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NELA who we are and what we do

The National Environmental Law Association of Australia

Was established in 1982, following the success of the first Environmental Law Conference in Sydney in 1981 and incorporated in 1989. Since the settling of our constitution in 1987, NELA's primary objective has been to promote the understanding of the role of environmental law in regulating and managing the conservation and usage of the environment.

The NELA National Executive

Is made up of elected representatives from every state and territory including office bearers, Committee members and some ex officio members. The elected members are the President, two Vice-Presidents and a Treasurer. The immediate Past-President and Editor of National Environmental Law Review (NELR) are automatically members by reason of their position. The current National Executive includes:

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NELR editorial

The Copenhagen Experience

This issue provides a report on the Copenhagen Conference by Christine Loh of the Hong Kong based public policy think tank, Civic Exchange. It also provides several recent student papers on regulatory responses to climate change. Firstly, this editorial provides a personal account of COP15 from Kartik Madhira, a Monash University student who was chosen to participate as a representative for youth organisations. Here is what Kartik thought:

> "Having worked on the issue of climate change for the past one and a half years, I could not have found any better opportunity than COP 15 to get a better and broader understanding of the actual functioning of the international climate change regime. Being passionate to work on the issue, I went to Copenhagen with one simple objective of contributing and bringing about a change which I used to talk a lot about but not achieve at the grass root level. Have I achieved this objective? It would be tough to answer this question. I am not sure about the change aspect but I would say that this experience has definitely given me an understanding of the complexities involved in dealing with any issue at international level. I was very pleased to meet some of the dignitaries such as Desmond Tutu - Nobel Peace Laureate 1984, Yvo de Boer, UNFCCC General Secretary, Achim Steiner, UNEP Executive Director, Kartikeya Sarabhai, Director, Centre for Environmental Education, India and many others. I thank Monash University for helping me realize my dreams.
>
> I observed that the decision making process in particular reference to United Nations Framework Convention on Climate change (UNFCCC) is time consuming because it is consensus based rather than majority based in other UN related agencies. I was talking to one of negotiators from Brazil and he was of the opinion that there is a need to overhaul the existing system, particularly the climate change regime. In the current system, everything in the text is negotiable which includes the styling, formatting and the substance. He was of the opinion that only the substance of the text should be negotiable, leaving the styling and formatting to be done by the experts in literature. This does make sense to me.
>
> The first week of negotiations was on track and progressing quite well. But from the start of the second week, the negotiations started falling apart. With the developing countries walking out of the negotiations for one day after they were realized the Kyoto framework would be abandoned. Observing all these proceedings sitting in the plenary was quite frustrating and I felt completely helpless, as everything is so process-oriented that one cannot make any special exceptions to deal with a new issue with any sense of urgency.
>
> On one hand, I attended various side-events which emphasized on the importance of taking action "NOW" and to avoid delay, with people affected by climate change urging the youth to build pressure on the rich countries. On the other hand, I attended sessions wherein there was lot of talking and little action. It is frustrating when you realize that nothing is moving and this is when some youth groups lost their patience and became a bit aggressive in a way which led to response by the police. However, I have even seen people fighting for the cause in a non-violent way. I met a girl who has been fasting for 42 days! I was amazed by the passion which the young people like her have for this cause.
>
> I witnessed the rich and the poor, the north and south divide. Especially, during the last three days, the Danish Prime Minister was trying hard to push for its self created text and blaming the negotiators that they have not been able to reach a consensus.
>
> Apart from observing, I was working with the Youth Non-governmental organizations group on developing our stand with respect to Adaption policies on climate change. We studied the drafts circulated on a daily basis and developed our stand on the same. Apart from that we successfully delivered three interventions in the plenary sessions presenting our stand.
>
> The delegates and the observer organizations in particular were extremely dissatisfied with the facilities provided at the conference venue. The United Nations accredited nearly 45,000 people for the conference. But the conference venue had capacity of only 15,000 people. Once the conference venue reached its capacity, the entry to the venue was closed. A worse situation developed in the last four days when the entry of observers was restricted to a mere 500 people owing to the arrival of head of the states. There were many people who had travelled long distances to be a part of the conference who could not do so because of these venue restrictions. This restriction on entry raised questions on transparency and the civil society participation as mentioned in the Arhus convention."

Regards
Wayne Gumley

INTERNATIONAL

Kathryn Walker

Copenhagen 2009, what will it achieve?

There is much anticipation about the upcoming negotiations at Copenhagen. Over 100 World leaders, including President Obama and Indian Prime Minister Manmohan Singh will attend. Some say this will increase the chances of a new global climate change policy while others have expressed increasing doubt about whether there will be any actual prospect of reaching a deal at the conference.

The starting position is obvious, 'the world cannot afford for the negotiations in Copenhagen to end without action'. This is the message that has no doubt led to the unprecedented attendance by world leaders at a Climate Change summit. Many see this in itself as a chance to lessen the gap between the rich and poor countries over global warming and heal the rift that has been widening as blame is levelled at the poorer countries and their lack of action in reducing Greenhouse gas emissions.

The United Nations Framework Convention on Climate Change has identified what it sees as four key elements to achieving a new global climate treaty. Those elements are:

- The degree to which industrialised countries will reduce their Greenhouse gas emissions;
- The degree to which major developing countries like India and China are prepared to limit their emissions growth;
- How funding for developing countries will be financed to enable them to reduce their emissions; and
- How the money to assist developing countries will be funded?

These are fundamental questions which must be addressed. Developing counties cannot afford to take on binding targets to reduce Greenhouse gas emissions without financial assistance. The vicious circle of developed countries refusing to set beneficial targets because developing countries are not and developing countries refusing to be bound by targets unless financial assistance is given, must end. A global cooperative approach is essential to achieving a global climate treaty which will reduce Greenhouse gas emissions by all countries.

The PEW Centre on global climate change has adopted this approach calling for cooperation to ensure that a deal can be reached on global emissions targets focusing on "common but differentiated responsibility". In addition, the IPCC says that to "limit rising temperatures to 2 degrees would require developed countries to commit to a 20-45% omissions reduction below 1990 levels by the year 2020". The reduction targets developed Countries have announced so far fall well short of this. The ultimate objective must be for developing Countries to set ambitious but achievable targets which cover all GHG sources in the Countries economy. Such targets are essential to the efforts to reach agreement and the world as a whole will have to provide financial assistance so that such targets can be achieved.

A global deal at Copenhagen, according to the PEW Centre is still possible but only if the world, as a whole, including the United States dramatically increases its efforts. To achieve agreement the momentum must be strong. There are high expectations for Copenhagen, there have been positive comments from world leaders but whether those expectations will be too high remains to be seen.

At the time of writing this article, the conference had been underway for 5 days and the G-77 had already entered into negotiations for funding for developing countries from developed countries. The negotiations were not proceeding well with the chief negotiator, Lumumba Stanislaus Di-Aiping walking out on discussions. Mr Di-Aiping issued a statement saying "This conference will probably be wrecked by the bad intentions of some people". We can only hope that whatever it was that caused Mr Di-Aiping's reaction can be resolved and the negotiations resumed. Without consensus on funding from developed countries to assist developing counties meet targets for Greenhouse gas emission reductions the conference will achieve little (see *www.pewclimate.org* and *http://en.cop15.dk*).

Opposing views on Climate Change Litigation

On 30 September 2009, the Federal District Court in California dismissed a lawsuit bought by an Alaskan Native Village which had been engulfed by rising

sea levels allegedly related to global warming. The case of *Native Village of Kivalina v ExxonMobil Corp* was dismissed on the ground of political question and standing. Kivalina had sought damages from 19 of the United States' biggest oil companies for allegedly contributing to global warming. The basis of the claim was 'nuisance' causing severe harm to the village of Kivalina. Ultimately, the Court found that the case did not meet 'judicially discoverable and manageable standards'.

In stark contract, in October 2009, the Federal Appeals Court reversed the dismissal of a lawsuit bought by Hurricane Katrina victims. The Katrina victims sought damages related to global warming. In *Ned Comer, et al v Murphy Oil USA, et al*, the Court found that a claim by property owners along the Mississippi golf seeking damages against oil companies who they allege engaged in global warming which "fostered and strengthened" the hurricane and was a direct result of that global warming. The Court found the Plaintiffs had standing to bring private and public nuisance, trespass and negligence claims and that none of these claims were non justiciable political questions.

Tort based climate litigation is most definitely on the rise. The Courts in the United States have so far adopted varying approaches to the nuisance claims. We will have to wait until a case makes it all the way to final determination to see what the approach to climate litigation will be (see *Native Village of Kivalina v ExxonMobil Corp* 28 USC 1331, 2201*, Ned Comer, et al v Murphy Oil USA, et al*, No. 07-60756, *enb@iisd.org* and *http://www.globalclimatelaw.com*).

Conservation and Cattle Ranches

In California an unlikely partnership has been formed between the cattle industry and wetland conservationists. The California Rangeland Coalition is bringing together conservationists and cattle ranches in an effort to aid the sustainability of ranching as a livelihood. In California, two thirds of the State's remaining wetlands are privately owned. The partnership has brought together two groups who have historically been in opposition to each other with the hope of focusing attention on the value of private working ranch lands and managed grazing to promote biodiversity. The Fish and Wildlife Service also has a role in the Partnership and at its fourth annual summit held on 8 January 2009 brought together over 400 people to discuss the ecological benefits of grazing in rangelands. As an added incentive, many state partners are giving special attention to those seeking funding for conservation easements on private working ranches located within the partnership focus area (see enb@iisd.org and earthpolicynews@earthpolicy.org).

Mangroves Initiative

The aim of the Pacific Mangrove and Climate Adaptation Initiative is to promote sustainable management of mangroves and coastal ecosystems, to raise awareness of coastal ecosystems' goods and services, including enhanced resilience to climate change and natural disasters and to build capacity at all levels to make informed decisions. The Pacific Mangrove and Climate Adaptation Initiative hopes to help countries strengthen their mangrove management in concert with IUCN Oceanic. IUCN Oceanic has been developing a partnership with key government and non-government organisations, the secretary of the specific regional environment program, the United National Development Program Specific Centre and the Institute of Applied Studies at the University of the South Pacific to enhance the initiative. Recently, the British High Commission approved a grant of $50,000 for a scoping exercise to be carried out by UNDP-PC and the IUCN Oceanic (*see earthpolicynews@earthpolicy.org* and *http://www.iucn.org)*

IUCN Oceanic Water Program

The IUCN Oceanic Water Program focuses on integrated water resource management, environmental flows, water resource economics, water shared ecosystems and riverbank rehabilitation. The aim of the program is to promote increased awareness of the need for climate change adaptation and the value of coastal ecosystems to disaster risk reduction. The water and nature initiative aims to promote water security by demonstrating best practices in water and ecosystem management, to encourage good governance and stakeholder participation in water decisions made in support of the establishment of good water governance at regional sub-national and river base level. Most recently, the water and nature initiative has been working with the University of the South Pacific to successfully "complete laying foundation of the implementation of WANI

principles in 3 districts in the Kadavu province". This involved the revision of natural resource management plans in those districts to include water and catchment management strategies. In a recent press release a spokesperson explained the initiative as working "towards managing and protecting our water reserves and heritage for the future benefit of all. Stretching across 5 continents in 12 river basins, WANI works with governments and local communities to use and manage water resources more sustainably. WANI aims to help reduce poverty and protect the environment by helping people to manage river flows and improving access to all communities. From the Pangani river at the foothills of Mount Kilimanjaro in Africa, to the mighty Mekong river in Asia and the towering volcanoes along the Tacanà river in Central America, the Water and Nature demonstration projects are supported by the development of tools for financing, governance, empowerment, and information" (see *http://www.iucn.org/about/work/programmes/water/wp_our_work/wp_our_work_initiatives/wp_our_work_wani).*

Pan African Implementation and Partnership Conference on Water

On 11 November 2009, the second Pan African Implementation and Partnership Conference on Water took place in Johannesburg, South Africa. The conference provided an opportunity for African development partners to commit to the activities of the African Ministers Council on Water and Africa's water development agenda. Representatives from all nations attended the conference, including Australia. The Australian representative emphasised the need to focus on the previously neglected area of sanitisation. Australia's development cooperation provides $300 million to global water and sanitisation programs. The conference agreed that the priorities for ANCOW were infrastructure development, hygiene, supporting regional institutions, capacity building and support for national implementation. Australia was pivotal in focusing on the importance of working with civil society organisations together with a stronger partnership with the African Development Bank and the World Bank. The message of the conference was that "while the Millennium Development Goal on providing adequate drinking water is on track,… sanitation will require a massive and coordinated input in order to deliver by 2015. While the political will to do this was expressed in the Sharm el Shaik declaration of 2008, Africa now needs action on the ground and partnerships for implementation" (see *http://www.uneca.org/water*, *http://www.iisd.ca/africa/vol13/arc1303e.html* and *http://www.gwpforum.org/gwp/library/091103_PanAfCon*).

FEDERAL

Nicola Durrant

The Fate of the CPRS?

On 2 December 2009 the Senate rejected the Commonwealth Carbon Pollution Reduction Scheme bills package (CPRS) for a second time. The Senate voted 41 to 33 to reject the legislation. The government has indicated that it intends to reintroduce the legislation, with the amendments negotiated with the Liberals, when Parliament resumes on 2 February 2010. Meanwhile the opposition, under the new leadership of Tony Abbott, is currently formulating its alternate climate change policy.

Negotiated Amendments to the CPRS Bills

A brief summary of the amendments to the CPRS, agreed as part of the government's negotiations with the Liberal party (with Malcolm Turnbull as leader), are set out below. It is this version of the bills package, consistent with these negotiated amendments, which will be reintroduced to the House of Representatives on 2 February 2010.

Accounting for Voluntary Action and Green Power

The Government undertook to ensure that the CPRS would take into account voluntary action by households. The government would develop a method for ensuring that the collective voluntary action by households - beyond that projected by the CPRS - would be taken into account in setting future caps. In addition, the CPRS would be amended to ensure that all existing and future purchases of GreenPower would be counted, and allow Australia

to go beyond its 2020 national targets.

The Energy Efficiency Mechanism

The Government agreed to establish a new Prime Minister's Task Group on Energy Efficiency. The Task Group would report to the Government by mid-2010 on options for introducing a new Energy Efficiency Mechanism. The Task Group would consider and advise on the most economically and environmentally effective Energy Efficiency Mechanisms that could be considered by the Federal Government to complement the CPRS and the Renewable Energy Target.

Assistance for Low Income Households

On 25 November 2009 the Government announced that it would provide a household assistance package, worth $49 billion over ten years, to ensure that all low and middle income families were assisted with the cost of acting on climate change. The government indicated that the average cost of living for households would be $624 more in 2012-13 than it otherwise would have been, without a CPRS.

Treatment of EITES

Under the proposed amendments, the Government's 'global recession buffer' would be integrated into base assistance rates and would not be removed after 5 years. EITE assistance rates would commence in 2011-12 at 94.5 per cent for highly emission intensive activities and 66 per cent for moderately emission intensive activities and decline at an annual rate of 1.3 per cent per annum. The Independent Expert Review would then consider the appropriateness of EITE assistance in 2014. The Government would provide five years notice of any material changes for any general modifications arising out of that review.

Treatment of Agriculture

Agriculture would be excluded indefinitely from the CPRS. The Government would work with industry to monitor world's best practice in reducing agricultural emissions and consider a range of ways in which the agriculture sector could contribute to the transition to a low-pollution economy. This would be considered by a Productivity Commission review in 2015.

The government agreed that CPRS permits would be provided for abatement from the sources that are counted towards Australia's international commitments including livestock; manure management; fertiliser use; burning of savannas; burning of agricultural residues; rice cultivation; avoided deforestation; and legacy waste-emissions from closed landfill facilities. This would be subject to the development of a policy and legislative framework that ensures any domestic offsets meet internationally accepted principles of permanence, additionality, measurability, avoidance of leakage, independent audit and registration.

An independent expert committee would be established to vet offset methodologies and recommend 'robust methodologies' to the Minister for approval. It is important to note that approval of projects and crediting of abatement would only be from commencement of the CPRS (e.g. 1 July 2011).

National Carbon Offset Standard

In the meantime, the Government will promote voluntary market offsets through the implementation of a National Carbon Offset Standard. This will provide scope for a market for abatement from the following sources that are not counted towards Australia's international commitments: agricultural soils (grazing and crop land management) including biosequestration through soil carbon and biochar; enhanced forest management; and non-forest revegetation and vegetation management. The government has stated that abatement from these sources would transition into the CPRS once abatement is internationally recognised and provided that other CPRS requirements are met.

The National Carbon Offset Standard was released by the Department of Climate Change on 24 November 2009 and will come into effect on 1 July 2010. The National Carbon Offset Standard is intended to provide guidance on what constitutes a genuine, additional, voluntary offset by setting minimum requirements for the verification and retirement of voluntary carbon credits. The final standard is based on the Draft National Carbon Offset Standard which was released for public consultation in December 2008. The Standard is largely unchanged from its draft form and contains only broad principles for eligible abatement projects. More specific details on methodologies and other operative issues will be required to assist in the development of

eligible abatement projects under this Standard. The Department of Climate Change has noted that it will continue to consult with stakeholders in finalising administrative arrangements for the National Carbon Offset Standard.

Other Amendments

The Government would also, via further legislative amendments in 2010: –

- provide credits for *regrowth forests* on deforested land (legally cleared between 1990 and 31 December 2008) through amendments in 2010;
- provide credits for *soil carbon on deforested land* (for land legally cleared between 1990 and 31 December 2008) from 2013;
- include conditions for forests earning forest credits to have adequate *water entitlements and planning approvals*; and
- require that offset projects do not involve, or include material obtained as a result of, *clearing or harvesting of native forests*.

Treatment of the Coal Sector

The government has agreed to the provision of $1.5 billion of assistance to the coal sector over 5 years comprising of:

- $1.23 billion Coal Sector Adjustment Scheme would be established to provide transitional assistance to the most emissions-intensive coal mines in the form of permits; and
- a $270 million Coal Sector Abatement Fund established within the Climate Change Action Fund (CCAF) to provide grant funding for coal sector abatement projects and capital grants with a priority for electricity generation from waste coal mine gas.

Coal Sector Adjustment Scheme

The Coal Sector Adjustment Scheme would provide free permits to the most emissions intensive mines. These are those coal mines that have a fugitive emissions intensity above 0.1 tonnes CO_2-e per tonne of saleable coal and where coal mining operations were carried out for some or all of the two years from 1 July 2007 to 30 June 2009. This model of assistance would enable the fugitive emissions carbon liability for the most gassy mines to be reduced from around $20 per tonne of saleable coal to around $5 per tonne of saleable coal at a $25 carbon price. Assistance would be linked to production and capped at base period production levels.

Coal Mining Abatement Fund

The Coal Mining Abatement Fund would be allocated an additional $20 million to fund coal mine abatement projects and capital grants with a priority for waste coal mine gas electricity generation projects. Funding for abatement projects and capital grants would be provided on a three for one basis, with coal mine operators required to meet three quarters of the cost of the project.

Treatment of the Electricity Sector

- The Government agreed to increase the quantum of assistance available under the Electricity Sector Adjustment Scheme (ESAS) from 130.7 million permits to 228.7 million permits (75 per cent increase). The Government also agreed to extend the period over which ESAS would be provided from five years to ten, meaning that generators would be required to comply with the 'power system reliability test' over this period to continue to receive assistance.
- The Government would introduce a Low Emissions Transition Incentive by amending the power system reliability test further to allow generators to receive credit for their own investments in replacement capacity, providing incentives for ESAS recipients to invest in new low emissions replacement generation capacity while continuing to receive the remaining scheduled ESAS payments.
- The Government would delay the 'windfall gains test' that applies to ESAS assistance to apply to the last three of ten years of assistance, rather than the last two years of five, and apply the test to only half of a generator's allocation in this three year period.
- The Government would also establish a Transitional Electricity Cost Assistance Program to reduce the impact of the CPRS on electricity prices paid by medium and large enterprises.

Treatment of Liquefied Natural Gas (LNG)

Liquefied Natural Gas (LNG) is expected to be a moderately emissions-intensive EITE activity and general allocations of free permits would be made

according to the ordinary EITE rules. An additional supplementary allocation of permits would be provided for LNG projects to ensure that all projects receive an effective assistance rate at or above 50 per cent in relation to their LNG production. In determining the supplementary allocation, the emissions associated with the entire LNG production process would be taken into account, that is, including extraction and transportation emissions associated with LNG production, but excluding emissions attributable to other saleable products, such as the production of condensate and LPG. This would require a methodology to be developed and included in regulations. This would be an ongoing measure, not a fixed-term transitional assistance program.

Treatment of Food processing

A five-year, $150 million stream of assistance for the food processing sector would be established within the Climate Change Action Fund. This stream would be dedicated to funding emissions reduction measures within the primary food processing industry.

The Green Carbon Fund

The Government would establish a $40 million Green Carbon Fund to build the resilience of natural ecosystems that are under threat from climate change. The first stream of the fund would provide support to monitor and plan for the impact of climate change on biodiversity and land and water resources. The second stream would support initiatives to encourage environmental stewardship and biodiversity.

Deferred Payment at Auction

The Government announced that deferred payment arrangements for auctions of Australian emissions units would provide a transitional measure to address the working capital costs of participants. Deferred payment would apply to the advanced auction of future vintages of emissions units (but not current vintages) sold between 1 January 2011 and 31 December 2013 only, and require a 10 per cent deposit at auction to secure rights to permits. Permits would only be received once the final payment is made. Deferred payments would be available to all bidders.

Operational Subsidiary Liability and Joint Venture Liability

The Government announced that it proposed to undertake public consultation with a view to making amendments before the start of the CPRS to enhance pass-through of carbon costs under existing contracts by clarifying the point of liability and removing the scope for minority shareholders in a facility to veto investments to reduce emissions for which the controlling corporation would otherwise be liable.

Clarification of Exported Fossil Fuels

The Government announced that it would introduce minor technical amendments to the CPRS bill package to remove all doubt that fuel exporters (including Australian coal exporters) would not be held liable under the CPRS for the carbon embodied in fuel they export.

Extension of Fuel Tax Credits for Forestry

The Government announced that eligibility for the CPRS fuel tax credit would be extended to forestry from 1 July 2011, in a manner similar to agriculture and fishing operations. The amount of credit would equal the impact of the carbon price on fuel, and reflect the fact that these enterprises do not pay fuel tax and therefore do not receive the benefit of the cent for cent fuel tax adjustment. Agricultural, fishing and forestry would be eligible for the CPRS fuel credit from 1 July 2011 to 30 June 2014, and the Government would review this measure after three years as part of the review of the fuel tax adjustment mechanism.

Recognition of Intergovernmental Panel on Climate Change (IPCC) in 2014

The Government announced that the CPRS would take into account developments in the consensus science. The Minister would direct the Independent Expert Advisory Committee to take into account the findings of Working Group III of the IPCC when considering appropriate caps and gateways in the first statutory review of the CPRS in 2014.

Trigger for Review of the CPRS

The Government announced that automatic statutory review of the CPRS legislation, including EITE policy, would occur when Australia signs a new multilateral agreement. The review would

examine the implications of that agreement for the CPRS. Five years notice would be given to any modifications to the EITE assistance program, unless modifications were required for compliance with Australia's international trade obligations.

COAG: Review of Renewable Energy Target

On 5 November 2009, a COAG review into the Federal Government's Renewable Energy Target was announced. This review will consider factors that may be impacting upon the Renewable Energy Certificate (REC) market in the short and long term. The review will examine the current state of the RET spot market and whether the spot market has any implications for the deployment of large-scale projects. The review will look at both short-term developments in the REC market and the factors that will determine longer-term pricing. The review is to report to COAG by the end of 2009.

The New National Water Market System

On 9 November 2009 the Minister for Climate Change and Water announced a $56 million investment by the Rudd Government to develop a 'faster, more efficient and nationally focused water market system'. The National Water Market System will involve the development of a national portal and a new Common Registry System for implementation in NSW, South Australia, Western Australia, Tasmania, the Northern Territory and the ACT. Enhancements will also be made to existing systems in Victoria and Queensland.

The system will include a common registry system or system upgrades for all jurisdictions, and a new national portal and interstate processes to speed-up cross-border water trades and cut transaction costs. The national portal will provide water users with access to a new national market information service, and state and territory-based information on matters such as water licenses and seasonal allocations. All Premiers and Chief Ministers have endorsed the model for a National Water Market System, with states and territories maintaining their responsibility for water registers and functions. The national portal is due to be completed by April 2010.

Release of Draft National Water Initiative Pricing Principles

The draft National Water Initiative Pricing Principles have been released for public comment closing on 18 December 2009. These have been developed jointly by the Australian Government and state and territory governments to provide a set of guidelines for rural and urban pricing practices and to assist jurisdictions to implement the NWI water pricing commitments in a consistent way. It is proposed that Australian governments agree to adopt the pricing principles.

The pricing principles are comprised of four sets of principles, including:

1. Principles for the recovery of capital expenditure to provide guidance to water service providers on asset valuation and cost recovery for urban and rural capital expenditure.
2. Principles for urban water tariffs to provide guidance for price setting in situations where there are monopoly providers and the absence of competitive pressures.
3. Principles for water planning and management to provide guidance, for urban and rural water service providers, in identifying and allocating the costs of water planning and management activities between government and water users.
4. Principles for recycled water and stormwater reuse to provide broad policy guidance to stimulate efficient water use, in urban and rural settings, no matter what the water source.

All comments received during the consultation period will be taken into account during the finalisation of the regulation impact statement.

Environment Protection and Heritage Council Communique (5 November 2009)

Agreement to New National Waste Policy

Australia's environment ministers have agreed to a new National Waste Policy: Less waste, More Resources. The National Waste Policy builds on the 1992 National Strategy for ESD commitments to improve the efficiency with which resources are used, reduce the impact on the environment of waste disposal, and improve the management of hazardous wastes, avoiding their generation and addressing clean-up issues. It also seeks to enhance, build on, or complement, existing policy and actions at all levels of government.

The National Waste Policy sets the direction for Australia over the next ten years to produce less

waste for disposal and manage waste as a resource to deliver economic, environmental and social benefits. It establishes a comprehensive work program for national coordinated action on waste across six key areas:

1. Taking responsibility—shared responsibility for reducing the environmental, health and safety footprint of products and materials across the manufacture-supply-consumption chain and at end of life.
2. Improving the market—efficient and effective Australian markets operate for waste and recovered resources, with local technology and innovation being sought after internationally.
3. Pursuing sustainability—less waste and improved use of waste to achieve broader environmental, social and economic benefits.
4. Reducing hazard and risk—reduction of potentially hazardous content of wastes with consistent, safe and accountable waste recovery, handling and disposal.
5. Tailoring solutions—increased capacity in regional, remote and Indigenous communities to manage waste and recover and re-use resources.
6. Providing the evidence—access by decision makers to meaningful, accurate and current national waste and resource recovery data and information, in order to measure progress and educate and inform the behaviour and the choices of the community.

The National Waste Policy will be implemented by individual and collective action by the Commonwealth and state, territory and local governments, and forms the long term agenda for the Environment Protection and Heritage Council for resource recovery and waste issues. According to the policy, the practical outcome of implementing the National Waste Policy will be that all wastes, including hazardous wastes, will be managed consistently with Australia's international obligations, and for the protection of human health and the environment. The policy will also seek to ensure that the risks associated with waste are understood and managed in the future to minimise intergenerational legacy issues. There will also be a significant contribution to greenhouse gas reduction, water and energy efficiency and improved resource use.

New National Product Stewardship Framework

The EPHC also announced that work will commence immediately on developing a *National Product Stewardship legislative framework*, for introduction into the Australian Parliament. The framework will provide for the accreditation of product stewardship schemes run by industry and community organisations. It will also provide for national co-regulatory schemes for specific products and materials, such as televisions and computers. The legislative framework will work to ensure non-participants in the industry-led scheme/s comply with the same standards as voluntarily participants in the scheme.

New National Packaging Covenant

Ministers supported in-principle the *strengthened Australian Packaging Covenant* to replace the *National Packaging Covenant* which is due to expire on 30 June 2010. The updated Covenant will build on the success of the model over the last decade in reducing the environmental impacts of consumer packaging. They also agreed to extend the existing arrangements by up to one year to allow a smooth transition.

The proposed Covenant will significantly streamline the requirements on signatories while providing strengthened governance and compliance procedures to ensure confidence in the delivery of outcomes. It includes a *greater focus on the sustainable design of packaging*, and will also provide more investment in workplace recycling, public place recycling and litter reduction projects.

Ratification of UNESCO Underwater Cultural Heritage Convention

The EPHC endorsed Australia pursuing ratification of the *UNESCO 2001 Convention for the Protection of the Underwater Cultural Heritage*, subject to Australia's normal treaty making processes. Council will consider a *draft Australian Underwater Cultural Heritage Intergovernmental Agreement* in early 2010. The agreement will outline agreed approaches to the identification, protection, management, conservation and interpretation of Australia's underwater cultural heritage.

World Heritage Intergovernmental Agreement

The EPHC also agreed to an *Australian World Heritage Intergovernmental Agreement* which sets

out arrangements between the Commonwealth and the states for the management of Australia's World Heritage properties. The Intergovernmental Agreement outlines agreed approaches to management, funding, nomination, listing, monitoring and promotion of Australia's World Heritage properties.

Great Barrier Reef Marine Park: Legislative Changes

Legislative changes came into effect on 25 November 2009 to integrate the Great Barrier Reef Marine Park Act 1975 (GBRMP Act) and Great Barrier Reef Marine Park Regulations 1983 with the Environment Protection and Biodiversity Conservation Act 1999 (Cth)(EPBC Act). The changes establish the marine park as a trigger, or 'matter of national environmental significance', under the EPBC Act.

Now, in addition to the existing permit requirements under the GBRMP Act, activities inside the marine park that are likely to have a significant impact on the environment, and those outside the marine park that are likely to have a significant impact on the environment of the marine park or other nationally protected matters must be assessed and approved under the assessment processes used under the EPBC Act. The changes are intended to simplify, streamline and consolidate permission requirements, so that the approval process under the GBRMP Act and the EPBC Act is handled consistently. No changes have been made to the Great Barrier Reef Marine Park Zoning Plan 2003.

Changes to the compliance and enforcement provisions also make the more comprehensive investigation powers of the EPBC Act available for the purposes of the GBRMP Act, providing more flexible compliance and enforcement tools that can be tailored to different circumstances. Under the new rules, marine park users have a duty to take reasonable steps to prevent or minimise environmental harm. Being unaware of the marine park, of its zones, of location within the marine park, and of the restrictions on marine park uses is not an excuse under the law, unless it is an honest and reasonable mistake. Inspectors can issue fines for a broader range of minor breaches. Civil rather than criminal penalties can be sought, although seeking criminal penalties is still an option. Penalties have been adjusted, so that small offences carry lower penalties, while serious offences carry higher maximum penalties. Where there is a risk to the marine park environment, the Great Barrier Reef Marine Park Authority will be empowered to order the activity be stopped to avoid, reduce or eliminate the risk.

$200,000 Payment Required for Clearing Protected Grassland

The Department of Environment announced on 25 November 2009 that a construction company will pay a total of $200,000 towards conservation initiatives after breaching national and Victorian environment laws at an industrial site in Ardeer, Melbourne. Bridge and Marine Australia agreed to sign a $30,000 enforceable undertaking with the federal environment department as an alternative to the matter going to court. The undertaking follows a departmental investigation into the company clearing protected native grasslands and causing a significant impact on nationally threatened species at an industrial construction storage area.

The department's investigation found that 0.7 hectares of the critically endangered natural temperate grasslands of the Victorian Volcanic Plain were destroyed during works at the industrial site. The company has also previously agreed to a separate undertaking between the company and the Victorian government to pay $170,000 as penalty for the legal breaches. Under the federal enforceable undertaking, Bridge and Marine Australia must now pay $30,000 to the Victorian Department of Sustainability and Environment for the conservation and recovery of the affected species.

Independent Review of EPBC Act: Final Report

On 30 October 2009, Dr Allan Hawke presented his final report The Australian Environment Act: Report of the Independent review of the Environment Protection and Biodiversity Conservation Act 1999 to the Minister for the Environment, Heritage and the Arts. Under section 522A of the EPBC Act, the Minister must table the report in Parliament within 15 sitting days of receipt. The Government has noted that this period will expire in early February 2010.

EPBC Act: Decision Regarding Traveston Dam

On 2 December 2009 the Environment Minister released his final decision for the Traveston Dam Project in Queensland. The decision refused the project on the basis that it would have serious and irreversible effects on nationally protected species, namely, the Australian lungfish, the Mary River turtle, and the Mary River cod.

QUEENSLAND

Scott Sellwood

Environmental laws stop Traveston Dam

On 2 December 2009 federal Environment Minister Peter Garrett used his powers under the federal *Environment Protection and Biodiversity Conservation Act 1999* to formally refuse the proposed Traveston Crossing Dam. Minister Garrett's approval was needed for the dam to be built, in addition to the state approval already granted by the Queensland government.

Minister Garrett determined that the impacts on nationally protected species like the Australian lungfish, Mary River Turtle and Mary River Cod were unacceptable and could not be mitigated, despite the 1200 conditions imposed by the Queensland government.

Planning & Environment Court refuses Brisbane industrial development

In mid November 2009 the Planning and Environment Court dismissed a proposed industrial development at the former Wacol army barracks in Brisbane.

Although the refusal ultimately turned on the unacceptability of the proposal in terms of the amount of office space being sought and impacts on the existing traffic networks, the Court considered at length evidence of the alleged impacts of the proposal on the endangered regional ecosystem, *Eucalyptus seeana*, the Bullockhead Creek (which traverses the site) and, the many hollow bearing trees on the site.

In considering the environmental impacts the Court concluded, however, that minor changes to the proposed layout, with an appropriate off-site offset requirement, would have been an acceptable response to the impacts of the new use.

Metroplex v Brisbane City Council & Ors [2009] QPEC 110 http://archive.sclqld.org.au/qjudgment/2009/QPEC09-110.pdf

Garrett rejects Great Keppel Island 'revitalisation'

On 30 October 2009 Federal Environment Minister Peter Garrett rejected the proposed tourist re-development of Great Keppel Island on the basis that the impacts of the project on matters of national environmental significance were "clearly unacceptable".

The proposal, declared "State Significant" under Queensland development laws, was to include: a 300 room hotel and day spa, 1700 resort villas, 300 resort apartments, a ferry terminal, retail village, golf course and sporting oval.

New planning laws commence

Queensland's new *Sustainable Planning Act 2009* commenced on 18 December 2009.

Stay tuned in 2010 for a detailed look the new planning Act and associated regulations. In the meantime, please see www.dip.qld.gov.au/spa for information.

Rail corridor realigned to protect koala habitat

A section of the proposed Southern Freight Rail Corridor, which will, ultimately, form part of a future Melbourne to Brisbane inland rail network, has been realigned in an effort to protect koala habitat and minimize impacts on landowners. A revised Assessment Report, as part of the planning and impact assessment for the project, is expected early next year.

The Department of Transport commissioned this long-term planning study to identify and preserve the corridor for future rail freight transport.

Building laws to protect designs for sustainability

The *Building Act 1975* has been amended to provide better protection for sustainable architecture and

landscaping designs. The changes are twofold and are contained in a new Chapter 8A.

Under Part 1, a sustainability declaration, a compulsory checklist covering the buildings energy, water, safety and access features, must be completed by the seller when selling a house, townhouse or unit. It will be required as part of the sale from 1 January 2010. Part 2 stops certain persons from restricting the use of sustainable and affordable design features such as light coloured roofs, single garages, smaller houses and solar hot water systems.

The changes in Chapter 8A, Part 2 affect a number of other laws, including Queensland's body corporate laws. Previously, a body corporate could, through a community management statement, place limits on the adoption of sustainable design initiatives. Amendments to the *Body Corporate and Community Management Act 1997* now provide that a community management statement cannot conflict with the sustainable housing provisions in *Building Act 1975*.

http://www.dip.qld.gov.au/sustainable-housing/index.php

State leases for renewable energy projects on rural land

Amendments to the *Land Act 1994* will allow rural leases to support renewable energy projects that complement the existing use, such as agriculture or grazing. Prior to the amendments State leases could only be used for the purpose for which they were issued. The changes allow projects like wind farms to coexist with other uses of State land.

New integrity laws for Queensland

On 3 December Parliament passed the *Integrity Act 2009*. The Act establishes a new Office of the Integrity Commissioner; gives legal force to the Register of Lobbyists and bans success-fees for lobbyists; and brings the actions of government-owned corporations within the jurisdiction of the Crime and Misconduct Commission. The law will commence 1 January 2010.

Caselaw update

For updates on recent Planning and Environment Court and relevant Court of Appeal cases, see Deacons Lawyers' website www.deacons.com.au and follow links to updates by the Environment and Planning section, or Corrs Chambers Westgarth's website www.corrs.com.au and follow links to case notes in the Planning Environment and Local Government Practice Area.

South Australia

Victoria Shute

Regulated Trees make their Parliamentary comeback

In 2007, the Development (Regulated Trees) Amendment Bill was introduced into Parliament with the intention of significantly changing South Australia's tree protection regime. This Bill lapsed in 2008.

Currently, trees which meet certain measurements are considered to be "significant trees". It is an offence to damage or remove such trees without first obtaining a development approval under the Development Act 1993.

Recently, the Development (Regulated Trees) Amendment Bill 2009 was reintroduced into the Legislative Council, and passed both Houses on 26 November 2009.

The 2009 Act is substantially the same as the 2007 Bill. The main changes which this Act will make to the Development Act 1993, when it comes into force are as follows:

1. A two-tier system of "regulated trees" and "significant trees" will be created.
    1.1. Trees meeting certain criteria to be specified by Regulation will be "regulated trees".
        1.1.1 It is presumed that applications for the removal of "regulated trees" will be assessed against less vigorous criteria than that applying to significant trees.
    1.2. Trees will only be "significant trees" if they are specifically declared as such within a

Council's Development Plan.

1.2.1 A Council's Development Plan will only be able to declare a tree a significant tree if:

- it makes a significant contribution to the character or visual amenity of the local area; or
- it is indigenous to the local area, it is a rare or endangered species taking into account any criteria to be specified by Regulation, or it forms part of a remnant area of native vegetation; or
- it is an important habitat for native fauna taking into account any criteria prescribed by Regulation; or
- if it satisfies any other criteria to be prescribed by Regulation.

1.2.2 "Stands" (groups) of trees will also be able to be declared as significant in a Development Plan, provided that the stand, as a group, meets similar criteria to that described above for individual significant trees.

2. The Act will be modified to allow Councils to impose specific conditions for tree replanting, or money to be paid in lieu of tree replanting upon development authorisations for the killing, destruction or removal of a regulated or significant tree.
3. An "Urban Trees Fund" will be created so that money in lieu of tree-planting paid to Councils as a condition of development authorisation for the killing, destruction or removal of regulated or significant trees can be applied to the maintenance or planting of trees in the Council's area.
4. The ERD Court will be empowered to impose "make good orders" where the Court has found that a person has breached the Act by undertaking a tree-damaging activity.

This Act will come into force on a day to be fixed by proclamation.

Tasmania

Tom Baxter

Pulp Mill Assessment Amendment (Clarification) Act 2009 (Tas)

The *Pulp Mill Assessment Act 2007* (Tas) has been amended to give Gunns Limited until August 2011 to substantially commence its Tamar Valley pulp mill. Given previous statements by Gunns and the Tasmanian Government, many considered the *Pulp Mill Assessment Amendment (Clarification) Act 2009* (Tas) to be somewhat galling.

Pulp Mill Assessment Act 2007 (Tas) [PMA Act][1]

Prior to the passage of the PMA Act, Gunns' pulp mill proposal had been declared a 'project of State significance' under the *State Policies and Projects Act 1993* (Tas) s 18(2).[2] As such, the proposal was subject to an integrated assessment by Tasmania's Resource Planning and Development Commission (RPDC),[3] an independent, quasi-judicial statutory body.

The RPDC's integrated assessment process had been accredited under the EPBC bilateral assessment agreement between the Commonwealth and Tasmania.[4] Accordingly, then Federal Environment Minister Senator Campbell decided that this accredited assessment was also the appropriate method to assess the mill for the purposes of the EPBC Act.[5]

1 For a recent critique of the *Pulp Mill Assessment Act 2007* (Tas) and EPBC Act ss 38-40, 75(2B) and 136(1) see Baxter, T, '(Dis)Integrated Assessment: the pulping of an integrated assessment process', paper presented at the Australia New Zealand Society for Ecological Economics Conference, Darwin, 27-30 October 2009, 19pp, at <http://www.ecoeco.org/anzsee09/cd_view_oral_by_author.php> from which some of this summary of the PMA Act is drawn.

2 *State Policies and Projects (Project of State Significance) Order 2004* (Tas).

3 The RPDC is now the Tasmanian Planning Commission: see Baxter, T, 'NELR recent developments: Tasmania' *NELR* (2009: 3) (forthcoming at time of writing).

4 Bilateral agreement between the Commonwealth and the State of Tasmania, 12 December 2005.

5 Decisions of Senator Campbell under EPBC Act s 87 on 23 March 2005 in relation to Gunns' first referral, then again on 26 October 2005 in relation to Gunns' second referral. Subsequent EPBC

On 14 March 2007, Gunns issued a media release and announcement to the Australian Stock Exchange advising that it was withdrawing from the RPDC integrated assessment and 'had referred the project to the State Government'.[6] As the RPDC's Annual Report later noted:

> Of course whether an integrated assessment of a project of State significance proceeds, and upon what terms, is a matter for Parliament and not for a proponent.[7]

Gunns claimed as justification for abandoning the RPDC – previously endorsed by it (and both major political parties at the 2006 State election) – that the process was taking too long. Gunns' Executive Chairman, John Gay, claimed that delays were costing the company $1M a day and the company required the project to be assessed within what it described as a 'commercial timeframe'. In respect of delays, the RPDC's Annual Report later made clear that the RPDC '…. did not receive a consistently high level of cooperation from [Gunns]'[8] and that perceived delays in the assessment process were due to:

- vital information from Gunns containing 'a number of omissions and errors';[9] and
- Gunns' failure to supply corrected information within various timelines directed by the RPDC.[10]

For example, at a Directions Hearing on 22 February 2007, then chair of the RPDC Pulp Mill Integrated Assessment Panel, former Supreme Court judge Christopher Wright QC, declared that responsibility for delays in providing material to the RPDC rested with Gunns. He set out a time line detailing remaining steps to complete the assessment process by the end of 2007, saying in relation to a December 2005 indication that the RPDC process may be concluded by 28 May 2007:

> However, it has become quite apparent that due to accumulated delays, all or most of which appear to have resulted from Gunns failure or inability to comply with their own prognostications or the panel's requirements, that time line can no longer apply. This was obvious well before the October directions hearing last year and I think should come as no surprise to interested parties, least of all the proponent.[11]

On 15 March 2007, then Premier Lennon made a Ministerial Statement to the Lower House of the Tasmanian Parliament. He brazenly announced the creation of a new and separate Tasmanian approvals process for the pulp mill, with legislation to be introduced into Parliament the following week. Apparently, in the space of about 24 hours, the government had decided to legislate an assessment and approval process solely for Gunns' pulp mill.[12]

On 17 April 2007 the PMA Act passed the Parliament and on 30 April 2007 received Royal Assent. It abandoned the RPDC's integrated assessment.[13] Instead, the PMA Act provided for the Minister to appoint a consultant[14] to assess the entire "project"[15]

related facts are summarised in *The Wilderness Society Inc v Hon. Malcolm Turnbull, Minister for the Environment and Water Resources* [2007] FCA 1178 (Marshall J, 9 August 2007); aff'd [2007] FCAFC 175 (Branson, Tamberlin and Finn JJ, 22 November 2007).

6 Gunns Limited, Media Release, 14 March 2007.

7 RPDC (2007), *Annual Report 2006-2007* at 9.

8 Ibid at 9.

9 Ibid at 11.

10 Ibid at 11-13.

11 Transcript of RPDC Directions Hearing, 22 February 2007, <http://www.rpdc.tas.gov.au/__data/assets/pdf_file/0007/75499/FEB22PUB_Version_2.pdf> at 3 quoted in RPDC, *Annual Report 2006-2007* (2007) at 13.

12 Mr Lennon has since maintained, including on two occasions before an Upper House Select Committee, that he had no advance knowledge of the intention of Gunns to withdraw from the RPDC process on 14 March 2007. However, the Parliamentary Committee heard evidence from at least two key witnesses inconsistent with this account: Legislative Council Select Committee on Public Sector Executive Appointments, 'Interim Report' (Parliament of Tasmania, 2009), <http://www.parliament.tas.gov.au> 64-70. See Baxter, T and Browne R, 'Probity Issues Connected with the Tasmanian Pulp Mill', paper presented to the Australian Public Sector Anti-Corruption (APSAC) Conference, Brisbane, 28-31 July 2009, 21pp, at <http://www.apsacc.com.au/2009conference/2009papers.htm>.

13 By revoking *State Policies and Projects (Project of State Significance) Order 2004* (Tas): see *Pulp Mill Assessment Act 2007* (Tas) s 13 and RPDC, *Annual Report 2006-2007* (2007) at 9 and 13.

14 *Pulp Mill Assessment Act 2007* (Tas) s 4(1).

15 "project" is defined extremely widely in s 3(1) as meaning:
"the project declared by the Administrator to be a project of State significance on 22 November 2004 in Statutory Rules 2004, No. 111, being the proposal by Gunns Limited (ACN 009 478 148), as amended, for the development and operation of a bleached kraft pulp mill in northern Tasmania including any use or development which is necessary or convenient for the implementation of the project, including but not limited to the development and operation of any facility or infrastructure for –
(a) the supply or distribution of energy to or from the mill; and
(b) the collection, treatment or supply of water; and
(c) the treatment, disposal or storage of waste or effluent; and
(d) access to or from the mill; and
(e) transport to or from the mill; and
(f) the storage of pulp at, or transport of pulp from, a sea port in the northern region or the north-western region; and
(g) the production of materials for use in association with the

against "guidelines".[16]

Once assessed, if the consultant recommended approval, then the Minister was to prepare a draft permit for consideration and approval by the Parliament. Once both Houses endorsed the permit, the project was deemed to be approved, notwithstanding any other Tasmanian law.[17]

The PMA Act removed not only all public hearings (which the RPDC had determined essential), but by s 11 precluded all appeal and review rights. Section 11 provides:

> **11. Limitation of rights of appeal**
>
> (1) Subject to subsection (3) and notwithstanding the provisions of any other Act –
>
> (a) a person is not entitled to appeal to a body or other person, court or tribunal; or
> (b) no order or review may be made under the *Judicial Review Act 2000*; or
> (c) no declaratory judgment may be given; or
> (d) no other action or proceeding may be brought –
>
> in respect of any action, decision, process, matter or thing arising out of or relating to any assessment or approval of the project under this Act.
>
> (2) For the purposes of subsection (1), "any action, decision, process, matter or thing arising out of or relating to any assessment or approval of the project under this Act" includes any action, decision, process, matter or thing arising out of or relating to a condition of the Pulp Mill Permit requiring that the person proposing the project apply for such other permits, licences or other approvals as may be necessary for the project.
>
> (3) Subsection (1) does not apply to any action, decision, process, matter or thing which has involved or has been affected by criminal conduct.
>
> (4) No review under subsection (3) operates to delay the issue of the Pulp Mill Permit or any action authorised by that permit.

operation of the mill".

16 *Pulp Mill Assessment Act 2007* (Tas) s 3(1) and Schedule 1.

17 *Pulp Mill Assessment Act 2007* (Tas) s 8.

While privative clauses such as s 11(1) are not unknown in current Tasmanian project assessment/approval legislation,[18] s 11(4) is most extraordinary in preventing even review for criminal conduct from delaying issue of the Pulp Mill Permit or any action authorised by that permit. The Bill, and s 11 in particular, were strongly criticised before the Bill was passed[19] and remain a source of much consternation in Tasmania.

The Supreme Court of Tasmania held in July 2009 that s 11(1)(b) barred affected land owners from obtaining any orders under the *Judicial Review Act 2000* (Tas), including statements of reasons in relation to various decisions made under the PMA Act.[20]

The Pulp Mill Permit was approved by both Houses of Parliament in August 2007.

On 4 October 2007, Federal Environment Minister Turnbull granted Gunns conditional EPBC Act approval to construct and operate the pulp mill and associated infrastructure.[21] The Minister's approval was challenged, unsuccessfully, by Lawyers for Forests Inc.[22]

Validity of Pulp Mill Permit Questioned

In May 2009, University of Tasmania constitutional and planning law expert Michael Stokes published a detailed legal opinion arguing, that the Pulp Mill Permit was invalid due to the consultant failing to assess the mill against all the guidelines, thereby breaching s 4 of the PMA Act.[23] He also argued that

18 For example, in *Landon-Lane v Minister for Economic Development and Tourism and Premier of Tasmania* [2009] TASSC 50 (Unreported, Evans J, 17 July 2009) at 8 it was stated '…. it is likely that the *State Policies and Projects Act*, s28(1), is the genesis for the drafting of the *Pulp Mill Assessment Act*, s11(1). …' See also, eg, *Meander Dam Project Act 2003* (Tas), s 5(2).

19 See eg Michael Stokes and Tom Baxter, 'Comments on Pulp Mill Assessment Bill 2007' (2007) *Tasmanian Times* <http://tasmaniantimes.com/index.php?/weblog/article/comments-on-pulp-mill-assessment-bill-2007/> a copy of which was provided to all Legislative Councillors at a briefing by the authors; Philippa Duncan, 'Mill Bill under fire', *Mercury* (Hobart), 27 March 2007,

20 *Landon-Lane v Minister for Economic Development and Tourism and Premier of Tasmania* [2009] TASSC 50 (Unreported, Evans J, 17 July 2009). See eg ABC Hobart, 'Pulp mill legal bid unsuccessful', 17 July 2009 at <http://www.abconline.net.au/news/stories/2009/07/17/2629335.htm?site=hobart>.

21 Minister's Approval, EPBC 2007/3385, 4 October 2007, effective until 31 December 2057.

22 *Lawyers for Forests Inc v Minister for the Environment, Heritage and the Arts* [2009] FCA 330 (Tracey J, 9 April 2009); aff'd [2009] FCAFC 114 (Sundberg, Dowsett and Jacobson JJ, 3 September 2009).

23 Michael Stokes, 'Validity of the Pulp Mill Permit' (2009) *Tasmanian*

this breach was potentially open to challenge, since it was probable that PMA Act s 11 did not prevent review for jurisdictional error.[24]

Stokes also told *The Australian* that, as the Permit was in part issued under the *Land Use Planning and Approvals Act 1993* (Tas), it might expire two years after its issue by Parliament unless the mill was substantially commenced by late August 2009.[25] In the same article, a Gunns spokesman dismissed Stokes' analysis as "ridiculous" and insisted the company was confident in the legality of the state approval and permit. However, he would not make any comment as to whether this view was based on a contrary legal opinion.[26] At that time, there was no obvious substantive work on the mill's site.

In early August 2009, as the two year anniversary approached, Gunns' new CEO told the media that company was 'doing early preparation work' on site, though it did not yet have a joint venture partner nor financial close.[27]

Pulp Mill Assessment Amendment (Clarification) Act 2009 (Tas)

At the end of the 2009 Parliamentary sitting year, the Government introduced the Pulp Mill Assessment Amendment (Clarification) Bill 2009 (Tas). The Bill inserted into the PMA Act new ss 8(4)-(6). These subsections provide that:

- The Pulp Mill Permit[28] (and permits which the PMA Act deems issued under the *Land Use Planning and Approvals Act 1993* (Tas) or the *Water Management Act* 1999 (Tas))[29] lapse if the project is not substantially commenced within four years of the Pulp Mill Permit coming into force.
- A permit that is taken, in accordance with the PMA Act s 8(1)(c), to be issued under the *Land Use Planning and Approvals Act 1993* (Tas) or the *Water Management Act 1999* (Tas) and would have lapsed before the Clarification Act commenced, is taken to have not so lapsed.[30]

In early November the Wilderness Society released aerial photos taken on 23 October 'showing that vegetation has been cleared for the entire footprint of the pulp mill'.[31] The Society described this as 'potentially in breach of permit conditions', noting that, 'The permit expired after two years in August 2009 and has not yet been renewed or extended.'[32] The Society also claimed there was 'substantial anecdotal evidence from Tamar Valley residents that clearing activity has been occuring [sic] during September and October …. on the pulp mill site following the expiry of the permit' and that, 'The Government must uphold the law and investigate this potential breach.'[33]

After the Government guillotined debate in the Lower House, the Clarification Bill passed the Upper House,[34] becoming Act No. 65 of 2009.

Times <http://tasmaniantimes.com/index.php?/article/validity-of-the-pulp-mill-permit/>.

24 Ibid at 11.

25 Matthew Denholm, "Gunns' approval for mill 'invalid'", *The Australian,* 11 May 2009 at <http://www.theaustralian.com.au/news/gunns-approval-for-mill-invalid/story-e6frg6n6-1225710737759>.

26 Ibid.

27 Nick Clark, 'Gunns begins mill site work', *Mercury* 4 August 2009,

28 PMA Act s 8(4).

29 PMA Act s 8(5).

30 PMA Act s 8(6).

31 Paul Oosting 'Government must investigate potential illegal vegetation clearance at pulp mill site', The Wilderness Society, media release, 9 November 2009 at <http://tasmaniantimes.com/\index.php?/pr-article/government-must-investigate-potential-illegal-vegetation-clearance-at-pulp->.

32 Ibid.

33 Ibid.

34 ABC News, 'Green light for pulp mill permit', 12 Nov 2009 at <http://www.abc.net.au/news/stories/2009/11/12/2741123.htm?site=news>.

NELR recent developments

Victoria

Elisa de Wit

Amendment VC55 to the Victoria Planning Provisions.

On 11 November 2009, the Minister for Planning Justin Madden approved Amendment VC55 and is currently seeking parliamentary certification. The amendment is designed to implement the policy directions of Melbourne 2030: a planning update Melbourne @ 5 million. VC55 makes amendments to the Victorian Planning Scheme and to all local government planning schemes.

VC55 has made amendments to Clause 12 – Metropolitan Development and Clause 16 – Housing of the State Planning Policy Framework of the Victorian Planning Scheme including:

(1) expanding the Urban Growth Boundary to incorporate the expected 284,000 new dwellings in Melbourne's growth areas;
(2) the identification of Central Activities Districts and employment corridors in a move to a multi-centre city;
(3) increasing overall residential densities to a minimum of 15 dwellings per net developable hectare in growth areas;
(4) devising new boundaries to include two large native grassland reserves west of Melbourne;
(5) setting out the alignment of Regional Rail Link and the Outer Metropolitan Ring/E6 Transport Corridor.

Planning and Environment Amendment (Growth Areas Infrastructure Contribution) Bill

The Victorian Government introduced to parliament the *Planning and Environment Amendment (Growth Areas Infrastructure Contribution) Bill.* The Bill passed its first reading on 10 November 2009, just three weeks after the Bill's exposure draft was released for public comment.

The Bill's objective is to fund infrastructure projects in Melbourne's urban growth areas. These infrastructure costs include transport, community, environmental and economic financial assistance in these developing areas.

The Growth Areas Infrastructure Contribution (GAIC) will be levied at a flat rate of either $80,000 or $95,000 per hectare in the contribution area. The obligation to pay the GAIC will fall on either the owner or purchaser of the land.

The contribution liability will be triggered by a GIAC event. The following constitute a GAIC event:

(1) the Responsible Authority releases a statement of compliance relating to a plan of subdivision of land in the contribution area; or
(2) a building permit application is made to carry out building works; or
(3) a dutiable transaction relating to land in the contribution area occurs (including a transfer of dutiable property or the transfer of interests in an entity that holds substantial dutiable property).

Where a GAIC event arises from a transfer of land, the purchaser can apply for a payment deferral with the State Revenue Office. A penalty interest rate however would be imposed on the outstanding GAIC balance.

There are several circumstances where parties are exempt or excluded from the GAIC. Lots of less that 041 hectares or lots between 0.41-2.03 hectares with habitable dwellings will attract the GAIC when the lots are transferred. Where a transfer of land, moreover, is exempt from duty under the Duties Act 2000 the GAIC will also not apply. Examples of such circumstances are deceased estates and marriage breakdowns. Building permits sought for works of less that $1,000,000 will also not attract the GAIC.

The GAIC can also be reduced in exceptional circumstances where a party liable for GAIC already has a separate agreement to provide infrastructure to the State themselves.

Solar Tariff Increases

On 30 October 2009, Energy Minister Peter Batchelor announced solar tariff increases to households, community organisations and small businesses with solar panels up to 5 kilowatts (kW). These parties are eligible to receive a minimum of 60 cents per kilowatt hour for solar energy fed into the electricity grid. This amounts to more than three times the current electricity price.

The Minister announced that households with solar panels varying from 1.5kW to 2kW would receive benefits of between $600 and $1200 per year. The scheme is a 15-year initiative to encourage Victorians to reduce their carbon footprint by making solar energy more accessible.

EDO Releases Proposal for a Victorian Climate Charter

In October 2009 the Environment Defenders Office (EDO) has released its Proposal for a Victorian Climate Charter - Briefing Paper. This paper proposes a Climate Charter that "sets up a legal framework to ensure that Victoria is proactively addressing climate change." The Charter is based on the Victorian Human Rights Charter and would be an "overarching legislation that requires all other Victorian legislation to be interpreted and implemented in a way that is consistent with the Charter." It also "requires the Government to proactively develop solutions that will lead Victoria to a low carbon future."

Key elements to the Charter would include:

- principles which set out how climate change is to be addressed in Victoria;
- emission reduction targets of 50% by 2020 and 80% by 2050, which are binding;
- the requirement for all Victorian legislation and policy to be interpreted in a manner consistent with Climate Charter principles where possible;
- a 'climate test' to be implemented by all public authorities when making major government financial and administrative decisions;
- a requirement for the Environment Minister to develop a climate strategy which sets out how Victoria will meet its targets, and a requirement to report to Parliament each year on whether the strategy was implemented;
- the Climate Authority's establishment to advise, oversee and report on climate action; and
- compliance and enforcement mechanisms to ensure the Act is implemented and applied.

The EDO is calling for comments and suggestions for the ongoing development of the Charter.

Colac Otways Shire Council's enforceable undertaking

On 30 October 2009 DEWHA announced that as part of an enforceable undertaking by the Colac Otways Shire Council under the EPBC Act, the Shire Council must pay $250,000 to the Victorian Department of Sustainability and Environment over the next three years.

The undertaking relates to the council's hiring of a contractor to carry out the roadworks in April-May 2008 on the Cressy-Shelford Road near Cressy, about 60km west of Geelong.

An investigation by the Department of Environment, Heritage and the Arts (DEWHA) found the roadworks, which had not been approved under the EPBC Act, affected more than four hectares of important habitat for the critically endangered spiny rice flower and vulnerable striped legless lizard. The $250,000 is for conservation and recovery of these species.

The undertaking also requires council to remediate the affected area at a cost of $180,000 and carry out training and awareness about nationally threatened species, costed at $260,000.

Goulburn Murray Water fails to give notice to objectors

In *Conroy v Goulburn Murray Water & Ors* (Red Dot) [2009] VCAT 2108, Goulburn Murray Water failed to give notice to objectors of its decision to grant licences for the construction of a bore and to take groundwater until well after expiry of the period within which an application for review must be lodged under the *Water Act 1989* (the Act).

Whilst the Tribunal identified gaps in the Act's procedures, it was highly critical of Goulbourn Murray Water for its failure to act in accordance with the Act's objectives. Whilst there is no obligation under the Act to give notice to objectors of its decision to grant a licence, the Act provides objectors with a right of review. Goulburn Murray Water ignored this right by failing to give the objectors the opportunity to appeal the decision. Of Goulburn Murray Water, Member Helen Gibson stated '[i]f this is evidence of the way the authority normally conducts its business, it is about time that it set its house in order.'(para [24]). The Tribunal demonstrated its disapproval of Goulburn Murray Water's costs by ordering the authority to pay the costs of the other parties involved.

The Member added that the Act was drafted in

times when water scarcity was not an issue. In the past decade however the pressure on water resources has resulted in an increased number of review applications. The Act therefore requires amendments as it is currently inadequate in 'establishing a clear process to safeguard the rights and obligations of people.' (para [26]).

The Tribunal stated that these gaps would best be addressed by amendment of the legislation. The Tribunal ultimately refused the application for an extension of time within which the objector can commence an application for review after weighing up the impacts of the decision on the applicant and respondent.

EcoMarket Funding Increased

Environment Minister Gavin Jennings has announced that the state government will provide $5.4 million to more than 170 Victorian landholders to help them undertake environmental improvement works over almost 8,000 hectares of private land under the ecoMarket initiative. The BushTender program has been extended by $3.3 million, including a new project in North Central Victoria. Under the Northern Plains BushTender grasslands project, 16 landholders will share in $1.1 million and under the Port Phillip and Westernport EcoTender project, $1 million will be provided to 38 landholders.

Water Act amendments

The *Water Amendment (Entitlements) Bill* 2009 (Vic) which was introduced into the Legislative Assembly on 24 November 2009 and received its second reading speech on 25 November 2009, proposes to amend the Water Act 1989.

According to the explanatory memorandum, the Bill would:

- make further provision in relation to rights to water in publicly accessible waterways;
- provide for the assignment of water allocations under bulk entitlements and make other amendments to the provisions in relation to bulk entitlements;
- alter the meaning of "water allocation";
- provide for various matters relating to environmental entitlements; and
- provide for various matters relating to the provisions for water shares and the water register.

Response to State of the Environment Report

The Department of Sustainability and Environment has released the Victorian Government Response - State of the Environment Report Victoria 2008 , which represents the state government's position on the recommendations made by the independent Commissioner for Environmental Sustainability Dr Kate Autey in her State of the Environment Report . The report made 289 recommendations on various subject areas ranging from landfill measures to the management of land, inland waters and coasts.

Supreme Court of South Australia

AG Building & Developments Pty Ltd v City of Holdfast Bay & Anor (No 2) [2009] SASC 310

By Rebecca Macaulay, Senior Associate, Norman Waterhouse

On 30 September 2009 the Honourable Justice Kourakis dismissed an appeal by AG Building & Developments Pty Ltd ("AG") against the decision of Commissioner Green of the Environment, Resources & Development Court ("ERD Court") to uphold a refusal by the City of Holdfast Bay's. The proposal related a residential flat building with five apartments, a common gymnasium and a basement car park.

The Commissioner Green had initially refused the proposal. AG had appealed that refusal to His Honour Justice Bleby of the Supreme Court. His Honour found that the Commissioner had taken an entirely quantitative approach and that his decision lacked qualitative assessment. The proposal "*required an assessment not of particular issues in watertight compartments, but rather as part of a single complex planning problem – whether the proposal as a whole should be approved*." His Honour remitted the matter back the ERD Court.

On the further hearing of the proposal the Commissioner again refused the proposal. He held that whilst the proposal was generally envisaged in the Residential (Coastal) Zone the particular design was assessed to be insufficiently compatible for the site and locality context. The proposal was a large, relatively bulky, intensive building development with large mass, likely to exacerbate overshaldowing/loss of light to the adjoining property to the south, with insufficient setbacks causing amenity and other impacts to the adjoingin dwelling and its rear decking and private open space. He found that the upward tilting skillion roofing exacerbated the perception of scale and bulk, and that there was a lack of sginifcant areas for planting vegetation required to offset the problems of scale, bulk and dominance.

AG appealed to His Honour Justice Kourakis on the basis that the Commissioner had made errors of law and incorrect findings of fact. AG challenged the Commissioner's rejection of certain evidence and ultimate failure to find that the proposal ought to be approved.

His Honour found that the Commissioner had provided sufficient reasons explaining why certain evidence was not accepted. Whilst the Commissioner erred in some finding of law this did affect his ultimate conclusion. All of the Commissioner's finding of fact were supported by evidence. His Honour dismissed all appeals and applications for permission to appeal.

Allbound Pty Ltd v City of Onkaparinga [2009] SASC 358

By Nicole Harris, Senior Associate, Wallmans Lawyers

The Supreme Court, in the case of *Allbound Pty Ltd v City of Onkaparinga [2009] SASC 358,* recently considered a decision of the ERD court in respect of a development proposal to change the approved use of land from "residential flat building" to "office and dwelling development". The ERD Court had upheld the Council's decision to refuse to grant Development Plan consent in respect of the application.

The relevant Development Plan contained a provision which stated, as one of the objectives of the Council-wide area, "*Small scale home business, local service and community uses, sited, designed and operated to minimise detrimental impacts to residential use".*

The Supreme Court said that the proper construction of the provision was that it did not, of itself, permit or encourage the establishment of small-scale home businesses. Rather, the provision contained a "*direction that any such businesses, as may be approved, be sited, designed and operated in a way which minimises its detrimental impact on other residences in the locality*". In addition, the Court said that the provision "*anticipates that the residents of dwellings which generally, but not exclusively, will be found in residential zones, may be given approval to operate*

small-scale businesses from their homes consistently with the objectives and principles of the Development Plan" (the Court noting that it is in the very nature of a home business that it may be operated from wherever there is a home).

The relevant question was distilled as being "*whether the use of a residence should be approved having regard to the appropriate balance between the residential amenity considerations and those provisions which speak of the need to provide dwellings and allow developments which meet the needs of the community*".

The Court identified a number of considerations:

1. The scale of any home business must be restricted so that it remains subordinate to the approved residential use of the dwelling. Conditions can be imposed to limit the scale of the operation. For example, conditions limiting the operation of the business to operation by the resident of the dwelling, the number of non-residents who may assist in the business, the type of business permitted (e.g. advisory or similar services) and the hours of operation may be imposed.
2. The nature, scope and intensity of the home business will generally need to be at the lower end of the scale (with home business operating at a higher scale to be confined to zones dedicated to commercial uses).
3. The scale of the home business will exceed the limitations imposed by the definition of "home activity" in the Development Regulations 2008 (otherwise the home business will not be 'development' and will not require approval). The Court noted that where the scale of the home business is not significantly greater than the types of home businesses that can operate without approval, that will be a factor in favour of approval of the home business.
4. The Court also recognised that there are good policy reasons for allowing people to live and work on the same land (for example, increasing transport and energy costs).

The Supreme Court remitted the matter back to the ERD Court for further hearing.

Queensland Court of Appeal

Stockland Property Management Pty Ltd v Cairns City Council & Ors [2009] QCA 311

(McMurdo P, Keane JA and Wilson J – 16 October, 2009)

Mirvac made a Development Application to expand their Mt Sheridan Plaza Shopping Centre. The Department of Main Roads (DMR) objected to Mirvac's application for the MCU on the basis that the application was inconsistent with DMR's plans for the Bruce Highway. After consultation with DMR, Mirvac amended their application to include some vacant land (lot 301) o the northern side of the existing centre which was owned by the State of Queensland. The addition of lot 301 is the source of Stockland's complaint.

Planning and Environment Court's decision (Brabazon QC DCJ)

The Planning and Environment Court held that the amendment of the original application to include lot 301 did not alter the Development Application. Mirvac's application remained the same application albeit with a change. Accordingly, his Honour Judge Brabazon held that section 4.1.5(a) of the IPA (exclusionary provision for non compliance) was available to cure the absence of the evidence required by section 3.2.1(5) of the IPA (which deals with "taking or interfering with a State resource") because the Development Application was properly made within the meaning of section 3.2.1(8) of the IPA.

Stockland sought leave to appeal to the Queensland Court of Appeal on the basis that the primary Planning and Environment Court judge had erred in law in deciding that in the absence of evidence required by section 3.2.1(5) of the IPA, the application was still properly made and as a consequence section 4.1.5(a) of IPA was not available to cure the improperly made application. Stockland argued that the development may not be amended by adding land to the application under either section 3.2.9(1) or section 3.2.9(5) of the IPA without making a new application

necessary. If Stockland's contentions were upheld, Mirvac would have no longer been able to pursue a development application because it would have been out of time to lodge a fresh development application.

Court of Appeal decision

The Court of Appeal dismissed Stockland's application for leave to appeal and upheld the primary P&E court judge's judgement, however, on materially different grounds. The Court of Appeal was unable to agree with the approach of Judge Brabazon in respect of the phrase "taking or interfering with a State resource". The Court of Appeal took the view that the words "taking or interfering" were confined to a particular kind of involvement of State resource in a proposed development which triggered section 3.2.1(5) of the IPA. The words indicated that the nature of the connection would have to be an impact that was adverse to a State's interest. In this case the Court of Appeal said that there was no adverse impact on the State resource as lot 301 was being used for what it was originally intended to be used, a public road, and therefore the change to the development did not trigger section 3.2.1(5) of the IPA. Mirvac's application was deemed to be properly made and not required to be excused under section 4.1.5 (a) of the IPA.

Barro Group Pty Ltd v Redland Shire Council and Ors (2009) 169 LGERA 326; [2009] QCA 310

(McMurdo P, Keane JA and Wilson J – 16 October 2009)

Barro Group Pty Ltd (Barro) submitted a development application to expand the quarrying activities undertaken on the subject site. In the development application Barro stated that the application did not involve the taking of or interfering with a State resource. The land the subject of Barro's application is bisected by a road as defined in the *Integrated Planning Act 1997*. Barro proposed to locate plant and equipment used in its quarrying activities on that road. There was no evidence of the attitude of the State Government to the involvement of the road in the proposed development. By reason of this submission the application was not a properly made application within the meaning of section 3.2.1 of the IPA. Nevertheless, the application proceeded to a decision by the Council. The Council ultimately decided to refuse Barro's application. Barro appealed against that decision to the Queensland Planning and Environment Court.

Planning and Environment Court decision (Searles DCJ)

During the Planning and Environment Court proceedings Barro expressed willingness, albeit relatively late in the proceedings, to remove the plant equipment from the road and, use the road as a road only. Barro further argued, in the alternative, that it would not seek any development permit over the road. The purpose of these arguments was to negate any alleged interference with the State resource. His Honour Judge Searles rejected both arguments. Both arguments, the Court found, were predicated upon the appellant being able to amend its development application and rely upon a new proposal. No application to amend the proposal had been made.

After considering the meaning of "interference with a State resource" in section 12 of the *Integrated Planning Regulation 1998*, the Court found that locating the plant and equipment on the road was an interference with a State resource. Putting the equipment on the road would inhibit full exploitations of rights attached to that road. This meant that the development application was not properly made. It had failed to comply with section 3.2.1(7)(e) of IPA due to the absence of evidence required under section 3.2.1(5) of the IPA (which deals with the taking of or interfering with a State resource). There was, then, no properly made application. The Court found that section 4.1.5(a) of the IPA (which gives the Court the discretion to excuse non-compliance) was not available to cure the defect in the application.

Court of Appeal decision

The Court of Appeal upheld the decision of the primary judge in the Planning and Environment Court and dismissed the appeal. Because Barro's application did not contain the evidence required by section 3.2.1(5) of the IPA, it was not and had never been a properly made application within the meaning of section 3.2.1(7). Council, as the

assessment manager, was not entitled to treat it as a properly made application under section 3.2.1(9).

Barro had argued that these observations were irrelevant to the questions for determination by the Court of Appeal. Barro submitted that the question was solely whether discretion under section 4.1.5(a) of IPA is available to excuse the non compliance with section 3.2.1(5)(a) of IPA. In relation to this argument, the Court stated that it would be odd if the exercise of the excusatory power conferred by section 4.1.5A on the Planning and Environment Court could authorise the Court to make a decision upon an application which, under the specific provisions of IPA, the Council had no authority to acknowledge, assess or decide and which therefore could not give rise to a decision by the Council on an appeal to the Planning and Environment Court.

In the end, the Court concluded that its primary obligation was to give effect to the intention of the legislature as expressed in the statute rather than to a judicial interpretation of the statute. The Court formed the view that the reasoning in *Oakden* (a case in which section 4.1.5A was allowed to cure an application not properly made) should no longer be followed. The views taken in the cases of *Chang* and *Fawks* (cases in which section 4.1.5A was not allowed to be used to excuse non-compliance for an application that was not properly made) is to be preferred. The Court upheld the decision of the primary judge in the Planning and Environment Court and dismissed the appeal.

Solomon Rowland, Lawyer for Crown Solicitor

NB - the Sustainable Planning Act 2009, which commenced 18 December 2009 and replaced the *Integrated Planning Act 1997*, enlarges the Planning and Environment Court's power to excuse non-compliance. Section 440(3) expressly permits the Court to excuse non-compliance with a development application that is not properly made.

Scott Sellwood, Queensland Editor, 24 December 2009

Copenhagen is not over …

By Christine Loh, Civic Exchange[1]

December 2009

What did COP15 mean for the world?[2] Two observations are obvious.

1. A New Tipping Point

Firstly, a fundamental shift had already taken place even ahead of COP15. There is a realization that economies need to decarbonize although the world still has to reconcile economic growth and climate change concerns. World leaders already know this otherwise they wouldn't have offered new carbon emissions reduction pledges ahead of COP15 (see Appendix A). Moreover, 120 political leaders showed up in Copenhagen during the second crucial week of the negotiations each of whom gave stirring speeches. This was a new 'tipping point'.

2. Lack of an enabling process

"Loud thunder, but only light rain" Chinese proverb

Secondly, just because so many heads of state and ministers gathered together in one place, it didn't mean they could agree on a global climate deal. They went home knowing the whole world watched how they tottered and faltered. The UN-sponsored multilateral process didn't help. If anything, it contributed to the ultimate failure. The bureaucratic and unwieldy UN mechanism, designed for assertions of known positions – which is what many negotiators did – failed to facilitate genuine deliberation, dialogue and decision-making.[3] Indeed, many would say there is now more distrust than before COP15, which could feed existing geopolitical tensions.

Even after the political leaders arrived in Copenhagen, the process didn't enable the ceding of the negotiating process to them despite a harrowing final two days where key players worked through the night to salvage an impending crash.[4] Many are saying the final outcome was a deal struck between China and the US. In the end, not only national self-interests (not to lose out to others) but also biases about each other got the better of them even though the governments of the world knew they were dealing with a major planetary challenge that threatens the life-support system for humans.

3. The Copenhagen Accord

Politically significant, legally non-binding

There was the non-binding, three-page Copenhagen Accord in the end that was first sketched out after too many sleepless hours (see Appendix B).[5] The accord was 'noted' but not formally adopted by COP15. Some say it is an important breakthrough that lays the foundation for international action, while others say it is a political compromise of questionable substance and legitimacy. Depending on whether one sees the glass as 'half full' or 'half empty', one may emphasize the positive or negative aspects of the accord.

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1 Civic Exchange is an independent public policy think tank based in Hong Kong. It undertakes research on environmental, economic, social and political policies and practices to help shape the breadth and depth of public policy debate. Recent work in these areas includes energy, climate change, water security and management of the Pearl River Basin, air quality and public health, sustainable cities (including transportation and the built environment), as well as political reforms in Hong Kong and the Mainland.

2 COP stands for Conference of the Parties under the UN Framework Convention on Climate Change 1992 (UNFCCC). The UNFCCC is the treaty to stabilize GHGs in the atmosphere, and the COP is the annual meetings to assess progress. COP15, held in Copenhagen, was the 15th meeting and was meant to devise a successor to the Kyoto Protocol. The protocol is part of the UNFCCC. It was adopted in 1997 and came into effect in 2005. The protocol set binding emissions reduction targets of 5.2% from 1990 levels for 37 developed countries (Annex I countries) and non-binding ones for developing countries (non-Annex I countries).

3 Fiona Harvey, Joshua Chaffin and Harvey Morris (22 December 2008) 'UN agrees to reform climate process', *Financial Times*, p. 4.

4 There was confusion over the roles of the negotiations and ministers and political leaders. There was also a failure on the part of the COP15 Danish presidency to manage a complex process of negotiations.

5 The accord has a total of 5 pages with 3 pages forming the main text. It was drawn up by the heads of state from Brazil, China, India, South Africa and the US. It was then put to the COP plenary, where it was 'noted'.

For the optimists, the accord recognizes the world must not exceed a 2 °C warming above pre-industrial level. The accord calls for Annex I (developed) countries to formalize their reduction pledges and for non-Annex I (developing) countries to state their proposed efforts by 1 February 2010. It provides for the mitigation actions to be monitored nationally and reported in line with guidelines to be worked out. There will be an assessment of the implementation of the accord to be completed by 2015. The accord pledges a US$30 billion fund to be set-up by Annex I countries by 2012 for mitigation and adaptation in developing countries, and for to US$100 billion a year to be made available by 2020.[6] Significantly, the accord authorizes the long-awaited forest protection mechanism (referred to as REDD+).[7]

For the pessimists, the non-binding, best-effort accord has two major flaws. Firstly, despite recognizing the importance of keeping within 2 °C warming, there was no agreement on limiting emissions or time frame for the peaking of emissions. There is no concrete emissions reductions targets for Annex I countries or commitments for non-Annex I countries on mitigation actions. It also does not state when global emissions must peak and the emissions reductions necessary by specific dates in the future. Secondly, the accord is not an agenda for action. It neither specifies the steps countries will need to take to reach agreement nor the process and institutions necessary to make things happen. The accord triggered an immediate negative reaction from carbon markets.[8]

4. Negotiations positions

If progress is to be made in 2010 the negotiation positions of the major players at COP15 still have to be reconciled. These positions may be divided into several blocs:

- **Most vulnerable**: The small island states and the least developed countries (LDCs) of Africa and South America demanded global temperatures be capped at 1.5 °C and for global emissions to peak by 2015 to avert dangerous climate change. This would mean major emitters from developing countries, such as China, must also reduce emissions by a much larger margin.[9]
- **Major future emitters**: The G77+China opposed position (i) because of the development imperative. They argue financial support for mitigation and adaptation projects from Annex I to non-Annex I countries is payment for the GHGs that have been emitted by Annex I countries since the Industrial Revolution. Requirement by Annex I countries for transparent verification of non-Annex I mitigation efforts would be an intrusion on national sovereignty. Priority for financial support from Annex I countries can be given to the most vulnerable countries for adaptation.
- **Annex I countries**: The US made clear money could be made available against transparent verification of national mitigation efforts of developing countries.[10] The EU, Australia and Japan felt squeezed between deals made the US and China.[11]

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6 The amount of US$30 billion came from various UN commissioned studies as the minimum amount needed in the short-term. The amount US$100-200 billion per annum by 2020 were figures suggested by the World Bank and various research bodies.

7 REDD+ means 'Reducing Emissions from Deforestation and Degradation, plus enhancement of carbon stocks'. The REDD+ mechanism paves the way for developing countries to seek greater incentives if they conserve forest areas, adopt sustainable environment management programmes or plant new trees.

8 Market participants in Europe criticized the accord for not having done enough to drive investment in low carbon technology, and with no agreement, the EU did not raise its emissions reduction commitments beyond 20% by 2020, which with an agreement would have increased to 30% by 2020. The higher target would lift carbon prices thus spurring greater investment in low carbon technology; see Chris Flood and Fiona Harvey (22 December 2009) 'Carbon prices fall in wake of Copenhagen', *Financial Times*, Companies & Markets, p. 15.

9 The small island states were criticized for using procedures to waste time, and for insisting on the 1.5°C threshold.

10 China has always refused international verification of national data on the basis that it would be an affront to national sovereignty. During COP15, the US did not use the word "verification" but called for countries to implement reduction commitments in "a transparent manner".

11 Prior to China arriving in Copenhagen, it had already built an understanding with Brazil, South Africa, and India on how to work together at COP15. These 4 countries were referred to as the 'BASIC group'. China also had a general agreement with the US. China's premier and the US president met twice at COP15 in the fading hours of the negotiations to hammer out a deal they could live with and take to the others. A major sticking point was over verification. Then China, the US and leaders from India, Brazil and South African also met, the discussions of which shaped the accord. For an account on how Premier Wen Jiabao and President Obama struck a deal, see Anthony Faiola, Juliet Eilperin and John Pomfret (20 December 2009) 'Copenhagen climate deal shows new world order may be led by US, China', *Washington Post*, p. A01. For post-COP15 account by the Chinese Foreign Ministry, see Qin Gang's Q/A on 21 December 2009, http://fmprc.gov.cn/eng/xwfx/s2510/t646731.htm, and also see Zhao Cheng and Tian Fan (Xinhua News Agency) and Wei Dongze (People's Daily) writing about Premier Wen Jiabao's meetings in Copenhagen and how the BASIC group came to draft the accord, http://fmprc.gov.cn/eng/ejb/zwjg/zwbd/t64821.htm, 28 December 2009, accessed December 2009.

China

"He who is cautious may seem timid in the beginning, but his mettle will shine through in the end"
Wen Jiabao, Chinese Premier, quoting Chinese saying, 16 December 2009

While China does not dispute the science of climate change, it argues there are different interpretations to its impacts and timeline, which affect how different countries see when emissions must peak and how fast and deep reductions must happen to avert dangerous climate change. China sees its recognition of the 2 °C threshold as a concession. It was not prepared to go further, and its refusal to adopt two clauses stating Annex I countries would cut emissions by 80% by 2050, and for global reduction to be cut by 50% by 2050, led to their abandonment [12] Instead, China was successful in getting the accord to acknowledge the time frame for peaking would take longer in developing countries, and stressed 'social and economic development and poverty eradication are the first and overriding priorities of developing countries.'

China sees it as an achievement that Annex I countries are prepared to provide US$30 billion by 2012 and US$100 billion per year by 2020 for climate projects in non-Annex I countries. On transparent verification that cuts were actually made, China felt specifically targeted and its objection led to a compromise: mitigation actions taken by developing countries would be subject to domestic measurement, reporting and verification but developing countries have to provide information on the implementation of their actions for international consultations and analysis every two years under defined guidelines to be worked out so that national sovereignty is respected. The Chinese government knows it would need to consider how the international consultation process could be carried out since it has to rely on data reporting from often unreliable local authorities.

India

India's position going into COP15 were to thwart moves to impose binding targets for global emissions reduction and to only provide information about domestic mitigation programmes. Thus, by having agreed to international consultation and analysis, it feels it has also compromised. India, like China, insists it will ensure the rules to be agreed will not encroach on India's sovereignty.

United States

Despite the US president's efforts to shape a deal during the 14 hours he was in Copenhagen, the US's best emission reduction proposal at COP15 (17% reduction compared to 2005 level) amounted to about 3%-4% on 1990 levels, which other countries found derisory. The president called the accord 'a first step' and 'a shift in orientation moving'.[13]

EU, Australia and Japan

The EU agreed to the accord because for the first time China, US, India, Brazil, South Africa, Indonesia, Mexico, South Korea and Singapore had proposed measures to reduce emissions but it recognizes what is on the table will not achieve the 2 °C threshold.[14] Australia preferred to have a weak accord than the negotiations collapsing altogether. The EU, Australia and Japan – who have binding targets to deliver by 2012 under the Kyoto Protocol – felt if they were the only ones willing to commit to binding targets post-2012, it would not be enough because together they would only make up about 30% of global emissions. They were most keen to have a new agreement that would

12 Mark Lynas (22 December 2009) 'How do I know China wrecked the Copenhagen deal? I was in the room', *Guardian*. See also Zhao Cheng and Tian Fan (Xinhua News Agency) and Wei Dongze (People's Daily) http://fmprc.gov.cn/eng/ejb/zwjg/zwbd/t64821.htm, 28 December 2009, accessed December 2009.

13 See Civic Exchange's paper, Jesse Corradi, "Summary: The US Position on Climate Change, Post COP15". Hong Kong: Civic Exchange, January 2010. http://www.civic-exchange.org/eng/upload/files/100114PostCOP15.pdf

14 The various pledges in Appendix I made by various countries ahead of COP15 would lead to global temperature rise to over 3 Deg C, see Suzanne Goldenberg, Johan Vidal and Jonathan Watts (17 December 2009) 'Leaked UN report shows cuts offered at Copenhagen would lead to 3C rise', *Guardian*, http://www.guardian.co.uk/environment/2009/dec/17/un-leaked-report-copenhagen-3c

bind everyone, including China and the US.[15]

5. Concluding Observations

5.1 Process to manage global commons

It was probably expecting too much of the COP process to solve the complex climate problem. Even a reformed negotiation process may not do the trick easily. Managing the global commons, such as atmospheric temperature (which affects everyone but is owned by no one), is truly super challenging. However, there is nothing else right now besides the UN mechanism that enables global dialogue. Reforming the process needs to take account of what is needed to deliberate the management of global commons, not forgetting the climate system includes land, oceans and the cryosphere (ice and snow).

5.2 Reconciling global divides

Reconciliation is made harder still because substantial gulfs exist between rich and poor countries, and also about how the world can fix its politics and economics to take planetary systems and global commons into account. There is a need to discuss sustainable development and how development can be measured to reflect the success of nations. With the 20th anniversary of the Rio Summit in 2012, global discussion is likely to adopt a renewed interest in sustainable development but progress will likely be slow although the spread of ideas will be much aided by modern communications technology and methods.

5.3 Questions going forward in the short-term

There are a number of issues worth observing going forward:

- Under what circumstances will countries improve their emissions reduction pledges?
- How will the financial pledges be made real?
- How should international transparent consultation be designed?
- How will COP15 affect the COP16 process?
- Can national actions be structured to become a part of international collaboration?
- What kinds of new norms are necessary that can then lead new multilateral agreements?

15 A key dispute between Annex I and non-Annex I countries, especially those from the EU, Australia and Japan, going into COP15 was whether to continue negotiations on a 'double track' (favoured by developing countries) or 'single track' basis (favoured by developed countries). The double track was to negotiate the UNFCCC and its Kyoto Protocol separately, which was the agreement at COP13. The single track basis would replace the protocol with a new deal. Developing countries argued the push for a single deal was a ploy by developed countries to dodge their obligations and force developing countries to do more. COP15 decided to maintain the double track approach.

Appendix A

This information is based on tables presented in draft versions of the Copenhagen Accord but not appearing in the official version.

Annex 1 (Developed) Countries

Country/Region	% Reduction by 2020*	Reference Year	Status
Australia	5-15	2000	Officially announced
Belarus	5-10	1990	Under consideration
Canada	20	2006	Officially announced
Croatia	5	1990	Under consideration
EU	20-30	1990	Legislated
Iceland	15	1990	Officially announced
Japan	25	1990	Officially announced
Kazakhstan	15	1992	Officially announced
Liechtenstein	20-30	1990	Officially announced
Monaco	20	1990	Officially announced
New Zealand	10-20	1990	Officially announced
Norway	30-40	1990	Officially announced
Russian Federation	15-25	1990	Officially announced
Switzerland	20-30	1990	Officially announced
Ukraine	20	1990	Under consideration
USA	14-17	2005	Under consideration

*Reductions below emissions in the Reference Year

Non-Annex 1 (Developing) Countries

Brazil	To reduce emissions 36.1-38.9% from BAU level by 2020
China	To reduce carbon intensity 40-45% by 2020 on 2005 level
Costa Rica	To become carbon neutral by 2021
India	To reduce emission intensity 20-25% by 2020 on 2005 level
Indonesia	To reduce emissions 26% from BAU by 2020 unilaterally, 41% with international support
Maldives	To become carbon neutral by 2019
Mexico	To reduce emissions 50% by 2050 on 2000 level
Philippines	To reduce emissions 5% from 1990 levels (no timeline)
Republic of Korea	To reduce emissions 4% below 2005 by 2020 or 30% from BAU level (unilaterally)
Singapore	To reduce emissions 16% from BAU level by 2020
South Africa	To reduce emissions 34% from BAU level by 2020, 42% by 2025, conditional on international support

Appendix B

The Copenhagen Accord

http://unfccc.int/files/meetings/cop_15/application/pdf/cop15_cph_auv.pdf

Will Emissions Trading really be the answer to Climate Change?

By Felicity Deane[1]

Introduction

The effects of climate change are potentially catastrophic. The world faces an enormous challenge to reduce greenhouse gas (GHG) emissions in the atmosphere, and the solution presented to solve this ever-increasing problem is emissions trading. The Australian Government, despite their emissions trading legislation twice being rejected in the Senate,[2] appears determined to continue on the path to a domestic carbon price through emissions trading. So why is it that emissions trading has spread through the developed world so rapidly?

The purpose of this paper is to examine the development of emissions trading and the rationale behind it. The path of Australia's Carbon Pollution Reduction Scheme will be reviewed. The major domestic schemes will be compared and their capability to link with one another examined. The complexity of the schemes will be compared to a possible carbon tax. Finally, the structure of a carbon tax will be considered to determine the potential complexity of the legislation.

The Path to an Australian Emissions Trading Scheme (ETS)

The CPRS will reduce Australia's emissions by placing a market price on carbon pollution, and link our efforts with those of other countries.[3]

The introduction of emissions trading in a number of developed countries seems likely in the near future. In order to evaluate its desirability as a policy measure its short history must be examined. How has it been effective in the past and what has made the Australian government jump on the ETS bandwagon?

Acid Rain in the United States

The concept of trading in emissions began in the United States with the Sulphur Dioxide Reduction Plan.[4] The purpose of this plan was to reverse the effects of acid deposition through an emission allocation and transfer program. This plan began with capping the emission units of sulphur dioxide from coal-fired power plants and expanded to incorporate more corporations and areas.[5] It was a highly successful method of sulphur dioxide emission reduction. The number of units released into the atmosphere decreased beyond expectation and the price of emission permits never reached the estimated levels of even the schemes biggest supporters. However, the success of the scheme must be examined with the circumstances surrounding it. The sectoral coverage of the scheme was initially very limited, the desulphurisation technology was available and reasonably priced at the time of the introduction of the plan and there were strict caps and enforcement penalties[6] for the scheme.[7]

Although this makes a good case for the emissions trading of greenhouse gases, the reality of regulating a small number of installations for sulphur dioxide can barely compare to the scale of an international emissions trading scheme for six different greenhouse gases. However, this was the starting point for what could eventually evolve into a global emissions market.

The UNFCCC and the Kyoto Protocol

Emissions trading was introduced to the rest of the world as a means of achieving emission reduction targets as a

1 Felicity Deane is a Master of Laws student at Queensland University of Technology.
2 The Carbon Pollution Reduction Scheme Bill 2009, and the accompanying 10 bills were voted against in the Senate for a second time on 2 December 2009.
3 Commonwealth, *Parliamentary Debates,* Senate, 15 June 2009, 3123-30, (Penny Wong, Minister for Climate Change and Water), 3123.
4 42 USC § 7651 (1990)
5 Anthony Hobley, 'Creating a Global Carbon Market' in Paul Q Watchman (ed), *Climate Change - A Guide to Carbon Law and Practice* (2008) 127, 132.
6 42 USC § 7651j (1990). The penalty is currently the number of units multiplied by two thousand US dollars.
7 Richard Baron and Michel Colombier, 'Emissions Trading under Kyoto Protocol: how far from the ideal?' in Farhana Yamin (ed), *Climate Change and Carbon Markets* (2005) 153, 154–155.

flexible mechanism of the Kyoto protocol[8]. The Kyoto Protocol established binding targets for developed countries[9] and included three flexible mechanisms[10] to enable them to meet these targets.

These mechanisms are: the clean development mechanism (CDM) for the creation of certified emission reduction units (CERs),[11] the joint implementation mechanism (JI) for the creation of emission reduction units (ERUs)[12] and international emissions trading (IET),[13] which allows the units created under the protocol to be traded. The Protocol, in addition to creating units under the CDM and JI mechanisms also provides assigned amounts units (AAUs) issued in accordance with each Annex B parties' target, and removal units (RMUs), created from the removal of GHG from the atmosphere through forestry and land use activities.[14]

Emissions trading was included in Kyoto after successful negotiations by the United States in the early stages of discussions. The success of the acid rain program was presented as evidence of the potential of a market to successfully reduce emissions cost effectively. [15] The European Union did not initially support the inclusion, however were the first to implement a scheme of similar framework to Kyoto's IET. Ironically, the United States withdrew from the Protocol in 2001, leaving an emissions trading legacy in their wake.

The inclusion of emissions trading in the Kyoto protocol did not automatically mean that each signatory party would then have to develop their own dedicated emissions trading markets. However, that is precisely what is happening in a number of developed nations, both ratifiers and non-ratifiers of Kyoto. In fact, an ETS in Australia seemed a very real possibility even before the ratification of the Kyoto Protocol in December 2007.

The Implementation of the European Union ETS

The European Union (EU) began regional emissions trading in 2005, creating an emissions market for its member states in Directive 2003/87/EC[16]. The reasons behind the scheme's introduction can be traced to the wording of the directive.

Article 5 states the aims are to:

> "[f]ulfil….commitments to reduce anthropogenic greenhouse gas emissions under the Kyoto Protocol jointly… through an efficient European market in greenhouse gas emission allowances, with the least possible diminution of economic development and employment."

This objective of the EU scheme also hints at another mechanism of Kyoto, adopted by the EU.[17] Article 4 of the Kyoto Protocol allows Annex I[18] parties to effectively pool their emission targets and fulfil their obligations jointly. The adoption of the EU bubble follows the same conceptual path as IET, that is, that reductions can be reallocated among members to meet obligations in the most logical and cost effective way. The decision to create an emissions

8 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Australia ratified 12 December 2007.

9 Ibid, Annex B.

10 These mechanisms were, Clean Development Mechanism, Joint Implementation and International Emissions Trading. Arguably there was a fourth mechanism, which was adopted by the EU, the bubble.

11 CDM is described to be a project between a developed nation and a developing nation to assist the developing nation achieve sustainable development. See The Kyoto Protocol to the United Nations Framework Convention on Climate Change, opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Australia ratified 12 December 2007, Article 12.

12 JI is between two Annex I parties of the *United Nations Framework Convention on Climate Change*, Opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994). See *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Australia ratified 12 December 2007, Article 6.

13 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Australia ratified 12 December 2007, Article 17.

14 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change, opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005),* Australia ratified 12 December 2007, Article 3.3 and Article 3.4.

15 Sonia Labatt, and Rodney R White, Carbon *Finance: The Financial Implications of Climate Change* (2007), 141.

16 *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC* [2003] OJ L 275/46, 32.

17 *Council Decision of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder* [2002] OJ L 130/45, 1.

18 Annex I is contained in the *United Nations Framework Convention on Climate Change*, Opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994).

market would seem a logical progression for the EU, after the adoption of the bubble. The argument for emissions trading in all other regional areas is significantly less compelling, however this has not stopped the continuing trend.

The Stern Review

The Stern review,[19] to determine the economics of climate change, was commissioned by the Chancellor of the Exchequer in the United Kingdom. On October 30, 2006 the review was delivered. The review caused a degree of alarm for many governments around the world who may have thought, until then, that they would be immune from any effects of climate change.[20] This review did not show preference for emissions trading as a framework, but suggested that establishing a carbon price by tax, regulation or trading, was an essential element of any climate change policy.[21] Although the EU ETS was already in existence at the time of the review, it was recommended that the schemes needed to be broadly similar in nature, with a goal to establishing a global carbon price.[22] Arguably, the timing of this review coincides with the start of investigations into an Australian ETS.

The Prime Minister's Task Group Report

On 10 December 2006, the Prime Minister[23] announced the establishment of a joint government–business Task Group on Emissions Trading.

The terms of reference for the task group included:

> "[t]o advise on the nature and design of a workable global emissions trading system in which Australia would be able to participate. The Task Group will advise and report on additional steps that might be taken, in Australia, consistent with the goal of establishing such a system."[24]

In 2007 their report was delivered, showing a preference for emissions trading over other market-based mechanisms including a carbon tax,[25] which is hardly surprising in light of the bias contained in the terms of reference.

The recommendations of the task group have been presented as evidence of the superiority of an emissions trading model over others.[26] However, based on the Task Group's terms of reference, it is arguable that an ETS for Australia had been decided prior to the presentation of the report of the Task Group.

The Garnaut Review

The Garnaut review was delivered on 30 September 2008. By this stage the Australian Government's 'Green Paper'[27] had already been released, outlining the framework for an Australian ETS. The Garnaut Review did recommend that a 'well designed Emissions Trading Scheme has advantages over other forms of policy'[28]. However, it seems that by this stage the Australian government had already laid the path for emissions trading in Australia.

Although it may be difficult to show how the Garnaut Review shaped the Australian ETS, the effectiveness of the scheme and schemes worldwide can still be evaluated in light of the conclusions contained therein.

A Comparative Analysis

In order to evaluate the compatibility of the schemes worldwide and determine the possibility of linking, the different elements of the schemes must be compared. In considering all schemes their joint objective,[29] to meet

19 Nicholas Stern, *The Economics of Climate Change: The Stern Review* (2006)
20 The Australian government formed the Prime Minister's Task Group on Emissions Trading less than 2 months after the review.
21 Ibid, xviii.
22 Ibid, 468.
23 The Prime Minister at the time of the Task Group was John Howard, replaced in November 2007 by Kevin Rudd.
24 Task Group on Emissions Trading, Commonwealth of Australia, *Emissions Trading Report* (2009) 6.
25 Ibid, Section 3.4.
26 Commonwealth, *Parliamentary Debates*, House of Representatives, 22 October 2009, 1-4, (Greg Combet, Minister Assisting the Minister for Climate Change and Water).
27 Department of Climate Change, Commonwealth Government, *The Carbon Pollution Reduction Scheme Green Paper* (July 2008)
28 Ross Garnaut, *Garnaut Climate Change Review Final Report* (2008), 13.2.2.
29 Obviously with the exception of the US, given they are not a party to the Protocol.

Kyoto targets, must be kept in mind. This effectively makes the most important compatibility between the regional schemes and the Kyoto regime. To ignore the international regime would make any regional scheme useless in achieving targeted levels of emissions.

It is beyond the scope of this paper to comprehensively critique all emissions trading schemes throughout the developed world. However, a comparison between the Kyoto IET and regional schemes, and regional schemes with each other is important, both to highlight some differences between the schemes, and to lead into a discussion on international linking.

Kyoto – International Emissions Trading

The Kyoto Protocol could be viewed as the scheme that all other schemes must report back to. It is the common purpose of emissions trading in the European Union,[30] New Zealand[31] and Australia[32] to meet the international obligations contained in the Kyoto Protocol.[33]

Even though emissions trading began with Kyoto, little direction was given for future domestic schemes, perhaps because it was unforeseen that a number of signatories would start their own emissions markets. Some basic measures, such as the carbon equivalent of an emissions permit, have largely been followed.[34]

The IET mechanism under Kyoto is a government based trading market. The treaty for 2008-2012 targets binds governments, companies and individuals who release the GHG gases are not recognised by the treaty. The protocol recognises the possibility of governments devolving part of their assigned amount to entities in their territory and allowing them to trade allowances internationally.[35] Rather than opting to devolve their responsibilities governments in the EU, Australia and New Zealand[36] have created schemes, which effectively bring emissions trading down to the level of individual entities.

For parties to participate in International Emissions Trading mechanism they must have ratified Kyoto, calculated their assigned amount in terms of tonnes of CO_2; they must have in place a national system for estimating emissions and removals of GHGs; they must have a national registry to record and trace the creation and movement of ERUs, CERs and AAUs and RMUs and must report this information to the secretariat. Additionally, 16 months must pass from when initial reports are submitted before a country is eligible to trade emissions.[37]

The Kyoto Protocol is intended to cover all GHG emissions into the atmosphere, therefore all sectors and the six major GHGs are covered. As a result regional schemes are generally less broad than Kyoto, with some sectors being excluded; and in the case of the EU, some gases are not considered. Kyoto also recognises forestry[38] and land credits, however the conditions associated with them under Kyoto generally differ from the conditions of those regional schemes where they are included.

These examples demonstrate the need for governments to set targets for their domestic schemes separate from those they are required to meet under Kyoto. For Australia, this means that the number of Australian Emission Units (AEUs) allocated under the scheme must be less than Australian AAUs under Kyoto.[39]

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30 *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC* [2003] OJ L 275/46, 32. Paragraph 5.

31 *Climate Change Response Act 2002* (NZ) s 3(1)(a).

32 Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 3(2).

33 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005). Annex A.

34 The Regional Greenhouse Gas Initiative (RGGI), the US carbon cap-and-trade scheme covering 10 eastern states- is based on short tonnes - less than a metric tonne (907.18474kg).

35 Baron, above n 5, 157.

36 These are not the only signatories to Kyoto opting for emissions trading, however it is beyond the scope of this paper to compile an exhaustive list.

37 Rosemary Lyster, 'Chasing down the Climate Change Footprint of the Public and Private Sectors: Forces Converge - Part II' (2007) 24 *Environmental and Planning Law Journal* 450, 451.

38 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Article 3.3.

39 This is because 25% of emissions which Australia would be liable for under Kyoto would not be included in the Carbon Pollution Reduction Scheme.

Regional Schemes

The Stern review notes the importance of domestic schemes being broadly similar in design[40]. This review was delivered after the commencement of the EU scheme, but prior to schemes in Australia, New Zealand and the United States. Governments therefore had a chance to heed the advice of the review.

There are some similarities between schemes. They are all to be implemented over a number of years, with the EU being implemented in formal phases. Each scheme, over time, increases the coverage, and decreases the level of assistance for liable entities.

The European Union

The EU ETS was established by a Directive of the European Council.[41] The scheme has since been amended by a number of subsequent directives.[42]

The EU ETS is currently in its second phase[43] of trading, with a third phase to begin in the post Kyoto period. Unlike Kyoto, and most other emissions trading schemes, the EU scheme only covered CO_2 for the first phase, but will expand to cover nitrous oxide and perfluorocarbons by the third phase.

The EU ETS recognises credits from CDM and JI projects to comply with their emission reduction targets. The Directive[44] issues some qualitative limits on which projects CDM and JI credits may be used from[45]. In addition there is a quantitative limit on the number of credit units that may be used. This is to enable adherence to the supplementarity principle of Kyoto.[46]

Each EU allowance (EUA) is created from a Kyoto AAU. It is an important aspect of the scheme that it is directly linked with the country's holdings of Kyoto allowances.[47] 95% of allowances in the first phase were allocated free with 90% in the second. The remaining allowances were auctioned. The penalty in the EU ETS for failure to surrender excess emissions in the EU is €100 per tonne and a provision to 'make good' on the allowances short.

Through the first and second phase the EU scheme has operated through National Allocation Plans (NAPs) enabling each country to set its own targets[48] and conditions. However, different national approaches among the member states has lead to similar industries being given different allocations and being treated differently depending on the jurisdiction. The most recent directive concerning the EU ETS has amended this in paragraph 8.[49] This has resulted in abolishing NAPs. The reasons stated were to enable a more harmonised market, avoiding distortions and to improve the possibility of linking.

The New Zealand Scheme

The New Zealand Emissions trading scheme (NZ ETS) was established by the *Climate Change Response (Emissions Trading) Amendment Act 2008* (NZ) amending the *Climate Change Response Act 2002* (NZ) (CCRA).

New Zealand Units (NZUs) are created by the Bill. Each NZU will be backed by a Kyoto unit to be held in the New Zealand Emissions Unit Registry.

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40 Trevor Daya-Winterbottom, 'Climate Change, harmonisation and public policy' in Wayne Gumley and Trevor Daya-Winterbottom (eds), *Climate Change Law - Comparative, Contractual and Regulatory Considerations* (2009) 73, 83.

41 *Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC* [2003] OJ L 275/46, 32.

42 *Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 amending Directive 2003/87/EC establishing a scheme for green house gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms* [2004] OJ L 338/47, 18.

43 The first phase of the EU ETS went from 2005 until 2007; Phase II from 2008 to 2012 and phase III will run fron 2013 until 2020.

44 Ibid.

45 Ibid, Paragraph 8, restriction on nuclear credits.

46 *The Kyoto Protocol to the United Nations Framework Convention on Climate Change,* opened for signature 16 March 1998, 37 ILM 22 (1998) (entered into force 16 February 2005), Australia ratified 12 December 2007, Article 6.1 (d).

47 Hobley, above n 3, 133.

48 Two recent judgements by the Court of First Instance found that the Commission had misused its powers by reducing the quantities of emission allowances of Poland and Estonia. *Poland v Commission* (T-183/07) [2007] ECR II-00152.

49 *Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community* [2009] OJ L140/52, 63.

The New Zealand scheme is unique in that by 2015[50] all sectors, including agriculture, and all GHGs will be covered. Sectors are staged into the scheme from 2008 to 2015[51]. The inclusion of the agricultural sector in the NZ ETS, although unique, is essential for the effectiveness of the NZ ETS. Electricity in New Zealand is currently 67% renewable,[52] and the majority of New Zealand GHG emissions are from the agricultural sector.[53] Quite obviously the sector coverage is a challenging one, which may result in exaggerated administration and enforcement costs.

The New Zealand scheme accepts Kyoto units in the form of CERs,[54] ERUs and uniquely, AAUs. There are no restrictions on the number that can enter the scheme, however foreign AAUs are unable to be used for compliance beyond 2012.[55]

On 25th November 2009 the New Zealand parliament passed the Climate Change Response (Moderated Emissions Trading) Amendment Bill 2009 (NZ).[56] This Bill made a number of amendments to the CCRA, including delaying the introduction of agriculture into the scheme until 2015, removing the cap on the number of NZUs to be allocated and reducing the rate of decrease in assistance to emission exposed industries. In addition, a fixed price option of $25 will be included in the revised scheme for transport, energy and industrial sectors until 1 January 2013.

The United States

The United States' emission trading scheme is contained in the *American Clean Energy and Security Act 2009*,[57] recently passed by the House of Representatives.[58] The purpose of the United States legislation is to: '[c]reate clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy'.[59]

The scheme's coverage is broad, encompassing all six GHGs, with a provision for any designated new greenhouse gases.[60] It is to cover approximately 85% of emissions in the US by 2016. The agricultural sector and fugitive emissions are currently excluded from the scheme.[61]

As the United States is not a party to Kyoto, there are some different aspects to the scheme. The allowances created by the legislation[62] are not linked to any Kyoto allowances and the United States are unable to participate in the flexible mechanisms of the protocol.

The US legislation contains its own provision for offsets, and permits capped entities to purchase up to 2 billion tonnes of lower-cost offsets from uncapped entities. Half of these can come from domestic sources, such as agriculture, and the other half from international sources.[63]

The legal status of the US emission allowances is contained in s721(c), where it states that the emission allowances do not constitute a property right.

Approximately 80% of annual allowances are to be allocated free until 2025.[64] A portion of the allowances available each year will be distributed via government auction. These auctions will be held every three months and there will

50 The Climate Change Response (Moderated Emissions Trading) Amendment Bill 2009 (NZ) amended this date from 2013 to 2015.
51 Ibid.
52 Johnson, Debroah Lynne, 'Electricity and the Environment - Current Trends and Future Directions' (2008) 12 *New Zealand Journal of Environmental Law* 195
53 Karen Price, Lisa Daniell, and Laura Cooper, 'New Zealand Climate Change Laws' in Wayne Gumley and Trevor Daya-Winterbottom (eds), *Climate Change Law: Comparative, Contractual and Regulatory Considerations* (2009) 89, 96.
54 Excluding CERs from nuclear projects. See Price, above n 51, 93.
55 Ibid.
56 New Zealand, *Parliamentary Debates*, House of Representatives, 24 September 2009, 6854, (Nick Smith, The Minister for Climate Change Issues).
57 [H.R.2454.PCS]. It is still necessary for the Bill to pass through the Senate before it becomes law.
58 This Bill must pass through the Senate before it becomes law.
59 *American Clean Energy and Security Act 2009* [H.R.2454.PCS].
60 Ibid § 711.
61 Ibid § 700, Definition of a covered entity, § 722(10), the exclusion of fugitive emissions.
62 Ibid § 721
63 Ibid.
64 Grant Anderson, Charlie Harrison and Fergus Green, 'Senate standing committees report on CPRS legislation and US greenhouse legislation passes House' (2009) 24(8) *Australian Environment Review* 2, 5.

be a price floor for allowances in order to avoid massive market fluctuations. There is unlimited banking and open borrowing, in an attempt to compensate for the price floor.[65]

The penalty for failure to comply with the scheme is twice the auction clearing price.[66] In addition, parties must account for the excess emissions by surrendering the allowances in the year following the violation.[67]

The Australian Carbon Pollution Reduction Scheme

The Australian emissions trading scheme is contained in 11 bills, which have twice been voted against in the Senate.[68] The future of the Australian Carbon Pollution Reduction Scheme is unknown although; government policy appears to be for a scheme incorporating the amendments brought about through negotiations with the opposition. [69]The Australian government recently released drafts of the Carbon Pollution Reduction Scheme Regulations,[70] providing evidence that the CPRS is not yet dead. Changes to the existing bills will include increased assistance to Emission Intensive Trade Exposed Industries (EITES), the indefinite exclusion of agriculture but increased recognition of agricultural offsets, and additional funding for a number of areas.[71]

Although other changes may be incorporated into a new government scheme, at this stage it would appear the general design of the scheme would remain according to the CPRS bills rejected by the Senate.

The scheme is to eventually encompass 75% of Australia's GHG emissions. The main source not captured is agricultural activities, which consist mainly of methane and nitrous oxide from livestock and cropping and make up 16% of Australia's emissions.

The CPRS bill contained provision for a fixed price period, where AEUs would cost A$10 per tonne of carbon dioxide from 2011 to 2012. This was to then transition to a period of price cap until the end of the financial year commencing on 1 July 2015.[72] This fixed price period would be likely to continue in any new legislation, given that the current trend appears to be to increase assistance offered to participants, which the price cap is designed to do.

The CPRS bill recognises a number of international units, including CERs, ERUs and RMUs.[73] It also makes provision for international units not issued through the Kyoto protocol. There is no restriction on the number of eligible international emissions units,[74] unlike the EU ETS. CPRS also allows credits from emission reduction through domestic reforestation projects to be used to meet reduction obligations, which the EU ETS forbids.[75]

International Linking

The policy choice of a cap and trade scheme in Australia was made through the ease of linking internationally with minimal compliance and transaction costs. [76] Currently there is no legal barrier to linking. There is no inherent incompatibility between the schemes, however the different provisions of the schemes may make linking environmentally undesirable.

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65 *American Clean Energy and Security Act 2009* [H.R.2454.PCS] § 725.
66 Ibid, § 723.
67 Ibid § 723 (4) ©
68 The bills were voted down in the Senate in August 2009. The Bills were reintroduced to the House of Representatives and passed on 16th November 2009. The centrepiece of the legislation is the Carbon Pollution Reduction Scheme Bill 2009 (Cth).
69 Australian Government Department of Climate Change, *CPRS latest updates* (2009) http://www.climatechange.gov.au/government/initiatives/cprs/latest-news.aspx at 11 December 2009.
70 The Carbon Pollution Reduction Scheme Regulations 2009 were released in draft form on 9 December 2009.
71 Australian Government Department of Climate Change, *Details of Proposed CPRS Changes* (2009) <http://www.climatechange.gov.au/government/initiatives/cprs/~/media/publications/cprs/CPRS_ESAS/091124oppnofferpdf.ashx> at 11 December 2009.
72 Ibid s 89.
73 For the definition of an eligible international emissions unit see Carbon Pollution Reduction Scheme Bill 2009 (Cth) s5
74 John Taberner, 'The Carbon Pollution Reduction Scheme Bill 2009' (2009) 24(4-5) *Australian Environment Review* 4, 4.
75 Caroline Haywood, 'The European Union's Emissions Trading Scheme: International emissions trading lessons for the Copenhagen Protocol and implications for Australia?' (2009) 26 *Environmental and Planning Law Journal* 310 , 327
76 Commonwealth, *Carbon Pollution Reduction Scheme Bill 2009 Bills Digest,* Parliamentary Paper 165 (2008-09), 11.

There are potentially, a number of areas that may inhibit international linking. Each domestic and regional policy has undergone extreme scrutiny at all levels of government, and with a goal for a scheme that is region and country specific. To link the schemes, even partially, would result in certain political decisions being bypassed.

The common objective of all the schemes discussed in this paper has been to reduce global warming through controlling the level of emissions. Each scheme has been drafted to attempt to achieve this objective, but to achieve it cost effectively. Although the Stern review discusses the importance of setting a global price for carbon to achieve reductions effectively[77] and Garnaut emphasises the importance of linking the schemes[78], this should not be given priority over the effective reduction of emissions. In order to reduce emissions a price must be attached to emissions that will result in behavioural change. To make the caps and obligations of the emissions trading schemes too easy to fulfil will result in the purchase of credits, without the reduction of GHGs.

The alternative should also be considered. To make the price too high and obligations too difficult to fulfil in any of the schemes individually, may result in carbon leakage.[79] The possibility of carbon leakage occurring and resulting in even higher emissions is real, therefore we must consider that international linking, without compromising the integrity of the schemes is absolutely essential. This would result in a global price on carbon, which could potentially be applied in developed and developing countries.

In order to examine the likelihood of linking between current and future markets the different elements of the schemes must be examined. The following is a discussion of some features that may inhibit the forming of a global emissions market.

Price ceilings and price floors

The effects of price ceilings and floors were discussed in the Garnaut report in some detail, and it is not the intention of the author to replicate the negative arguments contained therein. Simply stated, a price ceiling or floor is going to interfere with the normal market functioning. It is likely to directly interfere with the demand for emissions units and may therefore result in either the reduction of emissions being less than they would otherwise be, or the cost to entities being higher than it should be.

Currently the Australian CPRS contains provisions for a period of price capping. It is likely that while this is in effect international linking with the scheme will be limited.[80] The United States, on the other hand will have a minimum reserve price for auctions,[81] which may not result in an effective price floor, as this will not have an effect on trading after purchase, nor will all the permits be allocated through auctioning initially. It may, however, have an effect on the normal functioning of the market, and possibly any markets linking to it.

Effectively, No Cap on Emissions

Any emissions trading scheme without an effective cap on emissions is likely to have lower cost for emission allowances than one with strict cap and enforcement policies. The Australian and New Zealand legislation contains no limit on the number of Kyoto units that can be accepted into the schemes to fulfil obligations. This is in contrast to the EU scheme, which has an overall limit on the number of CERs and ERUs able to meet obligations. With no absolute cap there is no guarantee that GHG emissions will decrease. Furthermore, with potential allowances unlimited in the market the economic theory of market supply and demand will be unbalanced, and will likely cause price volatility.[82]

77 Stern, n 16, 469.

78 Garnaut, n 26, 14.5.1. Carbon leakage simply explained as; entities moving from countries with high emission regulation, to one with no regulation, to avoid costs and reductions.

79 Ibid.

80 See eg. Policy Department Economic and Scientific Policy, European Union, *Options and Implications of Linking the EU ETS with other Emissions Trading Schemes,* (March 2008), i.

81 *American Clean Energy and Security Act 2009* [H.R.2454.PCS] § 791 (d).

82 The EU experienced excess allowances in their market during the first phase of the ETS. This was due to ghg emissions were cut more quickly than expected, but there was an over allocation in the first place, due to questionable data by the companies themselves. This oversupply leads to a weakening of the scheme because the EUAs became so cheap that there was no incentive to reduce emissions. See eg, Suzanne S Dickey, 'Emissions trading schemes: What works?' in Trevor Daya-Winterbottom and Wayne Gumley (eds), Climate Change Law: Comparative, contractual and regulatory considerations (2009) 63

Acceptance of AAUs

The Australian scheme currently does not allow for the use of other countries Assigned Amount Units (AAUs) to fulfil obligations under the scheme, however the New Zealand scheme has included them. The rationale behind allowing the AAUs into the New Zealand scheme is to essentially open the market. It is feared that otherwise the New Zealand scheme will lack liquidity and lead to low trading and high prices.[83] Unfortunately the inclusion of AAUs may lead to the New Zealand scheme being flooded with 'hot air',[84] as a result of over allocation of AAUs in Kyoto. This may not prove to be a problem ultimately for linking with the New Zealand scheme as AAUs from the first commitment period may not be used to meet New Zealand ETS obligations that occur after that period.[85] Furthermore the over allocation of AAUs may be corrected once a new international agreement is negotiated. [86]

Linking with Non-Kyoto Schemes

The United States is currently a non-ratifier of the Kyoto Protocol. This means that the United States has no provision in their legislation for any Kyoto units and has no AAUs allocated to them through the Kyoto Protocol. The EU, Australia[87] and New Zealand[88] units created under their respective emissions trading schemes are limited to their scheme caps, which are based on Kyoto obligations. To link to the US would result in allowances entering their schemes that would have no place in the Kyoto regime. The relative ease of linking with another ratified party was considered in the Australian Government's White Paper. It stated:

> "[w]here a link is made with another country that also has a binding commitment under the international architecture, trades between the domestic schemes can be backed by international units and recognised under the international architecture. In which case, the detailed design characteristic of the different domestic schemes is less important."[89]

The ability to link into a scheme such as the United States, will be possible, but will involve accurate accounting for non-Kyoto international units by the ratified country.[90] Failure to do this may lead to non-compliance of international obligations by the ratified party.

Complications of Emissions Trading versus a Carbon Tax

Despite emissions trading being adopted throughout the world the complexity of the schemes can not be denied. The Australian scheme has twice been rejected by parliament, yet the Government continues to support the policy. The EU scheme has undergone continuous changes since its inception. The New Zealand scheme, commencing in 2008, has already undergone substantial changes. [91] The amount of time and resources already invested into emissions trading throughout the world is impossible to fathom, yet the challenges remain.

The question of whether emission reduction will actually be achieved through emissions trading remains to be answered. The assistance offered to emission intensive industries is seen as a necessary stepping stone to a low carbon economy and to reduce the possibility of carbon leakage.[92] However, it also delays and reduces the need to actually reduce emissions. The Garnaut Review clearly states:

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83 Price, above n 51, 93.

84 The over allocation of AAUs to former Soviet countries due to the collapse of their economies has lead to these countries having excess emission allowances, which have the potential to flood the market and therefore leading to less need to actually reduce emissions worldwide. The over allocation has been commonly dubbed 'hot air'.

85 *Climate Change Response Act 2002* (NZ) s18CC (1)

86 Negotiations for a post-Kyoto agreement are to take place in Copenhagen in December 2009.

87 With the exception of the units issued in the first year of trading. Carbon Pollution Reduction Scheme Bill 2009 (Cth) s 92.

88 This will be revised if the Climate Change Response (Moderated Emissions Trading) Amendment Bill 2009 (NZ) is passed into law.

89 Department of Climate Change, Commonwealth Government, *Carbon Pollution Reduction Scheme: Australia's Pollution Future* (December 2008), 11-38.

90 See generally, Policy Department Economic and Scientific Policy, European Union, *Options and Implications of Linking the EU ETS with other Emissions Trading Schemes,* (March 2008), 18.

91 An amending bill has been passed by the New Zealand Parliament, Climate Change Response (Moderated Emissions Trading) Amendment Bill 2009 (NZ)

92 Commonwealth, *Parliamentary Debates*, House of Representatives, 22 October 2009, 1-4, (Greg Combet, Minister Assisting the Minister for Climate Change and Water), 2.

Policy makers would be better off abandoning an emissions trading scheme in favour of a broad-based emissions tax without exemptions if they felt unable to resist pressures on the political process for ad hoc and overly generous assistance arrangements for…industries.[93]

Arguably a tax on emissions would have been far less complex and allowed more certainty for industries and investors. Complexity can also often lead to excess resource allocation, resources which may have been better dedicated to other GHG reduction measures. The following is an analysis of some of the complications of emissions trading, which could possibly be avoided with a carbon tax.

Accounting and Taxation Issues

It is beyond the scope of this paper to discuss the taxation and accounting implications for each country's emissions trading scheme. It is important to note, however, that the different legal definitions[94] of emissions permits may have an impact on the way these permits and emission liabilities will be accounted for and taxed.

The requirements for taxation of permits were contained in the Carbon Pollution Reduction Scheme (Consequential Amendments) Bill 2009 (Cth), Schedule 2, which also makes provision for the treatment of permits in relation to GST. These provisions have not been challenged, and are likely to remain in new legislation. If the different regional schemes are linked and an international emissions market is created there will be a need for further clarity on tax issues.

Another issue, currently unresolved is accounting in financial statements. Any emissions trading market will require corporations to hold emission units and to incur liability for GHGs emitted. The International Accounting Standards Board is currently developing standards, which will likely result in uniform accounting. The difficulty of a global accounting standard may be in the different status attributed to emissions permits in different markets. Accounting for an emissions unit, with the legal status of a property right may in fact be very different to the correct method of accounting for a United States unit. Until this issue is resolved by the IASB[95] it is likely that different accounting methods will be used, making financial statement comparison difficult.

A carbon tax would face very few of these issues. There is no need to define the legal nature of a tax. Accounting for a taxation liability is relatively simple and uniform throughout the world. The taxation issues would automatically be eliminated, as there is no tax on a tax. GST complications would also be eliminated.

Administration of the CPRS

The Australian CPRS was to be regulated by the Australian Climate Change Regulatory Authority (the Authority), established in the Australian Climate Change Regulatory Authority Bill 2009 (Cth). That Act itself has 54 sections, with provisions for regulations.[96] The administration of any new scheme would be likely to be similar in design to that already proposed.

The duties required to administer an Australian ETS will be extensive, and the discussion of all such duties is beyond the scope of this paper.[97] Broadly speaking, the resources required to establish and operate the required authority will be significant. No authority would need to be established for the administration of a carbon tax, as the Australian Taxation Office exists for such purposes. There would be monitoring and compliance issues under a tax, and resources would need to be allocated accordingly, however this would only incorporate a small area of the duties of the Authority.

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93 Garnaut, above n 26, 13.3.3.

94 The United States scheme specifically states that the emission permits are not property rights *American Clean Energy and Security Act 2009* [H.R.2454. PCS] § 721 (c); The International Financial Reporting Interpretations Committee has interpreted the EU permits to be intangible property, see Iain Calton, Helen Devenney, and Sarah Nolleth, 'Accounting and Taxation' in Paul Q Watchman (ed), *Climate Change - A Guide to Carbon Law and Practice* (2008) 143; Australian permits are defined as personal property, see Carbon Pollution Reduction Scheme Bill 2009 (Cth), s 94.

95 International Accounting Standards Board, *IASB Work Plan - projected timetable as at 1 August 2009* < at 23 October 2009.

96 Australian Climate Change Regulatory Authority Bill 2009 (Cth), s 54.

97 See eg Carbon Pollution Reduction Scheme Bill 2009 (Cth), s145.

Allocation of permits

The Garnaut Review argued strongly for the auctioning of emission permits as opposed to free issuance.[98] It was suggested that free permit allocation would involve 'unavoidable arbitrariness'.[99]

Despite this advice, the Australian government has introduced, as one of their assistance measures, unlimited allocation of free permits.[100] The extent that this measure will be used, and the effect it will have on the amount of GHG emission reduction is, at this stage, unknown. Arguably there will still be supply and demand for the permits, and markets will operate accordingly, however predicting the behaviour of an emissions market has proved to be a difficult task. The EU has already experienced the volatility of the emission permit market during their first phase of trading.[101]

The issue of the permits is a complicated area in itself,[102] which would be avoided by a carbon tax. Many of the rules for auctioning permits will be contained in regulations, however the government has committed to auctions on a monthly basis.[103] The resources associated with running auctions so frequently will be significant, both on behalf of the Authority and the entities themselves.

Obviously the CPRS will undergo changes as areas for improvement are discovered. It is hoped that this will streamline the process rather than making it more complex.

Structure of a Carbon Tax

The arguments in favour of a carbon tax as opposed to an emissions trading scheme generally centre on simplicity, fairness and thriftiness, as the theory behind a tax is far simpler than a market trading emission permits.

Basically tax revenue is calculated by multiplying the tax rate by a tax base.[104] The reality of these variables for an emission tax however is far from simple. In Australia the determination of a tax base would be similar to the tests applied for a liable entity under the CPRS. The legislative provisions for a liable entity under the CPRS cover Part 3 of the Bill, encompassing sections 16 through to 81. It is highly unlikely that provisions under a carbon tax would be comparably streamlined. The tax base also requires the determination of the point of liability for each liable entity. Once again consideration would need to be given to each sector, considering all possible points of liability.

The second part of the equation is the tax rate. The delicate balance required for placing a price on carbon would need to be constantly monitored and reviewed to ensure behavioural change was achieved, without placing unnecessary financial stress on exposed industries. Setting a price on carbon is a very precarious political move for any government, and in Australia could cause catastrophic economic results if the level is set too high.[105] This political risk could be partially alleviated if the rate was aligned regularly to carbon prices set by markets in other parts of the world.[106]

Finally, assistance measures would still need to be determined to decrease the economic burden of the tax. It would be likely that, similar to the CPRS, any tax would be revenue neutral.[107] Alternatively, and ideally for the environment, funds could be invested into reduction measures, such as clean coal technology, carbon capture and storage and renewable energy. This may go further in fulfilling the goal of decreasing the cost of living in a low carbon economy.

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98 Garnaut, above n 26, 14.3.1.
99 Ibid.
100 Commonwealth, *Parliamentary Debates*, House of Representatives, 22 October 2009, 1-4, (Greg Combet, Minister Assisting the Minister for Climate Change and Water), 3.
101 Dickey, above n 83.
102 Carbon Pollution Reduction Scheme Bill 2009 (Cth), s 88.
103 Department of Climate Change, *Auctioning Australian Emissions Units* <http://www.climatechange.gov.au> at 26 October 2009.
104 Janet E Milne, 'Carbon Taxes in the United States: The Context for the Future' in Jennifer Kuntz (ed), *The Reality of Carbon Taxes in the 21st Century* (2008) 1, 4.
105 Such as major job losses, through plant and mining closures; or carbon leakage.
106 The Commission on Taxation, Republic of Ireland, *Report 2009* (July 2009) 326. This would ensure that the rate could be justified.
107 Milne, above n 105, 5.

Despite the complications discussed, the imposition of a carbon tax would be simpler than the introduction of a carbon market in Australia. Furthermore similar results could be achieved by placing a price on carbon, especially if this price was aligned to markets in other parts of the world. However, it seems highly unlikely that this measure will become part of any climate change solution in Australia in the near future.

A Carbon Tax in Australia?

There are already six European Union countries with parallel emissions trading and carbon taxes,[108] with more implementing and considering carbon tax as a complementary measure.[109] The European Union Scheme in general captures around 50% of each participating countries' emissions, with significantly less in countries dependent on agriculture.[110]

The Australian CPRS is designed to cover 75% of emissions.[111] The remaining 25% is made up of 16% emissions from the agricultural sector, which is indefinitely excluded from the Australian scheme.[112] The argument for the exclusion of agriculture is that the emissions are difficult to measure and the number of liable entities exceeds 100,000. This would make monitoring and compliance issues extremely difficult. To impose a carbon tax on this sector would not resolve these issues. In the author's opinion it is unlikely that a carbon tax will be introduced concurrently with a CPRS, and the Government appears reluctant to let go of their goal of an ETS for Australia. If the agricultural sector is to be penalised for emissions in the future it is unlikely that the tax base will be actual emission output.

Conclusion

The complexities of emissions trading can not be denied. For a fully functioning, freely operating international emissions market to be established many of the current regional markets will need to be reviewed, and reformed. It is unlikely that the schemes developed in piecemeal fashion throughout the world will be able to come together cleanly, without some international agreement. A carbon tax, could have been developed and had similar results, and would have possibly been far less complex, however such a policy shift is unlikely at this stage for the Australian Government. Regardless of what the mechanism is for putting a price on carbon, complementary measures are absolutely essential to reduce GHG emissions, both in Australia and throughout the world. Neither a market, nor a tax would be enough to change the behaviour of society, instilled since the industrial revolution. Having said that, it is a good place to start and over time emissions trading may improve, or perhaps it will one day be replaced by a world wide carbon tax. Only time will tell.

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108 McDonald, Frank, 'Budget Carbon Tax Transparent and Fair, says Royal Irish Academy', *The Irish Times* (Dublin), 28th October 2009.

109 The French carbon tax will commence on January 1 2010. The Irish Commission on Taxation has recommended a carbon tax for Ireland.

110 The Commission on Taxation, Republic of Ireland, *Report 2009* (July 2009) 337.

111 Penny Wong, 'The Australian Government's Climate Change and Water Agenda' (Speech delivered at the Institute of Public Administration WA, Perth, 30 September 2009)

112 The decision to indefinitely exclude agriculture was a result of negotiations between the Australian Government and Federal Opposition.

The effects of climate change induced coastal inundation.

By Chris Forbes[1]

The 2007 IPCC Report indicates that by the end of the 21st century, sea levels will rise by 0.8 meters. This is a significant concern for Australia and its coastline. This report outlines a select number of issues coastal communities and governments will face as sea levels rise. Particularly, the report will identify and analyze liability issues facing coastal councils as property owners face decreasing land values, erosion and inundation of their properties. There is a need for councils to closely monitor their development approval process and ensure a 'best practice' approach is adopted to minimize the risk of adverse effects to coastal properties. The second main issue this report will investigate is the insurance industry's capabilities to assess risk and vulnerability and develop adaptive strategies in response to coastal inundation. Its role will be investigated as a key player to work alongside governments to develop and reform policy and legislation to mitigate the effects of climate change induced coastal inundation.

1. Introduction

The Fourth Assessment Report released by the Intergovernmental Panel on Climate Change (IPCC Report) projected a sea level rise of between 0.18-0.59 metres by 2090-2099.[2] Throughout the 21st century, the IPCC predicts that coasts are expected to be exposed to increased risks, including coastal erosion due to climate change and sea level rise.

The IPCC Report claims that there is a very high confidence that the effect will be exacerbated by an increase in human induced pressures on coastal areas and that by the 2080's, many millions more people than today will experience floods every year due to sea level rise.[3] There is very high confidence that the largest population numbers affected will be in densely populated and low lying mega deltas of Asia and Africa while small islands will be especially vulnerable.[4]

Looking at the IPCC Report's predictions on various regions, by 2050 Australia and New Zealand's population growth is expected to exacerbate the risk from sea level rise and increases in the severity of coastal flooding.[5] The effect of climate change in Europe is expected to magnify regional differences for natural resources and assets and include more frequent coastal flooding and increased erosion.[6] North American coastal communities and habitats will be increasingly stressed by climate change impacts interacting with development and pollution[7] and sea level rises, storm surges and erosion are expected to exacerbate inundation of small island communities and affect local resources.[8]

According to a report on the insurance industry's response to climate change, the worldwide economic loss from weather related disasters in 2008 was around $130 trillion.[9]

The legal recognition of climate change is gaining momentum in accordance with an increased awareness and acceptance of scientific evidence in relation to the anthropogenic effects on the climate system. In response, there has been an increase in case law, legislative development and international regulation building upon the legal principles and rules identified as 'climate change law'.[10]

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1 Chris Forbes has experience working in corporate and commercial law and is now a student in the Master of Laws at QUT.
2 Intergovernmental Panel on Climate Change, Climate Change 2007: Synthesis Report, Report No 4, Geneva, 2007 at 45
3 Note 1 at 48
4 Note 2
5 Note 1 at 50
6 Note 4
7 Note 1 at 52
8 Note 1 at 52
9 Geneva, Geneva Association, A Global Review of Insurance Industry Response to Climate Change, International Association for the Study of Insurance Economics, 2009
10 J Peel, 'Climate Change Law: The Emergence of a New Legal Discipline' (2008) 32(3) *Melbourne University Law Review* at 923

Climate change law can be seen from both a global (ocean warming) and local (extinction of species particular to certain areas) perspective and encompass governance from an international level to a local level. There is an increase in anxiety and concerns spanning all levels of government and property owners as coastal properties are becoming more susceptible to the effects of coastal inundation. There are issues of diverging expectations as to how much responsibility should fall upon councils to protect property owners from coastal inundation. Conversely, there are diverging expectations as to how responsible property owners should be for the decrease in value, and in the most severe cases, the loss of their properties to coastal inundation.

There are examples of coastal properties, both in Australia and overseas, being ineligible for adequate insurance cover because of an increased risk in loss of value, damage or loss of property due to coastal inundation. What level of protection should property owners receive, if they should receive any protection at all, from the various levels of government?

This research report aims to identify, analyse and critique the legal and regulatory framework in relation to climate change induced coastal inundation and the effectiveness in regards to the competing interests of coastal property owners and local councils. The argument put forward is that in order to achieve an effective approach to mitigation and adaptation of coastal inundation, there needs to be a focus on strategic integration of all levels of regulation with an emphasis on adaptation at the local levels. This, along with direct involvement from the insurance industry is essential in achieving a viable, commercial and sensible approach to adapt to the effects of climate change induced coastal inundation.

2. Issues surrounding areas susceptible to coastal inundation

2.1 Background

Australia's coastal zone is under increasing pressure with approximately 80% of Australians living within 50 kilometres of the coast.[11] The potential impacts for these communities include sea level rise, increased coastal flooding and storm surges, increased coastal erosion and the destruction of property.[12]This section of the report will briefly summarise the decreasing coastal property values as a consequence of inundation, unsustainable property development and the potential liability of inappropriate council development processes and coastal management systems. The issues facing the insurance industry's heightened risk assessment leading to the unavailability of insurance for certain coastal properties will also be introduced as this links in with the potential liability of councils if development is approved in areas deemed too risky to receive insurance coverage.

2.2 Decrease in property values

Many developed areas the subject of coastal inundation are considered to have a high real estate value. However there are growing numbers of property owners worried about the loss of this value. There are instances of a 50% reduction in the value of some properties due to coastal erosion and there are suggestions of a duty of care owed by councils to prevent loss of value due to inundation and erosion where residents have been paying council rates for 30 or 40 years.[13]

The loss of value of coastal land is an increasing risk as the threat of climate change threatens to increase the frequency and severity of inundation. There is evidence suggesting that municipalities right across Australia have not got a handle on the value of assets that are under risk and the adaptive strategies that should be taken in response.[14]

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11 Australia, Department of Climate Change, *Climate Change Adaptation in Australia's Coasts* http://www.climatechange.gov.au/impacts/coasts.html, at 23 September 2009

12 K Ruddock, *Factoring climate change and sea level rise into planning and infrastructure decisions?* (2008) Environmental Defender's Office New South Waleshttp://www.edo.org.au/edonsw/site/pdf/papers/090525cc_planning.pdf at 15 August 2009

13 K Maguire and G Oakeshott, 'Crumbling Coast', *About the House,* September 2009 http://www.aph.gov.au/house/news/magazine/ath38_coast.pdf at 23 September 2009

14 Note 11 at 21

The decrease in land values is a result of certain types of council policies responding to an increase in the effects coastal inundation. There is an increasing level of urgency in which coastal councils must consider the effects of climate change and property owners will cause a significant portion of the effects of coastal inundation. The question of who should be liable for this loss of asset value is contentious. Should those who purchase properties in high risk coastal areas, assuming they are fully informed of the potential effects, assume the risk of a decrease in value? How do we respond to those who have owned coastal property for several decades, before the cause and effects of climate change induced coastal inundation became known, to deal with the incremental and certain loss of property value over time? Where does the responsibility lie for this loss in value, and should compensation be provided to assist those property owners from financial loss?

2.3 Unsustainable property development

An obvious issue in relation to climate changed induced coastal inundation is unsuitable property development. Properties constructed on beach front land, man-made canals and low lying coastal areas which are prone to tidal flooding cause significant issues in mitigating the effects of inundation.

The loss of property by coastal inundation can raise the question of liability. Liability will be difficult to determine unless there are clear guidelines in place for when decisions are being made by those looking to purchase coastal properties and for councils when local laws and policies are being formulated.

An example of this issue is outlined in the case of *Vaughan v Byron Shire Council.*[15]The owners of a beachfront property on Belongil Spit at Byron Bay attempted to rebuild an interim sandbag wall constructed by the local Council which had been destroyed by rising ocean water levels. The Council sought an interlocutory injunction against the Vaughans to restrain the rebuilding of the wall.[16] The Council argued that the structures will cause damage to other properties by exacerbating existing down drift erosion impact, and that the structure would impede access to the beach.[17]The court ruled in favour of the Council, and an injunction against the rebuilding of the interim wall was enforced.[18]The legal framework behind this aspect of the Byron Council's coastal management scheme is discussed more fully in 4.2 below.

Another example is shown through the purchase of two adjoining properties in 2001 at Old Bar New South Wales. In 2008, the highest tide in 22 years washed away six metres of Mr Key's land in four hours. After the loss of this land, Mr Keys complied with a local council order to demolish both houses on the properties. Previously he had been made aware of this policy and was told he would be allowed to rebuild if required. However after demolishment, the council revealed it had reviewed its previous policy and prevented Mr Keys from rebuilding his homes.[19]

As a consequence of a lack of clear policy and legislative guidance and communication, the above two scenarios played out causing significant uncertainty for property owners in terms of the extent in which they are able to protect their properties, and for the councils in terms of their increase in exposure for potential liability.

Coastal erosion also presents a significant issue surrounding the development of areas susceptible to inundation. As the loss of land along the shoreline due to the natural removal of beach and dune material occurs, buildings in these low-lying coastal areas can be inundated due to storm surge conditions[20]and this also decreases property values or more significantly lead to a loss of property all together.

2.4 Insurance industry

The justification for the insurance industry's involvement in climate change is based upon the fact that weather and climate are core business for the insurance industry. The insurance industry provides a financial recovery mechanism from weather related catastrophes by evaluating, pricing and spreading the risk of such events, then paying claims

15 [2009]NSWLEC 88
16 Note 11 at [1]
17 Note 11 at [6]
18 Note 11 at [18]
19 Note 12
20 State Emergency Service New South Wales, *Coastal Erosion and Inundation, http://text.www.ses.nsw.gov.au/topics/5844.html* 23 September 2009

when they arise. In this way, the insurance industry can be seen as being at the 'coalface' of climate change effects due to their heightened awareness of climate change. The insurance industry is a basis in which market based strategies for the adaptation to coastal inundation can be developed. From this, climate change law is very relevant to insurers considering the scope of risks to include in insurance contracts.

The role of insurance underwriting weather-related risk is an important component of the national economy. Any reduction in the industry's ability to underwrite weather-related risk will have serious ramifications for the economies of those vulnerable regions where climate and weather risk is great.[21] An increase in the risk of property damage due to coastal inundation presents significant issues for insurance consumers. There are a number of real and potential problems consumers may face. These include:

- a significant increase in real premium charges;
- the limited pool insurance funds come from;
- the withdrawal of coverage for certain types of events in certain areas such as flooding of low lying areas;
- an increase in under-insurance due to the lack of real appreciation consumers have for the risk of property damage;
- an increase in levels of non-insurance leading to an increase in property loss; and
- an increase in the number of conditions insurers insist upon before adequate coverage is provided.[22]

3. International and national perspectives on coastal management

3.1 Background

It is necessary to investigate a select number of other jurisdictions and summarise their handling of the threat of coastal inundation, and what their coastal strategy programmes involve to determine an appropriate Australian local council response to coastal inundation.

3.2 Venice

The Consortium for Coordination of Research Activities Concerning the Venice Lagoon System is an association set up between several Italian universities and Italy's National Research Council. Their website states 'Venice and its lagoon constitute a complex system of major historical, artistic and environmental interests that is currently passing through a delicate phase – in the quest for equilibrium between man's needs and the conservation and restoration of the environmental system'.[23]Because of the long history of coastal inundation, Venice provides an excellent example of a region facing the immediate effects of storm surge, subsidence and sea level rise from climate change.[24]

Rebuilding at higher levels and modifying structures has been their adaptive response.[25]Since 2000, Venice has developed two major strategies to adapt to rising sea levels. These are the:

(a) implementation of the 'Moses' project which consists of the construction of a mobile barrier system together with public works designed to protect Venice from inundation; and
(b) 'Rialto' project which is a system designed to 'lift' nominated buildings by one metre in response to the sea level rise. [26]

Given the IPCC's prediction of a 0.8 metre sea level rise by the end of this century, Venice's 'Rialto' project appears to be a suitably adapted response. Although the Venice response may be appropriate to the particular region, the application of a system similar to the 'Moses' or 'Rialto' projects is impractical for Australia's response, given the significant difference in land types.

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21 T Coleman, Insurance Australia Group, *The Impact of Climate Change on Insurance against Catastrophes,* < http://stephenschneider.stanford.edu/Publications/PDF_Papers/IAG-Climate_Change_Paper.pdf> 23 September 2009

22 Australia, Parliamentary Library, *Climate change –background note,* (2009) < http://www.aph.gov.au/library/Pubs/ClimateChange/effects/economic/onInsurance.htm> at 23 September 2009

23 CORILA, *Consortium for Coordination of Research Activities Concerning the Venice Lagoon System* < http://www.corila.it/ENCorila.asp> at 1 October 2009.

24 B Norman, *Planning for Coastal Climate Change – An Insight into International and National Perspectives* (2009) Victorian Government < http://www.climatechange.vic.gov.au/CA256F310024B628/0/8A5ACCF88D5F6257CA257626001574ED/$File/Planning+for+coastal+climate+change+v1.pdf> at 1 October 2009.

25 Note 23 at 23.

26 Note 23 at 23.

3.3 Nethelands

The Netherlands provides a useful case study as it has been dealing with coastal inundation for a long period of time. Over 60% of the country is below sea level however much of that land still remains economically productive.[27]Previously, the country sought to adapt to coastal inundation by building high defences. However this is no longer viewed as a 'long term' answer. In their 2008 report *Working with Water*, the Delta Commission accepts a sea level rise of between 0.35m and 0.8. by 2100.[28]

The approach by the government is based on a 'living with water' strategy. This means it will allow flooding in certain circumstances for certain land regions within an acceptable range of possible responses from 'do nothing', 'adapt', 'retreat' and 'defence'.[29]

These broad principles can have direct application to an effective coastal strategy for Australia. There will be instances where coastal land is too susceptible to the effects of inundation, as highlighted by the problems of erosion encountered by property owners in the Byron Bay Shire. Further, the 'adapt' and 'retreat' principle are already being utilised in terms of the controversial 'planned retreat' policy in regards to Belongil property owners.

3.4 London

The *London Climate Change Adaptation Strategy* is methodical and detailed and takes a wide view of inundation by looking at it from an economic, social and environmental perspective.[30]It provides for flood risk management and emphasises the responsibility of all sectors of society and has a strong emphasis on building resilience similar to the Bay of San Francisco approach discussed below in 3.5.

For example, the Strategy states that the City of London should encourage businesses to consider relocating flood sensitive IT equipment and archives out of London areas susceptible to flooding, out to less prone areas. Further, it provides that developers should be encouraged to install sustainable drainage systems in targeted flash flood 'hotspots' for new development, redevelopment or major refurbishment.[31]A particularly excellent recommendation the Report makes is that developers be required to contribute to emergency flood plans in flood risk areas. This can be linked into a policy of 'user pays' in that those who choose to purchase or develop property in flood risk areas should be required to pay to minimise the costs to the community. A link to an Australian coastal approach can be made with this in mind. There is argument that those wishing to purchase property in areas deemed high risk should bear all costs associated with coastal effects as long as they are made aware of the risks upon purchase. This idea is discussed in more detail below in the context of reform to property law and the requirement of mandatory insurance coverage.

3.5 Canada

The Canadian government report titled *From Impacts to Adaptation: Canada in a Changing Climate* outlines the Canadian approach to adapting to climate change effects.[32]Specifically, the report outlines the response of the New Brunswick region of Canada in combating the effects of climate change induced coastal inundation. The specific sea level rise report called the *Impacts of Seal Level Rise on the Coastal Zone of South Eastern New Brunswick 2006* has made two conclusions for the adaptation of coastal areas. These are that:

(a) appropriate adaptation strategies may take many forms and may include components at different s c a l e s . Communication and co-ordination of efforts between various levels of government, community leadership, local organizations and citizens are essential ingredients for success. Further there needs to be a balance in adaptation strategy design between addressing isolated issues and developing a comprehensive plan that

27 Note 23 at 22.
28 Delta Commission, *Working together with Water 2008* http://www.deltacommissie.com/doc/deltareport_full.pdf 23 at 1 October 2009.
29 Note 23 at 22.
30 City of London, *Rising to the Challenge – the City of London Corporation's Climate Change Adaptation Strategy 2007*, http://217.154.230.218/NR/rdonlyres/7347D392-3CF3-4344-8B2D-9AF9315E8801/0/SUS_climateadapt.pdf at 1 October 2009.
31 Note 29 at ii.
32 Natural Resources Canada, *From Impacts to Adaptation: Canada in a Changing Climate 2007,* http://adaptation.nrcan.gc.ca/assess/2007/toc_e.php at 1 October 2009.

addresses every dimension of the problem[33]; and

(b) environmental impact assessment processes should ensure that climate change considerations are included prior to any new development projects being started.[34]

The current coastal protection method used in New Brunswick is by a zoning approach. The coast is divided into three zones based upon the risk of coastal inundation. Zone A covers the area at most risk with land being of limited use. Zone B is classified as 30 metres landward of the limited use of Zone A and Zone C is classified as a 'transitional' zone which is generally an area of least risk, with development able to occur.[35]This is similar in substance to the Netherlands approach in terms of their 'do nothing', 'adapt' and 'retreat' policy and appears logical to effectively manage Australia's coastline. The 'zoning system' should be considered as a possible adaptive strategy to be implemented by local councils in Australia in places where a similar approach has not already been adapted.

3.6 California

The *2009 Californian Climate Adaptation Strategy Discussion Draft*[36]summarizes the best known science on climate change impacts in seven specific sectors and provides recommendations on how to manage against those threats. The regional focus the draft takes is appropriate in ensuring that the context specific effects of climate change are met. Looking at a particular Californian region, the Bay of San Francisco has been the subject of active planning in preparation for and consequences of sea level rise. The Bay Conservation and Development Commission is responsible for this planning and identifies the following adaptation strategies:

(a) an identification of the most significant structural, environmental, aesthetic, social, cultural and historic resources that require protection;
(b) areas inappropriate for protection; and
(c) strategies and techniques that will make future conservation and development projects more resilient to climate change effects.[37]

These three points should be considered for application on an Australian local council level. It is inevitable that certain coastal areas are inappropriate for protection, whether that be due to constant erosion or past inappropriate development. Further, it is vitally important that future development utilise strategies and techniques to ensure, as far as possible, resilience to climate change and its effects. It is important for risk appropriate strategies to be implemented from building standard and legislation formulation right through to construction and development to ensure the best possible chance of obtaining adequate insurance cover.

3.7 Local Australian Council perspectives

The Byron Shire Council provides an excellent example of progressive coastal management with its policy of 'planned retreat'. This policy means that 'certain limited and temporary residential development has been permissible on lands subjected to coastal hazards strictly on the basis that once those hazards are realised, that residential development must be relocated to a safe distance from the erosion risk zone.[38]

A study undertaken by the Sydney Coastal Councils Group Inc (**SCCG**) aims to promote 'a co-ordination between member councils in environmental and natural resource management issues relating to the substantial management of the urban coastal environment'.[39] This collaborative approach needs to be adopted nationwide to ensure consistency and consensus is reached among coastal councils in formulating a consistent and appropriate response to coastal inundation. Such a collaborative approach, ideally in conjunction with relevant industry can assist in

33 Minister for the Environment, *Impacts of Seal Level Rise on the Coastal Zone of South Eastern New Brunswick 2006* < http://www.adaptation.nrcan.gc.ca/projdb/pdf/20061005_exec_sum_e.pdf> at 1 October 2009.
34 Note 23 at 25.
35 Note 23 at 26.
36 California Government, *2009 Californian Climate Adaptation Strategy Discussion Draft* http://www.climatechange.ca.gov/adaptation/ at 1 October 2009.
37 San Francisco Bay Conservation and Development Commission, *A Sea Level Rise Strategy for the San Francisco Bay Region,* http://www.bcdc.ca.gov/planning/climate_change/SLR_strategy.pdf page 6 at 1 October 2009
38 Note 23 at 38.
39 Sydney, Sydney Coastal Councils Group Inc., A Systems Approach to Regional Climate Change Adaptation Strategies in Metropolises 2009 < http://www.sydneycoastalcouncils.com.au/> at 9 October 2009.

setting standards and common benchmarks for such things as building codes, emergency procedures and coastal zoning measurements.

Within the Gippsland Coastal Board, the Shire of Wellington is working with the local community to find long term solutions to 'old and inappropriate subdivisions' in areas at high risk of coastal inundation.[40]

Finally, the Clarence City Council in Tasmania produced a report outlining adaptive measures which included planning controls for new developments dealing with building setbacks, minimum floor levels, appropriate engineering assessments and appropriate construction techniques. It also recommended a development freeze in locations with high erosion.[41]

There are various strategies currently being adopted by the various international and national jurisdictions. These are used as examples for those councils that currently do not adopt appropriate mitigation and adaptation strategies so they can best plan their coastal strategy. The involvement of the insurance industry will also be discussed and a need for a collaborative approach between industry and government to ensure the most appropriate reforms is developed.

4. Local governments and coastal councils v property owners – legal issues

4.1 Introduction

In this section of the report an investigation into the liability those councils potentially face who fail to take into consideration the effects of climate change will be discussed. The consequences of climate change range from global effects to local effects. Due to local authorities facing climactic consequences from a localized perspective, these local governments and councils are often at the forefront of potential litigation from property owners due to the localisation of their planning and environment laws.

The various consequences of climate change are resulting in a new environment for councils and development planners. There is an increasing level of urgency in which councils must consider the effects of climate change. There are many ways local governments and councils respond to the challenge of climate change induced coastal inundation. Examples of these include the implementation of coastal strategies,[42] planning guidelines[43] and legislation[44] and ruling out development on certain areas with a high risk of coastal inundation. However there are more controversial methods of adapting to coastal inundation which can open the door for potential litigation by property owners and local governments.

4.2 Best practice approach

An example of this is the Byron Shire Council's policy of 'planned retreat' which has been in effect since 1988 and has withstood numerous legal challenges.[45]Based in the local *Development Control Plan*[46] this is a hazard management option in which coastal land which has been determined as having a limited life due to the effects of erosion and inundation is allowed to be occupied until coastal hazards threaten or damage property.[47]At the time development is approved, a specified period can be identified until consent to occupy ceases. After this time, the structure must be moved back, relocated or demolished.[48]

40 Note 23 at 39.
41 Tasmania, Clarence City Council, *Climate Change Impacts on Clarence Coastal Areas December 2008* < http://www.ccc.tas.gov.au/webdata/resources/files/00-cover-contents-exec_summary.pdf> page v at 9 October 2009.
42 Victoria, Victorian Coastal Council, *Victorian Coastal Strategy 2008* http://www.vcc.vic.gov.au/2008vcs/home.htm at 28 October 2009.
43 New South Wales, New South Wales Government Department of Planning, *North Coast Urban Design Guidelines* http://www.planning.nsw.gov.au/plansforaction/pdf/north_coast_design_guide_complete.pdf at 28 October 2009.
44 *Environmental Planning and Assessment Act 1979* (NSW)
45 Environmental Defender's Office of New South Wales (Ltd), *EDO Northern Rivers,* (2009) http://www.edo.org.au/edonsw/edonr/northern_rivers_edo.php#expertseminarbb at 25 September 2009
46 2002 – see Part J2.1 for required development standards for the zone between escarpment to the immediate impact line http://www.byron.nsw.gov.au/development/control-plans/ at 28 October 2009.
47 Department of the Environment, Water, Heritage and the Arts, *Hazard Management Options,* Canberra, 2007 http://www.environment.gov.au/coasts/publications/nswmanual/section5.html#anchor683029 at 25 September 2009
48 *Vaughan v Byron Shire Council* [2009]NSWLEC 88

In terms of beach front land:

(a) new development must be at least 20 metres from the erosion escarpment; and
(b) dwellings must be demountable structures capable of being moved within 12 hours by a single four wheel drive vehicle.[49]

In terms of existing structures, the Byron Shire Council repeatedly rejects development applications for protective works such as private rock walls and the intensification of existing development.[50]This response by the Byron Council is emerging as a 'best practice approach' with an endorsement by the Land and Environment Court.[51]

As discussed in 3.6, there are numerous other strategies that local councils have already proposed as an appropriate method to mitigate and adapt to the risk of coastal inundation. It is recommended that a collaborative approach similar to the SCCG be taken to devise context specific mitigation and adaptive measure. Moreover, the Gippsland Coastal Board's plan to find new alternatives to 'old and inappropriate subdivisions' is a necessary way forward for other councils to learn how best to mitigate effects and help reduce property damage.

From an international perspective, London's strategy that those who develop or purchase land in what can be considered 'high risk' areas should pay a premium by contributing towards emergency plan costs is another point councils should consider adopting. This will help shift the financial burden from public authorities who are usually restricted.

The Californian requirement to ensure development projects are more resilient to climate change effects is also a logical reform. Finally and perhaps most importantly, an approach similar to New Brunswick in Canada whereby coastal areas are divided up into three different zones depending on the risk level is a core element of the framework from which the various other ancillary reforms can be implemented. However going back to the example of the Byron Shire Council, a similar system has already been implemented by splitting the coast up into three 'precincts'. Their element objective and prescriptive measures are summarised as follows:

- Precinct one (from the beach escarpment to the immediate impact line) - ensure the impact of coastal processes on potential development is minimised by limiting development and ensuring any development is only temporary.
- Precinct two (between the immediate impact line and the 50 year erosion line) - ensure the impact of coastal processes on potential development is readily relocated as the erosion escarpment nears development. Development must be designed to be relocated or demolished, or to cease operation, should the erosion escarpment come within 50 metres.
- Precinct three (between the 50 year and 100 year erosion line) - to ensure the impact of coastal processes on potential development is minimised by ensuring any development ceases as the erosion escarpment nears the development. Development will be considered on the understanding that any consent granted will be subject to the proviso that should erosion escarpment come within 50 metres of any building the development consent will cease in which case, the owner of the land will be responsible for the removal of all buildings.[52]

From London and California's broad policy approach, to New Brunswick's and Byron's progressive and thoughtful approach, there is ample opportunity to 'cherry pick' the elements best placed to adapt to the effects of coastal inundation.

4.3 Court intervention

Most climate change litigation up until now has focused on issues from a climate change mitigation perspective. That is, litigation on the potential impact of a project or development on climate change. However there are now

49 Part J2.1 of Byron Shire Council *Development Control Plan* <http://www.byron.nsw.gov.au/development/control-plans/ at 28 October 2009.
50 Maddocks Lawyers, *Implications of Climate Change for Planning: Helping councils and planners navigate the new environment,* < http://www.maddocks.com.au/download/sustain-may3-2009.pdf> at 3 October 2009.
51 *Parkes v Byron Shire Council* [2003] NSWLEC 104 (Parkes No. 1)
52 Part J2.1 of Byron Shire Council *Development Control Plan* <http://www.byron.nsw.gov.au/development/control-plans/ at 28 October 2009. For a more detailed analysis of the prescriptive measures, see parts J2.1, J2.1 and J2.3.

instances of litigation from an adaptation perspective, that is, the impact of climate change on developments.[53]When councils receive development applications, adopting a 'best practice' approach would best assist councils in limiting their potential liability.

Where councils provide advice, there is a potential for liability for loss associated with that advice if:

- such losses were reasonably foreseeable to the council at the time of the provision of the advice; and
- it was reasonable for the plaintiff to act in reliance of that advice.[54]

In *Walker v Minister for Planning & Ors*[55]a judicial review held that the Minister, in approving a concept plan for a residential subdivision and a retirement development, failed to consider ecologically sustainable development (climate change flood risk) when assessing the concept plan.

In certain circumstances there are instances of courts finding an existence of a 'reasonable foreseeable' risk of inundation. In *Gippsland Coastal Board v South Gippsland SC & Ors*[56](**Gippsland case**) the Victorian Civil and Administration Tribunal overruled a local Council decision to approve a coastal development in Gippsland, due to the unacceptable risk posed to the property from rising sea levels as a result of climate change. The decision is particularly significant because the VCAT relied upon the *Planning and Environment Act 1987* (Vic) in reaching a determination which does not explicitly require planning authorities to consider the effects of climate change in approving coastal development. Specifically, s 60(1)(e) requires an authority to consider significant effects the development may have on the environment as well as the significant effects the environment may have on the development. The Tribunal held the section was broad enough to include a consideration of climate change and coastal processes on development.

In the Gippsland case, the South Gippsland Shire Council was fortunate in that development approval was overturned by the VCAT before there was a resulting loss from its initial approval. However there are many examples of Councils approving development applications, that have been actioned and which have the potential to give rise to costly litigation to determine who is liable for property damage. To minimise their liability, coastal councils must educate themselves on what the 'best practice' is based on cases such as these, and incorporate them into their local planning laws.

4.4 Queensland statutory intervention

The *Civil Liability Act 2003* (Qld) (**CLA**) s 35 provides a set of principles concerning the resources and responsibilities of public authorities and factors to be considered in determining whether a public authority has breached their duty of care. These factors are:

- the functions required to be exercised by the authority are limited by the financial and other resources that are reasonably available to the authority for the purpose of exercising the functions;
- the general allocation of financial or other resources by the authority is not open to challenge;
- the functions required to be exercised by the authority are to be decided by reference to the broad range of its activities (and not merely by reference to the matter to which the proceeding relates); and
- the authority may rely on evidence of its compliance with its general procedures and any applicable standards for the exercise of its functions as evidence of the proper exercise of its functions in the matter to which the proceeding relates.

Further, the CLA s36 provides that an act or omission of the authority does not constitute a wrongful act or omission unless it was so unreasonable that no public authority could properly consider it to be a reasonable exercise of its functions. As is a fundamental principle in tort law, courts will apply a test of 'reasonableness' in determining whether a council has acted appropriately and will consider whether such a reasonable council in the same position would take the same course of action.

53 J Lynn & P McCormack, *Blake Dawson - Climate Change –a major challenge for local environment planning laws,* (2008) < http://www.blakedawson.com/Templates/Publications/x_article_content_page.aspx?id=53029> at 3 October 2009
54 *Shaddock v Parramatta City Council* (1981) 150 CLR 225 at 231
55 [2007] NSWLEC 741
56 [2008] VCAT 1545

4.5 Recommendation

Councils are going to be at an increasing risk of climate change litigation. Councils must take into account the risk of climate change induced coastal inundation in assessing new development applications. Councils will need to carefully consider information relating to the effects of climate change induced coastal inundation, and how this information can best be used to provide an appropriate development assessment.

The following are recommendations based on a comparative investigation of coastal strategies and current council policies in place to help limit the potential liability of coastal councils:

a) Australian coastal councils should adopt a zoning system similar to the Canadian, Dutch and the Byron approach. A consistent framework should be adopted to ensure minimum standards and guidelines are developed. One possible mechanism for this is through a COAG Agreement to ensure consistency and standardisation. However given the mediocre success of some past COAG Agreements, there is a chance that a it may not be as effective as is required to bring about urgent reform;
b) an adoption of a 'user pays' approach for developers and purchasers of coastal properties. Similar to the recommendation put forward by *London Climate Change Adaptation Strategy*, this policy should require financial and non-financial (such as the sharing of information and policy planning input) contributions to emergency flood plans in risk areas; and
c) developing coastal plans with a context specific and regional focus in mind, similar to the Californian approach.

5. The insurance industry and climate change induced coastal inundation

5.1 Background

The occurrence of more extreme weather events as an impact of climate change are likely to cause significant damage to economic and social infrastructure.[57]It has been suggested that the insurance sector is at the front line of climate change. This makes sense. Through the development of product pricing, terms and conditions and assistance the insurance industry provides to society in diversifying the cost of losses[58]the industry could be thought of as a messenger of climate risks.

Where governments and councils fail to provide adequate protection for property owners from coastal inundation effects (bearing in mind that financial capacity of councils is a factor to be taken into account in determining liability under the CLA), there is a market opportunity for insurers to increase their effort to safeguard customers instead of limiting coverage or exiting markets. In a market economy, protecting the climate through the implantation of adequate mitigating and adaptive strategies makes perfect sense. Peter Hoeppe, of the Munich Reinsurance company, states that 'climate change is a fact. Countering it is a must. We are convinced that climate protection makes economic sense, as it would be more expensive in the long term to pay for the damage it causes. It offers companies and national economies that react quickly great opportunities.'[59]

The availability of insurance products is fundamental to ensure the financial security of infrastructure owners now and in the future. However with the growing risk of climate change, there will be more uncertainty about the availability and price of these insurance products.[60]

Evidence showing that US insurers who take a financial approach to limit their exposure to losses by restricting insurance availability, tightening terms and increasing prices highlight the gap left for the inadequately resourced public sector. An example of this is the public flood insurance scheme in the US. The National Flood Insurance

57 Garnaut Climate Change Review, *Financial Services for Managing Risk: Climate Change and Carbon Trading Issues Paper 2* < http://www.garnautreview.org.au/CA25734E0016A131/WebObj/IssuesPaper2-FinancialServicesforManagingRiskClimateChangeandCarbonTrading/$File/Issues%20Paper%202%20-%20Financial%20Services%20for%20Managing%20Risk%20Climate%20Change%20and%20Carbon%20Trading.pdf> page 2 at 1 October 2009.
58 Note 8
59 Note 8
60 Note 40 at 2

Programme has a combined deficit of $30 billion due to the damage caused by Hurricanes Katrina and Ike.[61]

Presently, insurance companies in Australia do not cover for damage caused by coastal inundation. After reviewing several insurance policies, climate change induced coastal inundation is a non-insurable event. Industry justification is a heightened risk and an increase of the frequency of inundation and erosion occurring. It is easy to find examples of this exclusion in insurance policies[62]and several have been identified for purposes of this report. There is a clear need for an alternative to the insurance industry's policy of non-insurance for coastal inundation.

Further, there is evidence of Australian councils not having a handle of what their risk and vulnerability are.[63] In this section of the report, mandatory insurance will be suggested as one possible reform to enhance the industry's involvement in developing a climate change response. However for this to be commercially viable, incentives need to be offered to encourage industry participation.

5.2 Current approach by the insurance industry to coastal inundation

As discussed, the justification for coastal inundation (and the effects of coastal inundation such as erosion) being a non-insurable event is that it is considered something that happens naturally and with more frequency.[64]This lack of insurance opportunities, in addition to the high level concentration of coastal property addresses and population and the fact that claims will coincide making it harder to pool risks across populations means that the financial impacts of rising sea level and coastal erosion could be significant.[65] This obviously presents serious concerns for coastal property owners and has significant economic and social consequences. However there are macro level effects to this as well. As described above, the role of insurance underwriting weather-related risk is an important component of the national economy. Any reduction in the industry's ability to underwrite weather-related risk will have serious ramifications for the economies of those vulnerable regions where climate and weather risk is great.

In Cape Cod Massachusetts, the affordability-availability issue reached a critical point which resulted in 40% of homeowners receiving their insurance from the FAIR (Fair Access to Insurance Requirements) Plan. This comes as private insurance companies seek to limit their exposure in coastal areas.[66]

5.3 Opportunity for reform

In a submission to the Australian Federal Government (Qld Submission) standing committee on climate change, the Queensland Government called for a national compensation scheme for properties affected by inundation.[67] Whether it be that coastal property owners are provided some kind of protection by local councils and governments or that the insurance industry somehow provides cover to coastal properties, the need for cover is obvious.

Insurers, along with trade allies and other community members increasingly see industry, and not just the public sector, as a part of the solution in leading the way in policy and environmental law reform. By creating innovative products and services to promote emerging technologies and practices, opportunities emerge for leaders in the insurance industry who respond quickest to climate change.[68]

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61 Note 8

62 An example of this type of exclusions can be found in CGU's '*Listed Events Home Insurance Product Disclosure Statement and Policy'* at page 40 which provides that 'we will not cover for any loss or damage, or liability as a result of, or arising from erosion, the action of the sea, tidal wave or high water unless the loss or damage is the result of a tsunami' http://www.cgu.com.au/cgu/pub/cgu/website/DocumentLibrary/Personal/Home/C0012.pdf on 29 September 2009

63 Note 12

64 This was confirmed with Suncorp GIO Insurance on 29 September 2009 who say that there is no erosion cover available because it is naturally occurring and the purchaser assumes the risk. Further ACE-IRM Insurance Broking Group Pty Ltd confirm that there is no insurance company they deal with which covers coastal inundation as it is happening more frequently and the risk is too high.

65 Note 40 at 2

66 S Shemkus, 'FAIR alternative for homeowners', *Cape Cod Times,* 7 February 200 http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20090207/BIZ/902070314/-1/SPECIAL09 at 7 October 2009.

67 D Houghton, 'Insurance industry considers boycott on coastal properties', *The Courier Mail* 11 April 2009 < http://www.news.com.au/couriermail/story/0,23739,25318586-5012449,00.html> at 15 August 2009

68 Note 8

5.4 How the insurance industry can help mitigate the effects of coastal inundation

In a report on community adaptation to extreme weather events released by the Insurance Council of Australia (ICA Report), it clearly stated that the risk appropriate use of land is a critical issue in Australia.[69] The insurance industry is one sector of society best equipped to assist in reform.

Before the industry can be expected to come to the table in providing policy and legislative reform assistance, guidance should to be taken from industry recommendations. The predicted impacts of future extreme weather events underscore the need for a renewed focus and emphasis on risk appropriate selection of land for development.[70]The ICA Report provides that the following development guidance is considered critical:

a) no residential or commercial development should be authorised on land that is presently subject to a 1:50 all insurance risk (ARI) storm surge event or a predicted 1:50 ARI storm surge event within the next 100 years, without storm surge mitigation works incorporated into the development that reduce the risk to a minimum of 1:100 ARI risk;
b) zoning for existing land where the storm surge risks greater than 1:50 ARI presently exist and where storm surge mitigation works are not being implemented should be altered to stipulate non residential and non commercial uses only;
c) zoning for existing land where storm surge risks are predicted to deteriorate to 1:50 ARI and where storm surge works are not being implemented should be altered to stipulate non residential and non commercial uses only from the time that the storm surge risk is predicted to become a potential.[71]

The ICA Report emphasises the need for a zoning approach to coastal land at risk of inundation, consistent with the approach already adopted by the Byron Council and New Brunswick and provides a further dimension to a possible recommendation in coastal management in ensuring that the industry cooperates.

The Qld Submission is seeking the development of a set of nationally consistent default change scenarios for use in planning for sea level rise.[72]This is vitally important to best set the platform for the insurance industry's involvement. Specifically, it should be a requirement that the State and Federal Government collaborate with the Australian Building Codes Board, the Queensland Master Builders and the Housing Industry Association to establish minimum building standards for new development to withstand flooding.

5.5 Combined approach of public sector and insurance industry

Should insurance companies that initiate innovation and respond to the threat of climate change induced coastal inundation with viable solutions by assisting in the development of mitigation policies and legislative frameworks be rewarded through preferential treatment? The insurance industry has a history of helping society understand and adapt to emerging risks.[73]

Should there be mandatory insurance for those wishing to purchase properties in areas susceptible to coastal inundation? If so, how do we get insurance companies to 'come to the table' so that if they are obliged to provide insurance over coastal properties, then it is done so in order to remain a commercially viable part of their business?

In dealing with equity and affordability issues, it is suggested that any special treatment given to residents in areas prone to coastal inundation (such as low income earners) should come from general public funding as opposed to insurance premium subsidizes.[74] The reason that it should come from the public sector ties in with the principle that the insurance premium reflects the risk. This makes sense as it involves collaboration between the private and public sector in mitigating the effects of coastal inundation.

69 Note 79 at 8
70 Note 79 at 9
71 Note 49 at 9
72 Note 49
73 Note 8
74 H Kunreuther, 'Long Term Insurance and Climate Change' (Paper presented at the International Seminar at the University of Innsbruck *Adaptation to Climate Change: The role of insurance,* Pennsylvania, 6-7 March 2009) < http://opim.wharton.upenn.edu/risk/library/WP2009-03-13_HK_LTI.pdf> at 4

5.6 Mandatory insurance for property

Mandatory insurance is one way that the effects of climate change can be mitigated. To combat the decreasing value of coastal properties and to protect owners from property damage, adequate insurance coverage needs to be put in place. A possible way for insurance to be mandated would be through the reform of property law. There needs to be a point in which coverage exists for high risk coastal property if not already in place. If current property owners wish to sell, then the purchaser should be mandated to obtain appropriate insurance as a requirement of the purchase contract, similar to the requirement for smoke alarms in Queensland conveyance law. With this in mind, consideration should be given to providing exclusive rights over a certain section of the coast to one or two insurance providers. This is discussed in more detail below, but is justified as a way to provide an incentive for the industry's involvement in providing cover.

There is also a suggestion that long term insurance be provided as a way of providing stability to homeowners and encouraging adoption of cost effective mitigation measures.[75]This can tie in with point above in legislating for mandatory insurance when coastal property is bought and sold. Perhaps thought should be given to a permanent attachment to certain coastal properties whereby insurance passes with title and is unable to be cancelled, such as an encumbrance or covenant on the property title. Mandatory insurance also takes away the risk of property owners refraining from obtaining insurance due to the assumption that the government will hand out assistance in times of natural disasters.

5.7 Ways to incentivise industry involvement

After appropriately classifying coastal areas according to the risk of coastal inundation, the next step in reform can be taken to mitigate the effects of coastal inundation. This is to give one or two private insurance providers the opportunity to have a monopoly over one area of coastal land by being the sole provider(s) of insurance for that coastal region. This is a key feature of incentivising industry involvement in setting up a mandatory insurance scheme for coastal areas deemed suitable. However it is important to realise that this will only be effective if recommendations, such as those developed by the ICA Report, are implemented otherwise it will not be commercially viable. In doing this, an emphasis needs to be placed on as accurate classification as possible of various coastal areas to ensure that an appropriate level of risk is allocated. A scheme of classification similar to the Canadian approach would be ideal so that a different level of risk is attributed to each different classification. Risk levels still need to be considered commercially viable from an industry point of view.

6. Conclusion and recommendations

Climate change litigation is a fairly new phenomenon.[76]The first significant Australian court decision relating to climate change dates from 1994.[77]Since then the number of cases being litigated relating to climate change has increased.[78]

At this point, a logical observation should be made in that courts have no function directly requiring that society adapt to climate change or mitigation of its impacts. The role courts play is to declare and interpret the law and any role directly related to climate change will be generated as a consequence of their vested functions to adjudicate disputes brought before them.[79]Therefore it is up to policy makers, legislators and industry to implement ways to mitigate and adapt to climate change induced coastal inundation.

75 Note 62 at 6

76 Hon J B Preston, *Climate Change Litigation in the Land and Environment Court of New South Wales and other Courts* (2009) Australasian Conference of Planning and Environment Courts and Tribunals http://www.lawlink.nsw.gov.au/lawlink/lec/ll_lec.nsf/vwFiles/Paper_20Aug09_PrestonCJ_NZ.pdf/$file/Paper_20Aug09_PrestonCJ_NZ.pdf at 23 September 2009.

77 *Greenpeace Australia v Redbank Power Company* (1994) 86 LGERA 143

78 Note 27

79 Note 27

As can be seen, there is evidence at local levels of frustration by the lack of state or nationwide policy on climate change. For example the Pittwater Council has stated that it would like to see a cooperative coastal zone agreement between the three spheres of government as it claims that presently, council responses to climate change have been thwarted by government restructuring and overlap.[80]

In terms of managing risk and ensuring the continual coverage of properties by insurance companies, the Insurance Council of Australia states that the risk appropriate use of land is a critical use in Australia.[81]Further, the predicted impacts of future extreme weather events underscore the need for a renewed focus and emphasis on risk appropriate selection of land for development.[82]

In Australia, a collaborative approach between coastal councils and State governments should be taken to ensure standards and benchmarks are formulated for policies and legislation relating to coastal development. A standardised approach based on the input of industries such as the Australian Building Codes Board, the Queensland Master Builders, the Housing Industry Association and utility providers will offer the best possible chance at not only limiting coastal council liability, but also provide the best chance at coastal property owners being able to obtain insurance coverage in areas where coverage is not available, or restricted.

It has been argued that governments are unable to address the issues facing property loss on their own. There needs to be a combined effort with the private industry with a view to reform property laws to address the issue of decreasing property values when buying and selling. It has been suggested that mandatory insurance be attached to the title deed of land, similar to a covenant or encumbrance. However consideration must be given as to who will start paying for this; should the long term property owner who has never had to worry about loss of value be liable, or should an incoming owner be expected to pay an inflated purchase price?

As discussed, such an option should coincide with a mandatory insurance scheme, with the possibility of a monopoly over certain sections of the coastline for those insurance companies that provide input and assistance in legislative and policy reform to help limit coastal council liability. And this can only be based on the assumption that a coastal zoning policy will be implemented using a risk based approach to determine the suitability of land for possible development.

Despite what type of mitigation and adaptation strategies governments and industry choose to adopt in the face of growing evidence of climate change induced coastal inundation, the need for reform and action is urgent and will only become more so as time passes. A 'do nothing' approach is clearly not an option, both from a legal and a moral perspective, and as the effects of climate change become more indisputable, then so will the need for certain and real reform of policies and legislation to minimise the liability of councils and governments and to protect residents of coastal areas most affected by coastal inundation.

The reference list is available with the editor if it is required.

80 Note 11 at 21

81 Insurance Council of Australia, *Improving Community Resilience to Extreme Weather Events*, 2008 Paper < http://www.insurancecouncil.com.au/Portals/24/Issues/Community%20Resilience%20Policy%20150408.pdf> at 23 September 2009

82 Note 36

The Environmental Cost of International Shipping.

By Bonnie Glaister, Thomas Hodgson, Nick Beale[1]

Introduction

The modern era has been marked by the phenomenon of globalisation, or rather the specialisation and decentralisation of the worlds industries, technologies and workforce. This transformation, driven by a broad range of social and technological changes, has attracted its fair share of critics[2], though it continues seemingly unabated[3]. However, while many of the more apparent issues associated with this change, both positive and negative are becoming increasingly well understood, there are many issues that have attracted scant attention from the worlds people. Of these issues, the huge and often external environmental costs associated with the physical transport of goods across the world's oceans are shaping to become particularly significant. The following paper reviews the international legislation which currently governs shipping on the high seas and discusses a variety of methods and techniques essential to reducing environmental harm.

Part 1: The environmental impact of the international shipping industry

The worlds shipping industry has caused an array of environmental problems over the years. These range from oil spills, including the famous Exxon Valdez disaster in Prince William Sound in Alaska, to the introduction of exotic species including the Mnemiopsis Leidyi (Comb Jellyfish) which has decimated the marine environment in the Black Sea[4].

While these acute issues are readily apparent, other more chronic issues related to international shipping are more difficult to understand, identify and control. Of these issues, the atmospheric emissions from ships are particularly noteworthy, with estimated annual emissions of noxious gasses highlighted below in figure 1.

Annual Emission Totals of Particulate Matter and Trace Gases from Shipping in Tg/yr for the Three Different Inventories

	Inventory A for 2002 (Corbett et al., 2007 (*4*))	Inventory B for 2001 (Eyring et al., 2005 (*11*))	Inventory C for 2012 (this study)
spatial ship traffic proxy	ICOADS	AMVER	ICOADS
fuel consumption in million tonnes	200 (cargo and passengers only)	280 (world fleet including auxiliary engines)	299 (cargo and passengers only)
NO_x	16.4	21.3	24.5
SO_x	9.2	11.7	13.7
primary SO_4	0.35	0.77	0.50
CO	1.08	1.28	1.61
BC	0.07	0.05	0.10
POM	0.71	0.13	1.06

Figure 1: A summary of estimated annual shipping emissions in Tg/yr (Corbett, 2007).

These emissions, consistently dismissed and evaded because of the remote and international nature of shipping[5], are now known to present serious health risks to the world's people; a point aptly illustrated by a study published in 2007 entitled 'Mortality from Ship Emissions: A Global Assessment'. In this study, it was determined that particulate emissions from ships alone directly cause 60,000 cardiopulmonary and lung cancer deaths annually amongst other serious environmental effects[6].

1 Bonnie, Thomas and Nick are all students of the Bachelor of Environmental Engineering at Monash University.

2 This can be seen in a variety of settings, though it is most visible in the anti globalisation rallies that accompany the G8 meetings.

3 This is reflected by the continued growth in global GDP since WW2, but has recently been brought into question by the Global financial Crisis and the recession in several of the world's major economies.

4 Meinesz, A. 2003, *Deep Sea Invasion*

5 Emissions from Shipping have been excluded from both the Kyoto protocol and the European Carbon Trading Scheme for example.

6 Corbett, 2007. Mortality from Ship Emissions: A Global Assessment

In addition to noxious emissions international shipping activities also produce large quantities of greenhouse gas emissions. In 2007 international shipping contributed 870 million tonnes of carbon dioxide (CO_2) to the atmosphere, this equates to approximately 2.7 per cent of global CO2 emissions (omitting domestic shipping and fishing)[7]. Over the seventeen years from 1990 to 2007 CO_2 emissions from international shipping doubled (see figure 2). These high levels of emissions are largely due to the fuel which cargo ships consume which is low grade, *'bottom of the barrel'* bunker fuel, which is highly polluting.

In light of such serious conclusions, it must be understood that while the effects are significant now, they are expected to grow considerably as the world's demand for shipping increases over the years[8].

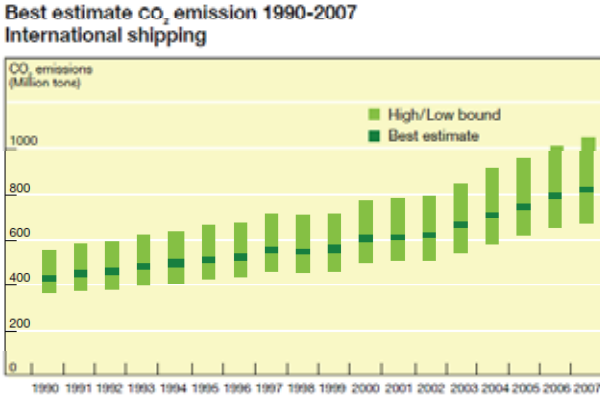

Figure 2: CO_2 emissions from 1990-2007 (million tons) (Second IMO GHG Study, 2009).

Part 2: International Shipping Regulatory Framework

Marine activities such as international shipping are regulated by a mixture of international law and the law of individual States. The legislative framework governing international shipping today consists of 50 conventions and protocols created by the International Maritime Organisation (IMO) (13 of which relate to marine environment, liability and compensation), and the relevant legislative measures of the International Labour Organisation (ILO) for seafarers[9]. Additional regional and national regulations apply to vessels travelling within areas of jurisdiction by coastal States.

The United Nations Convention on the Law of the Sea (UNCLOS)

The United Nations Convention on the Law of the Sea (UNCLOS) is the cornerstone of international maritime law[10].

In 1967, after decades of international conflict and the heightening cold war, fears over security dominated international politics. To allow effective dialogue in this environment, the United Nations began talks to develop a treaty to govern international relations between nations in international waters. The primary concerns of the policy makers at this time were resources, trade and security. It was integral that the laws adopted could ensure safe passage across the seas, establish legal jurisdiction over resources and create measures to protect the marine environment from pollution.

The negotiations lasted fifteen years, and in 1982 the United Nations Convention of the Law of the Sea was adopted. UNCLOS endorsed the right of any sovereign State to have a ship register and thus become a flag State, and provided ships with the right to safe passage through territorial waters and economic zones[11].

The UNCLOS is a prime example of the complexity of international law. Talks, discussions, negotiations and decision making between countries is an extremely slow and delicate process. As we have seen more recently regarding

7 Second IMO GHG Study 2009
8 Estimates for the growth in world shipping vary, but it is commonly held that shipping will continue to grow for the foreseeable future.
9 Second IMO GHG Study 2009
10 **UNCLOS, 1982**
11 **ibid**

climate change discussions, it can take years to get international parties to agree to discuss the issues, let alone make decisions or binding commitments.

Further to this, the writing and ratifying of international conventions and treaties is often postponed or interfered with due to other political issues between the parties. Not surprisingly few changes have been made to the UNCLOS since such time as it was adopted, particularly with regard to environmental protection.

Part XII of the UNCLOS addresses 'Protection and Preservation of the Marine Environment', however, there is no recognition of the contribution of the international shipping industry to environmental issues such as greenhouse gas emissions and climate change or of the health impacts associated with large ambient concentrations of particulate matter including toxic NOx and SOx emitted by ships annually.

The International Maritime Organisation (IMO)

The IMO is the United Nations' specialised agency responsible for improving maritime safety and preventing pollution from ships. The IMO is empowered to deal with administrative and legal matters related to these purposes.

After the United Nations was established in 1945 a number of international organisations were formed, each dealing with a different subject. In 1948 a Conference was held to establish a similar organisation for shipping. In March 1948 the Convention establishing the Inter-Governmental Maritime Consultative Organisation (IMCO) was adopted (the name was changed in 1982 to the International Maritime Organisation (IMO)).

Although it was hoped that the Convention would enter into force relatively quickly, not everyone wanted to see IMO come into existence. To some countries, much of Article I of the convention was unacceptable. Some were afraid that the treaty would lead to interference with their own national shipping industries and laws. While others felt that the IMO Convention was written by and for the benefit of the handful of countries which dominated international shipping at that time.

By the mid-1950s the delay in ratifying the IMO convention was causing concern. New maritime problems were also beginning to emerge, among them oil pollution. In 1954 a conference in London adopted the International Convention for Prevention of Pollution by Oil and agreed that it would become the responsibility of the IMO once the new organization was established.

Gradually the number of Parties to the Convention increased. But many of them registered declarations or reservations which had the effect of greatly restricting the Organisation's area of activities.

The IMO Convention finally entered into force in 1959. But by the time the new Organisation met for the first time, so many reservations had been submitted that it was clear that it would not be able to engage in any activities that might be regarded as economic or commercial. The IMO would have to confine itself to mainly technical issues, especially those involving safety as defined in Article 29.

In the 1948 convention text, there was no reference to marine pollution nor the environment, which is now among the IMO's greatest concerns. Article I of the Convention describes the purpose of the IMO as:

> "to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation, prevention and control of marine pollution from ships and to deal with legal matters related to the purposes set out in this Article." [12]

The primary role of the IMO is to adopt legislation, while enforcement lies with the contracting governments (the flag States). Governments independently decide whether or not to ratify legislation negotiated by IMO member States. When a government ratifies an IMO convention, the Government effectively agrees to make the regulation part of its national law.

Before a convention enters into force appropriate provisions stipulating conditions have to be met. Typically, entry into force is conditional on a number of countries, representing a certain share of the world fleet gross tonnage,

12 IMO Convention, article 1(a).

ratifying the agreement. Interestingly the Annex I countries which have ratified the Kyoto protocol make up only a one third share of the world fleet gross tonnage[13].

When an IMO instrument has entered into force, countries that have ratified the instrument can apply it not only to ships of their own flag, but to all ships, regardless of flag, which enter into their area of jurisdiction[14]. Therefore, ships wanting to enter the ports or waters under the jurisdiction of a country that has ratified an IMO instrument will have to abide by the convention, regardless of flag. This is an important principle in the international shipping industry and is commonly referred to as the principle of ***"no more favourable treatment"***. It refers to port States enforcing applicable standards in a uniform matter to all ships in their ports regardless of flag.

On the other hand, there are no legal barriers to prevent a ship from not conforming to a given IMO regulation provided it operates solely outside of an area of jurisdiction of countries that have ratified the convention in question. Until international law and IMO conventions affect all international waters not just waters surrounding States which have ratified conventions, regulating and enforcing environmental law will continue to meet much difficulty.

UNFCCC, the Kyoto Protocol and shipping

The United Nations Framework Convention on Climate Change (UNFCCC) was signed in 1992, entered into force in 1994, and as of March 2009 has 192 Parties[15]. Under the Convention, parties gather and share data, launch national strategies to address emissions and co-operate for the adaptation to climate change.

The Kyoto Protocol was adopted in December 1997 and entered into force in February 2005. In March 2009, 184 parties had ratified the Protocol.[16]

While the Convention does not provide commitments to stabilise emissions, the Protocol sets binding targets for the Annex I countries. These countries agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2 per cent below 1990 levels between 2008 and 2012.

Unfortunately, while emissions from aviation and maritime transport have been part of the UNFCCC agenda, these emissions were not included under the Kyoto Protocol.

Article 2.2 of the Kyoto Protocol reads:

> "The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organisation and the International Maritime Organisation, respectively." [17]

As previously mentioned, the Annex I countries which have ratified the Kyoto protocol make up only a one third share of the world fleet gross tonnage. Therefore even if there were binding targets set for emissions from marine industries this would only effect a small group which does not include the largest of the flag States.

Flag States and Registration

International law, such as the UNCLOS, regulates affairs between States, but does not apply directly to individual ships[18]. Individual ships are regulated by applicable laws and regulations of the country in which the ship is registered, or, their 'flag State'. This includes any conventions and protocols of the IMO which the flag State has ratified. An issue of concern is related to registration, and a growing trend towards ships being registered under a foreign flag. The United Nations Conference on Trade and Development (UNCTAD) indicates that the percentage of foreign flagged ships grew from 41.50 per cent in 1989 to 66.35 per cent in 2007[19].

According to the IMO the motivations for owner States to register vessels under a foreign flag may include; more favourable tax regimes, conditions to finance ships and the possibility of employing foreign seafarers[20]. Additionally,

13 Second IMO GHG Study 2009
14 ibid
15 United Nations Convention Framework on Climate Change, 2009
16 ibid
17 ibid
18 Morgan, N, 1990
19 UNCTAD, 2008
20 Second IMO GHG Study 2009 (p 29.)

registration under a foreign flag removes responsibility of a ships compliance with the law from the owner State, as it is the Contracting Government's, or flag State's, responsibility to transpose international law into their national legislation and enforce it upon their registered ships.

To reduce opportunistic owners from taking advantage of flag States some countries may require specific criteria to be fulfilled before granting a ship access to the registry. Such criteria could be that the ship is built in their territory, that the ship owning company is registered in the country, or that the owners are citizens of the country. Other countries have few or no restrictions on access, and are commonly referred to as "open registries". If a ship is to engage in international shipping (i.e. entering foreign or international waters) the flag State is obliged to ensure that the ship complies with the regulations set down in the IMO Conventions and agreements to which the flag state is party. States must also ensure that foreign flagged ships entering their ports also comply with these.

Many of the IMO's most important technical conventions contain provisions to allow ships to be inspected when they visit foreign ports, to ensure that they meet IMO requirements. This is referred to as "Port State Control" (PSC). Ships that fail to meet the standards when subjected to PSC can be detained until repairs are carried out and the ship is released from detention.

Part C: Analysing the effectiveness of the regulation and legislative framework governing international shipping.

The IMO conventions and protocols which are currently in place to control the negative environmental aspects of international shipping (such as prevention of pollution from ships) are managed mainly through a 'cat and mouse game' of common law claims in the absence of effective, binding legislation and preventative solutions.

For the UNFCCC and IMO to succeed in reducing the emissions contributed by international shipping there needs to be a platform by which reduction targets can be introduced into future protocols and conventions which can then set binding targets for emission reductions. Currently no such platform exists in the international shipping law framework, though there is a growing consensus that one needs to be developed. However, the dilemma is not in determining a preferred level of emissions reduction; it is in determining the right strategy to reduce emissions equitably.

International policy makers seeking to incorporate shipping emissions into the global climate framework need to respect both the UNFCCC and its Kyoto Protocol principle of "*Common but Differentiated Responsibilities"* and the IMO principle of "*No More Favourable Treatment"*[21].

The principle of "common but differentiated responsibility" recognises the differences in the contributions of developed and developing countries in addressing global environmental issues, such as the emissions of greenhouse gases. On the basis of equity, and in accordance with their respective capabilities, the developed countries should take the lead in combating climate change and the adverse effects[22].

The IMO principle of "no more favourable treatment" aims to ensure that all international ships adhere to the conventions and protocols ratified by the State which they are registered to, and the State whose waters the vessel is travelling in. Under this principle, no vessel despite its flag, will be exempt from the law of the State they travel in. This principle allows port States to enforce applicable standards in a uniform manner to all ships in their ports regardless of flag. In order to maintain each of these principles, the choice of policy mechanism for emissions allocation must recognise the differences between developed and developing countries. If the principle of "no more favourable treatment" is undermined by exemptions made for ships based on flag, ownership, or shipping route, perverse effects may result.

Part D: Legal Remedies to Turn the Tide

As it currently stands, there are few specific conventions or protocols regarding the airborne emissions from ships[23] though there several legal avenues for control that are being actively considered by the international community.

21 Second IMO GHG Study 2009
22 UNFCCC, 2009
23 There is currently a convention that limits sulphur output from ships exhaust

These legal remedies will have to recognise the previously discussed principles of equity and fairness amongst international shipping interests. Using the mechanisms from the Kyoto Protocol, such as Joint Implementation and Clean Development Mechanisms (CDM) that are based on the definition of nations as either Annex I (developed) or non-Annex I nations (developing), it is possible to fairly distribute emission allocations to different shipping groups.

In order to allocate the emissions produced by ships to Annex I and non-Annex I countries, there are several methods which may be able to be employed. According to Lockley these include allocation by flag, ownership and route[24]. Allocation by flag gives pollution rights to the country that the ship is registered to. There are numerous issues with this method of allocation though the principal concern is that over 77 per cent[25] of the world's shipping fleet are registered in non-Annex 1 countries.

In contrast to allocation by flag, allocation by nationality of ownership is much more concentrated in Annex I countries. There is a problem however, because it is not always possible to specify the nationality of the ship's owner. In many cases assumptions have to be made about which country is the domicile country of the ship's owner. The allocation by nationality is open to evasion with owners able to change their domicile country to that of a non-Annex I country.

Route based allocation is the method that allocates emissions allowances based on the route that the ships take. Pollution on particular routes can be allocated to Annex I ports with the use of ships logs, ports of call and fuel usage volumes to determine emission outputs. This system has potential, although there is the risk of perverse effects; either causing ships to take longer routes to avoid emissions limits or having ships drop cargo in non-Annex I ports to be transported by other means to the destination[26].

The aforementioned legal remedies, as noted, are of varying effectiveness and have each their own shortcomings and benefits. While some may be more effective than others, all of these remedies fail insofar as they are 'tailpipe' solutions; solutions that deal with the problem's outcome, not its cause. To be truly effective, legal remedies need to focus on the fact that shipping is a technological phenomena best fixed through technological solutions; for instance cleaner, more efficient technology.

An IMO convention ratified uniformly by member States to manage the technological efficiency of shipping could provide an emissions reduction solution which recognises the IMO principle of "no more favourable treatment" and the UNFCCC principle of "common but differentiated responsibility". If the structural changes were implemented using the Kyoto Protocol's CDM this would allow developed countries to earn saleable certified emission reductions (CER) for facilitating emission-reduction projects in developing countries. In this case, assisting in the retrofitting or building of cleaner, energy efficient ships.

Such technology can include retrofits to existing vessels, upgraded designs in new ships, or cleaner, purer fuel; so long as the result is a cleaner industry. To achieve such technological, upstream solutions, legal remedies need to be focused on those who build and maintain ships, and those who produce the fuel that they use.

This focus also has the benefit of reducing the number of States who must cooperate in the effort to reduce pollution from ships, a point illustrated by the fact that South Korea and China together produce the vast bulk of the world's ships[27]. By reducing the number of States that need to ratify international agreements, it is easier to achieve swift action, and in this case quick reductions in the amount of GHG emissions from ships.

24 Lockley P, International Shipping in a post-2012 climate deal, 2008
25 ibid
26 Ibid
27 Lu, 2005

Crunch Time: Using and Abusing Keynes to Fight the Twin Crises of Our Era

Author: Tony Kevin[1], Publisher: Scribe Publications[2],

Reviewed by Stephen Keim

I write this review shortly after three significant news events. First, the Australian media, through the *Sydney Morning Herald*[3] and the International Consortium of Investigative Journalists[4] have finally discovered the obvious: that the fossil fuel (particularly, coal) industry and other large carbon emitters have been spending many millions of dollars hiring lobbyists to intimidate governments across the world into scuttling any real international action on climate change. Second, the Australian Prime Minister, Kevin Rudd, who has spent most of his time in office kowtowing to big emitters, has shown a willingness to oppose their "systematic campaign to sabotage global talks in Copenhagen".[5] Third, Opposition Emissions Trading Scheme negotiator, Ian MacFarlane, has blown the whistle on the scam of Carbon Capture and Storage, saying that it has missed the boat as far as reducing Australia's greenhouse emissions within the necessary time frame.[6]

These events may be of singular importance. Although the attempts by big greenhouse gas emitters to influence politicians have been well documented,[7] it appears that, in the past, they have been so successful in achieving influence that neither politician nor main stream media outlet has been game to mention their activities, their tactics or the nonsense of the positions for which they argue. Perhaps, Kevin Rudd has been so pressed by their ingratitude for all that he has done for the big emitters that, for him at least, those days of silence are over.

Crunch Time was researched and written during the first half of 2009. The book is born of a frustration, shared by many, with the dislocation that appears to exist between the desire felt by the public to combat climate change and, significantly, reduce Australia's greenhouse emissions, on the one hand, and the unwillingness on the part of mainstream politicians to develop policies and take action to achieve real change, on the other.

Although the phrase, "we are all Keynesians, now",[8] has appeared in a number of news reports and columns since the Global Financial Crisis broke upon the world in September 2008, the connection between the great twentieth century economist, John Maynard Keynes, and actions to combat global warming is not immediately obvious. Tony Kevin develops his argument throughout the book and its final reach is not expounded until the final pages. The argument would be misunderstood, however, if one thought that it was restricted to technical economic doctrines. The lesson to be drawn is equally about a willingness to develop new policies to deal with new situations and an emphasis on evidence over arcane theory.

Surprisingly, at first, the book champions the approach of President Obama to the global recession over that of Kevin Rudd. Surprising, because Rudd was at least as vocal as Obama in championing the need for stimulus spending and Australia's stimulus policies, proportionately, involved at least as great a commitment to spending as the American version. However, it is the direction of the expenditure that gains greater approval for the Obama package of spending. Obama's $800 billion package included a greater emphasis on infrastructure and, of that infrastructure spending, $90 billion was directed to building new power grids and other energy efficiency measures with further spending directed to assisting the development of alternative energy. Mr. Rudd's stimulus expenditure, on the other

1 The author is a retired Commonwealth bureaucrat with thirty years experience including time as a leading diplomat. The publisher's site for the author may be found at http://www.scribepublications.com.au/author/tonykevin.

2 See http://www.scribepublications.com.au.

3 http://www.smh.com.au/environment/ad-campaign-aims-to-crush-emissions-trading-plan-20091106-i24t.html.

4 http://www.publicintegrity.org/investigations/icij/

5 http://www.smh.com.au/environment/climate-war-gets-personal-for-rudd-20091106-i24u.html

6 See http://www.abc.net.au/news/stories/2009/11/10/2738075.htm.

7 Guy Pearse's *High and Dry*, a scholarly account of the nefarious links between big coal, big aluminium and others and the tactics and personnel, some of which go back to the bad old days of big tobacco, they use to paralyse government, was published more than two years ago in June 2007. See http://www.penguin.com.au/lookinside/spotlight.cfm?SBN=9780670070633&Page=Details.

8 For a 1965 *Time* magazine article, see http://www.abc.net.au/news/stories/2009/11/10/2738075.htm. For a recent article, see http://www.startribune.com/opinion/commentary/65843747.html?elr=KArksc8P:Pc:U0ckkD:aEyKUiD3aPc:_Yyc:aUU.

hand, has done precious little to facilitate the development of alternative energy supplies and the lessening of Australia's dependence on burning and exporting coal.

The author devotes a chapter to reminding the reader about the qualities of the man whom the book honours. Very few people can point to a high risk controversial action and know that history has nodded its acknowledgement that the action was correct. If Keynes had done nothing else in his life, his decision to resign from the British team in the negotiations at Versailles would have ensured his reputation for ever more. He resigned because the allies were insistent upon driving a foolishly hard bargain with the defeated German nation. Millions of lives and ninety years later, his advice and his decision to resign when it was not heeded still look excellent. The author also examines the development of Keynes' macroeconomic theories in their context and their application by governments during the Great Depression.[9] As mentioned, much of *Crunch Time* involves a consideration of applying those theories and, more importantly, the philosophy that underpinned them, to the dual challenges of recession and the threat of climate change. The inspiration of Keynes is as much about studying the evidence and doing what is necessary to meet the current challenge as it is specifically about engaging in deficit spending in times of economic downturn.

Most books on climate change policy must eventually wrestle with the science. Tony Kevin, having spelled out the Keynes legacy, turns to the science and explains it in a convincing and accessible way. Two things stand out for me from his analysis. The first involves the age and respectability of the basic science. The greenhouse effect, the heating impact of certain gases which selectively absorb radiation with longer wavelengths, was discovered in 1824 by Joseph Fourier (who had served as a colonial administrator for Napoleon)[10] and was given a quantitative underpinning by Svante Arrhenius (who, inter alia, has a crater on the moon named after him)[11] in 1896. The basic science is older than the theories of Einstein and, from a scientific point of view, not at all controversial.

The second striking fact emerges from the consideration of ancient climatic information. It concerns our very limited experience of being a species that lives in big buildings with fixed addresses. The last glacial period ended about 10,000 years ago. So, *Homo sapiens*, who have been "out of Africa" for about 200,000 years, were able, while remaining hunters and gatherers, to cope with the profound but gradual changes associated with the advance and retreat of glacial conditions. However, the world's oldest civilisation, Sumer, in the Fertile Crescent of southern Iraq, commenced less than 8,000 years ago and ended about three thousand years later. The whole of civilisation, it turns out, has flourished in a post-glacial period of comparative climate stability.

In contrast to the mere blink of a geological eye during which the world's great civilisations have come and gone, the concentration of greenhouse gases in the atmosphere (and their potential for rapid increase in average temperatures) is breaking records that predate our species. The 2005 level of greenhouse gas concentration of 379 parts per million exceeds by 26% the natural range that has pertained over the last 650,000 years (more than 3 times the period during which *Homo sapiens* has existed). The change in concentration since 1750 is an increase of 35% over 1750 levels. As Peter Doherty, Melbourne's Nobel Prize winning immunologist, has suggested,[12] recently, in *The Monthly*, such concentrations comprise an enormous uncontrolled experiment in a very complex system with little pre-existing knowledge as to where it will take us.

Ironically, we who believe we have lived through a time of great changes in technology are, unlike our hunter gatherer forefathers, ill adapted to climate instability even as we court a period of rapid change the like of which our species has never seen.

In considering *The Consequences of Climate Change*, the author discusses a collection of papers that have emerged since the 2007 IPCC Report's falsely reassuring prediction of 0.59 metres rise by 2100. I say "falsely reassuring" because the report's prediction acknowledged that it left out (because no consensus had emerged by which the

9 Keynes was also the UK negotiator at the Bretton Woods Conference which took place in 1944 and drew the architecture for the post-war structure of international monetary exchange. See http://en.wikipedia.org/wiki/United_Nations_Monetary_and_Financial_Conference.

10 http://en.wikipedia.org/wiki/Joseph_Fourier.

11 http://en.wikipedia.org/wiki/Svante_Arrhenius

12 *Copenhagen and Beyond: Sceptical Thinking*, *The Monthly*, November 2009. See http://www.themonthly.com.au/monthly-essays-peter-doherty-copenhagen-and-beyond-sceptical-thinking-2112.

impacts could be quantified) two significant drivers including the melting of polar ice caps.

The most disturbing of the post IPCC discussions in NASA's James Hansen's "quantitative example" of a possible 5 metres sea rise by 2100. Other published papers suggest that 5 metres is an outlier in terms of probable results. However, the most recent Stefan Rahmsdorf prediction of between 75 and 190 centimetres, by the end of the century, may well become a mainstream view before too long. Combined with increasingly frequent and increasingly severe storm surges, nearly two metres would have a potential to change dramatically life as our grandchildren might, otherwise, have known it.

One does not have to look to the prime of our grandchildren's lives to be scared by climate change. The effect of climate change on our current weather is scary enough. *Crunch Time* provides some remarkable statistics concerning conditions which prevailed in Victoria on 7 February 2009, known as Black Saturday, because of the wild fires that killed 173 people, that day.[13] The Forest Fire Danger Index or FFDI, used to warn of the dangers associated with bushfires on a daily basis, goes from a level of 1-5, meaning a low danger, to above 50 which is classified as indicating extreme fire danger. But 50 is not the maximum which can be arrived at. Applying the index by using available historical data, the 1939 Ash Wednesday tragedy has been calculated to have occurred on a day when the FFDI Index was at 104. Astonishly and obviously without historical precedent, on Black Saturday, the values were between 150 and 180 in many parts of Victoria. The consequences of climate change are already dangerously and tragically observable.

Crunch Time has chapters on *Understanding Energy*, *Changing Australia's Carbon-based Energy System* and on *Climate-change Denialism*. However, as a policy expert of many years experience, Tony Kevin is focussed on contributing to effective change, not simply causing moral indignation in the reader. So, in a chapter symbolically titled *Childhood's End*,[14] he lays down prescriptions not just for policies to be adopted by governments but also for the way in which the community can convince its politicians to respond to the urgent need it sees. In doing so, the author makes a remarkably acute comparison: between 18th century's Britain's dependence on the profitable trade in slaves and 21st century Australia's dependence on the steaming coal trade. He goes on to draw inspiration and guidance from the patient, sustained, one issue and ultimately successful campaigning by William Wilberforce against the slave trade. So inspired, he lays down guidelines for a campaign to convince politicians to stop pretending and saying that they care. The campaign is directed to convincing the same politicians to adopt a well-planned and properly resourced policy by which Australia will, by 2030, no longer, be a party to the use of steaming coal for the production of energy. Among the guidelines, there is much stress upon the need for an umbrella organisation devoted to this one campaigning objective and the importance of avoiding the inclusion of other objectives which may be worthy in themselves but which distract from the central campaign. The Wilberforce model is to be closely followed.

Guidance is also provided for those politicians when they do, eventually, put aside childish things and commit themselves to all of Australia's energy being generated by clean renewable sources by 2030. Unashamedly, but not unexpectedly in the context of this book, the suggested proposal has strong elements of Keynesianism. Kevin suggests a Snowy Mountains like Australian Sustainable Energy Authority (ASEA) to construct the new sustainable energy grid to replace the old coal generated energy grid. The ASEA is to be financed by job creating deficit spending despite the lost opportunities of Kevin Rudd's poorly directed stimulus package. The ASEA is to have strong powers to acquire property and plan, develop, build and operate the necessary infrastructure. The project will use many of the existing skilled workers who currently work in the coal mining and coal fired generation systems. Much of the infrastructure will be located in those areas where a prime source of employment, currently, is the fossil fuel industry power generation industry.

One very interesting suggestion concerns a way to buy the hearts and minds of interests vested in the coal industry such as owners of shares in the power generation infrastructure whose value will disappear or be markedly reduced

13 See http://en.wikipedia.org/wiki/Black_Saturday_bushfires
14 The reference is to an Arthur C Clarke novel published in 1953. See http://en.wikipedia.org/wiki/Childhood%27s_End.

under the new policy regime. The suggestion is to compensate by giving shares in the ASEA and thereby a financial interest in the new project.

The book (almost) ends with a dystopian view of *Southern Australia* in 2060. The very nature of the climate change threat is that it lends itself to a dystopian view of the future. The stark but beguiling narrative of Cormac McCarthy's *The Road*[15] has been adopted by activists as a climate change view of the future and Gwynne Dyer's *Climate Wars*[16] mixes analysis with a series of dystopian events (including the aftermath of nuclear war between India and Pakistan) in various parts of the world over the next one hundred and fifty years.

The singular importance of Tony Kevin's *Crunch Time*, however, is its policy contribution. The great tragedy of the lost years (under Bush, under Howard, under Republican Congresses in the United States and under countless politicians, too pusillanimous to look beyond their personal political future) is the almost complete absence of hard policy consideration. Whether one is a pessimist who sees radically changed lifestyles or an optimist who imagines hot baths and cold air conditioners driven by solar panels, the engineering challenges involved in transforming the source of the world's power generation are enormous. Mitigating our greenhouse emissions to the required levels will demand detailed planning; inspired leadership; creative engineering ideas; and brilliant social policy solutions.

Tony Kevin has sketched, albeit in broad outline, some of the policy approaches that will be required. Much more work will need to be done. Plans for how to get from here to there have to be prepared and improved many times over. Politicians, public servants, industry, conservation groups, experts and commentators within the community and the media need to be contributing to this process. For all the grand claims made on its behalf, an emissions trading scheme will not change the world without the need for anyone "to do the thinkin'".[17] Continual speculation whether climate change is real will only fill in time until the first great storm surge.

Crunch Time is a valuable book. Not only does it suggest possible solutions, it points the way for constructive future debate.

15 Picador, 2006. See the discussion at http://en.wikipedia.org/wiki/The_Road. George Monbiot, for one, sees the novel as a major contribution to saving the planet.

16 Scribe Publications, 2008.

17 **Apologies to Neil Young:** http://www.azlyrics.com/lyrics/neilyoung/powderfinger.html.

Information for contributors

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NELR 2009 publication schedule

2010:1	30th March, 2010
2010:2	29th June, 2010
2010:3	27th September, 2010
2010:4	29th November, 2010

NELA Bulletin (bi-monthly newsletter mailed to all members)

Contributions to the NELA Bulletin may be submitted to the NELA Secretariat at any time and need to be received in the last week of each even-numbered month (Feb/Apr/Jun/Aug/Oct/Dec).

NELR editors

International Editor: Kathryn Walker

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Kathryn holds a Bachelor of Arts Degree with Honours in English and a Bachelor of Laws Degree. Since admission to practice in South Australia in 1998 Kathryn has gained considerable experience in large and complex litigation, particularly in Building and Construction, Trade Practices, Environment and Planning law and general Commercial Litigation. She is a member of the Law Society of South Australia and the Environmental Defenders Office.

Federal Editor: Dr Nicola Durrant

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Nicola is a research fellow and lecturer in the Faculty of Law and Institute for Sustainable Resources, Queensland University of Technology, Brisbane. Dr Durrant holds a specialised environmental law degree from Griffith University (B.Sc.(Env)/ LLB (Hons)) and practised as a solicitor in environmental and planning law at a top tier firm in Sydney from 2002 to 2005. Her transdisciplinary doctoral research, completed in 2008, is titled "The Role of Law in Responding to Climate Change: Emerging Regulatory, Liability and Market Approaches". She was recently awarded a three year Vice-Chancellor's Postdoctoral Research Fellowship to enable her to continue her research into the development of climate change law and policy within Australia.

Australian Capital Territory Editor: Kelly Casey

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Kelly is a lawyer with Minter Ellison, working out of Canberra. As a member of the Property & Infrastructure group she provides advice to Australian Government and private enterprise in the areas of property, planning and construction in addition to specific advice on resource management and energy efficiency issues. Kelly not only has professional experience but an academic interest in this sphere and has completed a Master of Law in Environmental Law, majoring in natural resources.

New South Wales Editor: Dr Nicholas Brunton

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Nicholas Brunton has been a member of NELA and state editor since 1992. He has degrees in Law and Geography from Macquarie University and received a PhD from the University of Sydney in 1998. His thesis examined the law and policy relating to coastal water pollution in Australia. Nicholas currently practices in the areas of planning, environment, valuation, property and commercial law. He is also kept busy providing guest lectures at both Sydney and Macquarie.

Queensland Editor: Scott Sellwood

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Scott Sellwood is a solicitor at the community legal centre and public interest environmental law specialist for the Environmental Defenders Office Qld (EDO Qld). Scott holds a Bachelor of Laws (with honours), Bachelor of Environmental Management majoring in Sustainable development (with honours), and a Graduate Diploma in Legal Practice. Before joining EDO in August 2008, Scott worked as the Associate to His Honour Judge Alan Wilson SC in the Planning and Environment Court of Queensland. Scott is the Queensland representative on the National Executive of NELA. He is acting as interim editor for Queensland until Larissa Waters returns from maternity leave in April 2010.

South Australia Editor: Nicole Harris and Victoria Shute

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Nicole is a Senior Associate in Wallmans Lawyers Local Government Planning & Environment Team. She regularly provides advice regarding the development assessment process, and acts for councils in enforcement and appeal proceedings pursuant to the Development Act 1993. Nicole also provides advice to councils regarding the Development Plan amendment process and drafts land management agreements. Nicole provides advice and acts in appeal proceedings regarding environment authorisations and environment protection orders and in enforcement proceedings and prosecutions pursuant to the Environment Protection Act 1993. Nicole also has experience in providing clients with advice on a range of related environmental issues including waste and landfill, water resources, native vegetation protection, and land contamination.

Victoria is an Associate in Wallmans Lawyers Local Government Planning & Environment Team. She advises councils on both planning and environmen issues, and on issues relevant to local government practices and procedures generally. Victoria also has significant expertise in advising on a rance of planning, environment and resource management issues, such as waste, landfil, native vegetation protection, pollution liability and water resources. Victoria's industry experience is broad. Prior to joining Wallmans Lawyers in 2008 she practiced in a specialist development and environment legal firm. She has also worked as a Judicial Associate in South Australia's Environment, Resources and Development Court.

Tasmania Editor: Tom Baxter

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Tom Baxter, BEc/LLB(Hons)(Tas), Grad Cert Leg Prac(Tas), LLM(ANU), has been a member of the NELA National Executive since 1997. After graduating from the University of Tasmania, Tom worked at Dobson, Mitchell & Allport in Hobart from September 1997 to December 1999. From January 2000 to May 2003 he was Legal Officer at the Great Barrier Reef Marine Park Authority, a Commonwealth statutory authority based in Townsville. In June 2003 he returned to Hobart as a lecturer in the School of Accounting and Corporate Governance at the University of Tasmania.

Victoria Editor: Elisa de Wit

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Elisa is a Partner in the Environment and Planning group of Deacons in Melbourne and heads the firm's National Climate Change Group. Prior to joining Deacons, Elisa worked as an environmental and planning lawyer in London for eight years. Elisa has also practised in South Australia and New South Wales. She holds a LLB (Hons) and BA (Juris) from Adelaide University and completed a Masters of Environmental Law through Adelaide University in 1997. Elisa advises on all areas of environmental and planning law, including waste management, contaminated land, climate change, environmental impact assessment and environmental licensing.

Western Australia Editors: James Sippe and Clara Bowman

Both lawyers with Freehills Perth - *James.Sippe@freehills.com - Clara.Bowman@freehills.com*

James Sippe has an honours degree in law and a degree in science from the University of Western Australia. In the final year of his law degree, James was an editor of the University of Western Australia Law Review. At high school, he co-founded the Kids Helping Kids (now Millennium Kids) youth environmental group and, more recently, worked as a law clerk in Freehills' environmental law team.

Clara Bowman holds degrees in science and law from Murdoch University. She became involved in NELA as a student in 2004. Her honours thesis examined innovations in presenting expert evidence to the courts in the course of environmental litigation.

Climate Change Conference

Low Carbon Living for Low Carbon Cities

3th - 6th November 2010. Hong Kong, China

A gathering of international "Climate Creative" experts and practitioners to share their experience on different aspects of climate change.

Day 1

Science & Policy Day

An up-to-date grounding in the science of climate change from a multi-disciplinary perspective.

Day 2

Policy & Action Day

An exploration of the economic, financial, legal, regulatory and energy perspectives of climate change in light of urbanization and transportation needs.

Days 3 & 4

C40 Cities Days

Actions that municipal governments of the C40 Large Cities Climate Leadership Group are taking to create urban centres of low carbon living. The two areas of focus are buildings, and transportation (including implementation of electric vehicles).

Organizers:

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C40 CITIES CLIMATE LEADERSHIP GROUP c40cities.org

ENVIRONMENTAL CAMPAIGN COMMITTEE 環境保護運動委員會

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Civic Exchange undertakes research on environmental, economic, social and political policies and practices to help shape the breadth and depth of public policy debate. Recent work in these areas includes energy, climate change, water security and management of the Pearl River Basin, air quality and public health, sustainable cities (including transportation and the built environment), as well as political reforms in Hong Kong and the Mainland.

For more information about Climate Change Conference and Civic Exchange, visit

www.civic-exchange.org

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