

ERF and NRM Capacity Needs Analysis

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Contents

Glossary/ Definitions	2
Introduction	3
PART 1 – The background and context	4
Regional NRM and the Carbon Credits (Carbon Farming Initiative) Act	20114
The Emissions Reduction Fund	5
Other carbon offset accreditation frameworks	6
PART 2 – Capturing the data	7
Building an understanding - semi structured interviews and focus group)s7
A high level of variability	8
Roles and Capacity	8
The need for a' Stewardship' rather than a 'Carbon' narrative	11
The need to work with a holistic view of 'capacity'	12
Quantifying the findings phase – short survey 'stocktake'	14
PART 3 – Analysis and Recommendations	18
Organisational learning	18
Three layers	19
Recommendations	23
Appendix 1 – Participation	25
Appendix 2 Useful Resources	27

Glossary/ Definitions

ACCU	Australian Carbon Credit Unit
Capacity	Capacity may include things such as:
	Time
	Resourcing
	Understanding
	Energy
Capability	Capability refers to the skills and knowledge
	required for a particular task.
CFI	Carbon Farming Initiative
CMI	Carbon Market Institute
CSF	Climate Solutions Fund
ERF	Emissions Reduction Fund
ERF Methods (related to carbon farming)	Specific methods to sequester or reduce
	emissions from the land sector, including
	agricultural methods, vegetation methods, and
	savannah burning methods.
NRM	Natural Resource Management
NRM plan	Natural resource management plan - A plan
	prepared by a regional natural resource
	management organisation describing the
	region's natural resources and their condition,
	threats and opportunities for management.
Secondary market	Carbon offset credit transactions other than
	those contracted via the Emissions Reduction
	Fund.
Voluntary market	Carbon offset credit transactions not required
	under a compliance mechanism such as the
	Safeguard Mechanism of the Emissions
	Reduction Fund.

Introduction

Carbon farming broadly refers to a range of land use and land management activities that either reduce greenhouse gas emissions or sequester greenhouse gases in soil or vegetation, to create carbon offset credits through voluntary or compliance carbon market regimes.

The most material near-term opportunity to support carbon farming activities in Australia is to facilitate the successful registration of carbon farming projects through the Federal Government's Emissions Reductions Fund (ERF), which was created by the *Carbon Credits (Carbon Farming Initiative) Act (Cweath) 2011* (the CFI Act). Proponents can choose whether to sell credited Australian Carbon Credit Units (ACCUs) via a contract with the Clean Energy Regulator (CER) or sell them to other entities via the 'voluntary market' or the 'secondary market'.

NRM Regions Australia is investigating how to build the capacity of NRM bodies and their communities to engage with the Emissions Reduction Fund (ERF). This capacity building will include building NRM organisations' understanding of the ERF to provide them with the skills and knowledge to support their local communities to participate in the ERF, and to facilitate alignment of ERF projects with NRM plans.

The first stage of this initiative is to **identify**, **analyse and report on the specific ERF information and capacity needs/gaps of NRM organisations** and **how they might best be addressed**. This is the role of this study.

It should be noted that NRM Regions Australia has previously explored how regional NRM organisations contribute to the resilience of their communities via community engagement and capacity building mechanisms, and regional NRM personnel have contributed to reviews of extension, and research on adoption of new technologies in agriculture.

This study builds on those learnings, via interviews, focus groups and a short survey to engage with regional NRM organisations to understand their roles in carbon farming and associated capacity needs.

This report is presented in three parts. The first part provides a short background of NRM's involvement in the carbon market. The second part works through the approach that the study took, and the findings gained along the way. The report has been presented this way to reflect the iterative analysis approach to our data collection whereby the insights we gained in the early stages would inform the subsequent ones. The third section provides an overall analysis, reflections and recommendations.

PART 1 – The background and context

Regional NRM and the Carbon Credits (Carbon Farming Initiative) Act 2011

Natural Resource Management (NRM) is the integrated management of the natural resources that make up Australia's natural landscapes – that is, our land, water, soil, plants and animals. The regional NRM model is about NRM regions working and partnering with a remarkable range of people across the country, from the local scale to the national level.

NRM Regions Australia

Australia is divided into 54 NRM regions, each coordinated by a local NRM organisation. Some of these organisations are statutory bodies (for example, those in New South Wales, South Australia, and Victoria) while others are non-government organisations (NGOs) (such as those in Queensland, and Western Australia).

The deep involvement of NRM organisations in informing and guiding carbon farming development in Australia was established well before the establishment of the CFI Act.

Introduced in 2011 as part of the Government's Clean Energy Future package, the CFI Act delivered on a commitment to 'develop legislation to give farmers, forest growers and landholders access to domestic voluntary and international carbon markets.'¹

Carbon farming projects and regional NRM plans

Crucially for NRM regions, the Act contains a requirement (section 23 (1) (g)) that if a carbon farming project area is covered by a regional NRM plan, that project registration must be accompanied by a statement about whether the project is consistent with that plan.

At the time of the passage of the Act, a \$44 million *Regional Natural Resource Management (NRM) Planning for Climate Change Fund* was introduced to assist regional NRM organisations to update their existing regional NRM plans to incorporate climate change mitigation and adaptation information and approaches, use best-available information to plan for the impacts of climate change and to *help guide the location and nature of biodiversity and carbon farming activities in the landscape*.

In 2013, the matters covered by each Regional NRM Plan (for example water management, biodiversity, salinity, vegetation, soil, invasive species) were found to vary from region to region as did their structure, how they were packaged and their enforcement².

¹ Carbon Credits (Carbon Farming Initiative) Bill 2011, Explanatory Memorandum, https://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r4543_ems_1455bc0c-24d3-4d9b-8072-

f85c0d28a7ad/upload_pdf/353709.pdf;fileType=application%2Fpdf

² Ryan S, O'Neill D, Chrystal J and McKee J (2013) *Regional NRM Planning in Australia. What is it? Where is it heading?* National NRM Regions Working Group, Canberra.

The intention at the time that the CFI Act was introduced was for nationally consistent standards for regional NRM plans to be designed 'to ensure regional NRM organisations provide the required information and detail in the plans to guide CFI projects'³. All regional NRM organisations participated in the *Planning for Climate Change* project and produced climate layers at multi- regional landscape scale. This information has been subsequently used to update regional strategies and regional planning tools while retaining regional variability in terms of approaches to planning, structures, and presentation.

The original intent when the Act commenced was that liable entities under the Carbon Pollution Reduction Scheme (CPRS) were able to purchase the Australian Carbon Credit Units created by carbon farming projects. Following a change of government, the carbon pricing mechanism was repealed, and the Australian Government became the main purchaser of ACCUs.

The Emissions Reduction Fund

The Emissions Reduction Fund (ERF) was established in 2014 through an amendment to the *Carbon Credits (Carbon Farming Initiative) Act 2011* and is the central mechanism by which the Australian Government intends to meet its commitment under the international Paris Agreement to reduce greenhouse gas emissions to between 26 to 28 per cent below 2005 levels by 2030.



Figure 1: The crediting and purchasing components of the Emissions Reduction Fund (Source: Clean Energy Regulator^₄)

Figure 1 depicts the operation of the Emissions Reduction Fund, whereby carbon farming projects are registered with the CER and ACCUs are created through a reporting and auditing process. The

³Ibid

⁴ Clean Energy Regulator, Emissions Reduction Fund

http://www.cleanenergyregulator.gov.au/About/Pages/Accountability%20and%20reporting/Annual%20Rep orts/Annual%20report%202015-16/Emissions-Reduction-Fund.aspx

ACCUs are subsequently either sold through a contract with the CER via a reverse auction process or to other entities through the 'secondary market'.

ACCUs are used by other entities either to meet their commitments under the Australian Government's Safeguard Mechanism or to meet voluntary/ corporate social responsibility objectives.

A \$2 billion Climate Solutions Fund, announced in 2019, has extended the ERF.

Other carbon offset accreditation frameworks

The ERF is not the only carbon offset accreditation standard for carbon offsets. Others include:

- Certified Emissions Reductions (CERs) issued as per the rules of the Kyoto Protocol from Clean Development Mechanism projects (with some exemptions). These must take place in non-Annex 1 countries under the Kyoto Protocol.
- Verified Emissions Reductions (VERs) issued by the Gold Standard
- Verified Carbon Units (VCUs) issued by Verra.

At this time, there is only one Gold Standard accredited project in Australia, a Carbon Neutral environmental planting project in the Wheatbelt region of Western Australia. There are no Verra projects generating carbon credits in Australia at present.

PART 2 – Capturing the data

The methodology adopted for this review followed three key steps, which built from the development of a broad understanding of the topic through semi-structured interviews through to more specific lines of inquiry through focus groups and a short online survey. At each step, reflections and analysis were undertaken and used to inform and shape the next step.

In this section we bring together the findings from these steps prior to the analysis in Part 3.

Across the three types of data collection a total of 75 people participated. This included 60 participants from NRM organisations and 15 from other associated organisations and/or government departments. A table setting out the involvement across the study is included as Appendix A

Building an understanding – semi-structured interviews and focus groups

To gain a broad understanding of the activities and issues in each state, and some general feedback on the carbon market, the team conducted twenty (20) semi-structured telephone or video conference interviews. The interviewees identified for this phase included state representatives as well as other key people identified through referral, such as those who had established models or were involved in a particular area of focus such as Indigenous engagement. We interviewed at least one representative from all states and territories.

The next stage of the study involved three online focus groups which sought to test our understanding regarding the diverse roles that NRM groups were playing in the carbon market and their associated capacity needs. We aimed to facilitate an open discussion between participants from different states and with different levels of experience.

All NRM groups were invited to take part in the focus groups through direct email from two sources and several follow up phone calls. In total, fifteen (15) people took part. Six of these were from Queensland, four from Western Australia, three from Victoria, and one each from South Australia and New South Wales.

While the total number of focus group participants was relatively low, the semi-structured interviews had provided insight into why this might be the case and why the spread was uneven across the states. This included factors such as:

- different levels of engagement and interest in carbon depending on the authorising environments and available methodologies;
- a general lack of capacity in terms of people and time; and
- carbon discussions had been taking place in some NRM groups for many years, which has
 resulted in a large diversity in terms of knowledge and experience across the sector.
 Those who were knowledgeable and had an enabling environment were essentially getting on
 with it, while others did not feel they had much to offer or simply did not know where to start.

The discussion points for the focus groups were broken into three sections:

• feedback on the matrix;

- what role each organisation saw themselves as currently playing and what other roles they would like to be playing; and
- capability and capacity needs.

The key issues for each of the focus groups were captured thematically during the discussions.

The themes that emerged from both the interviews and the focus groups were very similar, namely:

- The high degree of variability across states and groups
- Roles and capacity
- The importance of viewing capacity within a stewardship rather than carbon lens; and
- The need for a holistic view of 'capability'.

Below we provide a discussion of the data gathered under these key themes before providing further analysis in Part 3.

A high level of variability

As we conducted the interviews and focus groups, we observed a high degree of variability in terms of interest and engagement in the carbon market and related issues, with some participants being completely new to the discussion while others had been involved in it for many years. This is partly explained by the different nature or role of the NRM groups across the various states (i.e. incorporated bodies or part of a government structure), and what is possible in each state in terms of policy and legislation and in each region in terms of applicable methodologies. Historical funding for non-carbon related projects and programs also influenced the subsequent capacity of groups to engage in the carbon market.

The changes that organisations faced through the implementation of the National Landcare Program also contributed to this variability with some groups having a reduction in or high turnover of staff over the last few years, reducing the corporate knowledge of carbon farming.

While diversity across the groups is to be expected, we came to realise how important this would be to building capacity nationally and indeed how we framed the conversation about 'capacity building'. We heard a level of frustration from some of the more experienced people that frameworks (similar to the role matrix we developed to frame the focus group discussion) had been developed and discussed before and that their needs had shifted. While those new to the discussion were keen to hear and learn from their more experienced peers, we were cognisant that those more experienced peers might also want or need to be stretched with new knowledge and thinking.

As there can be a large turnover of staff in the NRM sector it is important that the level of conversation does not always return to the beginning to meet the needs of the inexperienced newcomers. However, there must also be opportunity for newcomers to learn about carbon farming.

Roles and Capacity

What became evident during the initial interviews was that capacity building requirements were always going to be determined by the role/s that organisations were seeking to fulfil in the carbon market. That is, what they were doing would determine what they needed. To aid this thinking, the team developed a 'roles matrix' to think through these different types of roles and what the responsibilities, rewards and risks would be for each (see Figure 2). This matrix was used to frame

the discussion regarding roles in the focus groups, helping to focus the discussion and provide some common terms which assists in building a common understanding.

A number of participants in the focus groups noted that they saw that the development of NRM group's roles in the carbon market was occurring in somewhat of an ad hoc manner and that many groups seemed to be still "getting their heads around where they should be". This was identified by some as a risk because if some regions embark on an approach that was not strategic and considered, it could create reputational risks to the broader NRM community in relation to the formal role of regional plans in the ERF.

Discussions regarding potential roles also touched on the value that participants thought NRM groups brought to the carbon sector. One focus group discussed that they saw an opportunity for NRM Regions Australia to help to articulate and communicate the unique offering, or value proposition that NRM groups can provide, including:

"We can have all the capacity in the world but if the mechanisms are not there (in the ERF itself) we are always going to be up against it"

- Trusted local relationships
- Networks
- Traditional owner relationships
- Regional knowledge (including, but not limited to the regional plans)
- An understanding of the minds, motivations and decision-making processes of stakeholders.

The focus groups also added a level of nuance and complexity to our draft roles matrix in that, rather than seeing it as an organisational distinction (i.e. what group is playing which role), organisations might be involved in different roles on different projects, or different types of projects, as captured by the following quote:

"There are so many different types of carbon – green, blue, brown, black, teal (wetlands). Different types require different roles from us".

During the discussions regarding the role matrix we realised it was important that it was not seen as being a 'developmental' or maturity model. That is, no role is preferable to any other role. In particular, the "Lead" role does not need to be the aspiration of NRM groups.

Potential Role	Responsibilities	Rewards	Risks
PROVIDE Awareness and information	Provide unbiased information to project developers, landowners, agricultural advisors LGAs, others	Stakeholders can access trusted neutral third party	Perceptions of bias in favour of methods or developers, reputational risk if information considered or is incorrect
APPLY Knowledge of regional plans and stakeholders to inform project development	Ensure carbon farming projects are consistent with and use Regional NRM Plans	Deliver NRM objectives/ maximise stewardship opportunities	Trade off re co-benefits (social, environmental, economic) Information must be up-to-date, accurate, accessible
 PARTNER Project development & delivery Method development Policy and program development 	Work with developers and land holders to develop projects Works with Clean Energy Regulator, DISER and policy makers on market developments	Potential for commercial return Influence future market development for good Triple Bottom Line results	Potential risk to relationships Commercial risk High resource requirement
FACILITATE Project development & delivery across stakeholders	Coordinate multiple organisations to deliver carbon farming projects	Strengthen relationship and trust Leverage local knowledge and relationships to achieve NRM objectives	Potential to undermine relationships High level of skill across multiple disciplines required
LEAD Project development & delivery	Implement carbon projects for income or revenue stream	Financial benefit NRM objectives integrated from outset	Resource intensive Competitive Potentially high risk

Figure 2: Potential roles: Considerations for strategic decision-making

The need for a' Stewardship' rather than a 'Carbon' narrative

The establishment of a National NRM system of regional organisations in the early 2000's built on various catchment management and Landcare initiatives that had their genesis in soil conservation, Landcare, and catchment management. The system was predicated on the need for integrated planning and management of natural resources at a regional scale. The model was based on a foundation of stewardship of natural resources (at a landholder scale) and alignment with regionally established priorities (including State and Federal).

Over the last twenty years, there have been many excellent programs that delivered increased stewardship and improved land management outcomes, most government funded such as the National Landcare Program. As government funds for environment were reduced, regional NRM remained actively committed to seeking other stewardship opportunities via partnerships with industry, philanthropy, through quality assurance mechanisms for food and fibre supply chains, and increasingly, participation in markets. NRM Regions Australia, in advocating for Regional NRM states:

The system has grown in sophistication and is now a unique social and organisational infrastructure delivering outcomes for the Australian Government, State and Territory governments, local communities and land managers. It has the potential to do more.

NRM Regions Australia

During our interviews we learned that many regions were recognising the opportunity for increased stewardship from carbon markets and the ERF. In fact, this had been a long term 'project' of regional NRM, with several NRM thought leaders actively involved in discourse around the role of regional NRM plans in relation to carbon farming projects (as recognised in the CFI Act where the requirement is to state whether a project is consistent with the NRM plan).

"There needs to be more recognition of the different types of skills and knowledge that NRM groups bring – for example we have a great understanding of the minds, motivations and decision making processes of land managers" We also learned about regional NRM roles in other stewardship initiatives in more detail including 'Reef Credits', contributing to water quality improvements on the Great Barrier Reef and the Queensland Government's Landscape Restoration Fund (RLF) aiming to deliver environmental social, economic and First Nations benefits through an expansion of carbon farming in Queensland. It seemed that regions who had been involved in these other initiatives were well placed to participate in and engage with the ERF. These regions had already thought about systems to engage and assist landholders make good decisions, which landholder/s to target for which opportunities. They were also recognising and working on capturing regional scale data and

information about the contribution of landholder stewardship efforts toward the intended outcomes (of the initiatives) and in relation to the regional natural assets and their changing values. Furthermore, some groups have already developed business models that see them provide services in these 'markets'.

All of the groups involved in the focus groups discussed the need to keep a focus on NRM priority outcomes and prevent the carbon narrative becoming the dominant one in amongst this growing tide of carbon activities. One participant made the useful observation that they thought that the conversation should be flipped – rather than talking about carbon that produced co-benefits we should be thinking about the co-benefits as the real benefits and carbon being the enabler. This requires a whole of landscape perspective with an appropriate monitoring and evaluation framework at this level to measure and determine change.

The application of the regulatory environment in achieving this is a related and critical concern, in particular, the lack of robust compliance against the CFI Act requirement that registered projects be consistent with NRM regional plans.

The need to work with a holistic view of 'capacity'

Often the term 'capacity building' is applied to the transfer of knowledge, skills or expertise, or the *capability* of the organisation to respond. While participants in the interviews and focus groups did discuss the challenges of working in such a technical, knowledge rich area (which continues to evolve and change), what was often at the forefront of the discussions were broader capacity issues such as time, energy and resources.

Unless organisations had a dedicated position or project related to carbon, it was often seen as being something that needed to be done 'on top of our day jobs'. This lack of dedicated time and resources was considered a risk, that without clear focus on carbon farming, NRM organisations may adopt less strategic approaches to the carbon opportunities (see below Roles and capacity/capability).

During the discussions regarding 'capacity needs' in the focus groups we started to see three types or levels of capacity or capability emerge – the capacity of the sector as a whole, of organisations, and of individuals. While these at times may be interrelated, they are explored individually here for clarity and again in more detail Part 3.

Capacity across the sector

During the interviews and across all three focus groups we heard a sense of urgency in that many participants saw that the sector as a whole did not necessarily have the maturity to respond to the rapid growth of the carbon market in their regions both in terms of knowledge and activity.

"Our reputation – both at the regional scales and national one – is a key asset we need to protect"

Several of the focus groups talked about the carbon sector being a 'moving feast – there is constant change' and that it was a challenge to stay sufficiently informed to stay ahead, particularly if they did not have the resources assigned to the task.

A number of participants observed that the space was rapidly being taken over by more sophisticated commercial carbon farming developers, who were better positioned to take advantage of the opportunities. In some cases, NRM groups have not been able to meet the emerging demand of national and international carbon offset credit brokers and emitters. There was a sense that many NRM groups were not ready to deal with this market, including supply-chain issues such as engaging with business such as nurseries. One group discussed the need for NRM groups to develop more of a business mindset, especially around opportunities to work smarter through partnering, use of smarter technology, and increased ability to undertake business development, and monitor, report and evaluate business development around ERF and carbon farming.

Capacity at the organisational level

The 'knowledge transfer' focus that often accompanies the concept of capacity building focuses on building the capacity of individuals within a system, but it was clear from our participants that they believed sufficient attention also needs to be paid to the capacity of organisations. For example, groups discussed the benefits of a checklist of considerations for regions engaging in the ERF, and cost-benefit models to make informed decisions about different approaches.

The issue of organisational capacity was very much related to the issue of roles. What role

"We need more than just more FTEs. We need to start to work smarter" should or could each organisation be playing and why? In the first instance, there was a need for *strategic capability* to better understand the opportunities presented by the ERF and carbon farming for the NRM Region (natural resources, social and economic outcomes) and the regional NRM organisation (strategic positioning, potential income source) and also what capability the organisation would require to pursue the opportunities.

While there were risks identified with NRM Regions' participation, the benefits included opportunities to:

- progress regional natural resource outcomes
- enable landholders to benefit through an additional revenue stream.
- avoid perverse outcomes in the region, for example methods that apply well and are profit making, may be actually deleterious to biodiversity, water and/or soils.

Additionally, there were several risks identified from not participating:

- reputational risks of failing to assist landholders who have come to expect regional NRM staff to be a trusted source of information
- failure to avoid perverse outcomes
- the prospect of failed projects and/or lack of take up of opportunities.

In particular, it was raised during the focus groups that Board members and executive staff need to understand both the context and specific opportunities for their region. In addition, they have a responsibility to understand how these increased capabilities can be adequately resourced i.e. how to build their capacity to realise opportunities for the organisation, the region's natural resources, for landholders and community.

When considering the roles their organisation may play in relation to carbon farming, leaders may identify more specific capabilities will be required in (for example):

- trusted landholder engagement and extension services
- data and information management systems

- partnerships and strategic level engagement with researchers, industry and government, tuning up Regional NRM Plans and associated documents and systems to better guide carbon related investment
- high level reporting systems to capture change in natural resource assets as a result of increased investment and in relation to other threatening or beneficial processes.

A number of participants in the focus groups believed a dedicated FTE could enable the

"There are some fantastic resources out there – but how do you keep that in front of people and keep it current?" contribution, however some groups are not able to put on an unfunded position to 'get in the game'. Other resource requirements included financial support to 'refresh' the 2014 climate mapping, increase regional capacity to monitor carbon projects or aggregate projects which would enable participation of the smaller landholdings.

Capacity at the Individual Level

The main focus of discussion of individual level capability requirements during the interviews and focus groups was around the need for ongoing development of extension officers, keeping their knowledge of carbon farming opportunities current, sharing knowledge of the applicability, efficacy, costs and benefits of various methods in different agricultural and landscape settings.

We met many state-based leaders and regional leaders who also said they valued the opportunity for sharing their challenges and successes across "The devil is in

jurisdictions. Individuals leading state-based initiatives and innovative regional approaches value the Carbon Community of Practice (CoP), and various Climate Forums. They also appreciate engaging directly with NRM Regions Australia on strategic, whole of sector discussions. "The devil is in the detail – basic information is not enough"

While some participants knew of a number of generic resources, the knowledge of these resources and where they were held was not universal, so some thought a portal or central knowledge point may be useful. For example participants mentioned savanna burning resources that were produced by the Indigenous Carbon Industry Network that others were not aware of these.

Quantifying the findings phase - short survey 'stocktake'

Using the roles matrix as a framework, a short survey based on adapted versions of questions that were asked in the focus groups was undertaken to confirm and obtain additional data regarding:

- 1. what the semi-structured interviews and focus groups had told us about current and preferred NRM Regions roles in carbon farming; and
- 2. the associated capacity requirements.

To achieve these outcomes, the survey was more deliberately focussed on the NRM capacity with respect to engagement with the ERF rather than the carbon market more generally.

This web-based survey was sent directly to all NRM groups and kept very short to maximise completion rates. Questions were limited to:

- (1) Region name
- (2) Current roles groups are engaged in in relation to the ERF
- (3) Ideal roles that the group would like to play
- (4) Capacity requirement of groups, with some sense of priority of needs.
- (5) How NRM Regions Australia could support capacity needs

After an initial email directed to each region and two reminders, and a final 'opt out' option sent directly to non-responding NRM Regions, 39 responses to the survey were received, and because there were several NRM groups that provided more than one response (5), the actual number of NRM Regions that responded was 35 (64%).

Only one of the 20 non-respondents provided a reason, with that response explaining that the region had been involved in the interview phase of the project and did not feel the need to also contribute to the survey. Considering the non-response regions against the interview and focus group participants, the same reason for not participating in the survey could be applied to five other regions who participated in the interviews and three who participated in the focus groups (which takes responding NRM Regions to approx. 75%).

The survey provided clear indication of where the NRM Regions are currently engaged in roles in relation to the ERF.

Current Roles	No.
Not yet engaged with the ERF	11
Actively exploring the ERF and our role in it	23
Providing unbiased information to project developers, landholders, agricultural advisors, LGAs, and others	12
Ensuring carbon farming projects are consistent with, and use Regional NRM Plans to guide project development	10
Actively ensuring any carbon projects contribute to social, economic, cultural and biodiverse outcomes in the region	8
Working with landholders and developers to develop projects	9
Contributing to the development of new methods, well suited to our region	6
Coordinating multiple organisations to deliver carbon farming projects	4
Implementing carbon projects for commercial gain	2
Other (please specify)	4
Total Respondents: 39	85

Table 1: Responses to the question 'In relation to the ERF opportunities for carbon sequestration via landholders, our NRM Region is currently (as many as you like- tick boxes)'

There were four 'Other' responses that referred to activities not listed:

- Interested in involvement in carbon sequestration projects and have pitched to other funders, but have not been involved ERF.
- Supporting landholders with advice on species, plant densities, suppliers etc. to those considering carbon agreements. Methodologies (revegetation) not ideal for our region though, high plant densities don't match community densities.
- Working to develop new projects that support the management of Carbon in the Landscape with the predominant Primary Industries. ERF is one aspect of this work not at the centre of the project. These projects will undertake a range of activities at a local on ground level that will work towards the development of a clear plan, plan implementation and as well as adapting general messaging towards a carbon management focus. For example, adapting existing soils information/ extension materials to have an increased focused on carbon management rather than fertiliser and constraint management alone.
- Undertaking monitoring activities that increase farmer confidence to engage in the ERF.

Ideal or future Roles	No.
Not yet engaged with the ERF	1
Actively exploring the ERF and our role in it	19
Providing unbiased information to project developers, landholders, agricultural advisors, LGAs, and others	25
Ensuring carbon farming projects are consistent with, and use Regional NRM Plans to guide project development	31
Actively ensuring any carbon projects contribute to social, economic, cultural and biodiverse outcomes in the region	31
Working with landholders and developers to develop projects	23
Contributing to the development of new methods, well suited to our region	23
Coordinating multiple organisations to deliver carbon farming projects	19
Implementing carbon projects for commercial gain	11
Other (please specify)	5
Total Respondents: 39	183

Table 2: Responses to the question 'In relation to the ERF, we would ideally like to be (as many as you like, tick boxes)'

There were five 'Other' responses that referred to activities not listed:

• We are integrating carbon into on-farm natural capital accounting.

- Attracting research, extension/ adoption into Emissions Reductions techniques suitable for our regions environment and industry systems.
- Accessing a database of national experts that can be drawn upon to support our organisations project objectives.
- Understanding our role in engaging with ERF programs.
- We are seeking to commercialise land planning data to guide projects.

Capacity needs

The capacity needs were varied and fell into five broad areas:

- Funding/resources
- Market advice and 'surety'
- Advice, expertise relevant to our region and our organisation
- Understand opportunities for landholders in the region
- Training (in how to best) to assist landholders (navigate the ERF).

NRM Regions Australia could assist us to increase/improve our capacity

Responses to the questions about the ways in which NRM Regions Australia could assist with capacity were again highly varied but could be grouped into:

- Tools to increase understanding of the ERF and carbon markets from an NRM group perspective.
- Clarification of authorising environment.
- Positioning to strengthen NRM Regions' role in assessing projects ('fit for purpose') in relation to Regional NRM Plans.
- Identifying and developing opportunities for Regional NRM resources (increase in funding, staff) to increase landholder engagement and align Carbon with other NRM opportunities.
- Bank of 'experts' available to provide advice to regional NRM organisations.
- Communicate the risks and benefits of various roles NRM Regions could adopt.
- Continue to share information relevant to regional NRMs and our work with Carbon e.g. identify existing information resources.
- Continue to enable sharing across regions e.g. Carbon Community of Practice

Survey Analysis

The survey reinforced the importance of considering capacity needs in relation to identified roles and that there is a wide diversity of engagement with the ERF. While some NRM regions are fulfilling multiple roles, others are not engaged with the ERF at all.

Many regions are currently playing more than one role and many more would like to be playing multiple roles in relation to ERF. When a comparison is made between the current ideal of regional NRM groups in relation to the ERF, all groups suggested that their ideal role/s was an increase on their current roles. Eleven groups suggested they would ideally like to implement carbon projects for commercial gain.

PART 3 – Analysis and Recommendations

As we have seen in the previous section, four key themes emerged from the data:

- The high degree of variability across states and groups
- Roles and capacity
- The importance of viewing capacity within a stewardship rather than carbon lens; and
- The need for a holistic view of 'capability'.

While each of these issues or themes can be used separately to highlight factors that need to be taken into consideration when thinking through the capacity development of the NRM sector, we also came to see how bringing these ideas together created a useful problem definition and statement of intent to help guide capacity building efforts.

From the outset of the Carbon Credits (Carbon Farming Initiative) Act 2011 NRM groups' regional stewardship oversight was seen as being integral to **enabling the delivery of carbon farming projects**. Over the last ten years the 54 NRM groups have taken on a variety of **different roles** in the carbon sector, moving forward in an uneven fashion. This has resulted in **a high degree of variability across states and groups** in terms of engagement and knowledge of the carbon market.

A 'one size fits all' approach to building the capacity of NRM groups would clearly be inadequate for such a complex space – **a more holistic view of 'capability'** is required which considers the different types of capacity required at different levels.

In developing a framework to help to address the complex capacity needs we had identified we adopted two dimensions: A horizontal developmental model around organisation learning, which describes the way that capacity can be developed over time, and a vertical 'layers' model which separates out the capacity needs.

Organisational learning

When we were consulting on capacity needs, it was important to consider the capacity lens

of the informants, their perception of their own knowledge and their understanding about how to bring about change across the whole sector. Understanding of how capacity is increased is coloured by our own understanding of how individuals and organisations change. We also needed to take what people said at face value, however newcomers with little prior exposure to carbon farming and NRM, and may be unaware of the complexities facing NRM organisation participation. An organisational learning framework helps to frame capacity development initiatives.



All organisation learning occurs through individuals, who 'learn' through acquiring new information (techniques, skills), or hiring new employees who bring new knowledge. The challenges will be in understanding how to:

- identify and elevate new knowledge being brought into the sector;
- fostering a learning culture, and a strong appetite for learning about carbon farming; and
- capture and share knowledge in an environment that is (could be said to be) competitive.

The learning culture can be enhanced and accelerated when individuals (and organisations) recognise and prioritise:

- the benefits of change and/or adoption;
- consider the best way to make changes to current practice to accommodate carbon farming – as one CEO said, 'we act on these opportunities, as far as they dovetail with our (broader) NRM work';
- express a desire and willingness to share learning (not that others necessarily adopt the same solution);
- use both formal (Carbon CoP, research, Carbon Market Institute and other webinars) and informal learning opportunities (peer to peer learning, shared resources - see Appendix 2 for some examples).

NRM regional organisations have a rich history of shared organisational learning, including a system that developed organisation performance excellence, a biennial shared NRM Knowledge Conference, and ongoing national efforts on regional NRM planning, among others. These have been somewhat constrained in more recent times due to: the competitive contracting associated with the Regional Lands Partnership of the National Landcare Program requiring organisations to adopt a more commercial and potentially more competitive approach than was previously the case; the potential for commercial business development opportunities associated with the participation in 'carbon markets'; and the need to develop new income streams to fund regional delivery of 'stewardship' services.

Three layers

While the original consideration of capacity needs and capability had been predominantly framed through an operational lens, our data had clearly indicated that there were important broader issues that are essential pre-cursors to defining operational need.

To deal with this complexity of needs it is therefore important to stratify the identified capacity needs to ensure they are fit for purpose. While a full analysis of this was beyond the scope of this project, as a starting point for this we took the three levels we had identified during the data collection phase – across the sector, the organisational level and the individual level – and adjusted them to:

- Sector/ authorising environment. This level incorporates factors such as jurisdictions, regulation and policy and issues that impact the NRM sector as a whole
- Organisation/Strategic. This level focuses on the organisational level e.g. where NRM groups choose to be and in what context
- Operational. This is capacity that informs on-ground implementation.

Consideration of capacity needs in terms of these layers provides a more nuanced and accurate framework through which to consider not only capacity needs, but equally importantly, *where those capacity needs lie* i.e. at an operational, strategic (NRM region senior leadership and governance) or authorising environment.

NRM Carbon Farming Capacity: Influencing factors



Figure 3: NRM Carbon Farming Capacity: Influencing Factor

Observations and recommendations

The key observations and findings that we discussed in Part 2 are reorganised below using this framework with some key questions, opportunities and needs and preliminary recommendations for capacity building. A much earlier version of these recommendations was provided as the basis for the workshop session, held as part of the NRM Regions Carbon Farming and ERF Workshop on the 25th and 26th May 2021. This is followed by some broad, overarching guiding principles that should underpin activity.

Sector/ authorising environment

- > How can NRM regions (collectively) leverage the opportunities created through the CFI Act?
- How can NRM regions influence their authorising environments at different jurisdictional levels to ensure stewardship remains a central focus of carbon farming opportunities?
- How can NRM regions most effectively collaborate across jurisdictions to stay abreast of carbon farming policy and commercial developments and what role can the Clean Energy regulator and the Department of Industry, Science, Energy and Resources in enabling this?

Opportunity/need	Recommendation
There is a need to optimise leverage of the CFI Act and to build robust systems to support fulfilment of the role that it stipulates for NRM Regional Plans.	 Investigate overall regional NRM Planning capacity and its 'fit for purpose' in fulfilling a more fully activated CFI role.
State NRM jurisdictions have the potential to be a key influence in determining what carbon farming projects happen where, and an understanding of this needs to sit behind capacity building efforts.	 Consider ways in which state jurisdictions can be partnered in developing capacity initiatives. Engage State jurisdictions directly to piggy back on their current capacity building activity and explore new co- invested opportunities.
There is a need to maintain a clear line of sight between federal and State policies and programs and organisational strategic and operational endeavours.	 Clarify the alignment of the differing levels of carbon farming policy, institutional arrangements and associated roles in ensuring that Australia maximizes benefits from carbon farming.
There is a strong need to protect and leverage NRM key assets – relationships, networks, knowledge in engaging with the carbon market.	 Undertake broad communication of the value proposition of NRM roles in carbon farming and associated issues.
The pace of the market and project development has increased and there is a fear that NRM groups are going to be left behind.	 There is clear impetus for action now, knowing that the capacity needs will be varied across jurisdictions and organisations.

Organisation / Strategic

- What role should NRM regions be playing?
- > Does this need to be consistent across NRM regions?
- How do we communicate that in a clear way across the NRM sector?

Opportunity/Need	Recommendation
There needs to be a strategic overview of potential roles for regional NRMs in ERF and carbon farming (in the context of the roles being played by others -this links with point 3)	 7. Utilise and adapt existing decision support tools to help boards make strategic decisions about roles in carbon farming and associated capacity requirements. 8. Create a value proposition template (or similar).
There is a huge variation in terms of motivation, action and knowledge across the NRM groups.	 Stratify capacity building efforts. Develop tools and opportunities to support learning together (as an organisation, Board and staff) and from others' experiences.

Many groups aren't sure about where they should/could position themselves – and don't have the resources to consider this strategically.	 Develop the compelling case/s for regions to 'opt in' to greater involvement in carbon farming.
A business mindset and tools are important and there is an opportunity to learn from others in this regard.	 Regional organisations require an understanding of (authorising) environment context for decisions around how to engage in/with/alongside the carbon market. Increase the understanding of organisational requirements i.e. what capacities are needed? Staff? Tech? Advice? Increase understanding of options for monetising roles and contributions and alignment with NRM objectives.
It is important to have efficient and user friendly tools to track carbon + benefits in a way appropriate to region, regional strategy, landscapes and communities.	15. Convene a dedicated workshop of NRM industry experts and develop advice on appropriate technology and tools and their efficacy in relation to Regional NRM and carbon farming.

Operational / individual

- > What are the requirements associated with a role or roles?
- How can these be obtained, or developed?
- What are the priorities?

Opportunity/Need	Recommendation
There is a need to increase understanding of	16. Conduct an audit of existing staff
the ERF and carbon farming opportunities for	training products to identify gaps.
the NRM Regional organisations.	17. Develop (or share) staff training
	products in ERF 101
	18. Utilise, adapt and share information
	products to support engaging with
	landholders on ERF and carbon farming opportunities.
	19. Share education materials for
	landholders about what the
	opportunities look like for them.
	20. Resource training staff to support the
	above.
There are a range of resources already	21. Develop a compendium or annotated
developed but knowledge of these is not	bibliography of relevant resources,
uniform	including webinars.
	22. Build on 2014 climate mapping to
	develop accessible user friendly data
	set and information portals (could
	potentially integrate into CSIRO's
	LOOC-C carbon assessment tool).

	23. Develop knowledge portals and
	processes to capture resources
	24. Resource knowledge broker role/s to
	ensure products are developed and
	shared in a strategic way
Capacity building must be ongoing and iterative	25. Capacity building opportunities need to
- newcomers require the same information. Hit	be stratified (and ongoing) so that
repeat.	newcomers can get up to speed and
	experienced staff can continue to grow
	capacity. Knowledge broker and
	training roles will ensure that this is
	done strategically over time.

Overarching Guiding Principles

NRM regions have a unique and important role to play in influencing carbon farming outcomes through:

- providing an integrated NRM context to project development
- assisting landholders to engage in carbon farming opportunities
- monitoring and reporting on the changing state of natural resources over time
- exploring new carbon farming methods that can deliver carbon and other benefits in their region

While the above tables outline some specific recommendations against each 'layer' of capacity development, the implementation of these should have at their heart the following guiding principles to ensure that they give effect to increased capacity that furthers the intent of NRM.

1. NRM Regions are viewed as varied carbon contexts

Carbon farming is a relatively new and complicated industry, with a high degree of variation based on landscape qualities, agricultural industries, and characteristics of farming enterprises. Bearing this in mind, it is important that capacity needs:

- sit below a broad shared position statement, even aspirational statement around NRM Region role in carbon farming at a whole of Australia level but acknowledge the need for regional variation; and
- provide formal and informal opportunities to build understanding of carbon farming, what involvement entails, and gauge associated capability requirements at three levels; and

2. Maintain and strengthen the stewardship narrative (with carbon as an enabler)

While this principle may appear self-evident in the NRM industry, the dominance of the carbon narrative can sometimes see this slip. In the context of capacity development the challenge is to find the balance between building knowledge on the complexity of carbon

within the broader landscape outcomes NRM groups are seeking to achieve rather than as a 'stand alone' issue.

3. Capacity needs are planned and delivered strategically

As we have seen throughout this report, the provision of capacity building into a complex space such as this requires a strategic approach to achieve meaningful outcomes.

- 1. An overarching body such as the CoP should oversee the development and implementation of a strategic long term approach to carbon capacity.
- 2. Consider capacity building at three levels, and over time, using a program logic framework which sets out desired short, medium, and long term outcomes.
- 3. From the program logic develop a system to monitor, review, and evaluate capacity building over time and adjust as the carbon and NRM context shifts.
- 4. Adopt an organisation learning approach, encouraging learning and sharing across the NRM network.

----END----

Appendix 1 – Participation

Region	State	Survey	Intervi ew	Focus Group	Total
ACT NRM Council	ACT		1		1
Burnett Mary Regional Group for NRM Inc	QLD		1		1
Cape York NRM	QLD	1		1	2
Central Tablelands Local Land Services	NSW				
Central West Local Land Services	NSW				
Corangamite Catchment Management Authority	Vic	2		1	3
Desert Channels Group	QLD	1			1
East Gippsland Catchment Management Authority	Vic				
Fitzroy Basin Association Inc	QLD				
Glenelg – Hopkins Catchment Management Authority	Vic	1			1
Goulburn – Broken Catchment Management Authority	Vic			1	1
Greater Sydney Local Land Services	NSW	1			1
Healthy Land and Water	QLD	2			2
Hunter Local Land Services	NSW	1			1
Mallee Catchment Management Authority	Vic	1	1		2
Murray Local Land Services	NSW	1			1
Hills and Fleurieu Landscape Board	SA			1	1
Alinytjara Wilurara Landscape Board	SA	2			2
Eyre Peninsula Landscape Board	SA	1			1
Kangaroo Island Landscape Board	SA				
Northern and Yorke Landscape Board	SA				
SA Arid Lands Landscape Board	SA	1	1		2
Murraylands and Riverland Landscape Board	SA	1			1
Limestone Coast Landscape Board	SA	2			2
North Central Catchment Management Authority	Vic	1			1
North Coast Local Land Services	NSW	1	1		2
North East Catchment Management Authority	Vic	1			1
North West Local Land Services	NSW	2			2
Northern Agricultural Catchments Council Inc	WA	1			1
Northern Gulf Resource Management Group	QLD	1		1	2
Northern Tablelands Local Land Services	NSW	1			1
NQ Dry Tropics Group Inc	QLD			2	2
NRM Cradle Coast	TAS				
NRM North	TAS		2		2
NRM South	TAS				
Ocean Watch					
Peel Harvey Catchment Council	WA	1			1
Perth Region NRM Inc	WA	1			1
Port Phillip and Westernport Catchment Management Authority	Vic	1			1

Rangelands NRM Coordinating Group Inc.	WA	1			1
Reef Catchments	QLD	1			1
Riverina Local Land Services	NSW	1			1
South Coast NRM Inc.	WA	1	1	3	5
South East Local Land Services	NSW				
Southern Queensland Landscapes	QLD	1		2	3
South West Catchments Council Inc	WA	1			1
Southern Gulf Catchments Inc	QLD	1			1
Terrain NRM	QLD				
Territory Natural Resource Management	NT		1		1
Torres Strait Regional Authority	QLD				
West Gippsland Catchment Management Authority	Vic		1		1
Western Local Land Services	NSW				
Wheatbelt NRM Council Inc.	WA	1			1
Wimmera Catchment Management Authority	Vic	2			2
Regional NRM Participation		39	9	12	60
Other participants		0	12	3	15

Appendix 2 Useful Resources

The Climate Solutions Fund website provides information to landholders, communities and businesses about how to run carbon farming projects that reduce or remove greenhouse gas emissions from the atmosphere.

http://www.cleanenergyregulator.gov.au/csf/Pages/CSF-home.aspx

CSIRO's LOOC-C tool allows landowners to quickly assess options on the land for certain projects offered under Australia's federal carbon emissions programme, the Climate Solutions Fund (CSF) formerly known as the Emissions Reduction Fund (ERF).

https://looc-c.farm/

Workshop Manual: The business case for carbon farming: improving your farm's sustainability, The Kondinin group, 2021

https://www.farmingahead.com.au/edition/1000134/workshop-manual-thebusiness-case-for-carbon-farming-improving-your-farm%E2%80%99s-sustainability

This workshop manual covers business considerations for farm owners examining carbon offsets projects for a farm-based business. First published in 2015, key sections of the Manual were updated in January 2021 during the development of this the online version.

Improving Carbon Markets to Increase Farmer Participation, Macintosh, A., Roberts, G., and Buchan, S. (July 2019) <u>https://www.agrifutures.com.au/wp-</u> <u>content/uploads/2019/07/19-026-Digital-1.pdf</u>