



National Farmers'
F E D E R A T I O N

Submission to the
EMISSIONS REDUCTION FUND
GREEN PAPER

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The National Farmers' Federation

The National Farmers' Federation (NFF) is the peak national body representing farmers and, more broadly, agriculture across Australia. It is one of Australia's foremost and respected lobbying and advocacy organisations.

Since its inception in 1979, the NFF has earned a formidable reputation as a leader in the identification, development and achievement of policy outcomes - championing issues affecting farmers and dedicated to the advancement of agriculture.

The NFF is dedicated to proactively generating greater understanding and better-informed awareness of farming's modern role, contribution and value to the entire community.

One of the keys to the NFF's success has been its commitment to presenting innovative and forward-looking solutions to the issues affecting agriculture, striving to meet current and emerging challenges, and advancing Australia's vital agricultural production base.

The NFF's membership comprises all Australia's major agricultural commodities. Operating under a federated structure, individual farmers join their respective state farm organisation and/or national commodity council. These organisations collectively form the NFF.

The NFF recently implemented a re-structure of the organisation. An associate member category has enabled a broader cross section of the agricultural sector to become members of the NFF, including the breadth and the length of the supply chain.

Each of the state farm organisations and commodity councils deal with state-based 'grass roots' issues or commodity specific issues, respectively, while the NFF represents the agreed priorities of all at the national and international level.

Key points in our submission

- The carbon tax resulted in additional costs for all farmers. The NFF welcomes the repeal of the carbon tax and the Government's commitment to a Direct Action Plan and the establishment of an Emissions Reduction Fund to promote the adoption of technologies and practices to reduce emissions. The broad direction of the ERF outlined in the Green Paper is supported by the NFF.
- Emissions from agriculture rank fourth in the National Greenhouse Gas Inventory. The Emissions Reduction Fund is an opportunity for the agriculture sector to contribute to the emissions reduction task. NFF's view is that the design of the ERF should ensure that the fund is accessible to the agriculture sector.
- NFF is seeking assurance that the design of the ERF will support the participation of the agriculture sector. A basic analysis of the emissions reduction task shows the average price the Government will pay for ERF projects is in the order of \$10 per tonne of CO₂e. The experience of the Carbon Farming Initiative is that the break-even price of carbon projects under the CFI is close to \$23/t CO₂e. This indicates that agricultural projects may not be competitive when compared to, for example, large projects likely to be generated from the industrial and energy sectors. Careful consideration of the design

of the auction system, and the benchmark price is required to ensure the benchmark price is an average, and that projects over and under the benchmark price are accepted.

- Significant effort – and investment - is required to develop appropriate methodologies to enable agriculture sector participation. Methodologies that have been approved by the CFI do not cover cropping and grazing activities. Progress to develop these methodologies is required to support participation of the agriculture sector in the ERF.
- There are considerable opportunities to reduce emissions at a “whole of farm” or “farming system” scale. NFF recommends that developing such a methodology would enhance the ability of agriculture to participate in the ERF. It would enable a farmer to implement a more comprehensive project that covers the range of agricultural emissions, rather than a single project that focuses solely on one activity.
- Further investment in research is required to facilitate the participation of agriculture in the ERF. Investment in the development of agricultural activity methodologies and research into innovative farm management practices that reduce emissions and improve soil carbon are key priorities.

1. Introduction

The National Farmers' Federation (NFF) welcomes the opportunity to make a submission to the Government's Emissions Reduction Fund (ERF) Green Paper. While the ERF is built on the principles of the Carbon Farming Initiative (CFI), the NFF has identified a number of issues with the proposed design and how this may influence the participation of the agriculture sector. This submission outlines these issues in more detail.

Agriculture emissions rank fourth in the National Greenhouse Gas Inventory. Given this, NFF's view is that the design of the ERF should ensure that the fund is accessible to the agriculture sector.

Table 1 shows the baseline, Kyoto period and project 2020 emissions. For the Kyoto First Commitment Period, emissions from agriculture will rise by approximately 1.3% over the 1990 period and certainly well under the Australian Government commitment of 108% of 1990 levels. However, when combined with LULUCF, agriculture is projected to reduce its emissions profile by 15.7 Mt CO₂-e¹ (Department of the Environment, 2013).

Table 1: Baseline agriculture emissions, Kyoto period average and 2020²

	1990	2000	KYOTO PERIOD AVERAGE 2008-12		2020	
	Mt CO ₂ -e	Mt CO ₂ -e	Mt CO ₂ -e	% increase on 1990	Mt CO ₂ -e	% increase on 2000
Enteric fermentation	64	60	56	-13	61	1.3
Manure management	2	3	3	60	4	13
Rice cultivation	0.5	0.7	0.2	-62	0.4	-42
Agricultural soils	13	16	15	9	16	-0.5
Prescribed burning of savannahs	7	13	12	88	12	-8
Field burning of agricultural residues	0.3	0.4	0.3	17	0.5	14
Total	87	94	86³	-0.4	94	-0.2

Source: CIE (2010), ABARES (2010), DCCEE analysis. Numbers may not add due to rounding.

Since 1990, agriculture's emissions (excluding LULUCF⁴) has increased by 4.0% (Department of the Environment, 2013). Emissions from agriculture include methane and nitrous oxide from enteric fermentation in livestock, manure management, rice cultivation, agricultural soils, savanna burning and field burning of agricultural residues⁵. The agriculture sector is the dominant sector for methane and nitrous oxide emissions⁶.

¹ Derived from summing agriculture, afforestation and deforestation activities, p. 15

² Source: <http://www.climatechange.gov.au/reducing-carbon/reducing-australias-emissions/australias-emissions-projections/agriculture-emissions-projections>.

³ Note that the June 2013 National Accounts indicate that agriculture's emissions is expected to be 88.1 Mt CO₂-e for the end of the First Kyoto Protocol commitment period (p. 12).

⁴ LULUCF – land use, land use change and forestry

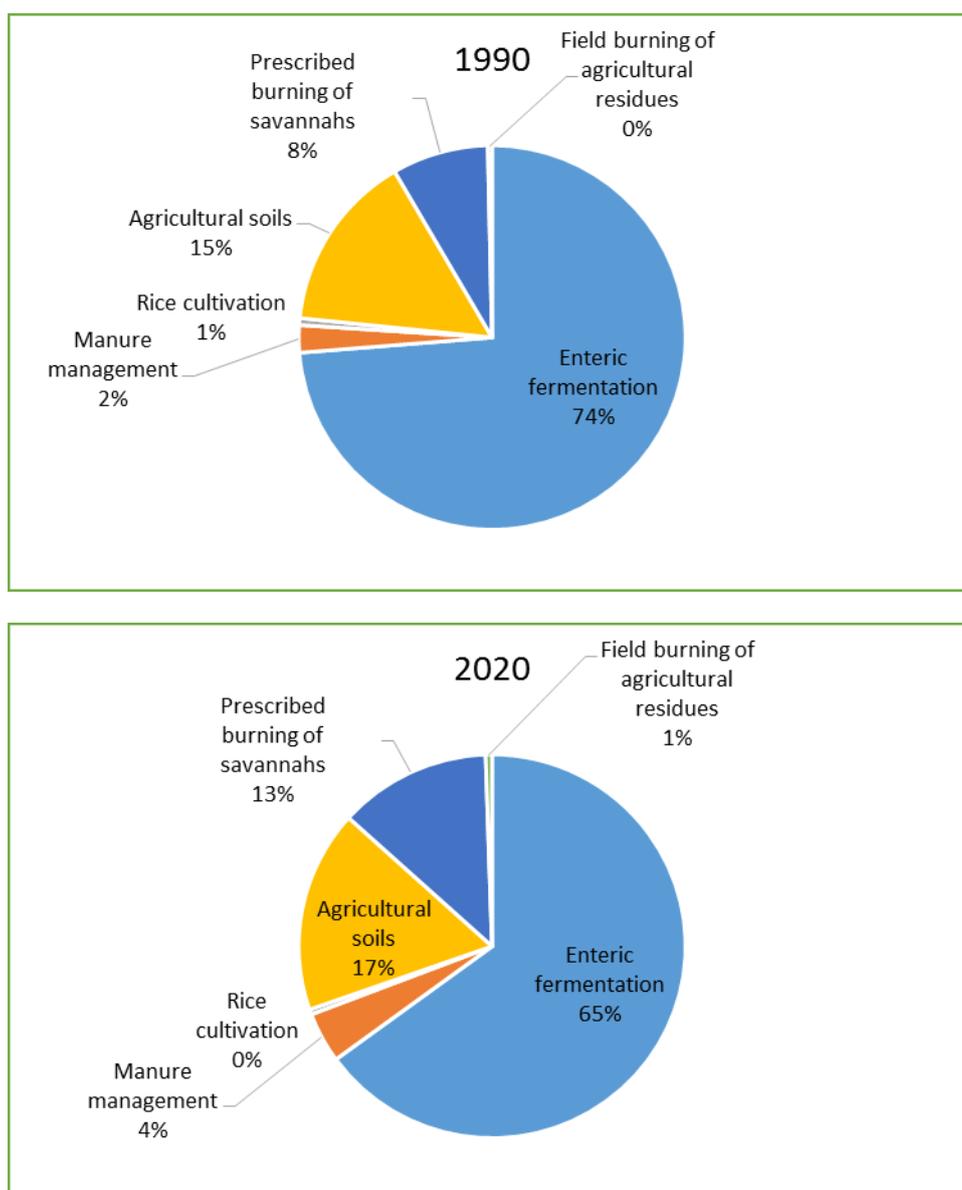
⁵ Ibid, p.10

⁶ Ibid, p. 10

Within agriculture, the highest emissions source is methane (enteric fermentation and manure management) followed by agricultural soils. Consequently, methane has been the target of most investment in research and development, including the development of methodologies. However, between 1990 and 2020, enteric emissions are set to decline, while agricultural soils are set to increase (see Figure 1).

With the Australian Government agreeing to report Article 3.4 activities (cropping and grazing land management), focus needs to shift to agriculture soils emissions as the second largest emissions source in agriculture. To this end there is an urgent need for a significant research effort to underpin methodologies and on ground projects at farm level.

Figure 1 Agriculture's emissions profile, 1990 and projected to 2020



As farms in Australia are generally mixed enterprises, the NFF supports the investment in methodologies that are focussed on the whole of farm or whole of system. For example, it could involve a mix of vegetation, soil carbon, nitrous oxide and methane emissions. Otherwise, farmers are likely to only focus on one type of emission, which is a perverse outcome.

This submission highlights important impediments or barriers within the Carbon Farming Initiative that need to be addressed to enhance the prospects for agriculture's participation in the ERF, and raises concerns that expanding the CFI concept to apply to the whole of the economy may lead to positive and potential negative outcomes for agriculture.

2. ERF Principles

The Emissions Reduction Fund will be designed to achieve lowest-cost emissions reductions as its primary objective.

Views are sought on opportunities for large-scale, low-cost emissions reductions, including estimates of potential reductions

The ERF is based on three principles:

- Lowest-cost emissions reductions;
- Genuine emissions reductions; and
- Streamlined administration.

Lowest cost emissions reductions

The ERF is to be designed to achieve lowest-cost abatement (p.2, p.17 and elsewhere throughout the Green Paper) as its primary objective. Underpinning much of the discussion in the Green Paper is a presumption that the agriculture sector will be positively positioned to participate in the ERF and that the agriculture sector will be a source of low cost abatement. It is important that the Government builds on the experience of the CFI to ensure that the design of the scheme supports participation by farmers.

Projects implemented to date under the CFI have a high level of confidence in achieving a price for their Australian Carbon Credit Units (ACCU) at close to the **current price** of carbon. The University of Melbourne has undertaken work that suggests that the break-even price of carbon projects under the CFI is closer to \$23/t CO₂e.

NFF is seeking assurance that the design of the ERF will support the participation of the agriculture sector. A basic analysis of the emissions reduction task shows the average price the Government will pay for ERF projects is in the order of \$10 per tonne of CO₂e. Given the experience of the CFI, on initial analysis agricultural projects may not be competitive when compared to, for example, large projects likely to be generated from the industrial and energy sectors. Careful consideration of the design of the auction system, and the benchmark price is required to ensure the benchmark price is an average, and that projects over and under the benchmark price are accepted.

The requirement to implement a carbon sequestration or mitigation project using their own or borrowed funds is likely to be a significant impediment to farmer participation. This view is informed by the significant doubling of agriculture debt during the Millennium Drought, with little repayment of this occurring since.

The Green Paper indicates that the financial sector would support borrowing for project implementation based on contracts supplied. While this may assist in implementation, our view is that it is likely that farmers would need to have sufficient equity in their primary assets (e.g.

land and water entitlements) to borrow and to be able to demonstrate a capacity to repay. NFF encourages greater dialogue between government and lending institutions on this issue.

The Green Paper has also noted that the ERF will not be used for capital but that it “will provide financial incentives to bring forward many of these and other types of energy efficiency projects”. This is unlikely to apply to agriculture. Moreover, the Minister has previously ruled out use of the ERF for capital.

The NFF is concerned that for most of agriculture, i.e. cropping or grazing land management, there are currently no approved methodologies to enable participation in the CFI. Unless this is resolved, the opportunities for low-cost abatement in the agriculture sector are likely to be overstated.

To unlock the potential for abatement in agriculture, further investment in research and development is required, particularly to develop methodologies. With a significant reduction in available funding associated with the CFI Carbon Farming Futures program funding, this is likely to remain a significant impediment to more widespread application of CFI to agriculture. This will hinder participation by farmers in CFI, as the program lacks the required tools to facilitate farmer involvement.

NFF would like to see the Government encourage farmers to take direct action to reduce their on farm emissions through energy efficiency audits and upgrades to farming equipment.

We propose an energy efficiency program targeted at the agricultural sector, including rebates for on farm energy efficiency audits, upgrades to equipment and online farm energy use calculators. Encouraging active demand side participation by farmers would have the dual benefit of increasing farm profitability and competitiveness by offsetting rising electricity costs and reducing emissions.

ClimateWorks Cost Curve

The NFF notes the inclusion of the ClimateWorks cost curve in the Green Paper. In 2010, ClimateWorks estimated that agriculture could contribute 13% to emissions reductions in 2020 (ClimateWorks Australia, 2010, p.53). Importantly, the report notes that “*identified emissions reduction opportunities do not, however, come at the expense of food production*” and that the best options incorporate projects “*that increase or maintain productivity over the long run, giving farmers the tools and information necessary to pursue appropriate strategies and allowing farmers to make their own decisions*”. NFF concurs with these sentiments.

The ClimateWorks report provides further information on the identified opportunities for agriculture and forestry, with the latter providing the largest quantity of sequestration opportunity: Some of these opportunities are:

- **Reducing cropland soil emissions.** This primarily involves reducing tillage, which reduces CO₂ emissions through less disturbance of the soil, and improved nutrient management, which reduces nitrous oxide (N₂O) emissions through more precise application of fertiliser.
- **Reducing livestock emissions.** Active feeding programs that allow animals to gain weight more quickly with higher quality feed both reduce emissions per day and also reduce the time it takes to bring an animal to slaughter weight, thus reducing lifetime emissions. The anti-methanogenic category represents a range of treatments that act to

reduce the prevalence of methane producing methanogens in livestock. Many of these treatments, such as vaccines, are still being developed or trialled.

- **Pasture and grassland management.** These similar practices are applied over two different grazing systems—more intensively managed improved pastures and the far larger natural grasslands (or rangelands). Both practices involve optimising grazing intensity and timing to maximise productivity and carbon sequestration, increasing the prevalence of deep rooted perennial grass species, managing fire and increasing fertiliser use.
- **Cropland carbon sequestration.** Cropland carbon sequestration activities can reduce emissions by increasing the use of deeper rooted crop varieties that allocate more carbon to the soil, and reducing the use of bare fallow and planting cover crops.
- **Degraded farmland restoration.** Principally, restoration involves reducing salinity, acidification and erosion through revegetation, application of nutrients and other measures to restore the health of land and increase its ability to support vegetation and store soil carbon. Though the opportunity is large, active restoration of degraded land is expected to be the most expensive on less managed rangelands
- **Reforestation.** The largest emissions reduction opportunity is in reforestation which is split across three specific opportunities:
 - **Reforestation of marginal land with timber:** This involves planting trees for eventual harvest on land that is less suitable for other purposes (i.e. marginal land). A reduction in emissions occurs because carbon is sequestered as the trees grow, released as they are harvested and recaptured over time as new trees are planted and grow.
 - **Reforestation of marginal land with environmental forests:** In this opportunity the marginal land is planted with native forest and not harvested and therefore has a higher cost.
 - **Strategic reforestation of non-marginal land with environmental forest**
- **Reduced deforestation and regrowth clearing.** Reducing deforestation emissions therefore means reducing either first time clearing or regrowth clearing. This report assumes the reduction in emissions will require a combination of both.
- **Forest management.** Improved forest management includes practices such as removal of weeds like lantana and blackberries that limit woody growth, control of feral animals, insects and pests to promote tree growth and fire management.

The agriculture specific cost curve (**Figure 2**) summarises the aforementioned opportunities, while the forestry cost curve is shown in **Figure 3**.

Figure 2 2020 Agriculture GHG emissions reduction societal cost curve (ClimateWorks Australia, 2010)

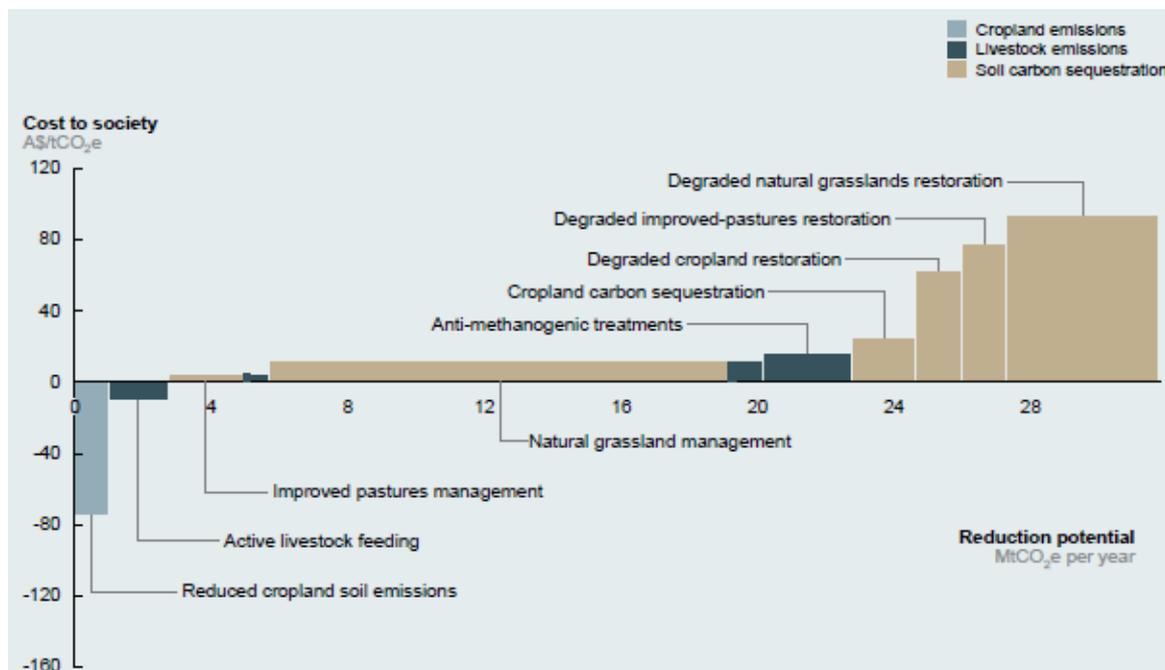
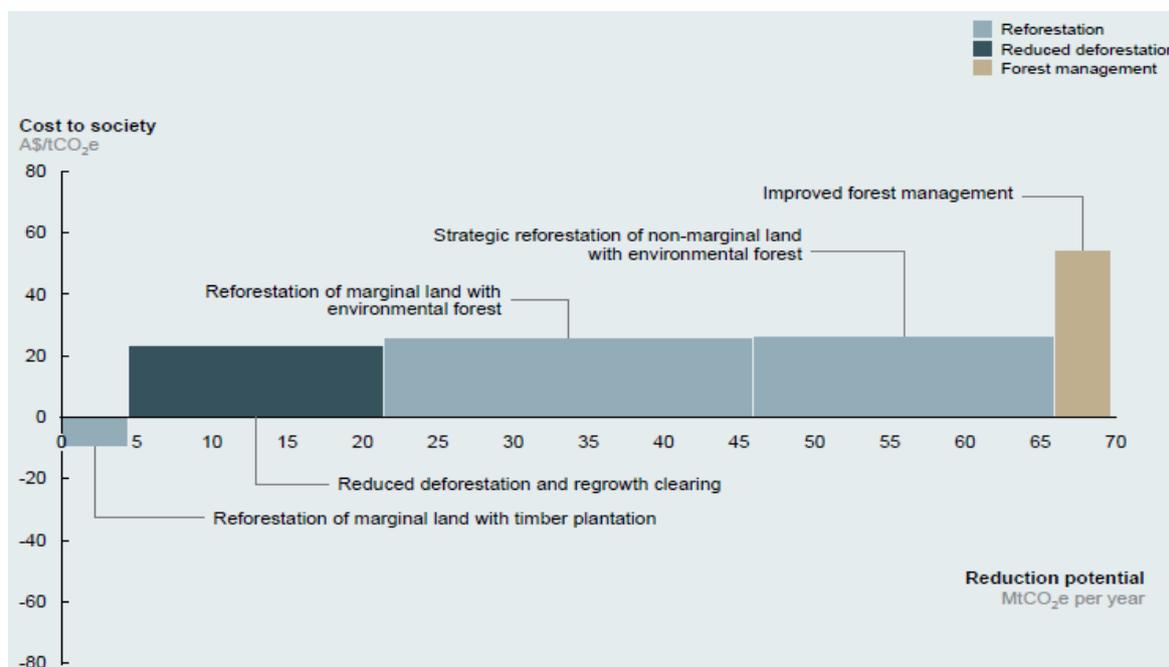


Figure 3 2020 Forestry GHG emissions reduction societal cost curve (ClimateWorks Australia, 2010)



ClimateWorks notes that the challenges include the price of the projects (its expensive for example to plant forests), information gaps and decision processes, and capital constraints and investor priorities, while for agriculture the additional challenge is market structure and supply.

ClimateWorks notes that 78% of the opportunity for agricultural emissions comes from soil carbon sequestration but according to their estimates (Figure 2) this comes at a higher cost than

current international prices for carbon (e.g. EU trading scheme), and likely replicated by the Emissions Reduction Fund principle of “lowest cost abatement”.

The ClimateWorks report shows similar outcomes for forestry where the cost of sequestration exceeds the international trading price (e.g. EU trading scheme) and likely ERF lowest cost abatement price. Moreover, it requires 6 million hectares of land to be reforested away from agriculture, albeit “less productive or marginal land”, which is land that would have slower growth rates and consequently sequestration rates.

In 2010, the Nous Group released a report on the opportunities for carbon sequestration in Australia’s outback, and investigating five land management practices: reducing land clearing, vegetation regrowth, grazing management, fire management, and feral pest management. Importantly, the report suggested that the majority of the sequestration opportunity will occur between 2030 and 2050, as shown in the following figure. This suggests that the most cost effective land sector opportunities are unlikely to be available before 2020.

Figure 4 Overall reduction in GHG due to changed land management practices (Mt CO₂-e) (Nous Group, 2010)

	Reducing land clearing	Vegetation regrowth	Fire management	Feral pest management	Grazing management	Total
Total reduction to 2050	425	287	230	184	206	1,332
Annual reduction at 2020	11	5	5	4	0	26
Annual reduction at 2030	11	9	7	6	8	40

Moreover, the Nous Group suggested that feral animal management leads to an economic gain (no regrets), while land clearing, vegetation regrowth and fire management are the most cost effective opportunities. However, grazing management was a high cost initiative (Nous Group, 2010).

Figure 5 Carbon costs of the land management practices (Nous Group, 2010)

	Reducing land clearing	Vegetation regrowth	Fire management	Feral pest management	Grazing management
Cumulative carbon cost to 2050 (NPV / total abatement)	\$11.19	\$17.54	\$7.47	-\$2.43	\$101.09
Carbon cost at 2020 (cost at 2020 / abatement)	\$7.95	\$17.95	\$12.50	-\$3.95	N/A
Carbon cost at 2030 (cost at 2020 / abatement)	\$18.79	\$22.92	\$12.50	-\$3.14	\$416.44

ClimateWorks notes that some of these land sector challenges can be overcome by:

- Creating a clear system of agricultural carbon accounting and payment, including research;
- Giving farmers a range of tools; and
- Providing relevant information on regulations and risks, by trusted local institutions and individuals;

Is aggregation the solution?

The NFF is cognisant that it is the view of the Government, Department and other sectors that agriculture and forestry projects may be more cost effective if the use of aggregators was employed, and that organisations like the NFF and its Members could participate as aggregators.

For project aggregators, “*significant efforts are required to mobilise all relevant stakeholders, carry out investment inventories, develop feasibility studies, financial engineering instruments, and to address legal and procurement issues*” (European Commission, n.d.).

The Green Paper notes that many individual emissions reduction opportunities are small but when aggregated can be large and suggests that local governments and non-government organisations, as well as climate advisory businesses, have identified opportunities to become project aggregators. NFF acknowledges that there are many organisations prepared and willing to take on these roles, perceiving that there are financial opportunities to be gained as an aggregator.

However, the Australian Government’s own work commissioned for the CFI Extension and Outreach suggests that farmers have strong preferences to deal with organisations with the following characteristics:

- Private ownership and commercial motivations;
- Locally or regionally based;
- Well established;
- Progressive; and
- Local specific connections. (Instinct and Reason, 2012)

While Landcare, NFF, CSIRO, Landmark, Kondinin, Biological Farmers of Australia, Resource Consulting Services and Greening Australia were identified as having national reach, only a small number of organisations were identified as having capacity in the carbon space: Sustainable Nyngan Agricultural Group (NSW), Riverine Plains Inc. (Vic), Agforce Qld, Mallee Sustainable Farming (SA), WA Farmers Fed (WA), Department of Resources and Primary Industries (NT), NSW Young Farmers Forum and the Hart Field Site Group (Instinct and Reason, 2012).

More importantly, to participate as an aggregator of carbon projects in the agriculture space, the design of the ERF requires the project proponent to have designed and implemented a project(s) then selling the carbon credit into the ERF auction. This will require substantial resources to implement a substantial number of small projects. NFF questions whether any of the aforementioned organisations have the scale and resources available to underpin such an undertaking.⁷ Many of these organisations operate on a cash flow basis and do not have the requisite lending arrangements to underpin work as an aggregator (see comments elsewhere about banking industry and contracts to underpin project implementation).

Likewise local governments are likely to be challenged by insufficient resources (compounded by pressure from State Governments to transfer of responsibilities) and appropriate expertise to act as aggregators.

⁷ Unpublished Terms of Reference Sustaining National Representation, NFF.

Our view is that while aggregators may pose a solution in some instances, it is doubtful that those best placed to participate will be able to fund their involvement ahead of the sale of carbon credits to the ERF auction system.

In summary, without substantial policy redirection for industries like agriculture and forestry, there is likely to be few opportunities in the ERF given the overriding principle of least cost abatement, even with agriculture having a head start of existing methodologies.

Without intervention, the critical decision for potential agricultural participants will be whether they are strategically better placed to:

- Engage now and likely have unprofitable projects;
- Implement projects but hold the credits until the price increases;
- Implement projects later when the lowest cost projects are exhausted; or
- Not engage in carbon sequestration at all.

NFF responses to the latter two principles will be incorporated through the remainder of the submission.

3. Crediting Emissions Reductions

Emissions reduction methods will be developed to calculate genuine and additional emissions reductions from new actions that are not mandatory and have not been paid for under another programme.

Views are sought on how best to:

- *ensure that emissions reductions are genuine*
- *develop methods for calculating emissions reductions from priority activities*
- *facilitate the aggregation of emissions reductions across projects and activities.*

The NFF notes that the Green Paper suggests that the Department will embark on an accelerated development of methodologies for other sectors between now that the commencement of the ERF on 1 July 2014..

The NFF has advocated for a more streamlined approach to approving methodologies. It is notable that those methodologies that have been approved under the CFI are mostly those arising from the Government. Approvals of private sector applications are few, and rejections high. To inform the process for the development and approval of other methodologies, it would be useful to understand the reasons for the lack of success of private sector applications for the approval of project methodologies by the Domestic Offsets Integrity Committee (DOIC).

In terms of the methodologies themselves, the NFF sees two areas for improvement – methodologies to cover cropping and grazing land management (and therefore, most of agriculture), and the development of more sophisticated whole of farm or whole of system methodologies.

While the current focus on the largest source of agricultural emissions is appropriate, there has been less focus on soils, the second largest source of agricultural emissions. The cropping and grazing land management reporting requirements of Kyoto Article 3.4 are not covered by any methodology. NFF suggests that this needs urgent attention to redress this.

The NFF suggests that there is an urgent need to look not just at project specific methodologies, but methodologies that would apply to whole of farm, or whole of farming system, recognising that farms are not monocultures. For example, a methodology that would cover methane, soil carbon, vegetation and energy would be more attractive than one focused just on revegetation. Such a methodology would enhance the ability of agriculture to participate, in that a farmer could seek to implement a more comprehensive project that covers the range of agricultural emissions, and not a project that focuses solely on vegetation for example.

Genuine and Additional Emissions Reductions

The NFF has engaged with the development of CFI additionality tests as they apply to agriculture. As noted in an ABARES report, CFI “offset credits can be generated by practices that either reduce or avoid direct emissions or remove carbon from the atmosphere through carbon sequestration, and that meet the international integrity standards, including for additionality” (Woodhams, et al., 2012).

For projects to be considered under the CFI, the activities must be permanent, measurable, transparent, independently audited and registered, and meet an additionality test, which means in addition to requirements under existing regulations (Davison, 2010).

Given that the CFI has been operating under these rules for some time, it makes sense for the ERF to include these principles. However, NFF is somewhat concerned that the Green Paper proposes limited provisions for additionality, similar to requirements common to any government grants program.

The NFF supports that:

- Emissions reductions projects must be new projects;
- Projects are additional, go beyond business as usual and common practice, are not required by law, or undertaken as part of another government funded emissions reduction program; and
- That there is sufficiently robust monitoring and verification, but such processes are not an administrative burden, or impose unnecessary costs.

The NFF welcomes the Government's intent that the ERF design seeks additionality while minimising costs and encouraging participation. In addition to the limited methodologies for agriculture to engage in the CFI, a barrier to participation are the high costs in implementing, monitoring and verifying projects, collectively coined transactional costs.

The NFF seeks clarification from government regarding participation in other government programs⁸. We support the concept of no “double-dipping” in terms of receiving government funding

⁸ EFR Green Paper page 23, *Emissions Reduction Fund methods will only allow crediting of new and voluntary actions to reduce emissions that have not been counted or paid for under another programme or involve the displacement of emissions to another location*

for a specific activity, and ensuring that emissions are only counted once. However, our view is that participation in other programs that have resulted in on-farm investments should not preclude participation in the ERF, if the proposal involves **new investment** and results in emissions reductions that are not counted elsewhere. An example of this is investment in on-farm water efficiency. Through Water for the Future, the Government has invested in on-farm water use efficiency activities, which has resulted in the installation of low water use – high energy use technology (e.g. drip or spray irrigation systems). Our view is that the ERF should consider projects that involve investment to refine these systems to reduce energy use and thus reduce emissions.

Emissions Reduction Methods

Under the CFI, sequestration and abatement can only be credited when linked to a specific activity through approved methodologies. The Green Paper proposes to expand the options to include activity and facility based methods.

Activity Methods

NFF understands that the activity methods approach is similar to the current CFI but with reduced requirements for additionality, and more aligned with other government program funding rules.

The NFF supports that investigation of appropriate existing international methods (e.g. the Clean Development Mechanism) and how these might be adapted and applied in Australia. The NFF agrees that other schemes would need to be adapted to Australia, particularly as these are based on different assumptions and emissions factors. Such an approach would facilitate quicker development of methodologies, and continuous improvement while implementing projects. Moreover, it would cease the increased cost of abatement due to delays in the time taken to development methodologies and implement projects.

The NFF suggests that for the land sector, there may be opportunities for activity methodologies for soil carbon, minimum tillage, reduced fertiliser application rates, and on farm energy improvements. However, such projects are likely to cost more and be a less attractive ERF purchase than, for example, closing down coal fired powers stations.

The NFF has concerns that the proposed activity method will be less rigorous than the CFI and projects already approved under the CFI. While this is perhaps a transitional matter, consideration should be given to how existing CFI projects and methodologies will marry with the proposed activity methods. The objective should be that there is no unfair advantage for other sectors – and no disadvantage for CFI participants.

The NFF agrees that the process for the approval of activity methods under the ERF should seek to reduce transactional and administrative costs for government and project participants.

The development of methods to underpin projects in the CFI has been both time consuming and resource intensive. Figure 6 below shows the current status of CFI methodologies, while Figure 7 shows this along industry lines. This analysis shows that there is a substantial number of similar methodologies for both vegetation and waste in the CFI. The Green Paper suggests that there may be opportunities to combine aspects of existing methods, resulting in fewer and more broadly applicable methods. This concept is welcomed, and NFF encourages the government to explore opportunities for soil carbon and fertilisers. Broadly applicable methods may not always be desirable however. The development of general methods for livestock methane management for all ruminants would be an example of such a circumstance

Figure 6 CFI Status of Methodologies

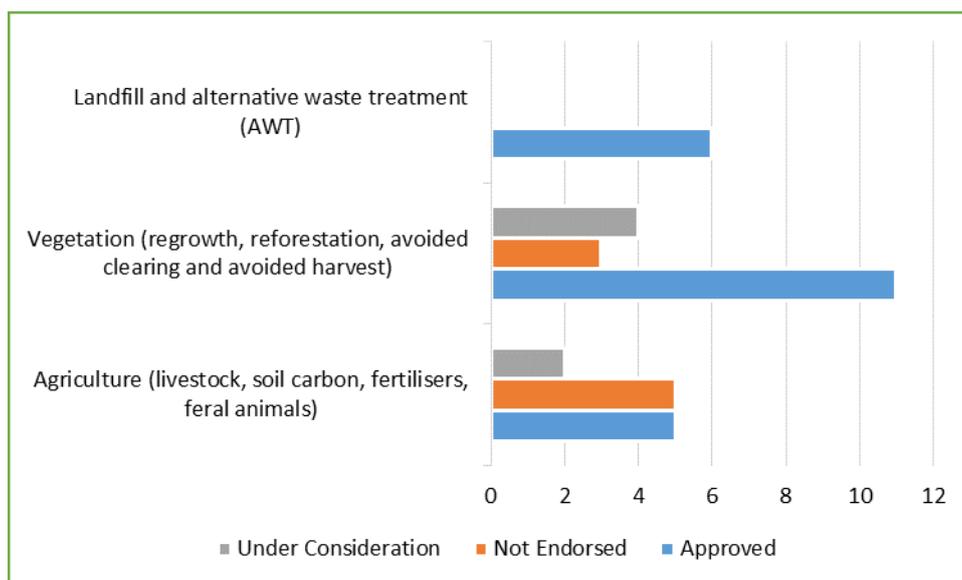
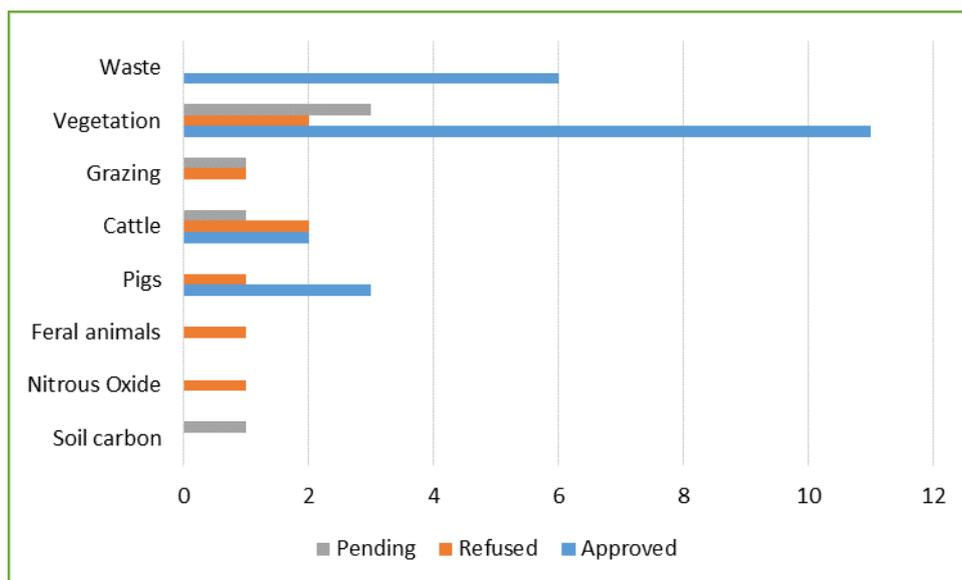


Figure 7 CFI Status of Methodologies – Sectoral Breakdown



The NFF supports the proposal in the Green Paper to work within technical groups to consider design methods for the development of simple aggregation methods that are cost effective for small aggregation groups. As outlined previously, our view is that a major challenge to the success of the aggregation concept will be the ability of aggregators to access sufficient financing and resource to participate.

The NFF looks forward to working with the Government through the technical working groups on those activities that are pertinent to our sector.

Facility Methods

The Green Paper proposes to establish facility based methods for “aggregate emissions reductions from multiple activities at a facility” and would be used by large businesses (some

7250 facilities) that already report emissions such as fuel use and some industrial processes, under the National Greenhouse and Energy Report Scheme (NGERS).

While we appreciate that facility wide methods are to be targeted at large industrial emitters at a specific location (e.g. a factory or landfill) the broad concept of facility wide methods is aligned to NFF's view that a "whole of farm" or "whole of farming system" approach could support the participation of agricultural businesses in the ERF. Farms have a range of emission sources, and a method that covers multiple activities in our view may result in lower transaction costs when compared to implementing a number of activity based project.

The NFF urges Government to consider the application of a facility wide approach beyond major industrial emitters to include agriculture through a whole of farm or whole of system approach sought by the sector.

The NFF suggests that the Government considers a cost effective approach to determine reporting similar to NGERS for smaller business under facility methods. A technical working group model – similar to that considered for aggregation – could be adopted, particularly if the NGERS reporting is to be the basis for determining carbon credits.

Given that the NFF's proposal for a facility type method for "whole of farm" or "farming systems" approach requires further development, the issues of the starting point and additionality require further exploration and discussion.

NFF broadly supports the principles outlined in the Green Paper that the starting point should accommodate normal variation and that abnormal effects on emissions can be normalised.

4. Purchasing Emissions Reductions

Initially the Clean Energy Regulator could run relatively frequent tender rounds to bring forward the delivery of emissions reductions.

The Clean Energy Regulator would apply a benchmark price — the maximum amount it would pay per tonne of emissions reduced — with only bids costing less than the benchmark price being considered.

Views are sought on how best to:

- facilitate early participation in the Emissions Reduction Fund*
- operate an efficient auction process to secure lowest-cost emissions reductions.*

Benchmark Price

The Australian Government has undertaken a simple reverse auction process for water entitlements in the Murray-Darling Basin. This process is therefore not unfamiliar to many in the agriculture sector, and the approach is broadly supported by NFF.

The Green Paper proposes to establish a simple benchmark price and to accept bids that come under the benchmark price. The NFF suggests the government further consider lessons from the Murray-Darling Basin water entitlement purchase program. As an example, while the Government set benchmark prices for water entitlement products across the Basin (and this

changed over time), it sought to achieve the average benchmark price across the tender. The proposal in the Green Paper to accept prices at or under the benchmark mean that the benchmark price will never be achieved.

The NFF recommends that the design of the ERF incorporates an objective of accepting bids to achieve an average price for the pool that equals the benchmark price. This allows for a system that includes a range of bids below and above the benchmark price.

The risk in any type of auction system is that players in the market will become very savvy about how the auction operates, and will be able to read the likely price and timing of auctions, despite any actions that Government take to avoid this 'gaming'. This situation occurred with the sale of water entitlements to government, where third parties involved with transactions and over time instinctively knew the positioning of the government in relation to its proposed likely range of bid acceptances.

Auction Frequency

The Green Paper proposes frequent tenders early in the ERF. The NFF suggests that the design of the auction frequency should consider how long it takes to establish projects (and refine projects that have been rejected in previous rounds) and ensure that auction frequency reflects this. It may be that the highest demand may occur two to three years after commencement, when methodologies have been approved and projects begin to be implemented. NFF's experience in water the efficiency projects indicates that projects do take several years to be 'funding ready', particularly where methodologies need to be drafted and approved.

The NFF suggests that rather than having tenders open for short time frames, that longer time frames also be considered. In our view this would balance the time required for participants to be aware and prepare applications, with the certainty provided by a shorter timeframe. NFF recommends pre-notification of the application windows. Our experience with water efficiency and water buyback programs showed that the sudden announcement of tenders with short application windows was problematic. Publicising tender dates in advance of tenders opening will ensure that potential projects can be developed over time and "tender" ready. The efficiency of the tender process must also be considered, to ensure that administrative costs are kept low.

Prequalification Requirements

The Green Paper proposes to include a prequalification requirement, including identity and character checks, project eligibility, commercial readiness, and credibility of the emissions reductions estimates.

NFF suggests that qualification criteria be part of the bid application process (i.e. a one-staged approach). Our view is that applicants should be required to provide sufficient information to demonstrate essential criteria such as the details of the contracting party, the readiness of their proposal and the credibility of the reduction estimates. Such criteria would have to be met prior to consideration of the bid.

Auction Rules

The NFF agrees that Government should have the ability to adjust auction rules to incorporate the "lessons learned" from the operation of the tenders over time. This flexibility must however be balanced with the risks and costs associated with policy uncertainty. While adjustments to refine the process might be relevant early on, NFF suggests that after the initial couple of

rounds, stability of auction rules is desirable, requiring amendment only if a major issue arises. This will support market stability.

NFF's view is that the Government must ensure that any changes to the ERF must be clearly and transparently provided to the market to ensure that those making commercial decisions about their involvement receive the information in a timely manner. This will avoid unnecessary and costly decisions. This is most important when there is likely to be a significant time delay between project implementation, and sale of the carbon credit to the ERF.

Bid Size

The Green Paper suggests a minimum bid size (to reduce costs and encourage aggregation) but no maximum bid size. With agricultural projects likely to be small in size, a minimum bid size is likely to disadvantage agriculture. While the NFF supports the ability to aggregate, this may not be in the best interests of some farmers, creating a barrier to participation. This approach certainly advantages third party participants like aggregators to the disbenefit of some farmers who wish to participate in their own right. NFF's view is that farmers should have the choice of pathway to participation. The ERF design needs to consider how these two pathways might be accommodated.

A further consideration may be to use an approach similar to that adopted by the the Government on Farm Water Efficiency Program. In this, a third party is contracted by Government to manage implementation of the project. This third party then contracts the farmer for the on-farm implementation. The farmer sells the water entitlement directly to the Government. This is a tripartite approach. While similar to an aggregation model, it allows the farmer to individually determine price and project, and to deal directly with the government over his property right, similar to the personal right attached to carbon credits.

The Green Paper proposes that very large projects could be assessed through a separate tender process. Rather than singling out large projects for special treatment, the NFF suggests that the Government considers tenders that target a range of parameters. For example, there could be one for small projects, one for medium projects, one for industry, one for agriculture. The Government took a similar approach in buyback of water entitlements where a particular water product, or particular geographic location was the target for specific tenders.

Standard contracts will be used to guarantee payments for verified emissions reductions. These would have a maximum duration of five years and include options for addressing under-delivery of emissions reductions.

Views are sought on how best to provide:

- *funding certainty for businesses*
- *confidence that projected emissions reductions will be delivered.*

Forward Contracts

The Green Paper suggests that contracts could deliver credits immediately, or contract for future delivery. The Green Paper suggests that the contracts for the future delivery of projects may be used to secure finance. The NFF has reservations that project proponents will be able to obtain finance on the basis of the contract alone. Our view is that it is likely that other primary security would be required, though it is probable that a carbon credit contracts may assist a farmer demonstrate capacity to repay to a lender.

NFF's view is that the Green Paper may be overly optimistic on the ability of the contract per se to underpin access finance.

There is an opportunity for the ERF contract to include a form of forward payment, with adequate contractual provisions should the project not be implemented or if the carbon emissions delivered are less than estimated to manage risk to government. Such a provision could encourage smaller projects, or projects with a long lead time for implementation.

Duration of Contract

The Green Paper proposes five year contracts. As shown in this submission, for land sector, five years is unlikely to suit the period for land sector projects. As shown in Figure 4, carbon sequestration in the rangelands is likely to be minimal to 2030, but with large amounts generated between 2030 and 2050.

There is an opportunity for the Government to consider options for fixed period contracts, with an option to renew for a further term (similar to contract for commercial leases). This is also more likely to be acceptable to financial institutions for long lead time emissions reductions projects.

Standard Contracts

Standard contracts assist in reducing the transaction costs. NFF supports this approach. To enable contracts to be appropriately tailored, Government should consider adopting "schedules" to contracts to reflect specific project requirements and enable streamlined variation should this be required.

Emissions Reduction Estimates

The Green Paper proposes to accept estimates of emissions reductions. However, the Green Paper less clear on the processes it will adopt to ensure that estimates are verified and that estimates are delivered at the end of the contract period.

Varying or Terminating the Contract

NFF supports the Green Paper proposal to amend the project contracts. Circumstances arise from time to time that require changes to projects. In a farming context, an example of this may be the delay in planting vegetation due to a flooding event.

The NFF remains to be convinced that varying a contract by substituting another carbon project is appropriate. Our view is that such an arrangement may disadvantage those projects that were rejected in an ERF funding round that may have been better value for money than the substitute project. The NFF suggests that this approach is rejected.

Under-Delivery Provisions

The NFF supports the inclusion of make-good provisions in contracts if the proponent is unable to deliver the emissions reductions. Our view is that such provisions can assist in underpinning the integrity of the ERF.

Information will be published under the Emissions Reduction Fund to supplement information currently published under the Carbon Farming Initiative, including additional contract and auction information.

The NFF supports publication of information about auction results, to inform the market and encourage future project proposals. This benefit must however be balanced with the commercially sensitive nature of some project information. Our view is that some project information should not be disclosed without the consent of the project proponents. Aggregated information, similar to that published for the Murray-Darling Basin Water Entitlement purchasing program might be considered to sufficiently inform the market participants.

5. Safeguarding Emissions Reductions

A safeguard mechanism will be introduced to provide incentives to reduce emissions above historical business-as-usual levels.

Views are sought on:

- *the coverage of the mechanism*
- *how baselines could most easily be set to effectively limit increases in historical business-as-usual emissions*
- *the treatment of new entrants and significant expansions, including definitions of best practice*
- *compliance options in the event that baselines are exceeded.*

Coverage

The Green Paper proposes that a safeguard mechanism be introduced, possibly from 1 July 2015, to ensure that projects have the right incentives not to exceed historical business-as-usual emissions. The Green Paper suggests restricting coverage to those large emitting entities required to report their emissions to NGERs, and that the proposed threshold is likely to cover 50% of Australian emissions from 190 entities.

Setting Baselines

The Green Paper discussed a number of options to set baselines, including emissions intensity and absolute using a range of different considerations.

In establishing the most appropriate baseline, it is NFF's view that incorporating mechanisms to adjust for normal variations is important, but that significant changes to the norm are considered.

Emissions Intensity

The Green Paper suggests that there is support for setting historical business-as-usual baselines based on emissions intensity as a means to deal with fluctuations. This approach has been previously excluded for the CFI and land sector participants. However, the NFF supports the use of emissions intensity for agriculture.

For agriculture, use of an emissions intensity metric may marry the often conflicting policy outcomes of net lower emissions per area or business unit and increased productivity. This is not a new concept and has previously been supported by industry as it allows total production to

increase but with improved efficiency. Moreover, the New Zealand Government has approached its coverage of agriculture in its ETS using an emissions intensity approach.

The NFF believes that use of emissions intensity will incentivise efficiency improvements, allow productivity to increase to meet future food needs, will demonstrate a reduced emissions footprint per unit of product produced, and increase engagement from the agriculture sector. For example, the dairy sector (whole of value chain) has a target to reduce emissions intensity by 30% by 2020.

The NFF recommends that the Government consider the merit of an emissions intensity approach for agriculture in the design of the ERF would support a continued effort to reduce emissions while not reducing agricultural production.

Compliance

The Green Paper discusses a number of options for compliance against a baseline, including an initial transition period or multi-year compliance. This is a significant issue with compliance against the previous Murray-Darling Basin Cap on Diversions, e.g. exceedance might occur once over a ten year period, but overall the diversions over the ten years were within Cap. This also became a significant community concern, i.e. snapshot in time.

In the design of the ERF, this needs to be considered. While emissions can vary markedly from year to year, the NFF supports a multi-year compliance period, providing the average emissions over a defined period do not exceed the baseline.

The NFF supports the direction provided in the Green Paper to ensure that the entity must make good any increase in emissions over the assessment period and to include a range of measures to ensure compliance and detract from the entity exceeding its emissions baseline. This should not be a one-for-one penalty, but be structured to provide a strong disincentive.

Best Practice

NFF encourages the government to consider adopting a focus on “leading practice”. Leading practice is “the concept of simply the best way of doing things at a given site”. Leading practice needs to be flexible and innovative (adaptive management principle) to deal with emerging challenges and to develop new solutions.

It is worthwhile considering whether leading practice rather than best practice would be more appropriate for the design of the ERF. This may also drive the design principles differently to a best practice approach as it is likely to overcome the issues identified such as objective, repeatable test fairly applicable across businesses within each industry sector.

6. Carbon Farming Initiative

The Emissions Reduction Fund will build on and streamline the existing architecture of the Carbon Farming Initiative. Views are sought on:

- *options for streamlining the Carbon Farming Initiative*
- *how best to encourage the uptake of land sector activities.*

Transitional Arrangements

NFF welcomes the transition of the CFI to the ERF.

Existing agricultural CFI projects (including the nitrogen use methodology which is yet to be finalised) requires certainty, and a commitment is required to ensure that these projects will continue to be eligible and funded under the ERF.

A major concern for the agriculture sector is that CFI approved methodologies may be disadvantaged, when compared to new methodologies developed under the ERF.

With existing and future CFI credits to be sold into the ERF auction process, NFF's concern is that participating landholders may not be able to recoup the cost of generating their CFI credits. Projects that may have been viable under the CFI are likely to be unviable under the ERF, due to the ERF's focus on lowest cost emissions reduction.

Some agricultural businesses have invested capital into infrastructure with the intention of participating in the CFI. These businesses must not be disadvantaged due to the concept that these are not "new" (additional) projects.

NFF seeks commitment that the financial additionality principles adopted by the CFI are transitioned to the ERF, and applied more broadly to all projects funded by the ERF. NFF notes that the market based nature of the reverse auction system proposed for the ERF is likely to account for financial additionality. Where there may be benefits to the proponent, it is likely that a lower bid will be offered, with the proponent seeking to maximise the competitiveness of their bid in any tender round.

These issues need to be considered in the design of the ERF.

Options for Streamlining

There are a range of barriers to increasing the participation of agriculture in reducing emissions. NFF's view that increased effort to overcome these challenges will increase the accessibility of the ERF to the agriculture sector. Some of the barriers include:

- The development and implementation of emissions reduction technologies;
- Resolving measurement issues associated with complex farming systems;
- Practices that reduce emissions on one farm may have a different effect on another due to local conditions (soil, pasture, weather etc.);
- R&D is important to support by development and uptake of opportunities and general emissions intensity improvements; and
- Limited access to capital, economies of scale and limited access to information – all exacerbated by many small dispersed participants.

As highlighted elsewhere in our submission to overcome these issues NFF's view is that the following is required:

- An enhanced focus on R&D to support agricultural participation

- Providing appropriate support and information to farmers to encourage their participation;
- Simplifying methodologies;
- facilitating access to capital; and
- Balancing the risks and benefits of aggregation.

The Green Paper proposes establishing clear priorities for the development and simplification of methodologies, abolishing the positive list, addressing additionality through rules, and reducing the consultation period for methodologies.

The development of CFI methodologies has been somewhat of a barrier to agriculture's engagement in the CFI. While perhaps outside the remit of the Green Paper, consideration of these issues will be essential to facilitate wider participation by the agriculture sector.

Project Approval and Aggregation

The Green Paper proposes that for land sector, an aggregator may only need to demonstrate that they have the agreement of the landholder to take part in the project. Carbon credits are personal property. The NFF is concerned that aggregators could mischievously claim credits where they do not have the authority to claim. To this end, protection of the rights of the carbon credit owner must be paramount.

An option may be to ensure there is a contractual arrangement in place prior to ERF bid with the landholder that outlines the rights and responsibilities (including benefits and disbenefits, and risks) of the landholder and the aggregator.

There is also an opportunity to ensure appropriate information, produced independently of the aggregator, is publicly available to landholders to ensure that they can be informed of the risks and benefits of participating in an aggregated project.

Permanence

The NFF notes that the 100 year permanence rule has been a significant concern for the agriculture sector, particularly as this not only exceeds most farm business planning horizons (~15-20 years) but also is likely to span several generations of farmers creating intergenerational issues.

While the option of a 25 year permanence is welcome, its benefits may be outweighed by the disadvantages from other ERF design factors such as shorter contract lengths and minimum project size restrictions.

Encouraging Uptake

A recent RIRDC report (Fargher, 2013) suggests the following barriers to adoption have limited engagement by farmers to date and apply to both NRM and carbon markets:

- High transaction costs and high up-front costs;
- Uncertain and unpredictable demand for credits;

- Significant supply-side risks (for example from fire and drought);
- Risks associated with changes to assessment methods used to certify offsets;
- Often long time lags between investment and return;
- Investment decisions that are difficult or costly to reverse (loss of management flexibility);
- A limited track history of trade volumes and prices;
- Limited prospects for trialling the market; and
- In some cases, a lack of market intermediaries.

To resolve the above, the report (Fargher, 2013) suggests that the following are required to improve uptake:

- Policy objectives and the market mechanism need to align with farmers' goals
 - Low levels of engagement and participation suggest that either the policy objectives being sought through a market are incompatible with farmers' goals, or that problems exist with the market mechanism itself.
 - Policy makers should consider whether the objectives and outcomes being sought by the market are aligned with farmers' goals, and whether the incentives and benefits of the market offset the cost of engagement.
 - Enterprises should also be able to trade at least cost and in a regulatory environment that provides satisfactory levels of confidence. This requires designing markets that have minimal barriers, accessible information and adequate transparency.
- There is scope for improving the design of market mechanisms
 - To better incentivise landholder participation in markets, governments must ensure better definitions of tradeable rights; reasonable transaction costs; enforcement and compliance; the governance of market intermediaries; the transparency and predictability of supply-demand movements; and certainty of rules and regulations.
 - Combining multiple policy or environmental objectives within the one market is likely to increase market complexity and lower rates of adoption.
 - Poor predictability of demand in traded rights and market prices is particularly problematic for engaging in biodiversity and carbon markets.
 - There are a number of deficiencies in the monitoring of participation in markets, and there is scope to improve data collected on non-participants.
- The importance of being able to trial and learn about the market

- Improvements in the ability of farm businesses and landholders to trial biodiversity and carbon markets would encourage greater engagement.
- Government, industry, and market intermediaries can improve landholder perceptions and uptake of markets through the provision of accurate and timely information.
- There is also a role for government to ensure factual information is disseminated throughout the community and stakeholders about the real social outcomes of trade.

To maintain and enhance the participation of agriculture in the ERF, the NFF would like to see::

- Continued development of methodologies, including those for nitrous oxide, energy and those appropriate to whole of farm/system approaches rather than activity by activity or the component methods currently available;
- Solutions to the high costs of some projects, particularly those where significant capital costs are required;
- Reductions to the transactional costs, which may require a system where the main beneficiary is not the aggregator or “middle man”;
- Realistic and targeted extension:
 - The current Extension and Outreach (E&O) program needs urgent attention. This program has funded over 100 extension officers to encourage the participation of farmers when most of broadacre agriculture is not currently covered by approved methodologies; and
 - Greater collaboration between industry and Government to ensure that E&O program is appropriately focused and that clear, consistent and concise information is provided to the farming sector.;
- Prices for offsets – this remains a key and critical issue for agriculture's engagement in the ERF/DAP. NFF believes that initially the prices will be distinctly skewed to the lower end (possible close to \$6/t CO₂e), whereas these would normally be distributed. However, the price distribution will shift over time and will eventually be skewed to the higher end, once the ‘low hanging fruit’ is bought. Work by the University of Melbourne suggests that the breakeven cost for carbon projects is around the \$23/t CO₂e, which is likely to result in agriculture not engaging in the ERF until an upward price swing occurs. If government wants engagement by agriculture, then there needs to be consideration of provisions for incentivising agricultural offsets at realistic prices.

The NFF notes that there is perhaps more policy certainty for the CFI than perhaps for other emissions sectors.

Soil Carbon

The NFF concurs with the Department of Agriculture that there appears to be an over reliance on the ability for soil carbon to contribute significant sequestration opportunities. While the NFF supports the continuation of work in this area to investigate options to include soil carbon,

the NFF is also cognisant that the research findings from the Soil Carbon Research Program indicates that the opportunities are likely to be limited.

Research from the University of Melbourne has suggested that increasing soil carbon through improved management practices may be limited by technical and economic feasibility, with any potential limited to the 0-10 cm depth, and which diminishes over time. Moreover, none of the widely adopted practices are financially attractive under the CFI (Lam, Chen, Mosier, & Roush, 2013). NFF would suggest that this would be less so under the ERF.

NFF urges caution to ensure that expectations of the potential to profit from soil carbon projects are managed.

7. Administration

The Emissions Reduction Fund will be administered by the Clean Energy Regulator.

Views are sought on the proposed governance arrangements.

NFF supports arrangements proposed in the Green Paper.

NFF urges the Government to drive administrative efficiency in the delivery of the Emissions Reduction Fund. We acknowledge that a balance is required between appropriate governance, timely implementation and administrative costs. Our view is that the costs of administration must be considered in the upfront design of the operation of the ERF, to maximise the available investments in projects.

Consideration of the findings of the Australian National Audit Office review of the delivery of water efficiency programs may provide useful lessons for the design of administrative arrangements⁹.

Any refinements in the implementation of the fund over time must focus on driving administrative efficiency.

The Government will conduct a review of the Emissions Reduction Fund towards the end of 2015 so as to provide certainty about the policy and design intent post-2020.

Views are sought on the timing and conduct of a review.

NFF supports a review of the ERF towards the end of 2015.

8. Conclusion

The establishment of the Emissions Reduction Fund is welcomed by NFF. With considered design, the ERF provides an opportunity for agriculture to contribute to a reduction in

⁹ See ANAO (2012) Administration of the Private Irrigation Infrastructure Operators Program in New South Wales
<http://www.anao.gov.au/~media/Uploads/Audit%20Reports/2011%2012/201112%20Audit%20Report%20No38.pdf>

emissions. An underpinning theme in the Green Paper is considerable optimism of the ability of the land sector to provide substantial low cost emission reductions between now and 2020. NFF urges the government to reflect on the experience of the CFI, and ensure the design of the ERF supports the participation of agriculture.

To harness opportunity for agriculture to participate in the ERF, NFF seeks:

- An enhanced focus on the research required to underpin the involvement of agriculture in reducing emissions
- Certainty in the transition of the CFI to the ERF
- Support for the development of appropriate methodologies – including those that cover “whole of farm” - to facilitate the participation of agriculture in the ERF
- Commitment to a benchmark price that is an average, to ensure that the projects accepted by the ERF include projects that are over and under the benchmark price are accepted.

The NFF is keen to continue to work with the government to ensure that the design of the ERF supports the participation of the agriculture sector.

9. References

- Chappell, A., Baldock, J., & Viscarra Rossel, R. (2013). *Sampling soil organic carbon to detect change over time*. Australia: CSIRO.
- ClimateWorks Australia. (2010). *Low Carbon Growth Plan for Australia*. Melbourne: ClimateWorks.
- ClimateWorks Australia. (2011). *Low Carbon Growth Plan for Australia 2011 Update*. Melbourne: ClimateWorks Australia.
- Davison, S. (2010, April). Soil Carbon - Lifeline or Lead Boots? *Farm Institute Insights*, 2(2).
- Department of the Environment. (2013). *Australian National Greenhouse Gas Accounts: Quarterly Update of Australia's National Greenhouse Gas Inventory June Quarter 2013*. Canberra: Department of the Environment.
- European Commission. (n.d.). *Research and Innovation Participant Portal*. Retrieved from European Commission:
<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2381-ee-20-2015.html#tab1>
- Fargher, W. (2013). *Rural sector engagement in markets for managing natural resources: a scoping study*. Canberra: Rural Industries Research and Development Corporation.
- Instinct and Reason. (2012). *Building Blocks of an Effective Extension & Outreach Program for Australia's Carbon Farming Initiative: Market Research Report*. Sydney: Instinct and Reason.
- Lam, S., Chen, D., Mosier, A., & Roush, R. (2013). *The potential for carbon sequestration in Australian agricultural soils is technically and economically limited*. Science Report 3, Melbourne.

Nous Group. (2010). *Outback Carbon: An assessment of carbon storage, sequestration and greenhouse gas emissions in remote Australia*. Nous Group.

Woodhams, F., Southwell, D., Bruce, S., Barnes, B., Appleton, H., Rickards, J., . . . AhammaD, H. (2012). *he Carbon Farming Initiative: A proposed common practice framework for assessing additionality*. Canberra: ABARES.