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## ISSUE PAPER RESPONSE

by Green Collar Group

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### **To the Climate Change Authority;**

GreenCollar is pleased to provide our response to the Issues Paper – ‘Action on the Land’. GreenCollar is well placed to assist the Climate Change Authority (CCA) with its review as GreenCollar is Australia’s leading natural resource management and environmental markets advisor and investor. We are the largest and most successful provider of carbon abatement in the country with a strong history in payment for ecosystem services and are the market leader in the Emissions Reduction Fund (ERF) having;

- » delivered ~70% of all Australian Carbon Credit Units (ACCUs) delivered to the Clean Energy Regulator (CER) in the ERF to date.
- » delivered over 1.5mill ACCUs under the Carbon Pricing Mechanism to Liable Entities.
- » originated and currently managing over 110 vegetation projects across Australia.
- » completed close to 100 successful audits of projects – 100% positive results to date.
- » set the benchmark with the Clean Energy Regulator for offsetting reporting under the ERF (a ‘Model Client’).
- » completed the first Native Forest Protection projects in Australia.
- » completed the first Avoided Clearing of Native Regrowth project in Australia under the *ACCU (Carbon Farming Initiative – Avoided Clearing of Native Regrowth) Methodology Determination 2015 (Avoided Clearing)*.
- » an existing formal relationship with the Queensland State Government to explore co-benefits of carbon projects in key priority areas of environmental concern.
- » unparalleled technical and geospatial analysis capabilities for project identification across the land sector.
- » MoUs with 5 NRM groups in Queensland particularly focussed on leveraging carbon project income to realise the co-benefits to water quality and other non-carbon environmental outcomes. GreenCollar is excited to

GreenCollar is excited to see the Climate Change Authority investigating how reducing emissions through action on the land can go hand-in-hand with conserving natural capital and improving farm profitability.

GreenCollar works with over 150 landholders across Australia with exactly that focus. We work with landholders to understand their farm practices and to design a carbon project which assists them to diversify their income and protect the natural capital on their land.

It is a complicated and individual process for each landholder.

GreenCollar agrees with the CCA Chair that ‘the core business for farmers is to produce the food and other agricultural commodities that Australians and the rest of the world demand’.

GreenCollar is keen to assist the CCA to achieve its goal from this review “to explore whether carefully crafted policies can deliver on a triple bottom line of environmental, economic and social

benefits”, as GreenCollar has the most extensive experience of achieving this “triple bottom line” in the real world, with existing environmental schemes.

In the CCA’s search to “understand the barriers to realising multiple benefits...on the land and to see whether it is possible to deliver more ‘win-win’ outcomes for farmers and other landholders – improving their profitability while reducing greenhouse gas emissions and enhancing our natural resources”, GreenCollar would summarise its position as;

*Federal Schemes such as the Carbon Farming Initiative (CFI), which underpin the market for Australian Carbon Credit Units, and the Emissions Reduction Fund (ERF) which currently acts as the market buyer of these Carbon units, have had a major impact on the profitability of agricultural practices and shown to have real environmental, social and community benefits in areas where carbon projects are undertaken.*

*Market based solutions are the most effective way to measure, value and achieve environmental outcomes in the agricultural sector. The primary barrier to realising multiple benefits on the land is the lack of a value on non-carbon environmental outcomes such as biodiversity, conservation and water quality.*

*The market for Carbon in Australia (and Globally) is mature and established. Methods are tried and tested and a robust voluntary market is in place as well as an emerging compliance market. The key to this market’s success has been the clear, open and transparent nation-wide methodology process for measuring and verifying carbon reduction or sequestration. Having a market buyer (such as the ERF) to supply certainty of offtake of the carbon units from a project has driven the uptake of activity across the carbon industry.*

*We believe in order to drive further carbon emissions reduction and achieve greater non-carbon environmental outcomes, it is vital to create similar national (or state) markets for the co-benefits generated from carbon projects. This allows projects to ‘stack’ the measured environmental value of each benefit, without double counting, so as to provide landholders with a payment for the full benefit of their activity change.*

*The income derived from the environmental projects can, as we have seen from the CFI, be used to increase productivity on the remainder of the property, achieving the ‘triple bottom line’ so eagerly sought.*

While the below response to each question is far from comprehensive, GreenCollar is keen to make itself available to discuss each matter raised in further detail should the CCA wish to investigate further or require more information.

## Response to Individual Questions.

1. *Are there particular land sector abatement activities, or data on land sector abatement costs, that the Authority should consider when conducting the research?*

The current abatement activities being utilised under the ERF are the most economically viable and effective methods available. There does not appear to be any unknown methods requiring attention however attention should be given to amending the Avoided Clearing Method as its eligibility requirements make it largely unworkable.

With regard to 'data' sets, the marginal abatement cost curve is a well-known carbon abatement cost dataset. However, the economic potential per hectare of land should be considered for agricultural practices across the country to ascertain the specific economic benefit of farming operations per hectare and the true commercially viable abatement cost of agricultural land across the country.

In GreenCollar's experience, the potential income per hectare from an agricultural enterprise is dependent on rainfall, soils type and vegetation cover.

The present issue for a landholder considering a carbon project is two-fold; a carbon abatement income stream does not wholly replace that of a normal agricultural income, and secondly, there is an effect on the capital value of the property for resale. The latter issue has been reported to us by stock and station agents as the markets sees vegetated land having a considerably lower value than cleared land and is thus a depreciating asset as a forest grows.

The first issue can be remedied by acknowledging a suitable price for carbon. It would appear from an assessment of projects under the CFI and ERF that the projects requiring the lowest carbon income have been undertaken and that the price will now move up the 'agricultural cost curve'. With Beef Lamb prices at record highs, the cost curve has changed materially in the last few years and this all points to the complicated dynamic nature of the agricultural marginal abatement cost curve.

GreenCollar believes that the CCA should undertake an assessment of annual income per hectare across Australia (potentially utilising ABAREs data set) to identify marginal cattle or sheep grazing areas which could provide an economically viable carbon income as an alternative. The carbon project market is effectively doing this already but this information could help guide policy and political discussion on carbon in the land sector.

As an example;

A beef cattle operation in central QLD could produce 500g of beef per day, per hectare through best practice rotational grazing. Consequently, they may be achieving an income of between \$50-60 a hectare per annum. The income from a forest regeneration carbon project might deliver approximately deliver 3-4 tonnes c02e per hectare per annum which equates around \$30-40 per hectare per annum (at a hypothetical \$10 a tonne of co2e).

Evidently, in this example the income from carbon is only marginally economically viable as an alternative income but is not an equal replacement for agricultural income. It is further

complicated, as it must be understood that there is a possibility under most methods to continue producing an income from cattle under re-growing trees however eventually the carbon projects must replace most if not all the future income from the land as stock carrying reduces (sometimes to zero) and thus needs to have at best an equivalent value over the long term.

Regarding the Avoided Clearing method. Avoided clearing/deforestation of remnant vegetation is clearly the lowest cost and lowest economic impact, therefore more work should be done on increasing the eligibility of properties to enter an avoided clearing project. The current criteria are too harsh and exclusionary, it should be made to be more accessible for prospective candidates.

*Q.2. Do the four identified pressures adequately capture the major issues facing the agricultural sector that are relevant to the intersection of NRM, agriculture and climate policy?*

1. Reducing Agricultural-Related Emissions

Agricultural activities produce emissions that are categorized into agriculture (Methane and nitrous oxide emissions (including enteric fermentation and agricultural soils), land use, land use change and forestry (LULUCF).

Human induced regeneration is the most widely-used method of abatement as the eligibility requirements are broader and therefore more easily satisfied.

The scope of Avoided Deforestation and Avoided Clearing are confined; therefore, AD may have reached its potential. However, there is large potential under Avoided Clearing to reduce emissions from deforestation, especially in Queensland, that can be brought on through a change in the eligibility criteria, which is currently almost unworkable in practice.

2. Improving Productivity

The agricultural community has responded to market competitiveness by increasing productivity, but CCA wants to know how to make improved productivity simultaneous to NRM benefits.

The price of carbon is not sufficient enough to engage landowners in carbon projects. Particularly concerning soil carbon abatement, the monetary incentive is not enough to warrant graziers involvement due to the consequences it has for their own profitability.

There is potential to create incentives for all environmental outcomes, including biodiversity, water quality and ecological value and allow projects to engage with carbon projects that have these benefits, adding income from non-carbon outcomes to make a project commercially viable, diversify their income, increase productivity on developed areas of land and mitigate risk.

3. Adapting to Climate Change

The ramifications from climate change for the agricultural sector are numerous. Drought is a particularly adverse consequence, to which crop yields are more dramatically affected.

It is currently difficult to convince graziers and those in the agricultural industry of the future impacts of climate change. Education should be a priority to invigorate this sector to adapt

and mitigate. The adverse affects of climate change are likely to incentivize agricultural engagement, although economic factors are more likely to be influential and stimulate the individual. We note that some NRM groups are actively undertaking such education programs (Capricornia Catchments in Central Queensland being one that we work with in partnership).

4. Conversing Natural Capital

The agricultural industry has an important and invested role in conserving natural capital. According to ABS data, voluntary agricultural investment is considerable. However, non-government organisations/business should be involved in implementation of NRM goals.

Placing a value on the environmental benefits of activity change will also help conserve and increase the value of natural capital.

*Q.3. How can the government, non-government and private sectors address these challenges?*

Farmers constitute more than half of Australia's landmass and therefore have a central role in conservation of Australia's natural capital.

The CCA correctly notes that the role of non-government bodies is 'important' to supporting landholders. It is critical to implement education and further incentives to move the agricultural industry to best practice land management.

GreenCollar (the private sector) is working on models for valuing environmental outcomes, particularly water quality outcomes in the Great Barrier Reef Catchments as part of our Private Public Partnership with the Queensland State Government and the NRM Regional Groups Collective.

GreenCollar has MoUs with most Qld NRM groups under which we are seeking to solve these challenges by correctly valuing the environmental outcomes.

*Q.4. How could these challenges affect efforts to deliver emissions reductions, NRM and agricultural policy objectives in a coordinated way?*

There is clearly an opportunity to realise the triple bottom line where non-carbon outcomes are valued.

In many cases we come across, projects that could reduce emission or sequester Co2 through revegetation are marginally unviable. A slight change in the economics of a project could unlock the emissions reductions from these projects. GreenCollar estimate somewhere in the realms of 100 million tonnes of abatement is marginally uneconomic and would be achieved with an increase in the price for carbon, or an income from the non-carbon environmental outcomes.

As previously stated, income from environmental projects provides cash flow certainty to the agricultural sector and allows income to be redistributed to increasing productivity on non-project land.

*Q.5. What has been the economic impact of emissions reduction policies like the ERF on the agricultural sector?*

The adoption of methodology under the ERF has been beneficial to the agricultural sector to diversify income streams, especially during times of drought etc. Development of price certainty has been a significant influence for farmers to engage in carbon products.

Soil improvements, including soil carbon sequestration, have a natural co benefit to productivity and restoring the natural asset. However, this science is not robust enough to model the actual sequestered carbon nor is it a productivity outcome.

Thus, more work and investment into the soil carbon space is required to understand the process involved in the range of different areas across the country.

Example;

With the current increase in cattle prices, landholders receiving income from carbon projects have been able to redistribute income to increasing productivity and carrying capacity of their non-project land, as well as being able to re-stock where they had reduced numbers due to drought. This income and expenditure flows through the agricultural sector and the economy at large.

It is evident that the funding for projects provided to the land sector has had a material impact on the economic and social aspects of the agricultural sector.

*Q.6. Are any additional incentives needed to encourage further emissions reductions in the agricultural sector?*

As stated in Q4, valuing environmental outcomes is one way;

“In many cases we come across, projects that could reduce emission or sequester Co2 through revegetation are marginally unviable. A slight change in the economics of a project could unlock the emissions reductions from these projects. GreenCollar estimate somewhere in the realms of 100 million tonnes of abatement is marginally uneconomic and would be achieved with an increase in the price for carbon, or an income from the non-carbon environmental outcomes”.

There is no current value placed on ecologically sustainable farming activities at the producer or consumer level. This is problematic and could be address through a national scheme branding sustainable sustainable practices to the consumer. This could provide real value to the agricultural sector.

Perhaps an ‘Eco-Brand’ that values ecological sustainability would increase enthusiasm for water quality, soil improvement and biodiversity.

A method for valuing water quality outcomes would go a long way to increasing abatement projects in Queensland, particularly in the reef catchments. GreenCollar is working on developing such a mechanism and would be happy to discuss further.

*Q.7. What emissions reduction opportunities should the Authority consider that could enhance the interactions between climate mitigation, agriculture and NRM policies?*

The current suite of carbon methodologies can provide the climate mitigation outcomes required. However, they need to be further incentivized to move up the marginal abatement cost curve for agriculture.

Providing value for non-carbon outcomes is the main driver for increased carbon emissions as stated in Q4 and Q 6

“In many cases we come across, projects that could reduce emission or sequester Co2 through revegetation are marginally unviable. A slight change in the economics of a project could unlock the emissions reductions from these projects. GreenCollar estimate somewhere in the realms of 100 million tonnes of abatement is marginally uneconomic and would be achieved with an increase in the price for carbon, or an income from the non-carbon environmental outcomes”.

*Q.8. What climate, agriculture and NRM policy interactions should be covered in the Authority’s research?*

Investigation and clarification into what does effective interaction of the 3 wins look like?

Certainty of price for emissions avoidance/sequestration provides income to landholders to increase productivity (potentially by clearing other areas of their land). Is this a good out come? If so, it needs to be communicated as such. In most cases these areas of land where always going to be cleared and the carbon income has just allowed the landholder to allocate income to increased productivity in a more timely manner based on agricultural market conditions.

*Q.9. How, and to what extent, do existing climate change mitigation policies affect the operation and outcomes from agricultural policies?*

No response given other than the already stated opinions above in this area.

*Q.10. How, and to what extent, do existing climate change mitigation policies affect the operation and outcomes from NRM policies?*

No response given other than the already stated opinions above in this area.

*Q.11. How, and to what extent, do existing agricultural and land based emissions reduction policies affect social, economic and cultural outcomes, including for farmers and Indigenous people?*

No response given other than the already stated opinions above in this area.

*Q.12. What role, if any, should strategic NRM planning play in helping to minimise non-carbon costs and enhance non-carbon benefits of agricultural carbon projects?*

NRM groups should assess the advice they are giving a landholder includes the benefits of potential carbon projects on the land.

NRM groups can provide depth of insight into the financial drivers and commerciality of agricultural enterprises.

*Q.13. If strategic NRM planning should be used for these purposes, whose responsibility should it be to prepare and implement the plans, and through what processes?*

Collaboration between the private sector and NRM groups has proven to be a successful driver of maximising emissions reduction.

*Q.14. Is there scope to streamline, harmonise and better integrate existing environmental data collection and analysis systems that apply to the agricultural sector? If so, how might this be done?*

The development of consistent national protocols, if desired, should be funded by the legislature. Subsisting project proponents may already have this structure in place but to make the process cohesive, national funding is required.

GreenCollar oversees the largest carbon project data collection activities on our projects. Our data is collected in a way that meets the requirements of the CSIRO for use in the FullCAM model.

For this to be broadened, this would need to be funded. Income from existing carbon projects is not able to be increase under already contracted abatement (all costs have already been factored into the price of carbon bid under the ERF), hence additional income would be required in most cases currently.

*Q.15. What improvements (if any) could be made to existing environmental accounts and indicator systems to facilitate better integration of climate, agriculture and NRM policies?*

No response

*Q.16. Should approval-linked offset schemes give explicit consideration to the emissions reductions or carbon storage implications of compensatory mitigation actions and, if so, how?*

We note and agree that in the issues paper you state that existing approval-linked environmental offset schemes rarely have regard to climate change benefits. The CCA flags this as a potentially inappropriate intersection of different schemes.

In some cases, we have found that a carbon project and a biodiversity project can be combined to make a project viable.

Whilst carbon stock and biodiversity are intrinsically linked, they should be valued under separate mechanisms.

GreenCollar propose that a more consistent national mechanism for measuring and equalizing biodiversity benefits would facilitate a later uptake of carbon projects which have measured biodiversity outcomes.

For example;

The construction of a large Coal Mine and Port in Queensland results in damage to sensitive ecological areas. It should be easy for the developer to access offsets for the environmental impact in the same way they can offset their carbon emissions. If the damage were to an existing Brigalow forest, then it should be easily offset by purchasing biodiversity offsets for an equal value of the environmental damage. Currently, they must purchase Brigalow forest properties and lock them up to offset the exact impact (or a multiple of the impact) which is quite restrictive. Also, sediment pollution from the port operations cannot be offset easily. However, the development of a water quality/sediment reduction offset, which is traded in a secondary market, would allow that company to easily offset its environmental damage.

*Q.17. Are there appropriate restrictions under the ERF to manage the non-climate related risks associated with carbon offset projects? If not, how could they be improved?*

The current restrictions outlined in the methodologies are appropriate.

*Q.18. Should government policies formally recognise the non-climate benefits associated with ERF projects undertaken by Indigenous communities and, if so, how should this be done?*

The private (voluntary) market does currently value Indigenous co-benefits of carbon projects. This should be codified by the government into specific indigenous schemes, as it is currently difficult to incentivise with the existing ERF structure.

*Q.19. Would the development of such approaches be better left to the private sector perhaps working in partnership with non-government organisations or Indigenous communities?*

Although there is some scope for the private sector to inform this relationship, it is still imperative for Government to value these projects. This should manifest in the provision of grants and funds to assist such a private sector initiative.

*Q.20. What approach, if any, should be adopted to assist carbon offset proponents to realise a monetary value for non-carbon benefits associated with their projects?*

The cost of improved practice, land use change and ecosystem repair remains a key barrier to achieving environmental outcomes (particularly in the Great Barrier Reef catchments).

One way to overcome this barrier is to pay for the ecosystem benefits arising because of the land use change.

Among the conclusions of the final 'Water Science Taskforce report' (Qld Great Barrier Reef focused) was the need to consider incentives and market mechanisms "to complement and

integrate with regulation extension and education”<sup>1</sup>.

Such market-based approaches have been shown to work effectively around the world in the provision of environmental services such as the sequestration of carbon, the reduction of Sulphur dioxides and the creation of water quality credits.

Vivid Economics notably stated in their Great Barrier Reef financing report that “the evidence globally shows that conservation finance has flowed almost exclusively to commercial opportunities and that the challenge is not so much to devise financial structures that work, but to establish property rights and other incentives which create the commercial incentives to attract finance.”

Through the demand for such credits, land owners have opportunities to access new income streams by implementing land use change activities that improve water quality or biodiversity outcomes or increase the rate of carbon sequestration on their properties in vegetation and soils.

There should be more scope to accredit the non-carbon benefits of a project. The most significant problem in developing an approach is the ‘technical and ethical difficulty of developing criteria for assigning values’.

GreenCollar strongly advise that separate crediting is the most viable approach to achieving an effective carbon market. The regulation of the separate crediting would be more successful than a multiple benefit approach.

Each commodity stream should be valued by the market independently, and regulated by legislation to reflect its own characteristics as an environmental commodity.

The issues that can be caused to existing markets, such as carbon, are a danger to the integrity and efficient functioning of a market.

*Q.21. If a separate crediting approach is adopted, what integrity restrictions, if any, should be imposed on project eligibility to address additionality concerns?*

As discussed above, GreenCollar would strongly advise a separate crediting approach.

The multiple benefit approach has several deficiencies that could result in an unstable market for all benefits.

The integrity of the carbon markets depends upon trading and development of ACCUs to be clean and thus maintain their value. Messing with this integrity would have market disruptive issues not just domestically, but also in the ability to transact carbon units globally.

The multiple benefit approach would not allow the Clean Energy Regulator to have an oversight function to ensure the integrity of multiple industries.

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<sup>1</sup> Conclusion 4 and Recommendation 8, WST Final Report p55

Regulatory oversight is desirable in the carbon market as consistent reporting is multi-faceted and requires an executive consideration of variable commodities.

*Q.22. If a multiple benefits accreditation approach is adopted, what should be included within the scope of the accreditation process and what models of accreditation should be used?*

As discussed above, GreenCollar would strongly advise against a multiple benefit crediting approach.

The multiple benefit approach has several deficiencies that could result in an unstable market for all benefits.

The integrity of the carbon markets depends upon trading and development of ACCUs to be clean and thus maintain their value. Messing with this integrity would have market disruptive issues not just domestically, but also in the ability to transact carbon units globally.

Measurement and verification of the non-carbon benefit does not have the same scientific rigor around measurement and verification and as such bring the integrity of the carbon unit (or the environmental unit) into question.

Globally, the most successful credit based markets are for simplified, transparent and separate units, for example NOX and SOX markets in the United States.

GreenCollar cannot emphasize enough how bad an idea multiple benefit crediting would be.

*Q.23. Should the accreditation of non-carbon benefits be led by government or left to the nongovernment sector?*

It should be a joint project between private sector, NRM groups and the government. While the private sector can play a role in developing such a market, in general, we would think that there must be some government or semi government oversight for it to reach full maturity.

GreenCollar's view would be that accreditation should follow that of the carbon market with similar rigor at a national level. Consistent methodologies, accreditation process and governance frameworks need to be developed.

Nationally recognized methodologies for calculation, measurement and crediting of various environmental outcomes is by far the best approach.

*Q.24. What should the role of government be in establishing markets for multiple benefits and how can an appropriate framework be developed?*

Assuming you mean separate benefits for multiple non-carbon outcomes. We do not support the multiple benefit single credit model for the reasons above.

As above, it should be a joint project between private sector, NRM groups and the government. While the private sector can play a role in developing such a market, in general,

we would think that there must be some government or semi government oversight for it to reach full maturity.

Q.25. Should the government provide funding for multiple benefits? If yes, how should such funding deal with additionality issues?

Assuming you mean separate benefits for multiple non-carbon outcomes. We do not support the multiple benefit single credit model for the reasons above.

There would be a role at some stage in the evolution of non-carbon environmental markets. Whether that is seed funding, startup funding, EEF style models or other would depend on the underlying nature of the credit.

The most effective markets have long term demand from liable entities, end users or some government regulated demand source. The ERF/Safeguarding mechanism is one of example of how funding can transition.

*Q.26. To what extent are existing NRM grant programs designed to capture complementary carbon benefits?*

In our experience, NRM grant funding has historically focused on the non-carbon benefits. That may be an incorrect generalization as we do not have relationships with all NRM groups around the country. However, we can say that the collaborative work of the NRM groups that we are working with who are now undertaking projects are indeed looking at capturing the complimentary carbon benefits of projects.

*Q.27. Are there opportunities to improve the linkages between climate change mitigation policies and NRM grant programs?*

Yes, as above the collaborative work of the NRM groups that we are working with who are now undertaking projects are indeed looking at capturing the complimentary carbon benefits of projects.

Increased funding to NRM groups to focus on linkages with climate change mitigation would greatly assist these efforts.

*Q.28. Are any changes needed in state or territory fire management laws to help minimise firerelated risks associated with emissions reduction projects, or to promote the more effective use of fire to manage wildfire risks and improve NRM and climate outcomes?*

Current fire management laws appear sufficient to manage fire related risks from carbon projects.

Understanding that fire poses a risk to project success and is part of the best practice management of a carbon project.

*Q.29. What role, if any, could soil conservation laws, policies and agencies play in promoting land management practices that increase the storage of carbon in soils?*

Greater effort and investment in understanding, measuring and particularly forecasting soil carbon sequestration should be undertaken.

Soil carbon is intrinsically linked to soil quality and greater effort should be given to this space for productivity, environmental and natural resource outcomes.

*Q.30. What barriers exist to uptake of soil conservation projects through the ERF?*

The modelling, baselining and estimation of soil carbon sequestration are the biggest barriers to uptake of soil carbon projects.

*Q.31. Are there opportunities for improved linkages between climate change mitigation and pest and weed management policies to maximise climate and NRM outcomes?*

No response offered.

*Q.32. To what extent do publicly-funded agricultural R&D and extension programs focus on the reduction of emissions and the opportunities to simultaneously mitigate emissions and improve productivity?*

Our understanding is that there is not much of a focus of R&D and extension programs in this triple bottom line outcome.

There should be more of it as discussed above.

*Q.33. Are there opportunities to re-orientate publicly-funded agricultural R&D and extension programs towards reducing emissions from NRM and agriculture?*

As above, re-enforcing the great work currently being undertaken by NRM and re-enforcing their focus on carbon related outcomes from the projects they undertake. Funding R&D and extension can only add to the outcomes on reducing emissions.