capacity 21% of 2004 levels by 2013)	No (however some tax incentives do exist and early introduction of domestic emission trading is being reviewed)	Yes (includes \$150 million funds for renewable and other low emission technology)

i Ratification of Kyoto Protocol and participation in international short-term emissions reduction efforts through Kyoto's Clean Development Mechanism and Joint Implementation.

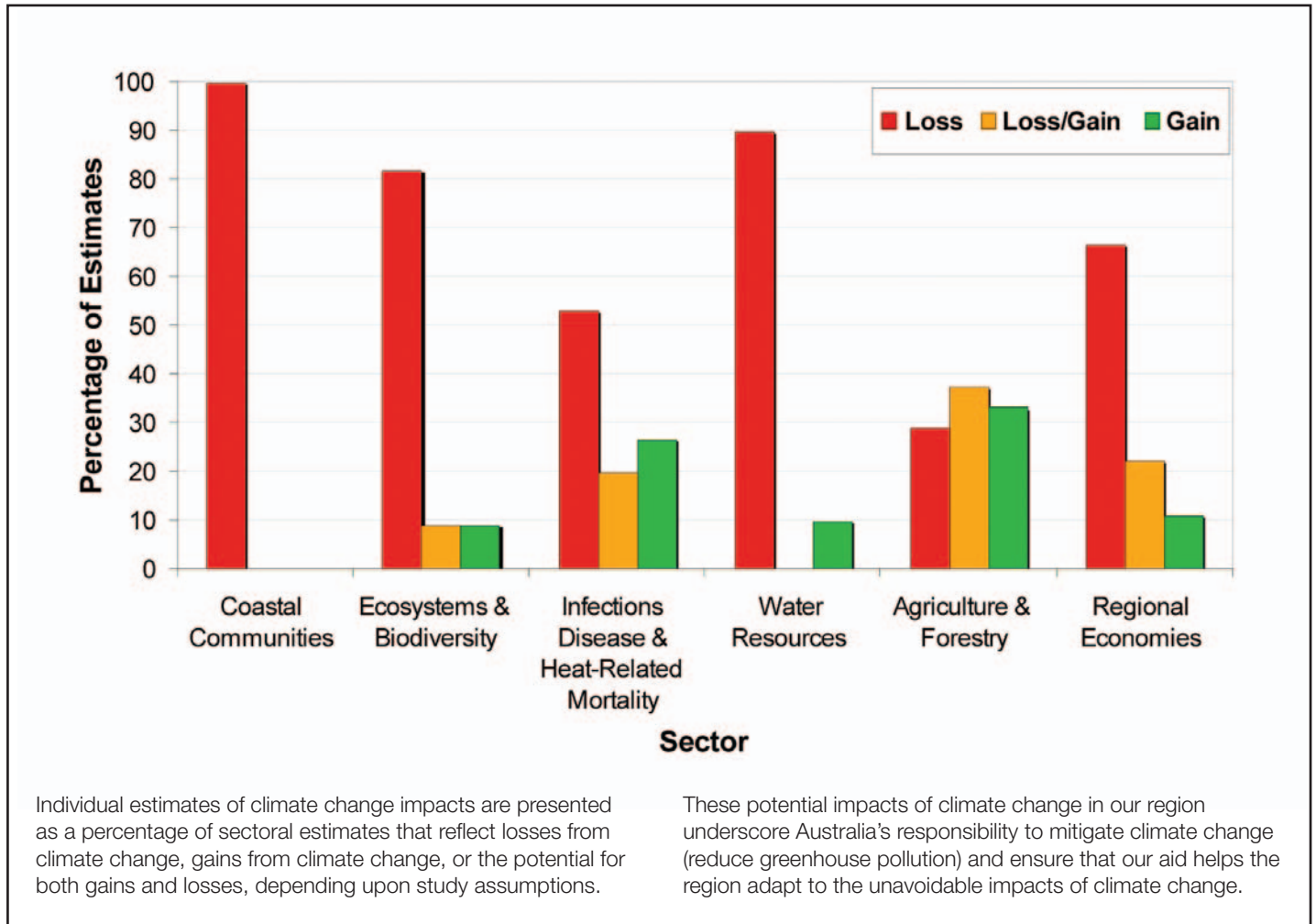
ii Reducing energy consumption requires a broad range of policies and measures. Criteria are based on whether the country has a national energy efficiency target and/or mandatory measures to reduce national energy consumption.

iii International best practice for renewable energy policy includes establishing mandatory targets and policies that increase the proportion of renewable energy generated.

iv Internalising the environmental and social costs of carbon is essential to drive large-scale investment in renewable energy. Note that while developing countries currently do not have carbon pricing schemes it can be argued that current Kyoto mechanisms do provide a financial reward to countries who invest in emission reductions.

v Includes government funded research and development into advanced clean energy options. Also includes bilateral and multilateral technology development agreements.

Graph 1. Indicators of the Vulnerability of Several Asia Pacific Sectors to Climate Change.*



*Climate Change in the Asia Pacific Region CSIRO 2006

Floods in East Jakarta, 2002. Urban infrastructure could not cope with the deluge and people were forced from their homes. © World Vision

- A review of 187 different regional and national estimates of the potential impacts of future climate change to various sectors within the Asia Pacific region confirms that there is little room for optimism. See Graph 1 on previous page.
- Existing challenges to human security in the region may be exacerbated by a broad range of climate change impacts. For example, the displacement of human populations caused by devastation of coastal areas, increased disease and heat-related mortality, reduced availability of water and the costs associated with managing water resources.
- Climate risk may be ameliorated through two complementary strategies: mitigation and adaptation. Mitigation is necessary to reduce the magnitude and rate of climate change to which the region is exposed over the long-term, but does little to address climate risk in the near term, particularly in the least developed nations.
- Investments must be made in increasing the capacity of Asia Pacific nations to adapt to climate change by mainstreaming adaptation into development assistance that addresses needs with respect to governance, education, health, technology, security and disaster management.
- Furthermore, effective implementation of adaptation and capacity building projects is key to reducing future vulnerability of Asia Pacific nations to climate change, particularly with regard to the development and maintenance of institutions and communities that are knowledgeable and capable of effective decision-making, resource management and risk management.



2.3 Australia's Foreign Aid and Climate Change

The objective of Australia's aid program is to assist developing countries to reduce poverty and achieve sustainable development, in line with Australia's national interest.¹⁹ The increased focus on climate change through the introduction of an environmental strategy in the recent White Paper on Australian Aid is a positive step in addressing these issues.

However it is crucial that the focus on climate change be all-inclusive. Lessons can be learnt from the British Government's recent White Paper on International Development²⁰ in which climate change is one of five key focus areas. The paper outlines how Britain is working towards a global solution to climate change and how its aid program is addressing adaptation measures. It also states that the G8 and the World Bank plan to develop aid programs which take the impacts of climate change into account. Australia's aid program similarly needs to comprehensively address the significance of climate change to development.

In addition it is important to note the realisation of the Millennium Development Goals (MDGs) is already being undermined by the impacts of climate change.²¹ Indeed Professor Richard Odingo, Vice-Chairman of the Intergovernmental Panel on Climate Change, asserts "climate change will make it impossible for the world to achieve the Millennium Development Goals".²² As the Australian Government has reinforced its commitment to achieving the MDGs in the White Paper,²³ it is therefore essential to adequately address climate change through its aid program.

This family lost their house, crops and animals in a flash flood that hit Dhemaji, in Assam, Eastern India in 2004. © World Vision



3.0 AUSTRALIAN AID – MAKING IT SMARTER

Solar power projects in PNG - the smart way forward.
© Oxfam Australia

3.1 Introduction

In order to minimise the effects of climate change and assist developing nations to follow low-greenhouse development paths, Australia's aid must directly address climate change. The proposed environmental strategy for Australia's aid program – highlighted in the recent White Paper – is a step towards achieving this end. However a more comprehensive approach is required.

The AusAID Environment Strategy to be developed in 2006 should:

- Assist in a low-greenhouse path to development
- Build resilience within communities to better withstand climate change impacts
- Assist with the growing requirements for disaster management

To achieve this, funding should not be reduced from existing programs but rather additional capacity will be required. This would be possible if Australia joined other developed nations committing to invest 0.5% of gross national income (GNI) in overseas aid by 2010 and 0.7% by 2015.²⁴ A recent, and welcome, increase in overseas aid commitment would have Australian aid at 0.35%, 18th out of the 22 richest countries.

3.2 Enabling a Low-Greenhouse Path to Development

Under the United Nations Framework Convention on Climate Change (UNFCCC), whilst developed countries are obliged to act first to reduce their greenhouse pollution, developing countries have expressed their willingness to be part of the solution by following a lower greenhouse path to development. As a party to the UNFCCC, Australia has committed to assisting developing countries in the transfer and use of technology with low-carbon emissions.²⁵ Many developing nations have also ratified Kyoto, the only internationally binding agreement to tackle climate change, showing their commitment to global action to avoid dangerous climate change.

It is recognised that access to energy services is fundamental to development. There are clear links between the provision of energy and increases in human development indicators.²⁶ However, the provision of basic energy services is sorely lacking in some parts of the Asia Pacific region, particularly in lesser developed countries. It is estimated that more than 70% of people in the Pacific still do not have access to electricity.²⁷

Prioritising support for the provision of energy efficiency, demand management, and renewable energy²⁸ is a key way Australia can meet its objectives of poverty alleviation and sustainable development through its aid program, while also addressing climate change and meeting its obligations within the UNFCCC. These technologies enable developing countries to leap-frog polluting technologies and start using sustainable energy technologies that do not induce further climate change. Such technologies would assist developing countries to escape being caught in the fossil fuel investment cycle.

The White Paper on Australian Aid rightly prioritises clean energy initiatives. The Clean Development Mechanism (CDM) within the Kyoto Protocol is the prevailing instrument the global community is using to drive the successful transfer of renewable energy technology from the developed to the developing world. Current investments through the CDM are projected to result in the avoidance of more than one billion tonnes of greenhouse pollution



being emitted to the atmosphere by 2012.²⁹ As Australia has not ratified the Kyoto Protocol it is not able to participate with aid recipients in CDM projects. This is a key missed opportunity.

It is imperative that aid dollars go to energy projects that produce minimal greenhouse gas emissions and consist of commercially proven technologies that can help communities immediately. Renewable energy, energy efficiency and demand management technologies fulfill this criteria and are ideally suited and cost-effective in the often decentralised nature of energy generation within developing countries. As well as decarbonising development, the provision of renewable energy has the ability to help address employment, health, gender and equity issues, in addition to increasing independence from imports and providing local control over energy production.³⁰

Despite these many benefits of renewable energy, in recent years the proportion of AusAID funding for such projects has been decreasing; in 2004-05 only \$238,000 was devoted to such projects from an aid budget of \$2.25 billion.³¹ While, as detailed earlier, the Australian export credit agency (EFIC) provided the renewables industry with less than 1% of the support it spent on the coal industry.

The Roundtable recommends:

- The majority of Australia's ODA energy sector spending is on renewable energy, demand management and energy efficiency projects – and that the amount spent in this area increases in subsequent years.
- Australian ODA supports communities to build their local capacity in renewable energy and energy efficiency technology:
- Where possible and where appropriate, energy sector spending should incorporate programs at a range of levels including support for sustainable locally owned and managed energy initiatives and support for national and regional energy efficiency initiatives
- Prioritise renewable energy and energy efficiency over fossil fuel generation



- Use its funding and executive influence in International Financial Institutions to ensure they adapt similar policies
- The majority of support for Australia's energy exports from EFIC be provided to the renewables sector
- Conduct and publish an annual audit of the carbon emissions generated by the Australian aid program.

3.3 Adaptation

Adaptation refers to the development of additional capacity within communities to cope with the many environmental, social, economic, and health impacts that climate change will bring. Climate change adaptation programs are a key part of the environmental strategy for Australia's aid, as noted in the recent White Paper.

Accordingly, Australia's aid program should:

- Support community education and awareness-raising activities to inform communities about climate change and its likely impact on their lives. This can be incorporated in community disaster preparedness planning and mitigation activities
- Fund research and targeted programs to help communities adapt to problems created by climate change
- Systematically incorporate climate risk factors into all its ODA programs

This approach will maximise the resilience of communities and reduce their vulnerability to the impacts of climate change – making Australia's aid more durable and effective.

Table 3 (overleaf) – which is by no means exhaustive – provides tangible examples of how Australia's ODA programs could implement adaptation-specific activities across a multitude of program areas, to help communities adapt and prepare for climate change. Key to their success would be the inclusion of community input into research, design, decision-making and implementation.³²

But adaptation concerns should not solely be the domain of targeted projects – the entire Australian ODA program would benefit from systematically incorporating climate risk factors into its activities. A set of precautionary principles should be developed to address the broad application of climate change considerations. Such guiding principles may include:

- Development programs should not increase the vulnerability of communities to the impacts of climate change.
- Measures to adapt to a changing climate should not further fuel climate change. For example: the building of a desalination plant powered by renewable energy rather than fossil fuels, to deal with water shortages.
- Strategies to address climate change must include informed decision making and consent of communities.
- Measures which local communities and organisations are already taking in preparation of climate change should be supported.
- Where possible projects should use local labour and locally sourced materials where this will reduce the amount of fossil fuels used, hence reducing the project's 'carbon footprint'.
- Where possible, all levels of government, aid agencies, NGOs, partners and communities should share information and coordinate adaptation responses.³⁹ This will help guard against working at cross-purposes.

The Roundtable recommends:

- Ensure adequate research is undertaken to fully understand the impact of climate change on vulnerable communities.
- Develop ODA programs that specifically focus on climate change adaptation projects; support for community education programs, and building on local knowledge and capacities. See Table 3 below for more detailed examples.

- Integrate climate change risk factors into all ODA program planning and evaluation.
- Contribute to internationally coordinated adaptation funds under the UNFCCC (Special Climate Change Fund, Least Developed Country Fund, Strategic Priority on Adaptation and Kyoto mechanisms). Australia should also consider other regional funds or partnerships to increase funding for adaptation programs within the Asia Pacific region.

Table 3 Some Examples of how Australia’s ODA Programs could implement adaptation measures

PROGRAM AREA	POSSIBLE RESPONSE
Food Security and Livelihoods	<ul style="list-style-type: none"> • Provide support for communities to build grain banks for the storage of food and seed stock • Work with communities to explore and develop diverse income generating programs to enable communities to increase their capacity to withstand climate change shocks ³³ • Work with governments and communities to ensure a healthy natural environment and ecosystems which communities depend on for livelihoods
Water Security	<ul style="list-style-type: none"> • Protect crucial water catchments to ensure on-going supply of clean drinking water • Provide support for communities to harvest rainwater for domestic/agricultural purposes • Work with government authorities to reduce mains leaks • Develop awareness raising programs on water conservation • Work with communities to develop advocacy strategies that target the inefficient use of water resources by the government and corporate sectors
Public Health	<ul style="list-style-type: none"> • Design buildings to allow improved ventilation for the reduction of heat stress and discomfort • Implement public awareness programs for areas experiencing new diseases such as dengue fever and malaria, and promote methods for vector control • Establish early warning systems for diseases such as malaria and for extreme weather events • Support community health centres in planning for potential outbreaks of vector borne diseases

PROGRAM AREA	POSSIBLE RESPONSE
Urban planning and infrastructure development	<ul style="list-style-type: none"> • Improved storm water infrastructure • Carry out climate risk assessment studies on new developments • “Climate-proof” new developments by taking projected impacts into account in design and construction
Coastal Zones	<ul style="list-style-type: none"> • Support local authorities and communities to develop and implement integrated catchments and coastal management plans • Protect and revegetate foreshores • Develop and implement plans for the planting and conservation of mangroves ³⁴ • Support advocacy programs to ensure adequate and consultative coastal planning processes • Protect fringing reefs
Environmental Management	<ul style="list-style-type: none"> • Provide education and awareness raising to empower communities to protect and manage their natural resources • Provide incentives for community-based environmental management • Promote sustainable forest management practices - afforestation and reforestation ³⁵
Gender ³⁶	<ul style="list-style-type: none"> • Support the development and/or strengthening of women’s organisations ³⁷ • Develop programs with women that will increase their access to income generating activities • Support greater involvement of women in decision making on adaptation and mitigation responses.
Disaster Management	<ul style="list-style-type: none"> • Work at different levels to establish and coordinate early warning systems for extreme weather events • Work with communities to build embankments and raise community land in flood-prone and cyclone-prone areas • Enhance contingency planning processes to ensure that climate change risks are incorporated

People crossing dirty floodwater mixed with sewage and other waste in a street in Dhaka, Bangladesh. © World Vision



3.4 Disaster Management and Humanitarian Action

Increased extreme weather events in themselves do not necessarily lead to humanitarian disasters. A humanitarian disaster occurs when the impact of the extreme event, whether natural or human made, exceeds the ability of the most vulnerable members of the community to cope. People can be vulnerable to disasters for a range of reasons, but being poor is the overwhelming reason as most poor people do not have the resources to absorb the shocks of extreme events. Communities where natural protective cover against extreme weather events has been weakened through environmental degradation such as deforestation, land erosion and destruction of coral reefs are also at greater risk of suffering losses and hardships.

The White Paper on Aid and the Australian Government Humanitarian Action Policy specify the management and response to disasters as central to any development planning scenario, as disasters impact on the ability of communities to benefit from the development process. This becomes particularly important given the expected climate change impacts of more volatile and extreme weather events and the potential for increased land disputes and conflict as productive lands are affected by climate change. These events will affect millions of people in the Asia-Pacific region.

Emphasis needs to be placed on understanding the risks that climate change poses across the region, and include these increased risks of emergency events into contingency planning and longer-term disaster management efforts.

Disaster risk reduction and preparedness need to be given greater priority and committed financial support. A Tearfund and Overseas Development Institute study carried out in India found that preparing for disasters was thirteen times more cost-effective than responding afterwards⁴⁰ – thus the need to prepare for disasters is more crucial than ever before. This needs to be undertaken in

consultation with communities, to build resilience and capacity that is relevant to potential localised impacts.

The International Red Cross has stated that “post-disaster recovery efforts will increasingly be judged not by how quickly structures are rebuilt – only to be destroyed again the next time disaster strikes – but by how reconstruction contributes to the long-term disaster resilience of communities”.⁴¹ Disaster rehabilitation and reconstruction should incorporate risk reduction efforts by ensuring that new infrastructure is both appropriate for the communities and resistant to particular hazards resulting from climate change.

The Roundtable recommends:

- The Australian Government invest adequate resources into studies that identify specific natural and social hazards, likely to arise across the region as a result of climate change, including slow and fast onset emergencies.
- Adequate resources are committed to disaster risk reduction, adaptation, mitigation and preparedness programming.
- Contingency planning for disaster management to incorporate climate change as a known risk from the community to the National level.
- Reconstruction efforts incorporate climate change adaptation measures.
- Where possible, supplies and inputs for emergency relief and rehabilitation programs be sourced locally, reducing the need to emit GHG emissions via transportation.



3.5 Environmental Strategy of Australia's Aid

The welcome addition of an environmental strategy to Australia's aid program, detailed in the recent White Paper, involves two themes beyond climate change and adaptation – water and the implementing/strengthening environmental regulatory regimes. Both of these themes have the potential to deliver important climate change wins.

a. Water

The White Paper prioritises the management of freshwater resources for human consumption and more efficient water usage. The Roundtable welcomes this and agrees that dramatically declining water availability throughout the developing world since 1950 is a key concern. Scientists predict climate change will further threaten water security and create water stress within the Asia Pacific region.⁴²

In 2006-07 Australia is providing assistance of approximately A\$135m for water and sanitation programs.⁴³ In comparison Australia's estimated fair share of global aid required for water and sanitation is A\$350m per year.⁴⁴

b. Implementation/Strengthening of Environmental Regulatory Regimes

The Roundtable also welcomes the White Paper's prioritisation of the strengthening and implementation of environmental regulation. A focus on preventing the worst environmental hazards will necessitate the inclusion of climate change-related regulations.

The appropriate regulatory treatment or approach to climate change issues in aid recipient nations will vary depending on their circumstances. For instance in places like Indonesia, Philippines, and PNG, deforestation may be the major concern and, given scarce resources, attention is probably most appropriately focused on integrating greenhouse considerations into logging license approvals and basic enforcement capacity. In addition limiting deforestation will also minimise the knock-on effects of extreme weather events – such as minimising flash floods, erosion and landslides. In industrialising nations - such as India, Thailand and China - point-source emissions from power and manufacturing facilities might be of greater concern, and corresponding emphasis on a pollutant register, best-practice emissions reduction requirements, and the like may be more appropriate.

Reducing emissions and fostering low-greenhouse development should be a central plank to all environmental regulation throughout the region.

The Roundtable recommends Australia:

- Increase water and sanitation aid in line with our estimated fair share – \$350m per year.
- Integrate climate change risk factors into ODA projects focused on the management of freshwater resources for human consumption and more efficient water usage.
- Prioritise support for the reduction of greenhouse emissions and fostering of low-greenhouse development, in projects focused on implementing/strengthening of environmental regulatory regimes.

4.0 AUSTRALIA'S RESPONSIBILITIES TO THE REGION

Hazelwood - Australia's dirtiest power station. Australians are some of the most greenhouse polluting people on the planet; a key reason for this is that most of our electricity comes from coal-fired power stations. © Environment Victoria



4.1 Introduction

As a signatory to the UNFCCC, Australia has recognised that industrial economies are primarily responsible for the significant increase in greenhouse gas emissions which is resulting in human-induced climate change. On a global level, Australia is also one of the world's top 20 emitters with levels comparable to countries with populations the size of Brazil. Historically Australia, per person, has produced significantly more greenhouse pollution compared with our regional neighbours in the developing world. This is often referred to as a 'carbon debt' which Australia and the rest of the industrialised world have accrued by the over-production of greenhouse pollution.⁴⁵

Australia must join with the rest of the world in significantly reducing its greenhouse pollution as well as providing assistance to those who will suffer the consequences of our contribution to climate change.



Wind farms in Western Australia - part of the solution. © Rodney Dekker 2005

4.2 Reducing Our Greenhouse Gas Emissions

The CSIRO concludes that if we are to avoid the worst impacts of climate change on Australia and the region, Australia and other industrialised nations need to reduce emissions by at least 60% by 2050 as part of an international response. Australian governments must commit to make major reductions in the amount of greenhouse pollution produced by setting clear, binding targets to reduce greenhouse pollution, and policies to achieve them. It will be difficult for Australia to have a credible voice with the developing countries it is implementing climate change reduction and mitigation projects with, unless it aggressively addresses the same issues at home.

The Australian Business Roundtable on Climate Change released a report earlier this year which shows that if action on climate change is delayed, it will become more expensive for business and the wider Australian economy to reduce greenhouse gas emissions.⁴⁶ Thus it is in both Australia's and the region's interest for Australia to reduce its greenhouse pollution sooner rather than later.

The Development and Climate Change Roundtable recommends that the Australian Government:⁴⁷

- Fully participates in international efforts that seek to address climate change starting with the ratification of the Kyoto Protocol.
- Adopts a national framework for reducing Australia's greenhouse gas emissions by at least 60% of 1990 levels by 2050, with an implementation timetable that will provide a 20% reduction in greenhouse gas emissions by 2020.⁴⁸

4.3 Assisting People Displaced by Climate Change

It is inevitable that climate change will force the displacement of some populations within the Asia Pacific region. The displacements may result from either short-term events such as natural disasters, or long-term environmental change that induces individuals to move away from degraded environments that can no longer sustain the population. There is however considerable uncertainty regarding the number of individuals that will be displaced, whether those displacements will drive internal or external migration, the extent to which human adaptation can reduce displacement, and to what degree migration will jeopardise human security.⁴⁹

Communities living in coastal or low-lying regions are most likely to be affected. With 30-50 cm of sea level rise, tens of thousands of



square kilometres of land in Bangladesh would be lost, displacing tens of millions of individuals. Additional land area would be lost in Pacific Island nations such as Fiji and Kiribati. Furthermore, China faces billions of dollars in costs associated with flooding in the Pearl Delta. Research in 2002 estimated that there will be 2.3 million migrants from South and Southeast Asia as a result of a one metre sea-level rise induced by climate change.⁵⁰

One likely outcome over the next few decades will be the growing build-up in the number of individuals within the Asia Pacific region seeking regulated migration opportunities.

Since 2001 citizens of Fiji, Tonga, Kiribati and Tuvalu have been able to enter New Zealand under the Pacific Access Category, effectively as environmental refugees displaced by climate change.⁵¹

As part of an overall strategy to assist the region in tackling climate change, it is important that Australia is prepared to support those displaced by climate change within the region and if they seek to migrate to Australia – although the latter should be viewed as a mechanism of last measure.

The Roundtable recommends:

- A review of Australia's immigration program in light of the expected impacts of climate change. This review should consider mechanisms to support people displaced by climate change within the region. It should also consider the lessons of the New Zealand Pacific Access Category and PNG-sponsored Carterets Relocation program.
- Work at the international level to ensure a review of existing conventions, or the establishment of a new convention, to address the rights of peoples displaced by climate change.

4.4 A Whole-of-Government Approach

Current government policies and programs can create conflicting outcomes. For example while the White Paper on Australian Aid priorities investment in clean energy, other sections of government actively promote the unsustainable use of coal and other fossil fuels in the region. For example from 1993 to 2003, Australia's export credit agency (EFIC), gave \$7.6 billion to facilitate coal exports and fossil fuel power infrastructure. It gave just \$67 million to renewable energy, less than one per cent of its coal spending.

An effective government response to climate change therefore needs to be consistent across all levels of government.

FULL LIST OF ROUNDTABLE RECOMMENDATIONS:

- Increase Australia's overseas development assistance (ODA) in line with most other developed nations to 0.5% of GNI by 2009-10, and 0.7% by 2015.
- Ensure the majority of Australia's ODA energy sector spending is on renewable energy, demand management and energy efficiency projects – and that the amount spent in this area increases in subsequent years.
- Ensure Australian ODA supports communities to build their local capacity in renewable energy and energy efficiency technology:
 - Where possible and where appropriate, energy projects should be focused on small-scale culturally appropriate technology that is locally owned and managed. This should be supported by development strategies at the national and regional level
 - Prioritise renewable energy and energy efficiency over fossil fuel generation
 - Use its funding and executive influence in International Financial Institutions to ensure they adapt similar policies
 - The majority of support for Australia's energy exports from EFIC be provided to the renewables sector
- Conduct and publish an annual audit of the carbon emissions generated by the Australian aid program.
- Ensure adequate research is undertaken to fully understand the impact of climate change on vulnerable communities.
- Develop ODA programs that specifically focus on climate change adaptation projects; support for community education programs, and building on local knowledge and capacities. See Table 2 above for more detailed examples.
- Integrate climate change risk factors into all ODA program planning and evaluation.
- Contribute to internationally coordinated adaptation funds under the UNFCCC (Special Climate Change Fund, Least Developed Country Fund, Strategic Priority on Adaptation and Kyoto mechanisms). Australia should also consider other regional funds or partnerships to increase funding for adaptation programs within the Asia Pacific region.
- The Australian Government invests adequate resources into studies that identify specific natural and social hazards, likely to arise across the region as a result of climate change, including slow and fast onset emergencies.
- Adequate resources are committed to disaster risk reduction, adaptation, mitigation and preparedness programming.
- Contingency planning for disaster management to incorporate climate change as a known risk from the community to the National level.
- Reconstruction efforts incorporate climate change adaptation measures.
- Where possible, supplies and inputs for emergency relief and rehabilitation programs be sourced locally, reducing the need to emit GHG emissions via transportation.
- Increase water and sanitation aid in line with our estimated fair share – \$350m per year.

More than a hundred people died after a cyclone triggered a flash flood in Myanmar in 2006. There were originally houses where this man is standing. © World Vision



- Integrate climate change risk factors into ODA projects focused on the management of freshwater resources for human consumption and more efficient water usage.
- Prioritise support for the reduction of greenhouse emissions and fostering of low-greenhouse development, in projects focused on implementing or strengthening of environmental regulatory regimes.
- The Australian Government fully participates in international efforts that seek to address climate change starting with the ratification of the Kyoto Protocol.
- The Australian Government adopts a national framework for reducing Australia's greenhouse gas emissions by at least 60% of 1990 levels by 2050, with an implementation timetable that will provide a 20% reduction in greenhouse gas emissions by 2020.⁵²
- A review of Australia's immigration program in light of the expected impacts of climate change. This review should consider mechanisms to support people displaced by climate change within the region. It should also consider the lessons of the New Zealand Pacific Access Category and PNG sponsored Carterets Relocation program.
- Work at the international level to ensure a review of existing conventions, or the establishment of a new convention, to address the rights of peoples displaced by climate change.
- Ensure a whole-of-government approach to climate change - undertake an audit of all programs that directly or indirectly encourage greenhouse pollution increases and increase vulnerability to climate change impacts throughout the region. The aim of this review is to ensure a whole-of-government approach that has twin policy objectives of avoiding dangerous climate change, and supporting adaptation for communities facing unavoidable climate change.

ENDNOTES

- 1 <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,date:2006-08-30~menuPK:141292~pagePK:34392~piPK:64256810~theSitePK:4607,00.html>
- 2 Preston, P.L., Suppiah, R., Macadam, I., Bathols, J. (2006) *Climate Change in the Asia Pacific Region*
- 3 Australian Government AusAID (2006) 'Australian Aid: Promoting Growth and Stability'
- 4 Ibid p40
- 5 The aim of this review is to ensure a whole-of-government approach that has twin policy objectives of avoiding dangerous climate change, and supporting adaptation for communities facing unavoidable climate change.
- 6 Houghton, J.T., Ding, Y., Griggs, D.J., Noguer, M., et al. (eds) (2001), *Climate Change 2001: The Scientific Basis*, IPCC Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge. <http://www.ipcc.ch/>
- 7 Preston, P.L., Suppiah, R., Macadam, I., Bathols, J. (2006) *Climate Change in the Asia Pacific Region*
- 8 WHO. *World Health Report 2002: Reducing risks, promoting healthy life*. WHO, Geneva, 2002.
- 9 World Bank (2004) *2003 World Development Report: sustainable development in a dynamic world - transforming institutions, growth, and quality of life*
- 10 A recent study by the University of Texas found the Greenland icecap may be melting away three times faster than anticipated: <http://www.newscientist.com/article/dn9717-greenland-ice-cap-may-be-melting-at-triple-speed.html> A NASA study from earlier this year found similar results: <http://www.newscientist.com/channel/earth/dn8734.html> In addition: Pittock, A.B. (2006), *Are Scientists Underestimating Climate Change?* EOS 87: 340; Steffen, W. (2006), *Stronger Evidence but New Challenges: Climate Change Science 2001-2005*, Australian Government, Canberra.
- 11 Climate Analysis Indicators Tool (2006), Version 3.0, World Resources Institute, Washington, DC. <http://cait.wri.org/>
- 12 For vital statistics for additional Asia Pacific nations, see *Climate Change in the Asia Pacific Region*, CSIRO 2006
- 13 In 1990 US\$
- 14 This assessment is based on policies and measure databases from the International Energy Agency (<http://www.iea.org/>), the Renewable Energy Policy Network for the 21st Century (<http://www.ren21.net/default.asp>) and the multilateral technology partnerships such as the Carbon Sequestration Leadership Forum. It is important to note that outside IEA countries, comprehensive information on national energy policies is difficult to source. The criteria for assessment are based on the policy consensus that a mix of policies and measures will be required to ensure effective and lowest cost abatement. See: Metz, B., Davidson, O., Swart, R., et al. (eds) (2001), *Climate Change 2001: Mitigation, Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)*, Cambridge University Press, UK.
- 15 While Australia is on track to meet its Kyoto Target this is not due to national policy intervention. This is largely driven by Queensland and New South Wales state government policies on land clearing.
- 16 While Australia has a Mandatory Renewable Energy Target, it is very small and subsequently insufficient to increase the proportion of renewable energy used in Australia. By 2020, the proportion of renewable energy used in Australia is expected to fall by 1-3% compared to 1997 levels. The percentage of RE was about 20% in the late 1970 and 10.5% in 1997, when the MRET target was put in place.
- 17 Greenpeace (2005) 'A way forward for coal communities'
- 18 Ibid
- 19 Australian Government AusAID (2006) 'Australian Aid: Promoting Growth and Stability'
- 20 Department for International Development (DFID) (2006), 'Eliminating world poverty: making governance work for the poor. A White Paper on International Development'
- 21 Working Group on Climate Change and Development (2004) 'Up in Smoke?'
- 22 www.christianaid.org.uk/indepth/605caweek/chap%204.pdf
- 23 Australian Government AusAID (2006) 'Australian Aid: Promoting Growth and Stability'
- 24 Recommended in Australian Council for International Development (2005) 'Make Poverty History: Millennium Development Goal 8 Review' http://www.makepovertyhistory.com.au/downloads/4483_Goal_8_Report.pdf
- 25 Article 4.3 of the United Nations Framework Convention on Climate Change
- 26 WWF Greenpeace (2002) 'Clean Energy for Sustainable Development' <http://archive.greenpeace.org/earthsummit/docs/cleanenergy.pdf>
- 27 United Nations Development Programme - Multi Country Office in Samoa <http://www.undp.org.ws/enviro&energy.htm>.
- 28 Renewable energy includes modern biomass, small-scale hydropower, geothermal, wind, solar, tidal, wave and other marine energy.
- 29 UNFCCC (2006), *Emission reductions from Kyoto Protocol's Clean Development Mechanism pass the one billion tonnes mark*, http://unfccc.int/files/press/news_room/press_releases_and_advisories/application/pdf/20060608_cdm_1_billion_tonnes-english.pdf#search=%22CDM%20one%20billion%22
- 30 WWF Greenpeace (2002)
- 31 AusAID, *Answers to Questions on Notice (June 2005)*, 121
- 32 An example is the Capacity Building for the Development of Adaptation Measures in Pacific Island Countries (CBDAMPIC) project which aims to build capacity to reduce climate-related risks at the national and community level in four Pacific Island countries: Fiji, the Cook Islands, Samoa and Vanuatu

In addition WWF-South Pacific has initiated the 'Climate Witness Programme' which aims to document Indigenous knowledge of climate change, to enhance the human face of climate change within the global arena, and to raise awareness within communities. They have developed a guide to documenting local impacts of climate change and devising appropriate community adaptation measures. WWF South Pacific (2005) 'Climate Witness Community Toolkit' http://www.wwfapacific.org/fj/publications/climate_change/cw_toolkit.pdf)
- 33 A range of alternative income generating activities are being encouraged in Bangladesh including bee-keeping, small-scale fish farming, duck rearing and making bamboo baskets to be used locally. See Hossen, Z and Roy, K. (2005) 'Local Contributions to Operationalising the UNFCCC, CBD and UNCCD. Case study: Reducing Vulnerability to Climate Change in the Southwest Coastal region of Bangladesh' http://www.bothends.org/strategic/localcontributions_bangladesh.pdf
- 34 While mangroves are potentially threatened by climate change, they also offer a method of increasing resilience. Replanting mangroves is an increasingly common and highly effective 'no-regrets' method of coastal protection in the Asia-Pacific region. The mangroves reduce potentially devastating 1.5 m waves to ripples, and act as a buffer to 110 km of sea dyke lying behind them. Although planning and protection of mangroves cost around US\$1.1 million, approximately US\$7.3 million per year is saved in reduced dyke maintenance alone.

The International Federation of Red Cross and Red Crescent, 2002 *World Disasters Report*, Geneva.

- 35 The Worldwatch Institute (WI) has identified instances where deforestation has greatly increased the human costs of climatic events. For example, the 1998 floods of the Yangtze River in China temporarily displaced 223 million people. Janet Abramovitz, of WI, said the fact that 85% of the watershed had been deforested meant that flows from land into the river systems were far more rapid and intense, hence increasing the number of people who were displaced (Nash, 2000).
- 36 Women are more vulnerable to the impacts of climate change as altered physical landscapes, land productivity and the availability of natural resources will interact with existing social structures to exacerbate gender inequalities – in part due to women’s greater reliance on natural resources for their own livelihood.
- 37 70% of the 1.3 billion people in the developing world living below the poverty line are women, making them more vulnerable to climate change. In addition, women are often not involved in planning and decision making and have less access to information. ‘Up In Smoke’ 2003
- 38 See Agrawala, S. et al (2003) Development and Climate Change in Fiji : Focus on Coastal Mangroves (OECD, Paris)
- 39 An example of a project which is already doing this is the CARE Canada/CARE Bangladesh pilot ‘Reducing Vulnerability to Climate Change’ launched in 2002 which is working at the household level, community level, institutional level and national level. The project also involves 17 local non-governmental organizations and community-based organizations.
- 40 Cabot, C and Venton, P. (2004) ‘Disaster Preparedness programs in India: a cost benefit analysis’ Network Paper No 49. London: Tearfund and Overseas Development Institute. From: ‘Eliminating World Poverty: People and Planet’.
- 41 International Federation of Red Cross and Red Crescent Societies (2001) World Disasters Report. IFRCRC, Geneva.
- 42 Preston, P.L, Suppiah, R., Macadam, I., Bathols, J. (2006) Climate Change in the Asia Pacific Region Section 4.4 Water Resources
- 43 Alexander Downer http://www.aisaid.gov.au/media/release.cfm?BC=Speech&ID=2422_4188_8055_5547_9187
- 44 Wateraid: Financing Water and Sanitation 2001 & UN Preparatory Report on Water and Sanitation Costs for WSSD 2002
- 45 Ashton, J. and Wang, X. (2003) ‘Equity and Climate: In Principle and Practice’ in Beyond Kyoto: Advancing the International Effort Against Climate Change. Pew Centre
- 46 The Australian Business Roundtable on Climate Change (2006) ‘The Business Case For Early Action’
- 47 For a comprehensive policy response to reducing Australia’s greenhouse gas emissions, see CANA (2006) ‘Turning Down The Heat: Action Agenda for Australia to avoid dangerous climate change’
- 48 A recent study showed that by using a combination of wind, biomass, natural gas and greater energy efficiency – all proven and commercially available technologies - Australia can not only meet its energy needs, but also reduce greenhouse gas emissions from the stationary energy sector by 50% by 2040
- 49 CSIRO (2006) ‘Climate Change in the Asia Pacific Region’
- 50 Tol, R.S.J (2002) Estimates of the damage costs of climate change. Part ii. Dynamic estimates. Environmental and Resource Economics 21, 135-160
- 51 The PAC allows 75 residents each from Tuvalu and Kiribati, whereas Tonga and Fiji have a quota of 2505
- 52 A recent study showed that by using a combination of wind, biomass, natural gas and greater energy efficiency – all proven and commercially available technologies - Australia can not only meet its energy needs, but also reduce greenhouse gas emissions from the stationary energy sector by 50% by 2040



Climate Change poses a significant threat to achieving sustainable development in developing countries, and directly challenges the successes arising from the Millennium Development Goals process.

The Climate Change and Development Roundtable was formed in recognition that developing countries are particularly vulnerable to the impacts of climate change, and to highlight the need for international aid and development agencies to consider the implications of climate change for their programs and advocacy.

Australia has one of the highest greenhouse emissions per capita in the world – this includes our current emission level and also our historic 'carbon debt'. Given the catastrophic impacts expected in our region, Australia has an obligation to reduce the chance of dangerous climate change, and to assist impacted communities within our region to adapt.

The Roundtable facilitates information exchange between the two areas of expertise - development and climate change - resulting in mutually supportive campaigns to strengthen both sectors' work on the crucial issues of poverty reduction, sustainable development and addressing the impacts of climate change.

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THE CLIMATE CHANGE AND DEVELOPMENT ROUNDTABLE

