



Department of
**Environment and
Heritage Protection**

Ref CTS 10499/17

5 MAY 2017

Dr Wendy Craik
Chair
Climate Change Authority
Email < submissions@climatechangeauthority.gov.au >

Dear Dr Craik

Thank you for the opportunity to provide input into the Climate Change Authority's research into land sector abatement in emissions reduction.

The agriculture and land sectors are critically important to Queensland – socially, economically, ecologically, but also in terms of their emissions reduction potential. As outlined in the Queensland Government's attached submission to the Climate Change Authority's issues paper, 'Action on the Land: reducing emissions, conserving natural capital and improving farm profitability', the Queensland Government is supportive of national research, policy and programs that will enhance opportunities for Queensland landholders to participate in emissions reduction programs. The Government is also interested in work to improve recognition of the social, economic and environmental co-benefits that can accrue to landholders and the broader Queensland community from land management actions.

The Queensland Government is also preparing a submission to the Australian Department of the Environment and Energy as part of its national review of climate change policies. The Queensland Government would appreciate if that submission could be considered as part of the Climate Change Authority's review, as complementary to this submission.

Should your staff have any further enquiries, please ask them to contact Mrs Georgine Roodenrys, Executive Director, Climate Change Policy branch, of the department on telephone (07) 3330 5829.

Yours sincerely

Jim Reeves
Director-General

Att: Queensland Government submission to the Climate Change Authority issues paper 'Action on the Land'

Action on the Land: reducing emissions, conserving natural capital and improving farm profitability

Queensland Government submission

Introduction

The Queensland Government welcomes the opportunity to provide input to inform Climate Change Authority research into natural resource management, agriculture and land based emissions. Queensland's agriculture and broader land sectors are of key importance to our economy and our communities. These sectors are highly exposed to climate risk, account for a significant proportion of Queensland's greenhouse gas emissions, yet have significant adaptive capacity on both counts. The Queensland Government is highly supportive of strong national policies on climate change, and expanding opportunities for Queensland landholders to voluntarily participate in emissions reduction programs.

Globally, the world is undergoing a major economic transition guided by the 2015 Paris Agreement's central objective to keep global temperature rise to well below 2 degrees Celsius (°C), and to pursue efforts to limit warming to 1.5°C. The global momentum for this transition is accelerating. Without a strong climate change response, Australia runs a significant risk of negative economic consequence from inevitable shifts in the global markets driven by the transition responses of our major trading partners and international corporations, and from shifts driven by technology changes.

This submission provides a Queensland specific response to the Climate Change Authority's issues paper. The Queensland Government will include in its submission to the Australian Government's National Climate Change Policy Review references to economic opportunities of carbon farming and challenges for the land sector reducing emissions and adapting to climate change. This submission should be considered in conjunction with that submission, and those previously provided to the Independent Review into the Future Security of the National Electricity Market (the Finkel Review), and the Productivity Commission Inquiry into Transitioning Regional Economies.

Queensland Government position on climate change policy

The Queensland Government supports the 2015 Paris Climate Agreement and is ready to play its part in the global efforts to achieve this objective in the interests of Queenslanders, our economy and our environment.

The Queensland Government is responding to climate change through the approach of **Understand – Adapt – Transition**. The Queensland Government seeks to ensure that Queensland is a leader in the global transition as well as being ready for the impacts of climate change that are occurring now and are locked in for the foreseeable future.

Queensland is uniquely vulnerable to climate and carbon risks. For example, climate change is the greatest threat to the Great Barrier Reef – the world's largest coral reef - which supports 69,000 jobs, attracts 1.9 million visitors and injects \$6 billion into our economy annually. This risk is clearly highlighted in the recent back-to-back mass coral bleaching events of 2016 and 2017.

In February 2017, the Queensland Government invited Australian federal, state, territory, and local government leaders to the Climate Action Roundtable in Cairns to discuss subnational collaboration on climate change action. Participants called on the Australian Government to use the national review to establish the foundations for a bipartisan approach to climate change policy to provide certainty to business, investors and the community on Australia's transition to a net zero emissions economy. The Roundtable communiqué is attached to this submission¹.

¹ <http://statements.qld.gov.au/Statement/2017/2/24/state-leaders-demand-urgent-climate-action-to-protect-reef>

Industry and community representatives are also advocating for stronger and clearer long term policy measures for both climate mitigation and climate adaptation.

Queensland's Action on Climate Change

The Queensland Government is already tackling climate challenge through:

- **Queensland Climate Transition Strategy and Climate Adaptation Strategy Development** - the Queensland Government has committed to develop both a transition and an adaptation strategy to address climate change and adapt to the changing climate.
- **50% Renewable Energy target by 2030** - the Queensland Government is committed to increasing the uptake of renewable energy to drive jobs, investment, and cuts in greenhouse emissions.
- **1 million or 3000 MW solar rooftops** – our solar target will help deploy solar PV on the rooftops of businesses, community buildings and commercial or industrial sites including on public housing and schools (Advancing Clean Energy Schools program).
- **Queensland CarbonPlus Fund** - \$8.4 million to support the carbon farming industry and create jobs for Traditional Owners to deliver environmental, social and cultural benefits in Indigenous communities
- **Advance Queensland Biofutures 10-Year Roadmap and Action Plan** - the Government has set a vision for a \$1 billion sustainable and export-oriented industrial biotechnology and bioproducts sector.
- **Solar150** - providing long-term income certainty to support the development of up to 150 megawatts of large-scale solar power generation in Queensland.
- **Queensland EV Strategy** – to support the transition to electric vehicles (EVs).
- **Green Bonds** - the Queensland Government will support investment in environmentally responsible projects through Green Bonds issued by the Queensland Treasury Corporation.
- **Queensland Building Plan development** – the new Queensland Building Plan will draw on previous work to improve the sustainability of privately owned buildings and homes as well as Green Star ratings for government buildings.
- **Sustainability assessments for all government capital projects over \$100M** - As part of the State Infrastructure Plan, all state government projects of greater than \$100 million in value will undertake a sustainability assessment, including climate change considerations.
- **QCoast₂₁₀₀ program** - \$12 million over three years to support Queensland local governments impacted by existing and future coastal hazards to advance adaptation planning.
- **Queensland - Climate Resilient Councils (Q-CRC)** – A three year program that will strengthen internal council decision-making processes to respond to climate change.
- **Regional climate change impact summaries** - Queenslanders now have access to regional climate change projections, with the interactive, web-based climate change in Queensland map for thirteen Queensland regions now available online.

Queensland is already at the forefront of the domestic offsets market with a significant uptake of carbon farming projects under the Emissions Reduction Fund (ERF). Approximately 84 million tonnes of contracted abatement under the ERF is taking place in Queensland.

However, with strong, long-term and complementary climate change policy at the national and sub-national level, there is significant opportunity for greater emissions reduction activities, maximizing co-benefits including economic outcomes, in Queensland. Furthermore, and specific to the agriculture and land sectors, agriculture or land-based emissions reduction policies should be additional and complementary to climate adaptation, biodiversity, natural resource management and agricultural land protection policies, and not result in perverse outcomes upon these matters, or other areas of the environment, economy or community. Consistent with an approach of ‘avoid, reduce, offset’, cutting carbon pollution should be prioritised over carbon sequestration as the first action towards achieving our climate goals and limiting future impacts.

Importance of Queensland's agricultural sector

The Queensland Government is committed to supporting the growth of a productive and prosperous agricultural industry. Queensland's agriculture sector was forecast to be valued at \$18.55 billion (combined gross value of production, and first-stage processing; prior to the impacts of Cyclone Debbie) in 2016-17² and accounts for approximately 81 per cent of land use by area. Primary industries accounted for 2.5 per cent of Gross State Product in 2014-15, and approximately 282,000 Queenslanders had been employed across the food supply chain in the year prior.

Agriculture (not including the agricultural component of land use, land use change and forestry) accounted for 13.9 per cent of Queensland's greenhouse gas emissions in 2014. In the same year, land use, land use change and forestry contributed a further 12.7% of the state's greenhouse gas emissions in 2014. Both sectors are highly exposed to climate risk but demonstrate significant adaptive capacity.

Response to issues paper

The Issues Paper identifies four challenges for the agricultural sector: reducing agricultural-related emissions, improving productivity, adapting to climate change, and conserving natural capital. However, there are several fundamental issues facing the sector which relate to landholders' ability to consider and respond to the challenges identified by the Climate Change Authority.

Key issues for consideration include:

- market pressures and drivers;
- seasonal climate variability;
- farm business structure; and
- farm profitability.

Such factors may present either barriers or opportunities for landholder participation in natural resource management and climate resilience programs. Land use planning restrictions and other land management legislation may also limit landholders' ability to undertake activities for the purposes of reducing their carbon emissions, sequestering carbon, or building climate resilience.

The Queensland Government is implementing policies and programs that aim to resolve the issues identified by the Climate Change Authority, and manage these other issues identified above. Actions include:

- Drought and Climate Adaptation Program including establishing the Queensland Drought Mitigation Centre
- Investing in research, development and extension across broadacre and intensive agricultural industries, including climate adaptation and transition activities
- Stamp-duty exemptions and counselling opportunities to facilitate succession planning
- Rural water use efficiency – irrigation futures, and other water or energy efficiency programs
- Industry-led best-management practice (BMP) programs, which provide landholders with the knowledge and skills to ensure long-term sustainable production.

Most of these policies and programs are developed or delivered in partnership with industry and non-government research organisations. The Queensland Government considers partnerships an important means for achieving beneficial outcomes as they leverage the expertise and capital of different sectors resulting in multiple co-benefits, such as for farm profitability, resource efficiency and water quality.

² (Department of Agriculture and Fisheries, 2017, AgTrends 2016-17, State of Queensland)

Carbon farming

Incentives or other forms of financial recognition can help overcome the barriers of market risk and access to capital. Programs such as the Emissions Reduction Fund (ERF) that provide alternative income streams for some producers may improve the profitability of some businesses, or enable them to better manage other business risks, such as market risk or climate risk.

However, benefits of ERF participation are not spread equally – spatially, temporally or across agricultural industries – as some methodologies are easier to profitably implement than others. For example, there may be limited value for horticulture producers to participate in the ERF. Other methods such as for herd management methodologies can depend on a land manager holding large numbers of cattle to obtain a return on participation.

Introducing market mechanisms that account for multiple benefits or developing new methods applicable to a broader range of sectors could increase Queensland agricultural sector participation in emissions reduction activities.

An example of where work is needed is for the Australian Government to work with the Queensland Government on developing suitable methods that complement our vegetation management regulatory framework. Methods that take into account Queensland's needs are likely to significantly improve landholder participation in emissions reduction activities.

Other opportunities include developing new or strengthened methodologies for the cropping and grazing sectors that also consider or value co-benefits for reef water quality, biodiversity, and drought resilience. Recognising the co-benefits of emissions reduction activities may increase participation, beneficial land outcomes, farm profitability, and the value of the credit. For example, land sector abatement opportunities in Queensland are demonstrated to be cost-effective, with abatement costs under the ERF over 2015-16 averaging \$10-15 per tonne of carbon dioxide equivalent (tCO₂e). If a price premium is added that values co-benefits from carbon farming projects, these land sector abatement activities can be leveraged to achieve broader economic, social and environmental objectives. Importantly, a 'top-up' price is likely to catalyse the high-value (high co-benefit) carbon abatement projects that are not currently occurring under the ERF.

As land management and change takes place in a 'systems' context, it is vital that carbon farming methods account for these interactions by seeking to maximise co-benefits while avoiding or minimise unintended consequences perverse such as risks to food security or biosecurity (spread of pests and diseases due to mono-culture plantings).

Financial incentives are not necessarily the sole means of achieving a public benefit. For example, many of the practices promoted as part of reef water quality programs have environmental and private productivity or profitability benefits. Therefore, more direct financial levers may not be required to facilitate practice change. Similarly, Queensland has demonstrated success in conservation through voluntary participation in its Nature Refuge program, potentially due to policy certainty, but also alignment with other land use policies and programs. Both reef water quality and Nature Refuge programs are probably already resulting improved carbon sequestration in soils and vegetation.

Based on Queensland's experience, the Climate Change Authority is strongly encouraged to undertake further research into:

- carbon levels in pasture biomass and valuing the co-benefits to livestock profitability, reef water quality, biodiversity, and drought resilience.
- Impacts and opportunities of carbon farming including climate risk and impact on food supply from changing landscape composition and shifts in the commodity mosaic.

Considering carbon in land management

Better information on the economic, environmental or social benefits of changed business practices or land management activities may assist in behavioural or attitudinal change. Additionally, it may also assist in designing programs that are both popular and effective.

Public investment in research, development and extension, particularly in the agricultural sector, aims to drive improved social, environmental and economic outcomes. The extent to which emissions reduction is prioritised within project design is dependent upon the source of funding, for example projects under the former Carbon Farming Initiative required explicit consideration of such matters, whilst others are targeted at improving Great Barrier Reef water quality, or food safety.

Additional research and development funding mechanisms may be needed for national investment in emissions reduction; the Queensland Government will also advocate for ongoing funding for the National Climate Change Adaptation Research Facility. Much of agricultural research and development programs relate to improving profitability. Emissions reductions may be achieved and recognised as a positive outcome of other research and development projects; however investment in other social, environmental and economic priorities is valuable and necessary in its own right.

Carbon offsets and environmental offsets

The Issues Paper raises questions regarding prioritising reducing carbon via environmental offsets programs.

In Queensland, environmental offsets required under our *Environmental Offsets Act 2014* are activities undertaken to counterbalance the impact of a prescribed activity on a prescribed environmental matter. Environmental offsets must achieve a conservation outcome for that matter.

Certain activities, undertaken to offset impacts on these matters, may result in the co-benefit of an increase in carbon sequestration, however that is not guaranteed and to require sequestration within all offset projects would undermine the ability to adequately conserve and benefit the matter at hand. Queensland's offset framework does not provide for carbon or climate adaptation. Reducing greenhouse gas emissions is an object of the *Vegetation Management Act 1999*.

While environmental offsets or soil conservation activities may provide an emissions reduction co-benefit, emissions reduction activities may also provide co-benefits for productivity, social outcomes, or biodiversity.

Recognising co-benefits may further incentivise participation within emissions reduction programs. Further, financial recognition of public co-benefits, such as biodiversity, could result in additional active management and conservation of land that provides critical refugia. This would multiply the positive impact of that project, and addressing other government and non-government priorities.

In recognition of the potential benefits of a strengthened carbon farming industry in Queensland the Queensland Government has established an \$8.4 million CarbonPlus Fund. \$3 million has been allocated for capacity building services that will enable greater participation by Aboriginal landholders in carbon markets. \$5 million of the fund will be used to purchase carbon credits to offset emissions from the Queensland Government car fleet.

Conclusion

The Queensland Government is positioning itself as a leader on both climate adaptation and climate mitigation. However, there are clear benefits and rationale from strong national policy that ensures an equitable, efficient and secure future for the people, economy and environment of Australia. There are significant opportunities for the agriculture and land sector in Queensland to play a central part in this transition, if programs and methodologies are designed to complement state-based legislation, and co-benefits are maximised. The Queensland Government is keen to continue to

work with the Climate Change Authority and the Australian Government in introducing new Emissions Reduction Fund methodologies for use by Queensland landholders.