



chain reaction

#90
2004
\$5.50 rrp

the national magazine of friends of the earth australia

climate change

In this country, climate change is one of the clearest and boldest indicators of our unsustainable and systemic over-consumption of the natural resources in the world. To adequately address climate change and the injustice of pollution created by greenhouse gasses from the industrialised world, we will have to challenge core issues about the way we live and how we consider our relationship to other people and the earth.

There is much we can do in our individual lives and the public actions we take as political citizens.

This edition of Chain Reaction was drawn together by the members of the climate justice campaign collective in Brisbane. In planning the articles, we had many ideas to choose from because the awareness and activism of climate justice has escalated in response to the almost international lack of constructive action by industrialised governments. The articles in this edition come from contributors across the world; the Netherlands, Samoa, India, Canada and Tuvalu, as well as many pieces written by Australian activists.

We are also deeply pleased to present a poster of some of the actions that Friends of the Earth groups throughout the international federation have taken.

Climate justice means acknowledging that the vast majority of the world's peoples are not responsible for the gross overproduction of greenhouse gasses that has led to human-induced climate change. It also means acknowledging the incredible carbon debt that peoples of the industrialised world owe to those who are most vulnerable to climate change – the peoples of the global South who have fewer resources to adapt to climatic change and are less able to influence the high per capita levels of emissions from the global North.

This climate justice position is a direct result of FoE's commitment to environmental justice and the principle that everyone in the world has the right to a fair share of the world's natural resources.

That there is valuable wealth of renewable energy resources in the world; that indigenous peoples' traditional knowledge is increasingly recognised by the 'hard sciences' as being an advanced and complex understanding of human and ecological systems; and that many people have a strong personal connection to justice and equity which will sustain our ability to confront our consumption; these give us hope for attaining climate justice.

- Friends of the Earth Climate Justice Collective

Publisher: Friends of the Earth Australia

Editorial Collective: Climate Justice Collective (FoE Brisbane), Karen Anson, Tim Parish, Linda Sacco

Graphic Design and Layout:
Tim Parish - Verb Studios <email: verb@inorbit.com>

Thanks to: Stephanie Long, Cam Walker, Domenica Settle, FoE Bookshop.

Printing: Arena Printing and Publishing
Chain Reaction is printed on paper made from sugar cane waste.

Subscriptions: Annual Subscription (four issues): \$A22 in Australia

Subscription enquiries:

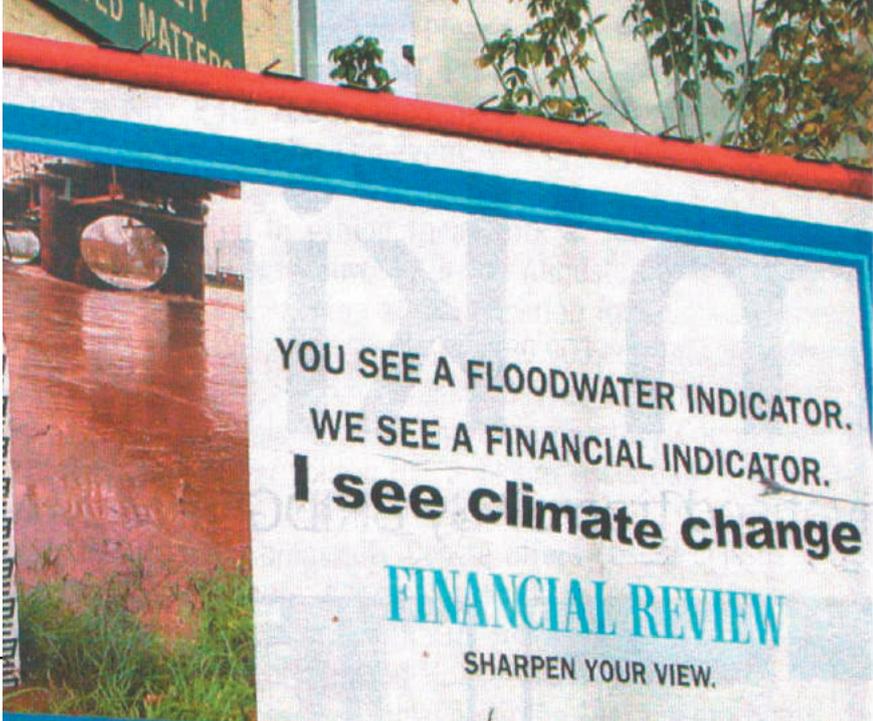
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ISSN 0312 - 1372

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“The predicted impacts of climate change would probably exacerbate hunger and poverty around the world... People who are highly dependent on farming, fishing or forestry will see their livelihoods destroyed... The poor would suffer the most because they have fewer options for responding to climate change.”

United Nations Environment Program

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The Friends of the Earth Climate Justice Vision

There are several actions that need to be taken to adequately respond to climate change. Mitigation of climate change is the ultimate priority, and reducing our consumption of fossil fuels to an equitable share is the place to start....

1. Using less, reducing our consumption and demand for energy...

Industrialised countries continue to account for around 60 percent of human produced emissions – largely from the combustion of fossil fuels. The necessary reduction in emissions requires an immediate reduction in our consumption. ‘Contraction and convergence’ is an internationally regarded process whereby industrialised countries reduce their consumption and move towards an equitable level of emissions based on a per capita figure.

Very practical reductions include:

- Use trains, bikes, and your feet as alternatives to cars and planes
- Reduce and reuse goods – particularly petrochemical products (all manufactured goods have embedded energy)
- Halt the logging of old growth forests and further clearance of remnant vegetation
- Reduce consumption of meat that comes from grazing land
- Use energy-efficient products and reduce use of appliances
- Do not financially support fossil fuel industry through your super or investment funds
- Become politically engaged in the need to phase out fossil fuel use at a national level



2. Acknowledge and accept environmental refugees...

Red Cross estimates there are currently 25 million people displaced around the world because of environmental causes – making up 58 percent of the world's total refugee population. Under current refugee policy, Australia does not acknowledge environmental refugees.

The global North, as the major greenhouse polluter, bears a significant responsibility for this disruption. This means we must make room for environmental refugees. Since Australia produces 1.4 percent of the world's greenhouse gases, perhaps we should accept 1.4 percent of the world's climate refugees (about 980,000 of the predicted climate refugees in the Asia Pacific region).

3. Fund and support adaptation requirements in more vulnerable nations...

Regardless of emissions reduction schemes in the future, carbon has a lag time of about 50 years. That means today's emissions will affect the planet and people for the next 50 years. We will have to adapt to this inevitable climate change.

Australia should consider how its aid program is delivered and increase funding available for

vulnerable communities of the global South (particularly the Pacific Islands) who are impacted by human-induced climate change.

4. Protect our ecosystems, the natural barriers to climate change like reefs, beaches, mangroves...

Maintenance of these natural barriers are among the most effective adaptive measures we can take to protect the coastline from the effects of sea-level rise and storm surges. This means increasing conservation efforts along coastal and marine ecosystems, and protection of forests and bushlands.

5. Phasing out fossil fuel use. No more fossil fuel subsidies....

Bring about an end to new fossil fuel exploration with a shift to energy saving and ecologically sound energy sources. Most urgent is the need to reduce financial and political support for coal-reliant industries such as aluminium, and to eliminate subsidies for the development of oil and coal. Currently we spend about \$9 billion of tax-payer funds a year on subsidies for fossil fuel consumption in Australia.

Mandatory and incremental targets to reduce our dependence on fossil fuels are required to send a clear message to industry to move away from fossil fuel technologies. Voluntary measures are completely inadequate to ensure the necessary reductions in emissions, and standards of acceptable practice should be guided by ecological and social requirements rather than the economic imperative of corporations.

6. Moving towards renewable energy and energy efficiency...

As a complimentary move to phasing out fossil fuels, we need to use renewable energy and energy efficient technology to meet our basic energy needs. To this end, the Federal Government should halt funding to carbon and coal research and development and re-invest this money in renewable energy and energy efficiency.

In addition, Australia's aid budget should only fund renewable energy projects and all funding for fossil fuel, large-scale hydro and nuclear projects should be immediately halted. We can no longer export dirty technologies overseas.

http://foe.org.au/nc/nc_climate.htm

Glossary

IPCC: Intergovernmental Panel on Climate Change is a body of several thousand scientists from approximately 120 countries, established by the United Nations Environment Program.

UNFCCC: United Nations Framework Convention on Climate Change was established at the United Nations Conference on Environment and Development (Earth Summit) in Rio de Janeiro in 1992. In 1997 the Kyoto Protocol was initiated and in November 2001 after the seventh Conference of the Parties (COP) in Marrakesh the protocol was ready for international ratification.

Atolls: are ring-shaped coral islands enclosing a lagoon. Kiribati, the Maldives, the Marshall Islands, Tokelau and Tuvalu are made up of low-lying atolls.

Coral Bleaching : 'episodic' warming of the ocean surface, as occurs in El Nino years, leads to significant coral bleaching. The major coral bleaching episodes in the past 20 years were found to be associated with periods when ocean temperatures were about 1°C higher than the summer maximum.

El Nino Southern Oscillation (ENSO): is a phenomenon which consistently affects regional variations of precipitation and temperature over much of the tropic and sub-tropics and some mid-latitude areas. It has been more frequent, persistent and intense since the mid 1970s compared with the previous 100 years.

Greenhouse Effect: the common term given to the phenomenon whereby certain gases (e.g. carbon dioxide, methane) build up in the lower atmosphere and prevent heat from the Sun's rays escaping into space.

Global Warming: is the term given to the major consequence of the greenhouse effect. Scientists have long predicted and recently measured notable increases in the world's temperature. Average global temperatures have increased 0.7°C since the 1900's and the ten warmest years on record have all occurred since 1983 with seven of them since 1990.

Climate Change: describes the full extent of the implications of the greenhouse effect. Whilst the average temperature of the Earth may increase, it is the changes in the Earth's climate systems that will be most dramatic. Extreme weather events such as droughts, floods, cyclones and frosts may affect areas previously unaffected or strike with increased frequency. Rising sea levels may affect rainfall patterns, soil erosion and local ecosystems.

Fossil Fuels: Coal, oil (which is used to produce petroleum), natural gas, methane and diesel are all examples of fossil fuels. Fossil fuels consist of a long chemical structure that contains carbon. When oxidised with oxygen (burnt), carbon dioxide (CO₂) is given off as a waste gas. CO₂ is a chief greenhouse gas. Fossil fuels are most commonly used to generate electricity and power motor vehicles.

Energy Efficiency: By cutting down on the energy our society needs to grow and develop, we can reduce the amount of greenhouse gas emissions. Simple steps like replacing older incandescent bulbs with new compact fluorescent lights can save 75% of your lighting energy needs.

More Trouble For The Poor



© Planet Ark 2003

Climate change is one of the key contemporary social justice issues arising from consumption and exploitation of the world's resources by industrial states. For the past 150 years industrialised nations have grossly over-consumed fossil fuels, and subsequently produced the majority of the world's greenhouse gases. The global consequence of climate change however is a burden shared by all nations regardless of the responsibility for global greenhouse gas emissions, and in addition it is internationally recognised that developing countries have less capacity to adapt to climate change impacts.

While the connection between climate change and poverty is gaining international focus, it is being internationally recognised by the Intergovernmental Panel on Climate Change (IPCC) that mitigation of climate change (i.e. reduction in greenhouse gas emissions) could delay and reduce the damage of climate change¹. Therefore mitigation of climate change by the world's greatest per capita emitters is as essential as adaptation programs that are aimed at assisting the world's poor to acclimatise to climatic change.

The Australian Council for Overseas Aid (ACFOA) passed a resolution at its Annual General Meeting in September 2003 recognising both the threat that climate change poses for the world's poor, and the Australian government's limited actions to reduce greenhouse gas emissions in Australia (see below for full text). Member groups at the ACFOA meeting were briefed on the impacts of climate change on the basic needs of water, food and shelter; as well as the added health and infrastructure problems climate change will bring through increased cyclones, droughts, floods, sea-level rise and temperature. Friends of the Earth Australia prepared the resolution adopted

by ACFOA based on research undertaken on the impacts of climate change in the Pacific region.

Resolutions passed at the ACFOA Congress 2003:

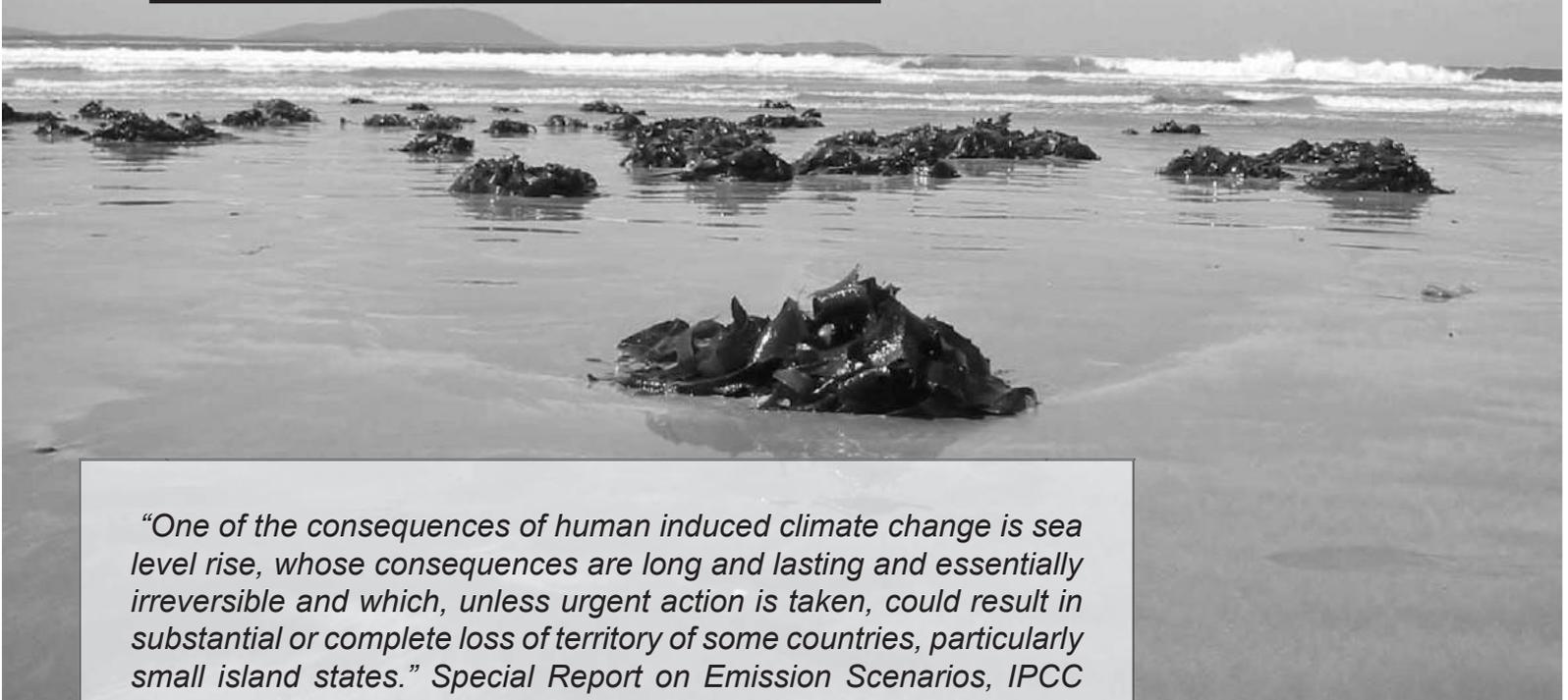
1. The ACFOA Council acknowledges the extreme threat climate change poses to achieving the Millennium Development Goals (MDGs), particularly in the small island developing states of the Pacific.
2. The ACFOA Council acknowledges the work of AusAID in beginning to investigate the impacts of climate change on development; highlights the urgent need to reduce Australia's emissions of greenhouse gases and calls on AusAID to investigate the impacts of climate change on the achievement of the MDGs and AusAID's primary objective relating to poverty reduction.
3. The ACFOA Council calls on AusAID to phase out funding nuclear, fossil fuel and climate intensive energy projects, and shift energy portfolio to 100 percent renewable energy sources using appropriate technology.

For a copy of the full report on climate change and the millennium development goals see http://foe.org.au/download/future_poor.pdf

¹ Intergovernmental Panel on Climate Change (2001) Third Assessment Report in the 2002 multi-agency report Poverty and Climate Change: Reducing the Vulnerability of the Poor.

Weathering the Storm

A Focus on Pacific Islanders



“One of the consequences of human induced climate change is sea level rise, whose consequences are long and lasting and essentially irreversible and which, unless urgent action is taken, could result in substantial or complete loss of territory of some countries, particularly small island states.” Special Report on Emission Scenarios, IPCC (Intergovernmental Panel on Climate Change)

Climate change on a global scale is occurring and affecting the lives of people around the world. The impacts of global warming on climate systems may produce irreversible changes to peoples' homelands and cultures. In the Arctic Circle Inuit elders are concerned about loss of ice and the later freezing season, which is seriously affecting their ability to hunt². Far away in the South Pacific islands, communities fear that they will be unable to provide food for themselves as sea levels rise and soils become too saline for food crops.

The impacts are being felt now

The Pacific islands are already being affected by extreme weather events, and broader changes in climatic conditions that threaten the health, food and water supply, infrastructure, economy and the general wellbeing of people in Pacific island countries. These are not simply environmental problems, but also social, cultural and economic. Examples include:

Agriculture and Fisheries

“It is recognised that an island becomes ‘lost’ long before the water level covers the island but rather at

the point where the rising water level gets into the food chain rendering the traditional crops such as Babai or Taro, breadfruit, bananas, etc. inedible.”³ In Tuvalu increased salinity is forcing families to grow their root crops in metal buckets instead of in the ground⁴. In 1995 on the Caterets Islands, garden crops were destroyed after huge tidal waves struck the island and left pools of salty water inland⁵. History seemed to repeat itself with the Cateret Islanders again calling for emergency aid after gardens were destroyed by high tides in 2003⁶.

Coral reefs are, in many places, a major food resource, providing the environment for subsistence fishing. With increased incidence of coral bleaching, artisanal fisheries are being depleted as observed by fishers in Samoa⁷.

Water Resources:

Water resources remain very critical for many of the Pacific island countries and are most vulnerable in the atoll states⁸. Rainwater is their major water source, but a thin layer of fresh groundwater that sits atop the saltwater lens (used as a reserve) is threatened by reduced precipitation rates and sea level rise. Water

shortages have also been experienced on higher islands as rainfall patterns (influenced by interannual variations or ENSO) become more variable. Drought in Papua New Guinea, the Federated States of Micronesia, Marshall Islands and Fiji is a manifestation of such variations in climatic and oceanic conditions⁹.

Health

Warmer temperatures lead to increased incidence of malaria. In the highlands of Papua New Guinea and Solomon Islands, which previously were too cold for mosquitoes to survive, there have been reports of malaria. El Nino cycles have been linked to cholera – there have been outbreaks over recent years in the Federated States of Micronesia and Marshall Islands¹⁰.

“The latest reported data show that the number of people in Oceania region affected by weather-related disasters has soared by 65 times over the past 30 years. By the end of the 1990s, the Red Cross estimated that 25 million environmental refugees had fled natural disasters, far outnumbering those fleeing conflict. Cyclones, droughts and floods threaten to make life unviable on many islands long before rising seas swallow them up.”¹¹

Environment

With large coastal areas compared to total land area, coastal erosion is a common problem, previously attributed to coastal development (e.g. mining, infrastructure construction, pollution) now exacerbated by storm and wave action. There have been reported losses of sandbanks and shorelines in Tuvalu (the motu of Tepuka Savilivili), the Cateret Islands since the 1960s, and some islands in Fiji



Pacific Islands — A Snapshot

- **22 Pacific Island states**
- **approximately 7 million people**
- **most culturally diverse region in the world**
- **Pacific Islanders are indigenous peoples**

Pacific Islanders contribute the least to global greenhouse gas emissions (0.06 percent of the world’s current emissions), and are among the most vulnerable to the effects of global warming.¹

retreated 30 metres in the past 70 years¹². In Kiribati, the motu of Tebua Tarawa, once a landmark for fisherman, is now under water. Coastal ecosystems are also lost as shorelines and reefs that fringe the islands are eroded.

Globally, there has been an increase in the warming of ocean surface temperatures, and warmer temperatures have led to the bleaching of coral reefs. The 1997-98 El

Nino saw substantial bleaching (90 percent of all live reefs on some islands) of coral reefs around the Pacific, much more severe than in the past, leading to secondary impacts on surrounding ecosystems and tourism.

Economic

Droughts, linked to El Nino, have hit important export crops in the Federated States of Micronesia, Fiji, the Marshall Islands, Papua New Guinea, Samoa and Tonga. Changes in weather patterns have left many Pacific Island countries with substantial reductions in their tuna catches. This industry is worth nearly US\$2 billion annually to the region.

The economy of small island states will also be impacted by the cost of adaptation and mitigation measures and repairing existing infrastructure. Atolls in the Marshall Islands are facing coastal erosion, but costs of preparing sea walls and preventative measures are enormous – over US\$100 million for Majuro alone, which is one of 22 inhabited atolls.

Coastal roads, bridges and plantations are suffering increasing erosion, even on islands that have not experienced inappropriate coastal development. Intense storms and flooding impact on housing and community infrastructure, including culturally significant sites like graveyards¹³.

Positive Changes:

The future of Pacific Island states seems bleak, however many communities are hopeful that they can adapt to climate change and its effects without losing their cultural and national identities. In Tuvalu a renewable energy program using wind, sun and seas, will be launched. The Assistant Minister for the Environment, Paani Laupepa says “We want to put our money where our mouth is – when we say renewable energy, climate change, we’re serious about it, and we want to demonstrate our seriousness by removing diesel completely.”

[1] ACFOA Development Issues – Australia and the Pacific “Update on current trends and issues”, August 2001

[2] “Welcome to the Greenhouse” Gordon Laird, HQ August 2002

[3] “Climate Change and the Pacific” Australian Conservation Foundation, January 2003, Virginia Simpson

[4] The Canary is Drowning” Tom Price 11/12/02, <http://www.guerillanews.com/globalization/doc891.html>

[5] “Climate Change in the Pacific.” Talk by Nic Maclellan at Climate Justice forum in Melbourne, Australia 21 March 2001

[6] See media posting on CANA website June 2003 <http://www.cana.net.au/canarycalls/issue1.html>

[7] “Rising Waters” video www.itvs.org

[8] Atolls are ring-shaped coral islands enclosing a lagoon. Kiribati, the Maldives, the Marshall Islands, Tokelau and Tuvalu are made up of low-lying atolls. From “Climate Dangers and Atoll Countries” Jon Barnett and Neil Adger, Tyndall Centre for Climate Change Research, October 2001, Working Paper 9.

[9] Pers com Jim Salinger, Senior Climate Scientist for National Institute of Water & Atmosphere Research Ltd (NIWA)

[10] “Climate Change and the Pacific” Australian Conservation Foundation, January 2003, Virginia Simpson

[11] “The Canary is Drowning” Tom Price 11/12/02, <http://www.guerillanews.com/globalization/doc891.html>

[12] “Rising Waters” video www.itvs.org

[13] “Rising Waters” video www.itvs.org

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Friends of the Earth Climate Campaign Gear

Both of these items are available from the FoE Melbourne Bookshop at 312 Smith Street, Fitzroy or mail-order from FoE Brisbane (contact stephanie.long@foe.org.au) **All proceeds go to the climate justice equity tour in April/May 2004**



Climate Justice T-shirts \$20 each

100% cotton, made in Australia, yellow on red shirts in a range of women's and men's sizes.

Climate Books:

"Time and Tide: The Islands of Tuvalu"

\$25.00 each

This unique publication is a beautiful photographic record of the people of Tuvalu and their lifestyle. It is a pictorial tribute to the impacts of global warming on the peoples of this small island nation.



Friends of the Earth Australia Climate Equity Tour

The Climate Equity Tour is a special event of the Climate Justice Campaign to highlight the inequitable impact of climate change on the most vulnerable peoples in this region – the Pacific Islands. This is a unique opportunity to hear from community leaders in affected communities.

Friends of the Earth Australia is hosting three international guests between 24 April - 9 May 2004 in a speaking tour through east coast cities of Australia. Our Pacific Island guests will share their stories about the impact of climate change on their communities, and our guest from Nigeria will discuss his experiences of the human rights abuses that have accompanied the exploitation of oil from the Niger Delta.

Come - listen, learn & be inspired to engage in Climate Justice

See the website for details on events in your city www.foe.org.au/climate



Life on a Small Island



Interview with Annie Homasi by Penehuro Lefale

Introduction

Tuvalu is a group of seven coral atoll islands that are part of Polynesia, which are very flat and low islands (at most 4 metres above sea-level). Since the mid 1990s Tuvalu has attracted a great deal of international attention as being amongst the most vulnerable nations to climate change, in particular sea-level rise.

Annie Homasi is the Coordinator of the Tuvalu Association of Non-Government Organisations (TANGO), which is an umbrella organisation for NGOs. Annie has the inevitable job of working across of range of social and environmental issues. We were able to speak with her about climate change and what it is like to live in on a small island.

CR: Can you see any evidence of global warming occurring around you?

for our culture and values. Where we live now, we know how to behave and live within our means. It will not be comfortable to live in another place. We want to live in our own land, our home and where our forefathers have lived. Tuvaluan people don't like to be called refugees.

Annie: Over the past ten years people have noticed that it has become very, very hot in Tuvalu, this needs to be clarified by science as to whether it is a result of climate change. There have also been changes in the weather patterns – at this time of year there is generally strong winds, but they are not now. These changes are surprising to most people.

CR: What are the impacts of climate change that are affecting people in Tuvalu?

Annie: The weather changes and heat which I mentioned affects people, but also sea-level rise. There is a project by Flinders University with a monitoring post in the lagoon at Fongafale (Tuvalu capital). It is believed through anecdotal evidence as observed by the community that the sea-level has risen about 1 cm over the past decade. Others say the sea-level has risen as much as 10 centimetres in the past 10 years. My own experience is that during spring tides in March, my house foundation is now half in the water. This is what I have seen and based on my own markings of the water level at my house.

CR: Do you know, as yet, where the Tuvaluan population will be evacuated to?

Annie: People living in Melbourne, Australia, who have moved there 30 or 40 years ago are very concerned about where people of Tuvalu will be able to go. The Australian government has not been willing to consider environmental refugees, and is not very friendly. New Zealand has been more flexible and a work scheme has been negotiated between New Zealand and Tuvalu. People in Tuvalu are thinking that they will need to make a move because of global warming.

CR: What is your perception of people's feelings about leaving Tuvalu?

Annie: Moving away from Tuvalu is not good

CR: How do most people spend their time in Tuvalu?

Annie: People do a range of things. Some fish and garden and are subsistence farmers and fishermen. This is a lot of work because the soil is not very fertile. The literacy rate is high, as school is compulsory for children. Other people work (for a wage). People do what they need to do to live comfortably – so there is a variety of activities that people do.

CR: How many people live on each of the Islands?

Annie: The islands vary in size and activities so there is a range of populations on each island. The capital (on Funafati atoll) is the urban centre with a third of the 11,000 population. There are services like the main hospital and people travel there to get medical treatment. On other islands there are between 100 and 800 to 1,000 people. On the outer islands, people know each other and which family clans they belong to.

CR: Can you describe the community structure?

Annie: The islands are based on a village structure, and each island will have local decision-makers that are elected by the people to run the local council. These island councils are supported by the central government and provide services such as health, schools and security. The islands are small and on a push-bike or motorbike which are the main sources of transport, people can get from one side of an island to the other in less than half a day while only a couple of hours walking on the smaller islands.

tango@tuvalu.tv

<http://www.fsfi.org.fj/affiliates/tuvalu.htm>

Breaking the weakest link: Public financing for oil, mining and gas



Close the financial tap, and you close the operation. That is the adage under which the program on International Financial Institutions (IFIs) of FoE International operates. IFIs include public banks like the World Bank, the Asian Development Bank and Australia's export credit agency EFIC. On our way to climate justice is it essential that we find a cleaner purpose for all the billions of public dollars that are inserted in the oil, coal and gas industry through these IFIs.

The world bank's oily influence.....

The World Bank Group is about to approve a multi million dollar loan for **BP** to build a giant pipeline that will transport Caspian oil through Georgia and Azerbaijan to Turkey. This project, the **Baku-T'bilisi-Ceyhan (BTC) pipeline**, will exploit the massive reserves of oil and gas in the Caspian region. Instead of moving away from fossil fuels to a cleaner and safer future, this pipeline symbolises a significant leap backwards.

There are many local concerns with the Baku-T'bilisi-Ceyhan pipeline. In Georgia, it will cut through the area where the country's purest water is collected (and exported). An oil spill in this area would be a financial disaster. It will cross areas where it is likely to increase conflict, including an Armenian enclave in Azerbaijan and Turkish Kurdistan. These countries rank high on the world's corruption indexes, making it unlikely that money flowing from the project will be used for community benefit.

The oil is destined for export to Europe and beyond,

and yet the pipeline will pass through regions with little or no electricity. Few locals will get the jobs generated by the pipeline once it is in operation.

The World Bank's mission is to alleviate poverty and yet it is supporting similar disastrous projects all over the world:

- **Road projects** have opened up forests for commercial logging.
- **Large dams** have displaced hundreds of thousands of people without adequate compensation, resettlement or rehabilitation. Involuntary displacement typically has led to the loss of economic livelihood and the breakdown of community relations, impoverishing millions.
- **Mining and oil operations** have caused widespread environmental devastation and many have been associated with the repression of local communities who have opposed these projects.

The World Bank generally has not succeeded in mitigating the negative social and environmental impacts of its mega-projects, despite the fact that there has been tremendous public controversy over the World Bank throughout the past two decades. In response, the World Bank became more cautious in the beginning of the 1990s. It adopted new policies, established an Inspection Panel, and decided not to finance several mega-projects. However, this approach appears to have come to an end. Big is beautiful again and mega-projects are back in style. The Bank recently decided to embark on what it calls a 'high-risk/high-reward' strategy.

In October 2003 Friends of the Earth International, International Rivers Network and Environmental Defense published "Gambling with People's Lives". The publication questions the World Bank's track record with high-risk projects in the water, forestry and extractive industries sectors. It asks, has the Bank learned lessons from its acknowledged failures of the past? Has it improved its capacity to deal with environmental and social risks, for example, by strengthening its operational policies? Who is exposed to the high risks the Bank is prepared to accept, and who is likely to reap the rewards?

The World Bank removed the ban on financing of commercial logging operations in rainforests, announced that it will renew its support for contentious large dams, and is considering support for massive oil, gas, and mining projects in high-risk environments. The World Bank's earlier high-risk projects have created a huge legacy of unresolved social and environmental problems and resulted in an ecological and carbon debt. Despite acknowledging its past failures, the World Bank has not learned from these mistakes. It has not mainstreamed social equity and the environment throughout its operations. It has weakened, instead of strengthened crucial policies – they still lack policies on essential issues such as human rights, and fails to analyse the distributional impacts of projects.

As a consequence, the World Bank is not able to adequately identify, contain and mitigate the risks of the projects that it finances. The financial risk that the Bank refers to is therefore coupled with major socio-environmental risks that rest on the shoulders of local people and the environment, while the rewards are reaped by the world's multinational corporations.

The World Bank is cursed with a 'culture of approval'. They are under pressure to reach certain lending targets, and have an institutional bias towards centralised, top-down, capital-intensive projects. It is not well suited to finance decentralised, slow, participatory and democratic processes that are adapted to local needs and circumstances. Furthermore, they have yet to learn that climate change is a reality. The Bank has so far been unwilling to acknowledge its role in perpetuating a fossil fuel based economy, endangering the lives of millions of people. However, this may start to change. A recent draft Bank evaluation states that climate change should be taken seriously, and recommends that the Bank should move away from supporting any further coal and oil projects.

The World Bank and the other IFIs use public money – that is, your tax payer dollars. Therefore you have the responsibility to let them know what they should and shouldn't do with it.

has the Bank learned lessons from its acknowledged failures of the past?

Money from the World Bank and other IFIs often generate additional dollars from private banks. The involvement of a multilateral institution is regarded as a seal of approval and a safe investment. In this way, IFIs give political legitimacy to what are actually very controversial projects. An end to public IFI dollars for oil, mining and dam projects would therefore have a major multiplier effect and make many projects economically unfeasible and politically unwise.

Between 1995 and 1999, IFIs spent US\$55 billion on fossil fuel and mining projects. It is crucial that this trend is reversed, if we want to become a society that is socially and environmentally just. FoE Australia is about to join the international campaign to make this happen. Look out and sign up for activities and initiatives in your community! If we have the strongest voice, we will break the weakest link.

Australian aid funding climate criminals?

When a massive coal fired power plant is being developed in Thailand, you don't expect to see publicly funded Australian government agencies in the list of people providing money.

One such plant is the proposed BLCP coal fired power plant in Thailand to be built at Map Ta Phut, Rayong Province, and approximately 200 kilometres southeast of Bangkok. Alongside private money for the BLCP project, sits two publicly financed organisations. These include the Asian Development Bank and Australia's export credit agency, the Export Finance and Insurance Corporation (EFIC).

Australia's aid program has historically been heavily biased towards fossil fuel projects. Coal exports, coal technology, nuclear, and large-scale hydropower have all been supported with this public money.

To understand the size of the BLCP project, imagine a coal fired power station 10 times larger than the Redbank 2 power station planned for NSW. The NSW government recently rejected this proposal as it was going to emit too many greenhouse gases.

Australia has long been known to dominate the international coal industry through the mining and exporting of coal. There is a guarantee that Australia will provide coal for the BLCP project¹. What is less known is the amount of public money currently being pushed towards the Australian fossil fuel industry as a means of guaranteeing markets for this environmentally damaging export.

Increasingly, public money through the bilateral (AusAID), and multilateral aid programs (World Bank and Asian Development Bank) and EFIC, have been seeking out markets for Australian coal at the expense of funding for renewable energy projects. These institutions also often work in concert to co-finance projects, such as the BLCP coal fired power plant in Thailand.

This is happening at a time when it is recognised that the Australian domestic fossil fuel market is in decline while exports are increasing. Australian fossil fuel companies are looking for a foothold in the rapidly growing Asian fossil fuel market. It also happens that the bulk of Australia's aid goes to this region. The synergy between Australian companies and the aid program is well known, with nearly 70 percent of the aid budget going to private Australian companies.

The corporate welfare masked through these programs has the potential to lock many low-income countries into fossil fuel dependency for decades to come while developed nations are now looking for clean energy options.

With increasing cynicism, climate campaigners all over the world are watching as Australia refuses to sign the Kyoto Protocol, citing the situation of developing countries as a contributing factor.

In 2002, the Federal Environment Minister stated that; "The Kyoto Protocol is flawed... the Kyoto Protocol does not require greenhouse reductions from developing countries, which will soon be producing more than half the world's greenhouse gases."²

The policy hypocrisy of developed nations who criticise the energy decisions of low income nations whilst their aid and export credit programs furiously dump heavily subsidised fossil fuel technology and coal must be exposed.

Australia's aid program has historically been heavily biased towards fossil fuel projects. Coal exports, coal technology, nuclear, and large-scale hydropower have all been supported with this public money.

A look over 2001/2 aid figures show that there has been an increase in the aid support for nuclear technology (\$9 million between 1999-2002) and oil fired power plants along with hydro-electric power generation. No support was given to solar, wind or ocean power generation in 2001/2. This demonstrates a decreasing commitment to renewable energy within the AusAID energy



portfolio.

With the focus on fossil fuel projects, the question must be asked: who is benefiting – communities in need of clean energy options or fossil fuel companies?

Export Credit Agencies (ECAs)

Export credit agencies (ECAs) are government-backed corporations that assist domestic companies operating overseas by providing loans, credit insurance and political risk insurance. They are now the largest public financiers of environmentally and socially destructive projects in the developing world, dwarfing the World Bank.

In comparison, the World Bank Group support for fossil fuel and mining projects (1995-99) is estimated to be US \$5.95 billion while ECA support for oil and gas development (not including mining) for a similar period (1994-99) is around US \$40.5 billion³.

ECAs exist solely to increase exports and many have no environmental or social policies. Due to a total lack of transparency, communities affected by projects and taxpayers funding them have minimal opportunity to comment on projects, let alone know when and where they are happening.

The Australian ECA, EFIC has had a long love affair with the Australian fossil fuel industry. EFIC historically has been a massive supporter of coal exports, coal fired power plants, infrastructure and gas pipelines.

EFIC is preparing to provide political risk insurance for the BLCP coal fired power plant in Thailand. Political risk insurance means that the project is covered by insurance if there are any environmental, social or political problems that affect the profits of the plant. Australian taxpayers will shoulder the financial risk, essentially

transferring any risk from the private company to the Australian public.

EFIC's coal exports and the BLCP project alone will produce more CO₂ than Australia's (363.3 million tonnes) and New Zealand's (35.2 million tonnes) combined emissions in 2001.

EFIC introduced minimal environmental standards in 2000 after sustained community pressure. There is no reference to climate impacts of projects within the environmental guidelines and over the past three years EFIC has maintained support for a variety of fossil fuel projects. The guidelines are currently being reviewed and EFIC is asking for public input.

What will be the climate footprint of Australia's aid and export credit programs? Public money invested through our bilateral, multilateral aid program and export credit agencies are currently instrumental in deciding the energy futures of developing nations.

Janneke Bruil is the coordinator of the International Financial Institutions Program at Friends of the Earth International. Contact: janneke@foei.org
Read more at www.foei.org/ifi
Find "Gambling with People's Lives" at www.foei.org

Kate Walsh is a campaigner at AID/WATCH, the Australian aid watchdog NGO. Contact her at eca@aidwatch.org.au

For more information, see www.aidwatch.org.au

references

¹ http://www.adb.org/Documents/Environment/THA/THA_BLCP_Power_Project.pdf

² The Hon Dr David Kemp MP, Minister for the Environment, in a media release dated 19 November 2002, accessible at <http://www.ea.gov.au/minister/env/2002/mr19nov202.html>



STOP CLIMATE CHANGE



photos are from actions taken by OilWatch, FoE Melbourne, FoE EWNI, and FoE Europe.



CLIMATE CHANGE



On-Line Resources

- Friends of the Earth Australia www.foe.org.au
- Friends of the Earth International www.foei.org
- Rising Tide www.risingtide.org.uk
- New Economics Foundation www.neweconomics.org
- Climate Action Network Australia www.cana.net.au
- Climate Justice Programme www.climatelaw.org
- FairShare International www.fairshareinternational.org
- International Federation Red Cross (World Disasters Report) www.ifrc.org
- Intergovernmental Panel on Climate Change www.ipcc.ch
- Corporate Watch Climate Justice Initiative www.corpwatch.org
- Pacific Concerns Resource Centre www.pcrc.org.fj
- Pacific Islands Association of NGOS (PIANGO) www.piango.org.fj
- National Institute of Water and Atmospheric Research www.niwa.cri.nz
- Tyndall Centre for Climate Change Research www.tyndall.ac.uk
- EcoEquity www.ecoequity.org

Climate Litigation : A tool for action

It's a basic principle of law that if an individual suffers harm, he or she is entitled to compensation from the person who harmed them. But what if the harm entails the destruction of your entire island nation? And where do you go for justice when the weapon of destruction is as all-encompassing and complex as global warming?

These are the unprecedented questions being broached as activists move to the courts to address the perpetrators of climate change. With the Howard Government firmly refusing to ratify the Kyoto Protocol, groups like Climate Action Network Australia (CANA) see litigation as an alternative means of controlling the nation's largely unregulated emissions.

Eyebrows were raised in the business community when CANA launched its Australian Climate Justice Program in July. The program's first move was to put top greenhouse polluters on notice that their failure to deal with the risk of climate change could have legal consequences. Providentially, the story was covered by the Australian Financial Review, driving the message home to all the right people.

"I think some executives were shocked – they were probably under the false impression that the Federal government's position on Kyoto permitted them to "do nothing" about climate change." said Philip Freeman, a lawyer and the Legal Coordinator for CANA.

..companies may become liable if they choose to fund or engage in activities that undermine measures to address climate change face the greatest risk of

CANA sent letters via the public advocacy law firm, Maurice Blackburn Cashman, to the directors of major corporations, informing them of

the financial risks that climate change presents to their companies. If the directors fail to understand and respond to these risks, they may be in breach of their legal duties under the Corporations Act.

"What we're seeing is an emerging area of climate litigation," says Dr. Peter Cashman, General Counsel, Maurice Blackburn Cashman. "As the impacts of climate change worsen, the number of potential plaintiffs, and

the range of legal actions available to those plaintiffs, will undoubtedly increase."

The letter also warned that companies may become liable if they choose to fund or engage in activities that undermine measures to address climate change face the greatest risk of litigation. This has been the case in key tobacco lawsuits where companies had undermined efforts to regulate smoking.

"Companies can no longer ignore climate change", says Freeman, "they need to make informed and responsible decisions about what their response will be."

Over 30 written responses to the letter have been received by CANA. The dividing line between companies that are responding proactively and positively, and companies that are not, is becoming clear.

But CANA is not acting alone. In July an unprecedented climate justice alliance of 70 environmental organisations, lawyers, academics and individuals in 29 countries announced their backing for legal initiatives to combat climate change, under the umbrella of the international and collaborative Climate Justice Programme.

The alliance is watching key cases that are already underway. Friends of the Earth US, Greenpeace US and affected individuals have been joined by the cities of Boulder, Oakland and Arcata in suing the US export credit agencies for funding fossil fuel projects under the National Environment Policy Act. And the International Centre for Technology, Greenpeace and Sierra Club have begun an action against the Environmental Protection Agency seeking mandatory reductions of greenhouse gases through the Clean Air Act.

One critical test case could come from the government of Tuvalu, whose tiny Pacific islands are being rendered uninhabitable by rising sea levels. This government is considering bringing a case in the International Court of Justice against a number of countries, including Australia. While the US does not recognise the jurisdiction of the ICJ this government is also considering the possibility of legal action in a US court against a major greenhouse emitting company.

The jury may still be out on climate litigation, but activists have an eye to the future. "We're watching other groups' initiatives, and they're watching us. We'll collaborate to find out what works, and apply these successes to our own jurisdictions," said Freeman.

www.cana.net.au

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(Trophy made by Kylie Burke)

Wild Spaces 2004



The 9th annual Wild Spaces Film Festival is seeking film entries for the 2004 festival.

The festival is Australia's only national environmental and social justice film festival and is presented annually by Friends of the Earth Australia.

Wild Spaces is currently looking for entries of films and videos of any style that have significant reference to environmental, social justice and human rights issues.

For more information and to download the film entry forms, check out www.wildspaces.foe.org.au or contact us on 07 3846 5793 or email wildspaces@foe.org.au

Film entries close at 4pm on March 31, 2004.

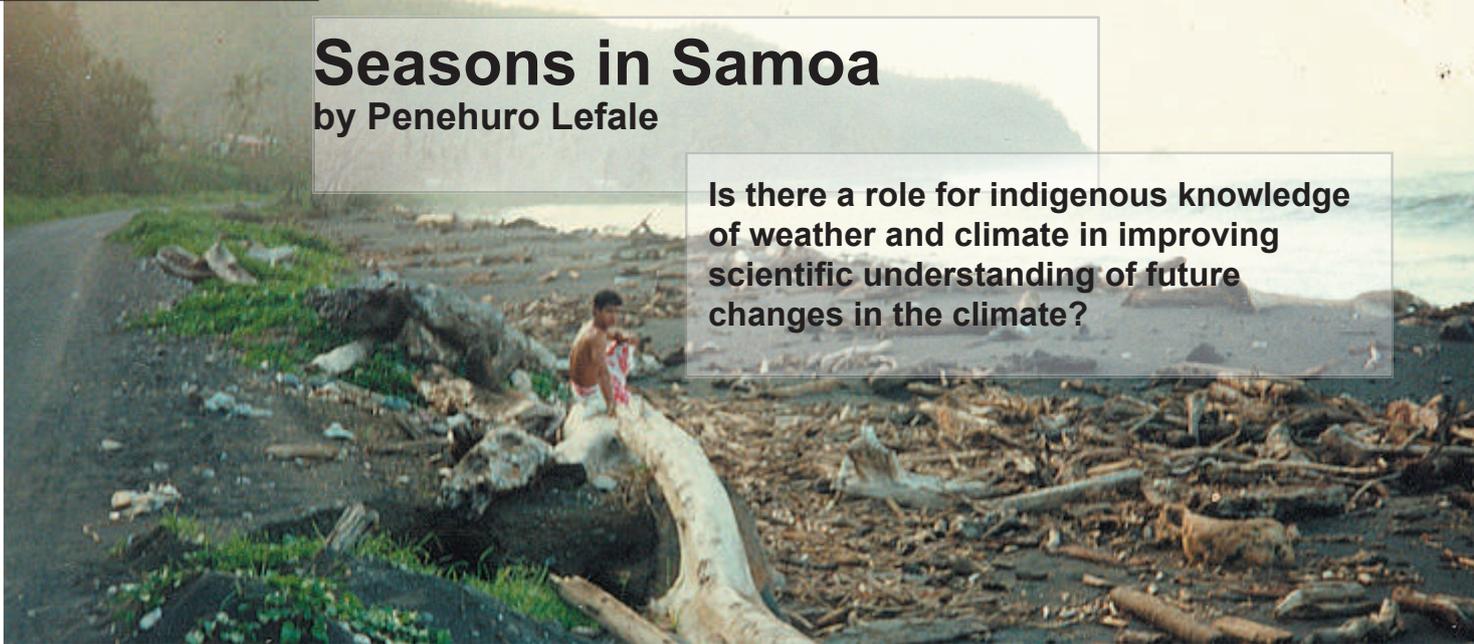
Send your entries into the Wild Spaces Office at:

PO Box 5702, West End, Queensland 4101

Seasons in Samoa

by Penehuro Lefale

Is there a role for indigenous knowledge of weather and climate in improving scientific understanding of future changes in the climate?



The scientific approach

We tend to assume that scientific problem-solving abilities are superior to those of indigenous knowledge.

However, the issues facing scientists today in the area of resource and environmental management are becoming extremely complicated, often calling for more creative forms of collaboration between scientists and society, and a broader range of disciplines and skills. In research into climate change, for example, some of the most important tools being employed are climate models. These models have evolved considerably over the years and are now more detailed than ever before. The outputs from various climate models are assessed by the Intergovernmental Panel on Climate Change (IPCC), an international panel of scientists. The climate projections in the IPCC's Third Assessment Report draw on the output from global climate models run for a range of plausible greenhouse gas scenarios. The scenarios used are the levels of greenhouse gases expected, given different stages of population change, socio-economic development, and technological change.

The best way to test a climate model is to run it for a period in the past using known greenhouse gas concentrations, and compare the output with past climate observations. This brings us to the importance of local observations, both in conventional data collection and in the documentation of indigenous knowledge and perspectives on weather, climate variability and change.

An indigenous perspective

Long before the advent of complex numerical climate models, indigenous communities used changes in their environments to predict the weather and climate. Social and communal activities like feasting, fishing and hunting patterns were planned in response to these changes and revolved around the different seasons.

While weather and climate patterns have been documented for many years using Western scientific techniques, little attention has been paid to documenting the traditional environmental observations made by indigenous peoples. Therefore scientists may be missing some valuable insights into climate change and prediction. For example, recent research by NIWA (National Institute for Water and Atmospheric Research) aimed at documenting knowledge of weather and climate forecasting in Samoa found that Samoans have their own unique seasonal calendar (see box). Unlike the European calendar, which is based on astronomical events, the Samoan calendar is based on observations of environmental change, which are in turn largely influenced by the onset of extreme weather and climate events.

The next phase of our research is to investigate whether these indigenous observations and traditional knowledge could be used to help improve scientific understanding of the climate system and its effects.

Pacific Island Meteorological Services monitor and collect data from many parts of the southwest Pacific, continuing datasets that in some areas started over 100 years ago. For example, climate observations began in Apia, Samoa, in 1890. Long-term information like this is now assisting scientists in their understanding of past, present and future climate changes in the Pacific region. This includes the testing and validation of

climate models.

Unfortunately, few parallel records have been kept of indigenous perspectives on weather and climate. However, NIWA now recognises the important role of local observations, knowledge and views. Samoa, with its long history of climate data collection combined with local knowledge on predicting weather and climate events, was the obvious place to start exploring these issues in the Pacific region as a whole. A project begun in March 2001 has documented the seasons from a Samoan perspective. Work is also underway with Māori regarding traditional weather and climate knowledge, and adaptation to climatic events.

Acknowledgements

The information in this article, and in a wider study of Samoan local knowledge of weather, climate and seasons, was provided by the following people and organisations: Professor Richard Moyle, Department of Anthropology,

University of Auckland; Dr Jon Barnett, Department of Anthropology, University of Melbourne; Mr Taala Pauga, High Chief, Laulii village, Upolu; Mr Taala Liae, High Chief, Laulii village, Upolu; Staff at Samoa National Meteorological Services, Mulinuu, Apia; Samoa Congregational Church, Malua; Late High Chief Sua Palasi, Salelavalu village, Savaii; Late Chief Pouli Lefale, Utualii village, Upolu; Late Siai Lefale, Utualii/Sapapalii villages, Upolu and Savaii.

*This article was previously published in **Water & Atmosphere** 11(2) 2003. Penehuro Lefale is a staff member of New Zealand's National Institute for Water and Atmospheric Research (NIWA).

The Samoan seasonal calendar and its origins

Samoan seasonal descriptions are listed under the approximate equivalent month in English, followed by an English translation and explanatory notes.

January

Utu va mua – First yam digging. Utu va mua and Utu va muli, two brothers, fled to the earth and brought the January storms with them when there was war in heaven and their party was beaten. During a great war on earth, they escaped to the heavens. The hills are the heaps of slain covered by earth dug up from the valleys. When the two brothers look down upon them, their weeping, wailing and exasperation causes the storm or hurricane.

Aitu - Great Ghost
Tagaloa Tele – Big God

February

Toe utu va – Digging yam again. Further digging up of the yams to raise storms.

March

Faaafu – Withering. From withering of the yam vine and other plants, which become coloured "like the shells" in March.

Ta'a fanua – Roam or walk about the land. This is the name of a god worshipped in April.

Atiu iti – Small gods. From the household gods worshipped at the time. They are specially implored to bless the family for the year "with strength to overcome in quarrels and in battles."

April

Lo – A kind of fish. From the name of a small fish which comes in plentiful shoals at this time of the year.

Fagona – Destruction. The name of a god worshipped at the eastern extremity of the Samoan group of islands at this time.

May

Au nunu – Stem crushed. This is from the crushed or pulverized state of the stem of the yam at that time. Others say the month was so named from multitudes of malicious demons supposed to be wandering about at that time. Even the fish of the sea were thought to be possessed and unusually savage in this month. May is often an unhealthy month, as it marks the transition from the wet season to the dry - hence the sickness and superstition.

Sina – White. From the worship of a goddess of that name.

June

Ologa manu – The singing of birds. Named from the unusual joy among the birds over a plentiful supply of favourite buds and berries. The bright scarlet flowers of the *Erythrina Indica* then begin to come out and attract a host of parakeets and other happy chirpers.

July

Palolo mua – The first Palolo. Palolo "virides" are the worms that swim out from certain parts of the barrier reefs for three days every year and of which Samoans are very fond (all the more so from its rareness). Pa means to burst and lolo, fatty or oily. Hence, the origin of the name probably lies with the fatty or oily appearance of the worms as they break, burst, and are mixed up in heaps after they are caught. This is the first month of the half-year called the Vaito'elauo season. The other half of the year is Vaipalolo season.

August

Toe palolo – The last Palolo or Palolo muli – The last of the palolo.

September

Muli fa – End of the stem of a taro, *Arum esculentum*. The month is unusually dry and the scorching rays of the sun leave little of the taro stem except for a small piece at the end. Another derivation of Muli fa is the end of the season for catching the fish Fa.

October

Lotu o uaga – Rain prayers. Named after the special prayers which are offered to the gods for rain.

November

Taumafa mua – The first of plenty. Fish and other food become plentiful at this time and this is followed by the so-called palolo feasts. Public dinners in the houses of the leading men of the village are the order of the day.

December

Toe taumafa – The finish of the feasting or final supper. Food is less plentiful after some of the December gales or tropical cyclones.

Hot and Bothered: Urvashi Butalia's view from the south

It's 45 degrees centigrade. Outside my air conditioned office a fierce, hot wind blasts the heat into your face. My car, parked across the road, is baking in the heat. I step in and immediately jump out: the seat is too hot. I touch the steering wheel: it's impossible to hold. I open the windows, turn on the air conditioning full blast and wait for the car to cool. Then, windows up and cool air on, I drive off.

Five minutes later I'm stopped dead in a traffic jam. The traffic signals have failed and cars are piled up, fender to bumper, loudly beeping and honking. At the centre of the crossroads there is a young police officer trying to direct the traffic. It's hopeless, but he perseveres. It's his job. The tarmac is hot and heat radiates up from it in waves. The wind blows hot dust into his face, filling his eyes and mouth with grit. There's nothing covering his head apart from a metal helmet, a requirement of the job but a terrible punishment in the midst of an Indian summer. At three in the afternoon the sun seems to be directly overhead. Streams of sweat pour down his face, trickle into his eyes. He's so busy directing traffic that he doesn't even have the time to wipe away the sweat. If he stopped frantically whistling and pointing there would be even more chaos on the road.

In my air conditioned car I drive past the sweating policeman; by now it's cool and wonderful and the heat outside doesn't really bother me. A day on a job like that can kill you, I think to myself. Then I try to imagine where the young man lives, what his home must be like. The chances are that he lives in a poor, working-class neighbourhood. It's crowded, several people to a room, dingy, with not enough toilets and with little or no water. If he's lucky enough to have a family, his wife or sister or mother will wake before sunrise and stand in a queue to fill a bucket or two of water with which they'll have to make do for the whole day.

Shortage of water

Welcome to Delhi, the capital city of India where we've seen temperatures well above 45 degrees this year. Such heat was once a rarity – it has now become a regular feature of our hottest months. This summer more than 1,400 people in India died of heatstroke. Some people simply curled up on the pavement and died when there was no let-up in the heat. Others, waiting for the elusive and fickle rain, eventually collapsed of thirst under a cloudless sky. When the earth is parched and the sky will not give it's the poor who suffer most. The well-off, like me, live with airconditioners and bottled water and manage to escape the heat as much as possible.

Of course summer in India has always been hot: 40 degrees is not unusual. But if you could get into the shade, or under a fan, you were okay. Now our average temperatures all over the country are some five degrees higher. Accompanying the heat is an acute shortage of water: while the country makes its water available to big, private water-supply companies like Suez Lyonnais, ordinary Indians have less access to potable water.

Promises

Heat, like everything else, is relative: the rich feel it less, the poor feel it more. No, let me rephrase that: the rich feel it more. They can't bear to step into it even for a minute, so they cushion themselves with the comforts money can buy, and protected thus, they don't die of it. The poor feel it less because they have no choice. They don't have fans, air conditioners or coolers, nor any protective covering, nor even the luxury of taking a day off work.

Dealing with the heat doesn't only mean trying to stay cool. It also means being without electricity. As summer sets in the load on the electric supply – erratic at the best of times – goes up hugely. There are frequent outages, the generators trip, and it should come as no surprise to anyone that it is not the wealthy areas that have to do without electricity for eight hours at a stretch. Often, there are other consequences: students in schools and colleges have to take exams without fans in darkened classrooms; elevators get jammed between floors and people have to be prised out of them; there's chaos on the roads.

The global climate is changing. The world is getting hotter – and human actions are to blame. In India we've wiped out forests and built sprawling, energy-intensive cities. Pollution-spewing automobiles proliferate like vermin. We're even getting ready to fill up our rivers and put shopping malls on them. Green areas are destroyed without a thought.

In the midst of this crushing summer heat, politicians promise the moon. But few talk about what global warming means to the poor. What good are cynical promises when there's no let-up for the poor police officer, no relief for the poor farmer? And when the Earth itself has been laid prostrate?

Urvashi Butalia is an Indian writer and publisher. She lives in New Delhi.

* Written for *New Internationalist* 360 (September 2003), reproduced with permission.

Climate Refugees: The Hidden Refugee Crisis

In 2001, FoE Australia (FoEA) launched its 'Environment and Population' project. While this built on many years of research and campaigning on population, immigration and ecological sustainability issues, the incentive to formalise this work was a growing trend, by some people and groups, to cite environmental concerns as the basis for an anti-immigration agenda.

Early in this work, it became obvious that there was an obscure branch of climate change science which was explicitly concerned about the human impacts of climate change. The FoE International publication *Gathering Storm* (2000) and the earlier ASEED (Action for Solidarity, Equality, Environment and Diversity) book *Cold Catches Fire* were indicative of some attempts to get this knowledge out to a broader audience. A number of academics, researchers and activists had 'done the sums' on the human costs of climate change and realised that a dramatic direct impact of human-induced global warming would, in all likelihood, be the creation of a large number of climate refugee – people who will be forced from their homes because of various manifestations of climate change. At present, this is a fringe concern within the broader debate around global warming – for instance, climate refugees are not recognised under United Nations structures and there are literally a handful of people and organisations around the world advocating on behalf of these people.

Therefore, FoEA decided that an element of its campaigning should be to make the broader community aware of the likely numbers of climate refugees who will be displaced in coming decades. Norman Myers, considered by many to be the leading source on the issue, predicts that up to 150 million people will become displaced by the middle of this century.

Aware that the current federal government is not prepared to act on this issue, FoEA is currently focussing on an outreach and education program, working to make progressive organisations aware of the issue and encouraging them to adopt policies

recognising environmental refugees. FoEA is working initially with other environmental groups, aid and development organisations, refugee support networks and faith communities to achieve these goals, and will start working with a broader range of groups in 2004.

FoE is conducting research into likely numbers of climate refugees, globally and in the Asia Pacific region and also starting to investigate possible scenarios regarding the impacts of climate change (including the creation of refugees) within Australia. We are developing policy, writing articles and educational materials, and making contact with many organisations. In recent months we have started to develop international links with other organisations on the issue and are also investigating how Australian aid and development programs need to

Norman Myers, considered by many to be the leading source on the issue, predicts that up to 150 million people will become displaced by the middle of this century.

be adapted to help recipient communities stay in their homelands, if this is their desire, in a post greenhouse scenario. We are advocating for recognition of climate refugees as a separate category of refugee and, in all our campaigns, arguing that this issue is another pressing reason for Australia to take dramatic and immediate action to greatly reduce our contribution to global warming. As one of the world's highest per capita greenhouse gas emitters we believe there is an onus on Australia to unilaterally recognise climate refugees and create an intake program for these people, one that is not at the expense of other refugee programs currently run by the Australian Government.

You would be welcome to join us in any aspect of this campaign. For further details, please see: <http://www.foe.org.au/population>

Now is the time to switch to renewable energies. Our dependence on fossil fuels has had a devastating affect on the environment, indigenous communities and the political, economic and social stability around the world. One of the main barriers to establishing renewable energies in developing countries is the cost. Therefore, Australia is well placed to promote renewable energies through their aid program, the Australian Agency for International Development (AusAID). As we have seen in Kate Walsh and Janneke Bruill's article on page... the opposite has been happening. The following case studies demonstrate the benefits of renewable energy projects that are appropriately planned and implemented. The first case study is a project designed and built with Anangu peoples in the South Australian desert. The second is a project designed and built with the Agaun people of Milne Bay province, PNG. Both demonstrate the benefits, social and environmental, of renewable energy projects in remote areas and overseas communities.

First solar concentrator power station for central Australia

The first solar power station to supply an Indigenous community consists of 10 photovoltaic (PV) concentrator dishes with a combined out-put of 220kW. The grid-feed solar system will provide around 20 percent of the power to a cluster of remote communities in the far northwest of South Australia and reduce diesel use by around 120,000 litres, displacing more than 330 tonnes of carbon dioxide per year.

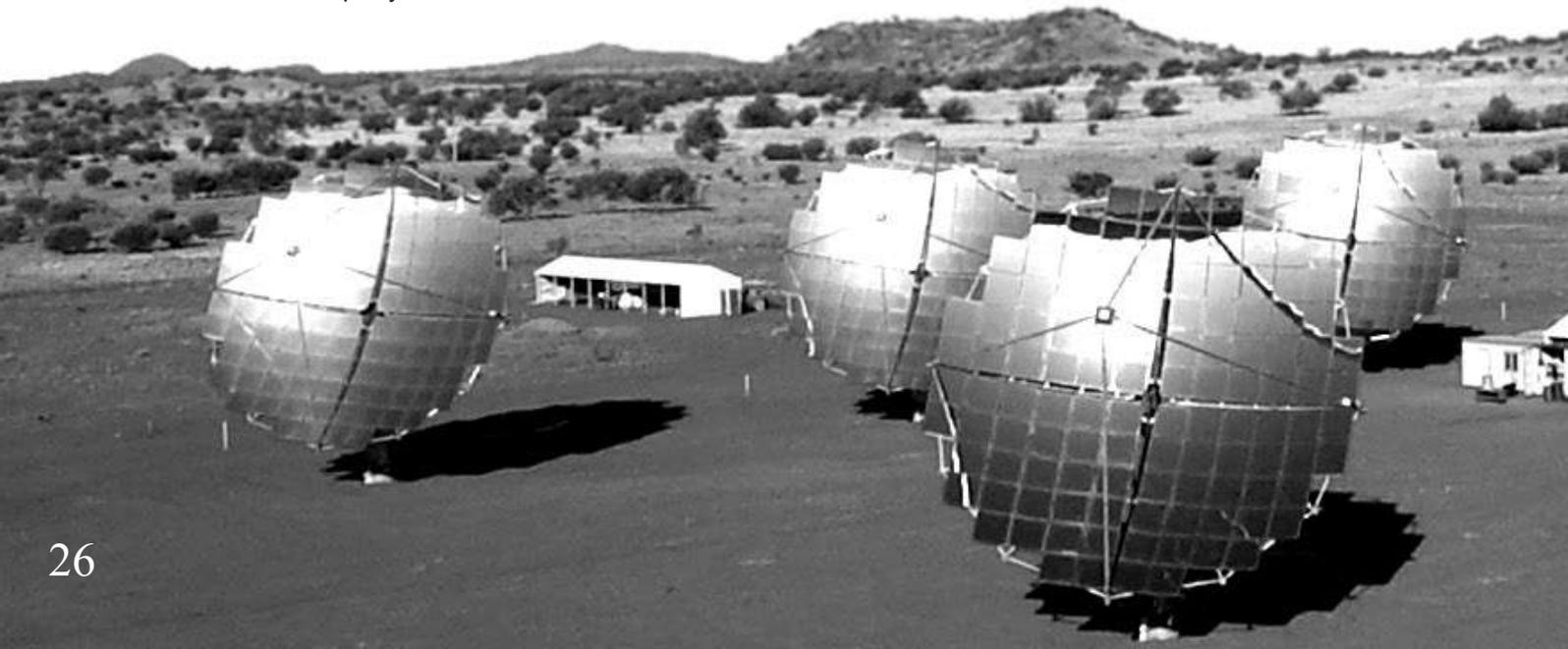
Located in red desert country at the foot of the Musgrove Ranges, the neighbouring communities of Pukatja (Ernabella), Umuwa, Watinuma and Yunyarinyi are home to about 550 Pitjantjatjara, Yankunytjatjara and Ngaan-yatjarra people.

The solar project was initiated by the Pitjantjatjara Council, who received \$1 million in funding from the Australian Greenhouse Office's (AGO) Remote Area Commercialisation Program (RACP). Aboriginal and Torres Strait Islander Commission (ATSIC) and the South Australian state government have contributed a further million each.

David Bajjali was the Electrical Technical Officer for the Pitjantjatjara Council Projects Division when he turned his attention to an innovative solar concentrator, developed by the Melbourne company Solar Systems.

Wilson Foster, the chairman of the Pitjantjatjara Council, is proud of the solar power project for several reasons: the solar power station was initiated by Anangu people for Anangu people, and will be owned by an Anangu controlled organization; it uses an Australian idea and Australian technology; and the PV receiver currently operates at an efficiency of 24 percent which is expected to increase to around 50 percent for only 10-15 percent of the initial capital cost.

For David Bajjali, the possibility of low-cost system upgrades was one of the selling points of the CS500 unit. 'Instead of getting bucket loads of high-efficiency cells, you put all the money into



infrastructure and then upgrade as technology becomes more efficient. Even between signing the contract (with Solar Systems) and delivery, there has been a 2 to 2 1/2 kW improvement per dish. Within five to 10 years, you should be able to greatly increase current efficiency simply by up-grading the receiver as they become more efficient.'

Aside from the cleaning of the dishes, which will take place every three to four months, the system is designed to be unstaffed, and will be remotely monitored. Many projects on indigenous communities falter because there are funds available for capital projects, but very little funding for upkeep and training of workers.

In the case of the solar power station at Umuwa, however, several factors are likely to contribute to the ongoing success of the project. For one, the coalescence of commercial and political interests at Umuwa will ensure this and other similar project's continued success. Indeed, as John Rowett, a Senior Project Officer with the Department of Aboriginal Affairs and Reconciliation who is managing the Umuwa project said, "We want Umuwa to be a showpiece of what can be done for other clusters of communities in other states."

(This is an excerpt of Kate Hairsine's article published in ReNew Issue 18 Oct/Dec 2002 - www.ata.org.au)

Agaun Village Micro-Hydro

(1993-1996) Appropriate Technology for Community & Environment (APACE)

The Daga-speaking people of Milne Bay Province in PNG live in a remote region directly east of Moresby in the easterly end of the Owen Stanley Ranges. There is no road access, although some Daga people have occasionally walked over several days by mountainous track to the coast when there has been an exceptional need, such as a funeral or medical emergency.

The beauty of the valley belies the reality of a harsh life of poverty, lack of basic opportunities and limited information upon which to develop opportunities.

The several hundred villagers in the area have little opportunity for cash generation through the more usual products such as fish or vegetables or copra production, since transport makes the economics quite unsustainable. Fish are in fact not available in any quantity, and protein deficiencies are commonplace.

APACE was asked in the late 1980's to help develop the use of the Jura river flowing past Agaun village, given the local belief that a small hydroelectric system would achieve several basic objectives.

These objectives included providing lighting and basic services for village people; providing an outlet for youth talents and some employment for maintenance staff; and the system could potentially provide power for small village industries (such as cardamom seed processing).



It has taken a decade of local hard work from Agaun people, and from APACE volunteers, APACE members and donors, support from the Canada Fund, the Australian NGO cooperation scheme, the Milne Bay Province and Chris of Masurina Ltd at Alotau.

The results are now in place: Agaun people see the Jura hydro as a continuing monument to village determination and self-help, to cooperation between the Australian APACE community and a PNG community in need of opportunity, as well as a practical and sustainable technology transfer.

At this time, Andrew and John of Agaun village are employed in maintenance of the APACE-designed micro hydroelectric system that generates power for household lights and limited electric power. The village enjoys a tariff from the Agaun station provincial employees (at times when the Province has funds to pay their employees) since the village-owned hydro exports power to the Government station.

Clement, also from Agaun village, transmits weather reports each morning and evening using a hydro-charged battery radio set, supporting his family from the small National meteorological service budget (when it is solvent).

Power from the turbine-generator unit is fed over the grassland plain and up a steep slope to the village, via 16 sq. mm aluminum cables operating at 3300 Volts. The power is stepped down to 240 Volt AC at a transformer station mounted high above Father Clement Bateman's workshop on the perimeter of the village. Here a switchboard and control room houses an APACE/UTS (University of Technology Sydney) electronic load governor that keeps voltage and frequency levels stable within the distribution system. In a nearby room, the locally-fabricated cardamom ovens are being fed through APACE heater/blower fans to provide a high grade exportable spice seed.

<http://www.apace.uts.edu.au/docpublish/agaun.html>

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FairShare International (FSI) has come up with a recipe to help individuals consider their personal impact on those whose resources and cultures have been exploited by Western-style consumption.

5.10.5.10 promotes global sustainability and ethical living by:

- Redistribution of personal wealth (giving away 5 percent of income)
- Reduction of resource consumption (reducing consumption by factor of 10)
- Building community (spending 5 percent of leisure time at community based activities)
- Democratic action (undertaking 10 democratic actions a year).

FSI recognizes that not all people are 'saintly types', who, like Mother Theresa, can "give until it hurts." A conscious redistribution of wealth plus a conscious reduction of our impact on Planet Earth equals 5.10.5.10.

See www.fairshareinternational.org for more details.

FoE Australia – 30 years and going strong

2004 marks the 30th anniversary of FoE Australia. Although the first groups were established in Adelaide in 1972 and Melbourne in 1973, it was in 1974 that the first national meeting happened (on French Island in Western Port Bay, then a proposed site for a nuclear reactor).

We are producing a small book on FoE – its story and people, victories and defeats. We would welcome your involvement, especially if you: have good photographs of FoE actions/ events (particularly prior to 1985); have personal anecdotes about your involvement in FoE (we are looking for brief contributions, about 600 – 800 words each, with an associated photo or graphic. We hope that these contributions will concentrate on a specific campaign, achievement or special facet of FoE); or know of anyone who may be interested in this project, but has lost touch with FoE.

We will be planning events this year to mark the anniversary. To find out more, or get involved, please contact Cam cam.walker@foe.org.au

FoE Australia news

Friends of the Earth Australia is a federation of independent local groups. You can join FoE by contacting your local group. For contact details, see list on page 34.

Nuclear update Jabiluka victory!

In late October, there were national celebrations to mark the completed re-burial of over 50,000 tonnes of unprocessed uranium ore at the controversial site at Jabiluka in the Northern Territory.

The campaign to stop Jabiluka has been one of Australia's longest environment and indigenous rights campaigns and gained national attention in 1998 when over 5,000 people travelled to Kakadu to blockade the proposed uranium mine. More than 500 people, including the Mirrar senior traditional owner Yvonne Margarula, were arrested for non-violent protest during this time.

Friends of the Earth acknowledges the inspirational efforts of the Mirrar traditional owners, who have resisted uranium mining on their land for thirty years.

Olympic Dam - another spill

The Olympic Dam Operations uranium copper mine at Roxby Downs in South Australia has suffered another radioactive spill, the tenth in three years. An estimated 32 kilograms of uranium was in the 110 cubic metres of

processed liquor that was spilled during the process of extracting the uranium from the finely crushed ore at the Hydro-metallurgical plant on October 15th.

Senate Inquiry finds nuclear industry lacking

The Senate Committee into uranium mining reported having grave reservations about the Honeymoon uranium mine project and further recommended "mining operations at Honeymoon not proceed unless and until conclusive evidence can be presented demonstrating that the relevant aquifer is isolated."

The Honeymoon project in north-eastern SA uses the acid in-situ leach (ISL) method which involves pumping sulphuric acid into groundwater to dissolve uranium. Liquid is then pumped to the surface to be processed, with radioactive wastes and heavy metals pumped back into groundwater.

FoE maintains that the underlying aquifers are not isolated and that there is serious potential for contamination of groundwater if mining goes ahead, and has consistently called for a ban on the use of the ISL technique. The project, promoted by Canadian based Southern Cross Resources, has experienced groundwater contamination problems during trial operations.

Other key findings of the Senate Inquiry include calls for independent monitoring of uranium mines; greater transparency, scrutiny and reporting; improved enforcement and an increased recognition of the rights and aspirations of traditional owners.

Further details: <http://www.foe.org.au/nuclear>

Murray River flows

In mid November, the Murray-Darling Basin Ministerial Council announced the allocation of 500 gigalitres of water for environmental flows, with the water being earmarked for five sites on the Murray River. While FoE welcomed the release

of this water, it warned that the latest report of the Council's own Scientific Reference Panel states that the ecological benefits of environmental water will be greatly limited without removing grazing and logging from wetland and floodplain zones along the river.

For this water to be of maximum use in the Barmah-Millewa forest, one of the five areas identified, it must be followed up with adequate protection, for example National Park status.

FoE also expressed concern that the opinions of the Murray Darling Rivers Indigenous Nations (MDRIN) were not taken into account by the Ministerial Council, who said that the 'First Step' Proposal put forward by Federal Cabinet is grossly inadequate for river health and completely ignores the rights of Indigenous people to protect and enjoy their cultural heritage.

Further information: <http://www.melbourne.foe.org.au/barmah/index.htm>

Toxic Timber Campaign

Globally, there is a growing controversy about the use of toxic treatments for preserving timber, and specifically regarding the use of Copper Chrome Arsenate (CCA). CCA is the main form of treatment for radiata pine, the predominant softwood grown and sold in Australia.

This controversy has begun to reverberate in Australia. Since 2001, FoE has worked to raise awareness of the threats posed by CCA treatment of timber, in terms of the direct ecological problems associated with the treatment process, and in disposing of old wood and offcuts, as well as the health implications of using this type of timber in domestic and public applications (especially threats to children's health posed by use of CCA timber in playgrounds).

Over the past six months, we have had considerable success at raising the issue, with substantial media coverage gained, and a number of other environmental groups have also finally started to adopt some of our concerns. Following an inquiry, the Australian Pesticides and Veterinary Medicines Authority (APVMA) announced in August 2003 "that it intends to stop the use of CCA as a timber treatment in certain domestic situations such as decking and children's playground equipment by the end of 2003 unless there is conclusive proof that continued use is safe". This would mark a significant step forward in having the health and ecological issues associated with CCA

appropriately recognised.

Having successfully worked to raise awareness about the threats posed by CCA, in 2004 FoE will begin to focus on the large scale consumers of CCA materials (especially the wine industry) and further investigate viable alternatives to CCA treated materials.

Further information: <http://www.melbourne.foe.org.au/envirojustice/cca/index.htm>

Loss of funding (again!)

After a long wait, the federal minister for Environment, Dr Kemp, has announced the outcomes of this year's allocation of funds to green organisations under the Grants to Voluntary Environment and Heritage Organisations (GVEHO) program.

GVEHO traditionally provides very useful administrative support to a range of environmental groups across the country; however, with this round, the guidelines were re-written in a way that shifts the focus of funding to 'hands on' ecological restoration, meaning that most groups that largely carry out advocacy or campaigning are excluded from eligibility. A number of these groups have now either received reduced funding in the current round, or like FoEA, have lost their funding entirely.

This can only be taken as a further politicisation of the implementation of Coalition policy on the environment as it affects many of those organisations that campaign on issues like logging, climate change and the nuclear industry.

The loss of these funds will leave a substantial gap in FoE Australia's national budget. In 2003, FoEA has been developing a direct debit program, whereby supporters pay a regular amount to FoE. If you would like to support FoE in this way, it will help with ensuring we can continue with our campaign work. Please contact Ila Marks in the Melbourne office: (03) 9419 8700, ila@foe.org.au You can also join our direct debit program via the Egive website: <http://www.egive.org.au/members/default.asp> (go to environment groups, then FoE).

FoE International news

Friends of the Earth International (FoEI) is a federation of autonomous environmental organisations from all over the world. Our members in 68 countries campaign on the most urgent environmental and social issues of today, while working towards sustainable societies.

Nigeria: FoE says award to Chevron is an unnecessary insult

ERA/FoE Nigeria has portrayed the United States Secretary of State's Corporate Excellence Award to Chevron Texaco as an unnecessary insult to the people of the Niger Delta and other Nigerians. On October 15th, Chevron Texaco was given the award for its "outstanding corporate citizenship" in Nigeria. In presenting the award to Chevron Texaco (of which Chevron Nigeria Ltd is an affiliate), US Secretary of State, Colin Powell, said the company has demonstrated best international business practices and good corporate citizenship in Nigeria.

In its reaction, ERA described the award as insensitive and condescending.

"Powell's applause for Chevron is a vintage expression of corporation's being the fingers behind governments," said Nnimmo Bassey. "The fingers of the US government officials are both dipped in oil and the blood of the Niger Delta. It is not just a question of short sight or lack of knowledge, it is the case of cash blocking every other consideration."

Contact: Nnimmo Bassey,
eraction@infoweb.abs.net

[FoE Australia will be hosting Nnimmo in Australia in April and May 2004 as part of the Climate Equity tour].

WTO Cancún talks collapse

The European Union and the United States drove the World Trade Organisation (WTO) talks in September to collapse as they refused to give real concessions to a bloc of developing countries. Agreement could not be reached on proposals

from Europe, Japan and others to expand the WTO and bring in new negotiations to liberalise investment, competition, government procurement and trade facilitation (known as the 'new issues').

Friends of the Earth said that developing countries' rejection of the 'new issues' demonstrated the resolve of poor nations to stand up to the rich countries and their multinational corporations who were lobbying for greater access to developing countries' markets.

"No deal is better than a bad deal. Despite intense pressure from the business lobbies and bullying by the EU and the US, developing countries stood their ground. This is a great development for people, small businesses and the protection of the environment," said FoEI International Trade Coordinator Ronnie Hall.

Friends of the Earth International had a strong presence in Cancún, with some 40 campaigners attending from around the world.

Further details:

<http://www.foei.org/cancun/index.html>

Climate litigation update

FoE-US has joined other environmental groups and representatives from 12 US states in filing a suit in a federal court in October 2003 to force the government to regulate carbon dioxide and other greenhouse gases as air pollutants.

This is the second legal case on climate change to be launched. The plaintiffs charge that the Environmental Protection Agency erred when it determined that it lacked authority under the Clean Air Act to treat the gases as pollutants. Massachusetts Attorney General Tom Reilly declared the lawsuit "a watershed event in the fight to stop global warming."

<http://www.climatelaw.org/>

FoE conference on Human and Environmental Rights, Colombia

In September 2003, CENSAT Agua Viva/ FoE Colombia hosted a significant and inspirational conference that brought together several hundred people from Colombia, the rest of Latin America, and the world.

The conference declaration, signed by 150 groups, stated that:

"We came together in Cartagena, in the Americas, where the sound of African drums still resonate just as they have for the last three hundred years. This beat calls for emancipation and resistance against slavery, displacement and injustice.

"Environmental injustices are the daily bread of factory workers, street vendors, and women, girls and boys who carry water across great distances. Urban pollution is concentrated in areas where the most impoverished live, where there are effluents in the drinking water."

The conference addressed the connection between environmental injustice and human rights abuses, and brought together a range of farming, indigenous, Afro-Colombian, human rights and environmental organisations with trade unionists, academics and others. The conference occurred against a backdrop of veiled threats from the Colombian president, who declared that non-government organisations were simply a cover for 'terrorists' (defined by the government as armed left wing groups) and the conference responded by saying that "our organisations are not, and never have been, the fruit of terrorist conspiracies. We exist because peoples' environmental and human rights are being infringed and denied."

For further information on the conference and CENSAT/ FoE Colombia, please see:
<http://www.censat.org/>

Recent FoEI reports

Gambling With People's Lives (Environmental Defence, FoE, and International Rivers Network), released in response to the World Bank's new 'high risk/high reward' strategy in the water, forestry, and extractive industries sectors. The report analyses the World Bank's ability to manage social and environmental risks in high-risk projects and to learn from its past mistakes. <http://www.foei.org/publications/financial/gambling.pdf>

Link magazine on Trade: (FoEI) prepared for the WTO meeting in Cancun, Mexico
<http://www.foei.org/publications/link/>

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