

Photograph - John Higham



Chair's Report

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EIGHTH EDITION: CLIMATE CHANGE

We can't escape it: climate change, and what we should be doing about it, is pretty prominent in government at the moment. Between Kyoto and the Carbon Pollution Reduction Scheme, the people on the ground could be forgiven for thinking they're going to bear the brunt of government commitments with little benefit – we at the RGC are certainly getting feedback that land managers don't know what to expect, or how to prepare. We have discovered significant consensus between the conservation and agricultural sectors that the Australian Government's Carbon Pollution Reduction Scheme will have perverse impacts on the environment, and primary production, and both want to see it changed to ensure it has a positive environmental, social and economic affect.

We agree, and have been working with conservation and farming sectors on this issue. Current plans for carbon mitigation show every tendency to support the use of plantations for carbon capture, which will only develop monoculture vegetation communities, often at the expense of the environment, and sacrifice food-producing land and ground water.

On the other hand, there is a well-established network of regional natural resource management plans across Australia – 56 of them, in fact, all working very successfully with land managers to improve and change land use practices. Climate adaptation and

carbon mitigation are already core business for these regional groups.

So, why not utilise this framework to ensure the Carbon Pollution Reduction Scheme assists the environment, food security and regional economies, by requiring that all terrestrial carbon investment generated by any new laws be utilised to meet regional plan priorities? This is a simple way of ensuring that a carbon mitigation scheme has a positive – rather than negative – impact on the landscape, its communities and food production.

Here in Queensland, we've been leading the way, with regional group, Terrain (based in Innisfail) invited by the National Natural Resource Management Working Group (which represents Australia's 56 regional natural resource management groups) to further develop climate policy as it affects the landscape and its communities, using the learnings from their Degree Celsius pilot project.

The Degree Celsius project has proven how effective the regional natural resource management framework could be in delivering aggregated carbon mitigation and climate change adaptation across the country. The regional planning framework has been in place for some 10 to 15 years, and continues to be an ideal foundation for the pooling of a broad range of ecosystem services, including biosequestration. With a regional approach, land managers will be able to easily participate in regional carbon

and climate change pools, accessing resources and advice locally, and spreading compliance costs across many entities.

With almost all regional natural resource management groups already undertaking a variety of climate change and climate adaptation research and projects, the only thing missing is government recognition, and the resources this would bring with it. A regional, market-based approach to carbon capture and climate change adaptation could secure, for the first time, structured financial support for natural resource management activities across the country. Such a model would deliver long-term and effective solutions to carbon mitigation, and provide a real opportunity to secure the investment required to make the Australian landscape truly resilient in the face of climate change.



MIKE BERWICK, CHAIR,
QUEENSLAND REGIONAL
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For more information about our carbon mitigation and climate change adaptation policy, please contact Mike Berwick on mikeb@rgc.org.au, or Andrew Drysdale on andrewd@rgc.org.au.



Farming in the Mackay region will need to be managed carefully to reduce the impacts on the Great Barrier Reef.

Reef Catchments: Managing Climate Change

Reef Catchments Mackay Whitsunday Inc has progressed its 'Managing Climate Change' project, assessing the impacts of sugar cane production in the Mackay Whitsunday region and the efficacy of Reef Rescue targets to deliver improved reef water quality under a more variable climate.

Reef Catchments' Will Higham said "The project will be completed by January 2010, and will lay out a number of recommendations to improve management policy and practices in the sugar cane industry in this region. The industry will then be able to work with canegrowers to effectively mitigate climate change impacts and continue to maintain their livelihoods in the most environmentally sustainable way." Will said that specific research findings and knowledge produced by the project would then become

Reef Catchments is working with the cane industry to improve the quality of water as it runs off agricultural land, especially in such extreme cases as floods.



a template for adaptation in the sugarcane industry, Australia-wide.

In this project, there has been an attempt to examine a comprehensive range of future climate uncertainties, especially extreme events, to define potential impacts of sugarcane production on key natural resource conditions (especially water quality export off farm). This has been achieved through extensive modelling of three key potential future climatic scenarios:

- significantly warmer and drier conditions by 2030;
- modestly warmer and wetter conditions by 2030; and
- mid-range warmer and drier conditions by 2030.

One of the primary focuses of this project was to discuss the impact of climate variability and the benefits of A and B class practices (management practices above and beyond current industry standards) with groups of canegrowers. "The first thing canefarmers will want to know is the impact of climate variability on yield. By presenting yield information we will be able to better engage them in

the development of communication materials that describe the benefits of the more sustainable A and B class practices over the C class practices, which are now the industry level," said Will.

In fact in 2008, C class practices represented over 75% of industry adoption. "As we all know, adoption is the key to change, so we believe the scene is now set for the canegrowers to take the next step and adopt the A and B class practices rapidly."

The industry standard C class practices were used as a benchmark to measure improved management actions against throughout the 'Managing Climate Change' project. "Without inclusion of the C class practices in the study, we would be unable to quantify the relative benefits achieved by A and B practices in assisting growers to become more resilient to future climate variability," Will said.

This project will also be linked to Reef Rescue decision-making, highlighting which activities should be targeted for future investment. Reef Catchments currently plays an active role in facilitating the Great Barrier Reef Wide Sugar Working Group. "Once we have the results of the 'increased variability' scenarios, we will present them and then, using the cross regional communication process, influence the inclusion of these results in the Reef Rescue investment strategies going forward."

This project has been conducted in partnership with CSIRO. A progress report has already been submitted to Land & Water Australia, Climate Variability section.

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Fitzroy Basin: building resilient environments for a changing climate

The Fitzroy Basin Association has been working diligently with landholders across the region to address a range of factors impacted by, and impacting on climate change. Programs designed to increase the long-term resilience of all natural assets and systems to climate change are currently being run on a range of levels, from species to ecosystems, and paddocks to catchments.

Clair Rodgers, from the Fitzroy Basin Association, said, "We've been focusing our work on improving

the condition of remnant vegetation and increasing ground cover on stream banks and hill slopes to withstand longer dry periods and heavier rainfall.

We've also been working closely with landholders to improve water infiltration on cropped country, enabling higher average levels of cover and increased production during dry periods, and decreasing sediment, nutrient and chemical levels in run-off from these

production areas to improve freshwater and marine ecological condition and resilience."

The Fitzroy Basin Association has also been investigating soil and vegetation carbon sequestration opportunities for the region, with field trials, community carbon workshops, and the recent publication of 'The Dirt', for landholders.

Queensland Murray-Darling Committee: preparing land managers for carbon reduction

Working with Queensland producers to identify how to adapt to climate change and reduce their carbon footprint, to negate the cost increases expected under a carbon economy, has been a strong focus of the Queensland Murray-Darling Committee (QMDC).

QMDC's regional climate change officer, Rhonda Toms-Morgan, said that while most producers understood the carbon economy was on the way, few fully grasped the practicalities or implications. Rhonda said, "While the potential introduction of the Carbon Pollution Reduction Scheme



Landholders Anita Lethbridge and Chris Walton at a 'Carbon on Farm' workshop.

has been delayed, now is the time for agricultural producers across the state to learn about the potential impacts of this carbon economy."

"QMDC has been running workshops across the region for the past 10 months in partnership with AgForce Queensland," she said. These climate change, carbon and energy workshops have been developed and delivered in conjunction with Agroclim Australia's Dr Jeff Clewett. The workshops cover topics such as climate change history, science and how to identify opportunities for adaptation, as well as current climate change policy, markets and greenhouse gas mitigation options.

"So far, we have delivered this workshop to nearly 300 producers across the region. Feedback has been overwhelmingly positive, suggesting that the day helped landholders put all the issues in perspective." Rhonda said that while debate continued about climate change generally, it was vital that rural and regional business operators focused on the potential impact of climate policy.



Local Landcare Coordinator, Suzie White, with landholders at one of QMDC's 'Carbon on Farm' workshops.

"Like many other countries, Australia is moving toward an emissions trading scheme, and we really need to understand what it means for us as sustainable producers. Regardless of the current Senate debate on carbon legislation, we also need to look seriously at how we can adapt to predicted climate change scenarios through quality extension of the current science," she said.

"Whether or not the agricultural sector is covered in the Carbon Pollution Reduction Scheme, it is vital we understand how the legislation will impact on agriculture and what actions we can take to reduce on-property emissions where possible."

Torres Strait: climate change today

The implications of climate change on the iconic Torres Strait Island ecosystems could see whole islands inundated by rising water levels, the Torres Strait Regional Authority has warned.

The Torres Strait Regional Authority's Chair, Toshie Kris, said, "Approximately 27% of our island communities are affected by climate change and the rising sea level right now, in 2009. For us, this is not a phenomenon that we have the luxury of reading about; unfortunately for some of us, it will become an even more real part of our daily lives each year."

The threat of expected and potential climate change impacts, including small increases in sea levels, changing rainfall patterns, hotter weather and spread of diseases, have sparked the establishment of the Torres Strait Coastal Management Committee, who work towards long-term sustainable solutions to these issues.

Toshie Kris, said "The Committee leads a coordinated approach to coastal management and climate change and



Climate change is set to increase the number of extreme flooding and cyclone events, which must be managed for.

has been working on identifying long-term sustainable solutions to coastal issues and ways to secure funding to implement these solutions. However, funds to protect threatened infrastructure have been limited and hard to secure.

"To date, the Torres Strait Regional Authority, in partnership with the Australian Government, is undertaking a number of activities that will allow us to make informed decisions in the near future on how our region can adapt to sea level rise and climate change.

"Some of these include research to raise the level of awareness about short-term



With the potential for rising sea levels, many of the Torres Strait Island communities could be under threat.

erosion and long-term inundation, extensive land use planning and finding ways to use scientific and traditional knowledge to deal with environmental change."

Toshie said that Torres Strait communities, with governments, would need to find ways to make the most of limited resources to prepare for the realities of climate change, now and into the future.

"Addressing climate change in the Torres Strait will not only test us as a people, it will test Australia as a nation and how well we can all learn to adapt and ultimately thrive in an environment and a world that will hold us more accountable for what we do," he said.

Terrain NRM: regional approach to carbon trading set for success

Terrain Natural Resource Management, based in Innisfail, has been working closely with Biocarbon Pty Ltd since 2007 to pilot the joint Degree Celsius terrestrial carbon initiative. This project, recently recognised by the Eureka Prize for Innovative Solutions to Climate Change, has provided a framework for land managers to participate in aggregated regional biocarbon pools.

Degree Celsius manager, Penny van Oosterzee, said, "The Degree Celsius model is the only model of its kind that takes this regional approach to carbon aggregation, allowing land managers of all sizes to participate in carbon trading initiatives, and overcoming many of the challenges faced particularly by smaller land managers, such as transaction and compliance costs, risk and monitoring."

"Models like Degree Celsius are so important to manage" she said. "It will simply not be possible to curb dangerous climate change without bold initiatives within the agricultural and forestry sectors, such as this one, and we are hoping to roll out the model across Australia."

Global scientific consensus is that the agriculture, forestry and landuse sector is as important as the energy sector in any comprehensive approach to dealing with climate change. As a result, Terrain has been working with Biocarbon Pty Ltd to establish a business model that will

achieve substantial mitigation of carbon emissions within these sectors.

"We've done a lot of work with land managers over the past two years," said Penny. "Now, global auditor, the Rainforest Alliance, is currently auditing this project for accreditation under the Carbon, Community and Biodiversity Standard, which is a fantastic next step."

"The pilot work has been extremely instructive, allowing us to take the debate from theory and speculation to what actually happens when proposed national and international protocols are applied in the Australian landscape.

Most of the landholders joining the Degree Celsius initiative have been farmers, keen to use the project to get on the front foot with any future state and federal government carbon trading plans (like the Carbon Pollution Reduction Scheme)."

Degree Celsius is helping to forge new opportunities and income streams for regional communities in a changing world. Already, the Wet Tropics Project is a functional demonstration of how regional communities, and regional natural resource management groups, can work together to achieve ecosystem services.



Degree Celsius team, L-R: Dr Allan Dale (Terrain CEO), Mike Berwick (Terrain Chair), Penny van Oosterzee (Joint Venture Partner Degree Celsius), Gavin Kay (Degree Celsius Field Officer), and Noel Preece (Joint Venture Partner Degree Celsius)



To find out more about natural resource management projects or contact details for your regional natural resource

management group, visit the Queensland Regional NRM Groups Collective website - www.rgc.org.au or ph 07 4699 5000.

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