

OCC Weather

Executive Director's note

It certainly has been a busy few months with a community action campaign targeting women to combat climate change launched nationally, the Queensland State Budget 2009/10 delivering a serious boost to our climate change preparedness programs and the Carbon Pollution Reduction Scheme (CPRS) debated in Federal Parliament.

Momentum continues to build around the world towards the Copenhagen Climate Change Conference of the Parties meeting in December. Research, policy and vigorous debate and analysis features prominently in the public arena.

Recent International Climate Change Reports

Two recent contributions to the effects and impacts of global warming underline the strategic importance of the global agreement being sought in Copenhagen.

The Synthesis Report entitled Global Risks, Challenges and Decisions Copenhagen 2009 resulting from the 10-12 March gathering is available from the climate congress website www.climatecongress.ku.dk - a major international alliance of research universities from around the world.

The second report I would like to draw your attention to was published by the United States Global Change Research Program entitled Global Climate Change Impacts in the US, a significant knowledge report you can download from www.globalchange.gov/usimpacts.

Queensland State Budget 2009/10

Here in Queensland the Government is continuing to invest in practical initiatives to reduce our contributions to greenhouse gas emissions and importantly to prepare for the impacts of climate change and the introduction of the national CPRS.

A summary of the new budget initiatives underlining climate change priorities for the Queensland context is included in the policy update section of OCC Weather. Full Budget Papers and Agency Highlights can be found at www.treasury.qld.gov.au/budget.

CPRS legislation in Federal Parliament

The CPRS legislation has been debated and passed through the House of Representatives and you can download the transcript <http://www.aph.gov.au/hansard/reps/dailys/dr140509.pdf> (pp 23-28). The Senate is debating the Bills this week and the Minister for Climate Change and Water, Senator Penny Wong, has also released the drafts of the first CPRS regulations for comments.

Visit the <http://www.climatechange.gov.au/> for more information on the legislative package.

Release of Queensland's Renewable Energy Plan (QREP)

The Queensland Government has released its renewable energy plan. The QREP has the potential to generate \$3.5 billion of investment and create up to 3,500 new jobs in Queensland and will help Queensland reposition itself as more than a traditional resources economy for coal and gas, but committed to new and emerging renewable energy resources like solar, geothermal, wind and hydro.

*For more information visit www.oce.qld.gov.au or download the plan:
http://www.cleanenergy.qld.gov.au/queensland_renewable_energy_plan.cfm.*

We look forward to working with you during this very busy and productive phase of climate change policy development.

Greg Withers
Assistant Director-General, Office of Climate Change

Contents of May/June Bulletin

Policy update	4-7
Science update	7-10
Commonwealth Government update	10-12
Communications update	13-14

Policy update

Climate Smart Strategy Review Update

The review of Queensland's climate change strategy is on track for completion in mid-2009.

The review has been informed by the views of key business and community stakeholders, including public consultation on the Issues Paper released in September 2008. Over 70 submissions were received from the community and stakeholders on key challenges facing Queensland's industry sectors, and these views have been used to shape the next phase of Queensland's climate change response.

The revised Strategy will focus on policies and programs to support business and households adjust to a carbon price and enhance Queensland's resilience to the potential impacts of climate change. The new Strategy will help Queensland play its part in achieving national targets while maintaining Queensland's long-term economic prosperity.

State Budget 2009/10 – Preparing for climate change initiatives

New initiatives and election commitments funded in the 2009-10 State Budget announced by Treasurer Andrew Fraser on 16 May 2009 included an additional \$96 million to prepare for climate change. This investment will provide support for a range of measures designed to ensure Queensland remains at the forefront of the national climate change response.

- *Disaster management initiatives totalling \$15.6 million over five years;*
- *\$15 million for the ClimateSmart Business Service to be delivered over four years;*
- *Extending the Rural Water Use Efficiency initiative with \$4.5 million over four years; and*
- *\$8 million over four years for the Energy Efficiency Retrofit program.*

The climate change initiatives announced in the State Budget will also provide:

- *A \$48 million demonstration project to reduce Queensland's overall energy consumption to help households and business reduce electricity bills and consumption. In partnership with electricity distributors Ergon Energy and Energex, the Queensland Government will work with customers to reduce their overall energy consumption, energy bills and emissions.*
- *ongoing support for farmers to prepare for the impacts of climate change and rising costs of energy by looking at ways of improving on-farm energy efficiency and water conservation*
- *\$4.6 million over five years to better prepare communities for bushfires and extreme weather events resulting from climate change impacts such as higher temperatures and drier conditions*
- *\$5 million to deliver cleaner energy futures for remote Queensland communities that rely on diesel fuel for power generation with a trial to be undertaken on Thursday Island, Horn Island and in the Northern Peninsula*
- *A new ClimateSmart Business Service to start in July 2010 which will be modelled on the popular ClimateSmart Home Service and developed in partnership with industry bodies to help Queensland business operators become leaner and greener. The program will be tailored to assist and educate small to medium size businesses on practical ways to reduce energy and water use.*
- *\$3.4 million over three years to boost Queensland's network of emergency supply warehouses for communities, particularly those areas prone to extreme weather events forecast to increase because of climate change impacts*
- *\$7.7 million over five years for communities to deliver enhanced education and awareness programs to better prepare them for natural disasters and dangerous impacts of climate change, and*
- *\$8 million over four years to retrofit government facilities to make them more energy efficient.*

To view or download State Budget Papers and portfolio statements visit www.treasury.qld.gov.au/budget

Contact our call centre on 1300 130 372 for information about agency programs and referral services for new initiatives.

Federal Budget 2009/10 announcements

On 12 May 2009, the Commonwealth Government released its 2009-10 budget announcing several climate change funding initiatives under A Sustainable Nation Budget Overview. The initiatives included over \$15 billion for the Australian Government Climate Change Strategy, \$12 million for the Shaping an International Solution to Climate Change program and \$31.2 million for its Australian Climate Change Science Program. Senator Wong's media releases on budget initiatives can be found at - <http://www.environment.gov.au/minister/wong/2009/index.html>

Garrett's media releases
<http://www.environment.gov.au/minister/garrett/2009/index.html>

National Climate Change Adaptation Research Facility (NCCARF) update

NCCARF hosted two information seminars in May. Leading US-based epidemiologist Dr Kristie Ebi presented a seminar on 8 May on the public health issues associated with adapting to climate change. Dr Ebi discussed examples and implications of a changing climate on human health.

On 15 May, Professor Jean Palutikof discussed severe weather events, such as flood, famine and drought. The seminar focused on how past extreme events can provide lessons to assist society to adapt and become more resilient to the threats ahead. Professor Palutikof is Director of NCCARF and was Head of the Technical Support Unit for the Impacts, Adaptation and Vulnerability component of the International Panel on Climate Change (IPCC) 2007 Fourth Assessment Report.

For more information on NCCARF visit - <http://www.nccarf.edu.au/home?q=nccarf-seminars>

Health effects of climate change report published

On 16 May 2009 the world's leading medical journal, The Lancet, published the first major report on the health effects of climate change.

The report concludes that climate change is the biggest global health threat of the 21st century and the effects of climate change will put the lives and wellbeing of billions of people at increased risk.

Direct health impacts from climate change include an expanded reach of vector-borne diseases and increased death tolls due to heatwaves, especially among elderly people. However, the indirect effects of climate change on water, food, security and extreme climatic events are likely to have the biggest impact on global health.

The full report commissioned by The Lancet is available at - [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)60935-1/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)60935-1/fulltext)

Commonwealth Government's changes to proposed CPRS

On 4 May 2009, the Commonwealth Government announced changes to the Carbon Pollution Reduction Scheme (CPRS) to address a range of issues raised by key stakeholders.

A summary of the amendments included:

- delayed commencement of the scheme until July 2011;
- an unlimited supply of emissions units for a fixed price of \$10 for the first year of the scheme;
- extra assistance to emissions intensive, trade exposed industries for the duration of the recession (industries eligible for 60 percent assistance will receive 66 percent, and industries eligible for 90 percent assistance will receive 94 percent);
- a commitment to a tougher emissions reduction target of 25 percent below 2000 levels by 2020, conditional on a global agreement to stabilise levels of greenhouse gases in the atmosphere at 450 parts per million. The agreement must also include commitments by advanced and major developing economies and provision for avoided deforestation offsets;
- voluntary purchases of GreenPower above 2009 levels will be measured annually and reflected in a tightening of future CPRS caps;
- an Energy Efficiency Savings Pledge Fund to allow households and businesses to voluntarily invest in the retirement of permits to reduce Australia's emissions beyond the scheme cap; and
- an Energy Efficiency Trust to provide 'green' loans for business to finance energy efficiency projects.

United States "ready to lead" on climate change

On 27-28 April 2009, the US hosted a Major Economies Forum on Energy and Climate in Washington to help facilitate the next United Nations agreement on global warming. A global agreement is hoped to be achieved at the United National Framework Convention on Climate Change (UNFCCC) meeting in Copenhagen in December.

The Major Economies Forum on Energy and Climate, an initiative of US President Barack Obama, was attended by 16 nations responsible for 80 percent of the world's greenhouse gas emissions, including Australia. At the Forum, US Secretary of State Hillary Clinton said that the US is "ready to lead" and "determined to make up for lost time both at home and abroad" in global efforts to address climate change.

The US has committed to introducing a national emissions trading scheme and in its 2009 budget indicated an emissions reductions target of 14 percent below 2005 levels by 2020. While the US has not formally specified its position on a US target for the next global agreement, its recent submission to the UNFCCC secretariat encouraged the development of an agreement based on "robust targets" and "ambitious actions".

Queensland's Solar Hot Water Program on track

Implementation of the Queensland Government's election commitment to provide 200,000 Queensland households with affordable solar hot water systems in a bid to radically cut household energy use and greenhouse gas emissions is underway.

The program will offer fully installed, greenhouse efficient solar hot water systems for \$100 to Queensland pensioners and \$500 to all other Queensland households.

About 80 percent of Queensland households use electric hot water systems and these are the single largest contributor to household energy use and greenhouse gas emission. The program will save participants around \$300 on an average household's annual electricity costs as well as help achieve the government's Q2 target of reducing Queensland's carbon footprint by one-third by 2020.

The government is encouraging every Queenslanders who wants to take part in the program to register their interest by contacting the Queensland Solar Hot Water Program Hotline on 1800 243 585 or visit the Office of Clean Energy website at www.cleanenergy.qld.gov.au.

Draft legislation released for CPRS fuel tax offset

On 7 April 2009, the Commonwealth Government released exposure draft legislation for CPRS fuel tax adjustment arrangements designed to give households and businesses time to adjust to emissions trading.

As outlined in the CPRS White Paper, the Commonwealth has committed that motorists will be protected from the impacts on fuel for the first three years of the scheme through 'cent-for-cent' reductions in fuel tax.

Special assistance in the form of fuel tax credits will also be given to farmers and the fishing and trucking industries that are effectively exempt from the fuel excise. Assistance for these industries will be reviewed after one year.

Users of liquefied petroleum gas (LPG), liquefied natural gas (LNG) and compressed natural gas (CNG), fuels not subject to the fuel excise, will also receive assistance. This will be reviewed after one year (LPG) and three years (LNG and CNG).

Public submissions closed on 20 April 2009 on the effectiveness of the draft legislation in delivering on the White Paper proposals.

National Adaptation Research Plans

The National Climate Change Adaptation Research Facility (NCCARF) is developing eight National Adaptation Research Plans to coordinate climate change adaptation research across Australia.

These eight plans address NCCARF's priority themes including:

- [Terrestrial Biodiversity](#)
- [Human Health](#)
- [Marine Biodiversity & Resources](#)
- [Water Resources & Freshwater Biodiversity](#)
- [Settlements and Infrastructure](#)
- [Social, Economic & Institutional Dimensions](#)
- [Emergency Management](#)
- [Primary Industries](#)

The plans identify critical gaps in the information available to decision-makers in key vulnerable sectors and regions, set national research priorities and identify science capacity that could be harnessed to conduct priority research. They will also inform research investors and partners in their decisions over allocation of research effort and funding.

The development of each plan is led by a small drafting team, in partnership with the Commonwealth Government Department of Climate Change, researchers and key stakeholders. The plans for human health, emergency management and marine biodiversity and resources are now complete and all others are in advanced stages of development.

NCCARF recently held a series of workshops attended by staff from the Office of Climate Change and Queensland Centre for Climate Change Excellence in Cairns, Adelaide and Sydney to develop the Settlements and Infrastructure plan.

If you would like further information about the development of National Adaptation Research Plans, please contact Professor Jan McDonald on 07 5552 8758 or email jan.mcdonald@griffith.edu.au.

LGAQ Infrastructure Symposium – 22 to 24 April

The Honourable Kate Jones MP, Minister for Climate Change and Sustainability, opened the third day of the Local Government Association of Queensland's Infrastructure Symposium with a speech on climate change and key challenges for Queensland communities.

The Symposium covered a range of issues on local government, land use and infrastructure planning. Presentations of particular interest for the planning sector covered a range of issues such as how to manage climate change and meet growth demands by transforming our existing built environment, how to reduce transport emissions and how to encourage uptake of the imminent range of eco-cars. For more information on the presentations visit - <http://www.lgaq.asn.au>

The OCC is currently working closely with key stakeholders on projects to integrate climate change into land use planning through regional plan reviews. This work will enable alignment of government actions to help reduce greenhouse gas emissions and adapt to climate change risks within a land-use planning framework. Examples of work completed to date includes the Far North Queensland Regional Plan, three draft regional plans developed under the Blueprint for the Bush initiative and the South-East Queensland Regional Plan (due for release later this year).

Science update

Science Days round-up

Science Day forums provide staff and research partners with opportunities to update colleagues and partner organisations on the progress of key projects and to seek feedback from peers.

The April Science Day provided updates on the Seasonal Climate Risk Products and Services review, and the issues covered in the Queensland Government's submission to the Parliamentary Inquiry into Meteorological Forecasting.

The May Science Day reviewed collaborative work with the University of Queensland on the interactions and risks of natural climate variability, climate change and land use/land cover change impacting on the Australian continent. A report on this research is covered in the next story. An update was also provided on work that is commencing with the Commonwealth Science and Industrial Research Organisation (CSIRO) to undertake modelling experiments which will contribute to the IPCC 5th Assessment Report.

The centre maintains a database of daily climate records dating back to 1890, known as the SILO database. The June Science Day, to be held on 24 June 2009, will provide an overview of the current data in SILO, information management issues and the potential to include modelled outputs of future climate.

If you would like to find out more about any of the projects discussed by the research or policy experts, please email the centre at gcccce@climatechange.qld.gov.au.

Landcover and Climate Change Research

The international research community has recommended a broadening of climate change to include Land Use Cover Change (LUCC) processes (i.e. clearing), as an important climate forcing. Examples of LUCC are deforestation, agriculture and urbanisation. The IPCC 4th Assessment Report (2007) highlights the growing body of research which links increased precipitation to related land clearing. The IPCC has recommended further work on the impacts of land cover change on precipitation.

QCCCE scientists have been collaborating with the University of Queensland to explore landcover change impacts. Recent papers co-authored by QCCCE scientists examine the role of vegetation and land use and its impact on the regional climate, including climate extremes, such as droughts. The work compared the impact of current vegetation to the pre-European state. A key finding is that the clearing of native vegetation exacerbates the impact of droughts. The next step in this research is to evaluate the impact of reforestation on buffering the impact of climate extremes caused by an enhanced greenhouse effect.

In addition to the research on land cover change, the papers also look at the effect of aerosols (such as dust, sea salt) on rainfall variability and the important role of sea-surface temperature in the generation of drought.

The significance of the research results on the impacts of land cover change on climate extremes has been reported in recent issues of both Nature and New Scientist journals.

Managing Climate Risk in Papua New Guinea

The Queensland Government and the Australian Centre for International Agricultural Research have a joint project titled Early Warning and Drought Preparedness for Improved Crop Production in Papua New Guinea (PNG). Mr Kasis Inape from the PNG National Weather Service and Mr John Demurea from the National Agricultural Research Institute are both involved in the project. Mr Inape and Mr Demurea visited Queensland from 18–24 May 2009 to progress this research which is investigating the impact of climate change and climate variability on food security in the Asia-Pacific region.

Inquiry into long-term meteorological forecasting in Australia

The House of Representatives Standing Committee on Industry, Science and Innovation is currently reviewing long-term meteorological forecasting in Australia. The inquiry into long-term meteorological forecasting is examining the efficacy of current climate modelling methods and long-term meteorological prediction systems and the impact of accurate measurement of inter-seasonal climate variability on decision-making processes for sectors such as agricultural production. More information on the inquiry and submissions are available online at <http://www.aph.gov.au/house/committee/isi/weather/subs.htm>.

Climate Science Update from Copenhagen

Over 2 500 delegates from nearly 80 countries attended the International Scientific Congress Climate Change: Global Risks, Challenges & Decisions, held in Copenhagen in March 2009. The conclusions drawn from the papers presented at the conference are included in the full synthesis report. The six preliminary key messages from the 1600 scientific contributions made to the conference included:

- 1. **Climatic Trends:** Recent observations of climatic trends confirm that the worst-case IPCC scenario trajectories (or even worse) are being realised.*
- 2. **Social Disruption:** Social disruption as a result of climate change is highly likely and temperature rises above 2°C will be very difficult for contemporary societies to cope with.*
- 3. **Long-Term Strategy:** A long-term strategy of rapid, sustained and effective mitigation based on coordinated global and regional action is required to avoid "dangerous climate change".*

4. **Equity Dimensions:** Well-funded adaptation safety nets are required for people least capable of coping with climate change impacts along with a differentiated mitigation strategy to protect the poor and most vulnerable.
5. **Inaction is Inexcusable:** There are many tools and approaches available to deal with the economic, technological, behavioural and management challenges of climate change.
6. **Meeting the Challenge:** A number of significant constraints are required to be overcome to meet the climate change challenge. The societal transformations that will be required will only be realised if we are able to seize on the critical opportunities.

The recognition of the need to reduce inertia in social and economic systems across the world was also recognised by the conference. Building on the growing public desire for governments to act on climate change, removing subsidies and reducing the influence of vested interests that increase emissions and reduce resilience were identified as ways to enable the shift to innovative leadership in government, the private sector and civil society.

Queensland hosts World Meteorological Organisation Workshop

From 18-20 May 2009 international specialists gathered at the University of Southern Queensland for the World Meteorological Organisation (WMO) Commission for Agricultural Meteorology International Workshop on the Content, Communication and Use of Weather and Climate Products and Services for Sustainable Agriculture. The purpose of the workshop was to review and evaluate the use of agrometeorological products by region, provide guidance on agrometeorological applications to farmers and extension services, and make recommendations for improvements in advisories and forecasts for both short-term daily operational decisions and long-term strategic planning at the farm level.

Participants included a broad range of eminent international scientists representing WMO member countries. The proceedings of the workshop will be published by the WMO and the recommendations from the workshop will be considered at the next session of the WMO Commission for Agricultural Meteorology.

Dr Yahya Abawi presented QCCCE's work in the Asia Pacific region through the Australian Centre for International Agricultural Research funded project, *Developing climate resilient systems in the Pacific*. Other Australian organisations represented included the Bureau of Meteorology, CSIRO, the Bureau of Rural Sciences and the South Australian Research and Development Institute. More information is available through the WMO website.

http://www.wmo.int/pages/prog/wcp/agm/meetings/wocaps09/index_en.html

International Book on Modelling Savannas

One of QCCCE's Principal Scientists, Dr John Carter, is the lead author of a chapter on *Modelling Vegetation, Carbon and Nutrient Dynamics in the Savanna Woodlands of Northern Australia*. The chapter was prepared as an invited contribution to the book "Ecosystem Function in Global Savannas: Measurement and Modelling at Landscape to Global Scales" edited by Dr Michael Hill (Professor Earth System Science and Policy, University of North Dakota) and Dr Niall P. Hannan (Natural Resource Ecology Laboratory, Colorado State University).

The book chapter describes a simulation experiment using the centre's AussieGRASS model to examine the impacts on carbon and nitrogen stocks due to changes in grazing pressure and fire frequency. The work demonstrates a methodology for evaluating alternative management responses such as the use of fire and choice of stocking rate. The chapter also examines issues associated with running a spatial model across the continent identifying areas for potential improvement. The book is expected to be published on 15 November 2009 by CRC Press / Taylor & Francis Group.

Climate Change and Carbon Information Days for Graziers

Desert Channels Queensland convened a series of three information days to provide information to graziers on climate change. The information days advertised as "3 Cs Information Days: As a grazier, how does Climate Change and Carbon affect me?" were held in Prairie, Winton and Barcaldine from 13-15 May. The program included presentations from Grant Stone, QCCCE on "Climate change impacts on livestock carrying capacity"; Dr Chris Stokes, CSIRO on "Carbon Cycles" and Dr Steven Bray, Department of Employment, Economic Development and Innovation on "Greenhouse budgets for grazing enterprises". The information days were well received by the 72 graziers who attended. The workshops were funded by the Queensland Government's Blueprint for the Bush Program.

Marine and Tropical Research Facility Update

The Reef and Rainforest Research Centre hosted the third Annual Conference of the Marine and Tropical Sciences Research Facility (MTRSF) in Townsville from 28-30 April 2009. Over 160 delegates attended the three-day meeting. The 2009 conference showcased the latest MTRSF funded research results relevant to the Great Barrier Reef, Wet Tropics rainforests, Torres Strait and the human communities that depend upon these ecosystems, plus special sessions on water quality and climate change. The meeting facilitated interactions among researchers and end users and enabled the synthesis of MTRSF outputs across its themes and projects. More information is available online at http://www.rrrc.org.au/news/2009_conference.html

The South-Eastern Climate Initiative Project

South-Eastern Australian Climate Initiative (SEACI) Phase 1 has been a three-year, \$7 million research program investigating the causes and impacts of climate change and climate variability across south-eastern Australia, home of the Murray-Darling Basin.

Phase 1, funded by the Murray-Darling Basin Authority, the Victorian Department of Sustainability and Environment, the Department of Climate Change and Australia's Managing Climate Variability program, finished in December 2008 and focused on the southern part of the basin. The partners have agreed to a six month extension up until July 2009.

A SEACI science workshop was held in Canberra from 28-30 April 2009 to present the results of the Phase 1 and to discuss the options for Phase 2.

Queensland Coastal Conference 2009

The Queensland Coastal Conference 2009 (QCC) provided an opportunity for coastal planners and managers, community groups, engineers, scholars, the tourism and recreation industry and the development industry to share ideas and workshop solutions to assist in maintaining the values of Queensland's coastal landscapes.

The theme "Waves of Change" reflected the need for the immediacy of coastal issues to be recognised and addressed in new ways to avoid past mistakes and work towards a sustainable future. The QCC assisted coastal planners and managers and other decision makers to enhance and maintain momentum for coastal sustainability in Queensland.

The Minister for Climate Change and Sustainability, the Honourable Kate Jones MP, welcomed delegates to the conference and in her opening address indicated that the State Coastal Management Plan is currently being reviewed and would be released for public comment later in the year. Dr David Robinson presented on behalf of Lynne Turner, Director, QCCCE, as an invited keynote speaker.

David's presentation was entitled *Climate Change in Queensland - From Science to Policy*. For copies of the presentations visit - <http://www.iceaustralia.com/qldcoast09>.

Commonwealth Government update

COAG climate change developments

Significant outcomes from the COAG meeting held in Hobart on 30 April 2009 included:

COAG building reforms

COAG committed to introducing a National Strategy on Energy Efficiency. While a final set of measures will be considered at its next meeting, COAG agreed to five key measures to improve residential and commercial building energy efficiency as a first step. Four of the measures, which are subject to regulatory impact assessments, will:

- *increase the energy efficiency requirements for all new commercial building types from 2010;*
- *phase-in mandatory disclosure of commercial building energy efficiency ratings at point of sale and lease from 2010;*
- *increase energy efficiency requirements for new residential buildings to six stars or equivalent by May 2011 with new efficiency requirements for hot water systems and lighting; and*
- *phase-in mandatory disclosure of residential building energy, greenhouse and water efficiency at time of sale or lease commencing with energy efficiency in May 2011.*

The fifth measure involves reforming the current rating and assessment process for building energy efficiency standards. The objective is for nationally-consistent, climatically-relevant standards focusing on outcomes and allows residential and commercial buildings to be easily compared.

National Renewable Energy Target

COAG agreed to the new expanded National Renewable Energy Target (RET), which will ensure that 20 percent of Australia's electricity is from renewable sources by 2020. The RET will deliver a renewable energy target that is more than four times the size of the current Mandatory Renewable Energy Target (MRET).

The RET scheme will be implemented through Commonwealth legislation in 2009, with increased annual targets commencing in 2010. The targets increase annually to reach 45,000 gigawatt-hours in 2020 and will be maintained at that level to 2030 when the RET scheme will end. It is expected that renewable energy targets will no longer be required after 2030 as the CPRS will drive the deployment of renewable energy.

COAG recognised the impact of the RET on trade-exposed industries in the context of the CPRS and agreed that legislative exemptions from liability under the expanded RET will apply to those activities that are emissions intensive, trade exposed under the CPRS.

Natural Disaster Resilience

COAG agreed on the urgent need for governments to re-examine Australia's arrangements for managing natural disasters and identify any further strategies aimed at building greater resilience. It was noted such efforts would be critical for Australia's ability to deal with the expected increase in the frequency and severity of natural disasters arising from extreme weather events linked to climate change.

COAG agreed as well to the establishment of a working group to consider additional ways to build Australia's resilience to natural disasters. The working group will report to COAG by September 2009.

Communications update

Queensland launch of the '1 Million Women' campaign

Premier Anna Bligh and Climate Change and Sustainability Minister Kate Jones launched the 1 Million Women national campaign in Brisbane last week at Parliament House. Both the Premier and Minister Jones are ambassadors along with a diverse group of influential and committed champions. The goal of the campaign is to inspire one million everyday Australian women – regardless of age, beliefs, backgrounds, careers, education and financial situation – to make an online commitment to each cut one tonne of CO₂, in a year.

That is the equivalent to taking 250,000 cars off the road for 12 months – which is enough pollution to fill 2.3 billion wheelie bins. The Premier called on Queensland women to help form an army of one million Australian women dedicated to combating climate change by making some simple changes to cut greenhouse gas emissions at work or at home.

The campaign website shows how to make these carbon changes in lifestyle categories such as food, household, shopping, and renewable energy.

1 Million Women is an initiative led by a non-profit company Climate Coolers headed by Natalie Isaacs to encourage one million mothers, sisters, daughters, grandmothers, colleagues and team mates to reduce their carbon footprints. Women can join the campaign at www.1millionwomen.com.au and register to start cutting carbon. For information on the Queensland Government's suite of climate change programs and initiatives, go to www.climatesmart.qld.gov.au

4 degrees & beyond - International Climate Conference

From 28-30 September 2009 the 4 degrees & beyond International Climate Conference will be held in Oxford, United Kingdom. The conference will look at the implications of a global climate change of 4+ degrees for people, ecosystems and the earth-system. For further information on the conference visit - <http://www.eci.ox.ac.uk/4degrees/>

BrisScience public seminars

Every month BrisScience hosts free public seminars on science, featuring leading speakers in science and technology. The talks are on Monday evenings from 6:30pm to 7:30pm at City Hall. Talks are followed by complimentary wine, soft drinks and nibbles and an opportunity to chat with the speaker.

Upcoming talks include:

- *Monday 20 July 2009 - Living at the speed of light*

For more information on the seminars visit - <http://www.physics.uq.edu.au/brisscience/>.

Greenfest 2009 exceeds its own expectations

An estimated 60,000 Queenslanders attended Greenfest this year, held during World Environment Week, over the Queen's Birthday long weekend. The Queensland Government was proud to lend its support as a major sponsor at this event. The festival aims to encourage grassroots expression around the themes of early action on climate change and sustainable living. This year Greenfest was able to link its programming to Q150 celebrations to inspire change towards a greener planet for the next 150 years.

The festival featured over 100 musical acts and speakers, a film festival and a green motor show. More than 200 trade exhibitors were showcased from around Queensland and Australia including sustainable business and housing suppliers, World Wildlife Foundation, Blackstar Coffee, biome, Carbon Market, Holiday Inn, The Organic Wine Merchants, Oxfam and Bauer's Organic Farm. Exhibitors from Queensland Government included Department of Environment and Resource Management, Department of Public Works, Department of Communities and Department of Employment, Economic Development and Innovation.

Special thanks to Festival Director, Colman Ridge, screen actor Jack Thompson, eco-fashion model Summer Rayne Oakes, the Youth Environment Council and other sustainability advocates for making the 'Green' Queensland Day opening with Minister Kate Jones on 6 June a truly special day.

*Greenfest 2010 is scheduled for **4-6 June** with programming timetabled to align with the world environment day calendar. The festival has quickly established itself as Australia's largest free sustainability festival with other major sponsorship support from Brisbane City Council, Channel 7, B105, Triple M, News Limited, One Degree, ConvergA and Internode. Greenfest is a partnership for community action on climate change through the United Nations Environment Program's carbon neutral network. For further information on the festival visit - <http://www.greenfest.com.au/>*

Asia Pacific Biochar Conference

The Asia Pacific Biochar Conference was held on the Gold Coast from 17 - 20 May 2009, an initiative of the Australia New Zealand Biochar Researchers Network and the Japanese Biochar Initiative.

The conference attracted delegates and speakers from around the world and presented the latest scientific research and business opportunities for biochar industry developments. This included the technical aspects of the production of the material and the effect in the soil when it is subsequently applied.

The large increase in the number of scientific publications on biochar over the last couple of years was also discussed. The challenges of implementing the optimum policy frameworks to ensure the potential of biochar is realised was also identified. The input of unbiased science into this process was identified as being critical to advancing both biochar research and development as well as the policy requirements.

For further information on the conference visit - <http://www.anzbiochar.org/>