Preliminary Feasibility Report on Savanna Fire Management Projects for Native Title Groups in the North Kimberley

600-1,000 mm low rainfall zone

June 2015

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I Executive summary

Fire management is an important part of reducing Australia’s greenhouse gas (GHG) emissions. The Australian Government has a program in place to recognise activities that reduce GHG emissions which includes the activities of land managers and farmers. The government gives carbon credits to projects for the amount of GHG emissions reduced. Under this program there is an approved ‘method’ for savanna fire management. Native title groups who have eligible vegetation on their land may be able to do a savanna fire management carbon project to create carbon credits.

1.1 Requirements for feasible savanna fire management carbon projects

There are many things that need to come together in order to develop a successful savanna fire management project to create carbon credits including:

- Validated vegetation map
- Eligible vegetation types
- Meet legal requirements
- Appropriate staff to facilitate project
- Ability to meet requirements in the method
- Approval from Australian Government
- Buyer for the carbon credits
- Legal assistance

For a savanna fire management carbon project to be feasible:

![Money from carbon credits](green) Needs to be equal to or more than costs

![Costs of savanna fire management carbon project](red)

Figure 1: Carbon credit money vs costs

The amount of eligible vegetation determines the baseline GHG emissions. On average a savanna fire management carbon project in the Kimberley reduces GHG emissions by 30% from the baseline.1

The picture below shows the process.

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1 Cameron Yates: Average savings achieved in the North of Australia.
1.2 Important to understand costs and money paid for carbon credits

Various cost scenarios show that it is very important to understand the costs of doing a savanna fire management carbon project. The money paid for the carbon credits is also important. Each native title group needs to understand completely the costs to do a carbon project, and how they can be adjusted if required. Expanding an existing savanna fire management carbon project to include the low rainfall area for example may mean it is cheaper to create carbon credits from this area than starting a new project. This is because some of the costs can be shared with the existing carbon project.

Reasons why projects may not be feasible:

- Not enough eligible vegetation on country. This is because not all of the vegetation present in the Kimberley has been to date classed as eligible.
- There is not enough demand from buyers to buy carbon credits.
- The price paid by buyers for carbon credits is too low.
The costs to operate a savanna fire management carbon project are high compared to other project types.

Reasons why projects may be feasible:

- There is enough eligible vegetation on country to create a large enough baseline and with good fire operations, enough carbon credits to cover costs.
- Groups may already have a buyer or know of a buyer for carbon credits.
- Costs aren’t bigger than the money paid for the carbon credits.

1.3 Next steps for the native title groups

- Decide whether low rainfall areas could be added as a new project or added to the existing savanna fire management carbon projects.
- Determine the costs to start a new savanna fire management carbon project;
- Determine the potential costs to expand an existing savanna fire management carbon project into the low rainfall area to create additional carbon credits;
- Keep a watch on carbon credit demand and prices;
- Determine whether there are more opportunities to reduce costs; and
- Determine whether or not vegetation types that are currently ineligible, become eligible in the future.
2 Background

2.1 Traditional burning in the Kimberley
Fire management is part of how native title groups have looked after country in the Kimberley for thousands of years. When aboriginal people arrived in Northern Australia more than 50,000 years ago, they found an environment shaped by fires started by lightning. The fires were occurring when vegetation is driest, at the end of the dry season. Aboriginal people altered the pattern, developing complex ‘fire-stick’ management practices. Each year this fire management produced an environmentally diverse mosaic of burnt and unburnt vegetation. It also meant that fires started by lightning at the end of the dry season were more likely to be weaker fires over smaller areas.²

When the Europeans arrived there were changes to Aboriginal people’s lifestyles and movements towards communities, missions and cattle stations. The practice of early dry season burning largely stopped.³

2.2 Fire management today
Recently, fire management activities have restarted, having a very positive impact on healthy country and cultural outcomes. Today’s fire management projects use traditional knowledge and modern scientific practices to reduce the amount of GHG emitted to the atmosphere from unmanaged, potentially dangerous late season wildfires. This fire management results in a reduction of total GHG emissions to the atmosphere and this is why it is now relevant to the government of Australia who is looking to reduce overall GHG emissions. Fire management is an important tool in reducing Australia’s GHG emissions.

2.3 Australian Government Emission Reduction Fund
The Australian Government currently has a program in place to recognise activities that reduce GHG emissions including activities of land managers and farmers. It was previously called the Carbon Farming Initiative (CFI) and is now part of the Emission Reduction Fund (ERF). The government gives carbon credits to projects for the amount of GHG emissions reduced.

2.4 What is a carbon credit?
A carbon credit represents 1 tonne of carbon dioxide equivalent (CO₂) that has been avoided or removed from the air by a carbon reduction project. A carbon credit is a commodity that can be sold for money. In Australia the government gives them to projects that have reduced emissions below what would have happened without the project. The emissions that go into the air without

³ http://www.nlc.org.au/articles/info/fire-management/
the carbon reduction project are the baseline emissions. See pictures below to see how it works in the Kimberley.

Figure 3: What is a carbon credit
2.5 Approved method

Under the ERF, the government has approved 'methods' which are the rules used to calculate how many GHG emissions are reduced through the activities of land managers and farmers. There is one method covering savanna fire management activities. Fire management activities need to be in high and/or low rainfall areas in order to create carbon credits. The map below shows the low and high rainfall areas.

Figure 4: Low and high rainfall areas in Australia

2.6 How many carbon credits will we get?

Savanna fire management activities reduce GHG emissions through the reduction of wild fires on country. The government issues carbon credits to projects for GHG emission reductions achieved. The average reduction in emissions from a Kimberley savanna fire management carbon project is 30%. That means that without fire management, GHG emissions would be 30% higher. See the picture below.

Figure 5: Number of carbon credits given

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5 Cameron Yates: Average savings achieved in the North of Australia.
3 Should we do a savanna fire management carbon project?

This report looks at whether it makes sense now or in the future for native title groups in the North Kimberley to create carbon credits from fire management activities and what is required to do so. This report can also be used as a road map should native title groups choose to develop a carbon project now or in the future. Further information has also been included in the annexes to this report.

Many things need to come together in order to develop a successful savanna fire management project to create carbon credits including:

- Validated vegetation map
- Eligible vegetation types
- Meet legal requirements
- Appropriate staff to facilitate project
- Ability to meet requirements in the method
- Approval from Australian Government
- Buyer for the carbon credits
- Legal assistance

The picture below shows the process:

![Carbon credit process](image)

**Figure 6: Carbon credit process**
There are many different tenures throughout the North Kimberley. Tenure is also an important element for a native title group when determining feasibility.

For full feasibility to be confirmed, this report needs to be complemented with a validated vegetation map. A vegetation map categorises vegetation in the project area into the vegetation classes identified in the method. Different types of vegetation release different amounts of GHG emissions when burnt. The vegetation map identifies what vegetation types are in the project area. This is later used to calculate how many GHG emissions have been produced, or avoided, by early dry season burning.

### 3.1 Existing savanna fire management carbon project

Some native title groups already operate savanna fire management carbon projects and have created carbon credits from these projects. The table below shows the total amount of carbon credits created from existing carbon projects in the Kimberley. All credits created have been sold. Buyers of the carbon credits used them for compliance under the Carbon Pricing Mechanism (see section 10 for more information). The Government has replaced the Carbon Pricing Mechanism with the Emission Reduction Fund, which changes how carbon credits are sold and the price that they sell at. Any new carbon projects need to consider who will buy carbon credits and at what price.

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon credits</td>
<td>52,607</td>
<td>123,102</td>
<td>47,611</td>
<td>69,959</td>
</tr>
</tbody>
</table>

Table 1: Carbon credits generated to date from existing savanna fire management carbon projects in the Kimberley

Existing projects were established under a previous version of the savanna fire management method. The previous version only covered the high rainfall area whereas the current version of the methodology covers both the low and high rainfall areas. If groups want to add additional project areas to an existing project, the existing project will need to be transitioned into the current version of the methodology. Alternatively, new projects could be registered, separate from the existing project.

#### 3.1.1 Other projects in Australia and the Kimberley

Some native title groups in the Kimberley and other areas in Australia have started savanna fire management carbon projects to create carbon credits and support and improve healthy country fire management activities. Other organisations and indigenous groups have also registered carbon projects with the government. Below there is information on savanna fire management projects across Australia. The North Kimberley native title group’s existing savanna fire management carbon projects are also shown in this figure.

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*The KLC has confirmed that none of the existing projects have transitioned to the current version of the methodology.*
Figure 7: Savanna fire management carbon projects in Australia

3.2 Method specific requirements

The method has some specific requirements. These requirements are noted in the table below. A group that already has an approved carbon project will already meet many of these requirements. The methodology allows for adding additional areas to an existing project.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The fire management project must be new.</td>
<td>This is not a concern, because the method has special rules which mean this requirement is met for savanna fire management projects. Note, a savanna fire management project is a project that generates carbon credits from fire management in the high rainfall and/or low rainfall zone</td>
</tr>
</tbody>
</table>

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8 Carbon Credits (Carbon Farming Initiative-Emissions Abatement through Savanna Fire Management) Method Determination 2015, Part 3, Division 2, 11 (2)
(see Figure 4 for the rainfall zones). The native title group areas discussed in this report fall within the low rainfall zone (see Figure 13). Therefore, if a fire management project would go ahead then it would automatically meet this requirement.

**Fire management in order to reduce emissions must not be required by law.**

This states that if the native title group is already required by law to reduce GHG emissions on their country through fire management then you can’t create carbon credits. It is unlikely that fire management is required by law to reduce GHG emissions on Native title group country, but this would need to be double checked should a fire management project be implemented.

**A project area must be in the high-rainfall or low-rainfall area.**

The part of the native title group’s country discussed in this report falls within the low and high rainfall zones so this requirement is met (see Figure 13).

**A project area must include certain vegetation types:**

1. Woodland with tussock grass;
2. Woodland with mixed tussock/hummock grass;
3. Woodland with hummock grass;
4. Open woodland with mixed grass;
5. Shrubland with hummock grass.

Vegetation maps show the native title group’s country does include at least one of these vegetation types and therefore does meet this requirement.

**Fire management must be carried out in the early dry season**

A potential fire management project requires that fire management is carried out in the early dry season. In the method, late dry season starts on 1 August and ends on 31 December. The remainder of the year is early dry season in the method. If fire is managed in the early dry season then there will likely be less wildfires in the late dry season. Fires in the late dry season emit more GHG so if they are prevented or reduced, then carbon credits can be earned. In addition, fire suppression can also be carried out in the late dry season.

**A vegetation fuel type map must be developed and validated.**

This requirement means that in order to generate carbon credits from fire management, a vegetation map has to be created. A vegetation map is a map that shows the actual vegetation types on the native title group’s country (see vegetation types above). No carbon credits can be created from areas of vegetation classified as ineligible. Once a vegetation map has been created, this map also has to be validated. Validation is done with a survey of specific
areas to see what actual vegetation is present. This requires specialist scientists and helicopters and can be expensive.

| The calculation of how many greenhouse gas emissions were reduced through early dry season has to be done manually or by using the Savanna Burning Abatement Tool (SavBAT 2). | The amount of GHG emissions that have been reduced through fire management have to be calculated in order to create carbon credits. This calculation can be done manually or by using SavBAT 2. |
4 Potential savanna fire management carbon projects

4.1 Project eligibility

In order for an area to be eligible, it needs to contain eligible vegetation. Some of the groups have a large area of eligible vegetation and other groups have very little eligible vegetation. This is because not all of the vegetation present in the Kimberley has been to date classed as eligible. This puts some groups at a major disadvantage when considering whether projects are feasible or not. The amount of eligible vegetation will also determine the baseline emissions.

4.2 Project feasibility

If SavBAT information shows there are eligible project areas in a group’s country, it may be possible to develop a new project or expand an existing savanna fire management carbon project to include the low rainfall area and create more carbon credits from this area.

To confirm feasibility however, there are several things that need to be checked:

- Additional time and cost to do aerial burning to cover the low rainfall area;
- Whether there is a buyer for the carbon credits and for what price;
- If additional resources are necessary and if they available for the low rainfall project area; and
- If there will be additional costs to create the carbon credits e.g. extra rangers, administrative staff, legal advice.

For a project to be feasible:

![Figure 8: Carbon credit money vs costs](image)

4.3 Many requirements for a feasible project

As talked about in this report, there are many things that need to come together in order to develop a successful savanna fire management project to create carbon credits including:

- Validated vegetation map
- Eligible vegetation types
- Meet legal requirements
- Appropriate staff to facilitate project
- Ability to meet requirements in the method
- Approval from Australian Government
- Buyer for the carbon credits
- Legal assistance

The picture below shows the necessary requirements for a feasible savanna fire management carbon project. It shows which requirements may be harder to meet than others at this time. The green colour means requirements are likely to be met. The orange colour means it may be more difficult and the red colour means at this stage the requirement will not be met. These things may change over time. The picture shows the requirements that need to be worked on now for a feasible project. This picture is an example only.

Figure 9: Feasibility requirements
4.4 Abatement estimate

It is not possible to know the exact amount of abatement (carbon credits) that a savanna fire management carbon project will create. The amount of carbon credits depends on the baseline of the project, and how much doing early dry season burning can improve the fire history from this baseline.

On average, it is estimated that savanna fire management projects should reduce GHG emissions by 30% from the baseline. A 30% reduction requires best fire management operations.

4.5 Cost of a savanna fire management carbon project

There has been a range of work done to try to determine the cost to create carbon credits for savanna fire management carbon projects in the Kimberley. This has proved to be a difficult process as it’s hard to separate the specific costs for the fire project from other costs related to healthy country management. Each group will have different costs, however there are costs that will be common amongst all groups. Some native title groups may already have a good understanding of the costs to create carbon credits from existing projects. These costs will form the base for determining whether it makes sense to expand a project into the low rainfall area. There is further information below on costs that may be of use.

Running a savanna fire management carbon project to create carbon credits is expensive relative to other projects that create carbon credits under the CFI/ERF. Savanna fire management carbon projects are more expensive because they often cover very large areas and require the use of expensive equipment for fire management. For example, using aircraft such as helicopters or fixed wing aircraft to strategically manage fire to ensure less wildfires occur at the end of the late dry season is expensive and often costs between $800 and $2,000 per hour.

Cost estimates of a savanna fire management project in the Kimberley vary significantly. However, analysis to date on existing savanna fire management projects suggests it costs between $15 and $25 to create each carbon credit. The lower cost to create carbon credits can be achieved by using for example, cheaper aircraft such as a fixed wing aircraft instead of the more expensive Squirrel helicopter. Also, each group needs to determine which costs are directly associated with the fire management project and which costs can be attributed to other activities. By doing this the cost to create carbon credits isn’t inflated with costs that can be assigned to other activities and revenue streams.

One analysis provides cost examples as shown in the table below.

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16
<table>
<thead>
<tr>
<th>Cost phase</th>
<th>% of total costs</th>
<th>Examples of indicative costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project establishment, planning &amp; capacity building</td>
<td>14%</td>
<td>This phase requires time including from external advisors. The cost can be anywhere from $122 to $1200 per day. Typically this will require at least ten days per year.</td>
</tr>
</tbody>
</table>
| Operational costs                               | 64%              | Aircraft cost between $800-2,000 per hour. Some projects require approximately a hundred hours of flying each year.  
| These costs represent actual fire management and include: |                  | Plane charter between $2,500-3000 per charter  
| • Aircraft (helicopter 21%)                      |                  | Public liability (fire) insurance $2,500 per year  
| • Equipment (11%)                                |                  | Incendiary machine $3,857 per year ($20,000 to purchase written off over 7 years)  
| • Staff                                         |                  | Plane charter between $2,500-$3000 per charter  
| • Transport                                     |                  | Public liability (fire) insurance $2,500 per year  
| • Insurance                                     |                  | Incendiary machine $3,857 per year ($20,000 to purchase written off over 7 years)  |
| Carbon costs                                     | 5%               | Audit costs between $7,000-21,000 per audit. This cost will apply for at least 2 years.  
| These costs relate to the creation and sale of carbon credits (resulting from fire management): |                  | Project establishment including staff and other advisors $12,000  
| • Planning                                      |                  | Reporting and compliance $22,000  
| • Monitoring and evaluation                     |                  | Carbon credit sales and marketing $6,000  
| • Reporting and compliance                      |                  |  
| • Credit sales and marketing                    |                  |  
| Other                                           | 17%              | This phase requires time including from external advisors. The cost can be anywhere from $122 to $1200 per day. Typically this will require at least ten days per year.  
| All other costs not included above such as general management and external relations. |                  |  

4.6 Cost breakdown

The chart below shows a breakdown of the costs of a savanna fire management carbon project. The operational costs for a carbon project are the largest costs. This cost area includes staff, transport, insurance and most importantly aircraft. If a carbon project is going to be feasible, the operational costs need to be looked at carefully.

![Cost breakdown of a savanna fire management carbon project](image)

**Figure 10: Cost breakdown of a savanna fire management carbon project**
4.7 Example scenarios

With the cost examples above it is clear that there are many costs involved with a savanna fire management carbon project. Below are some example scenarios to show how different costs and also the money paid for the carbon credits can effect feasibility.

The examples below are from a savanna fire management project that created 13,000 carbon credits.

**Scenario 1: New carbon project**

The costs are highest when establishing a new project. It will be very important to understand all costs and to try and reduce costs as much as possible when starting a new project. The example below uses a cost to create a carbon credit of $19.

<table>
<thead>
<tr>
<th>Number of carbon credits</th>
<th>$19 cost per carbon credit</th>
<th>Money from carbon credits at $10 each</th>
<th>Profit or loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000</td>
<td>-$247,000</td>
<td>+$130,000</td>
<td>Loss = -$117,000</td>
</tr>
</tbody>
</table>

**Scenario 2: Expand existing carbon project**

Expanding an existing savanna fire management carbon project should be cheaper than starting a new one. This is because a lot of the costs that are already being paid can be shared with the expanded project area. It may be possible to reduce the cost for each carbon credit. The example below reduces the cost to create a carbon credit to $8.

<table>
<thead>
<tr>
<th>Number of carbon credits</th>
<th>$8 cost per carbon credit</th>
<th>Money from carbon credits at $10 each</th>
<th>Profit or loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000</td>
<td>-$104,000</td>
<td>+$130,000</td>
<td>Profit = +$26,000</td>
</tr>
</tbody>
</table>
Scenario 3: Carbon credit prices are higher

If the money paid for each carbon credit goes up in the future, it will have a very good effect on project feasibility if the cost to create carbon credits can be kept under control. The example below uses a cost to create a carbon credit of $10.

<table>
<thead>
<tr>
<th>Number of carbon credits</th>
<th>$10 cost per carbon credit</th>
<th>Money from carbon credits at $15</th>
<th>Profit or loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>13,000</td>
<td>-$130,000</td>
<td>+$195,000</td>
<td>Profit = +$65,000</td>
</tr>
</tbody>
</table>

4.8 Important information from scenarios

The scenarios above show that it is very important to understand the costs of doing a savanna fire management carbon project. The money paid for the carbon credits is also important. Each native title group needs to understand completely the costs to do a carbon project, and how they can be adjusted if required.

4.9 Next steps for the native title groups

- Decide whether low rainfall areas will be added as a new project or added to the existing savanna fire management carbon project. Determine the costs to start a new savanna fire management carbon project;
- Determine the potential costs to expand an existing savanna fire management carbon project into the low rainfall area to create additional carbon credits;
- Keep a watch on carbon credit demand and prices;
- Determine whether there are more opportunities to reduce costs; and
- Determine whether or not vegetation types that are currently ineligible, become eligible in the future.
5 Existing fire operations

5.1 Logistics – ‘how to best burn your country’

When considering whether or not to develop a new savanna fire management carbon project or expand an existing savanna fire management carbon project, it will be important to look at how existing fire operations are run to determine what will be needed to meet the requirements of the method and how this will impact the cost of fire operations.

A good look into existing operations (if any) including costs, will allow groups to consider whether there are alternate methods that will reduce costs whilst ensuring the requirements of the method are met.

5.2 Opportunities to scale up to a savanna fire management project

If a group has existing fire operations but no carbon project, it is likely they will need to be scaled up to meet the requirements of the method. Scaling up operations in this case means expanding current operations and potentially changing certain activities as well. It’s important to consider in this context that not only will fire operations need to be scaled up creating additional costs, but there are many other things that will be necessary in order to ensure the carbon credits are issued and sold. For example additional staff may be required to facilitate certain aspects of the carbon project such as additional ranger activity, scheme administration and reporting and compliance. Additional equipment may be necessary too, but there may already be enough equipment from an existing carbon project.

5.3 Start a new project or combine low rainfall and high rainfall project areas?

The existing savanna fire management carbon projects are currently under an older version of the method. If native title groups have an existing project they can:

- Start a completely new project for the low rainfall area. This means all of the documentation etc. will need to be done again. But because it has already been done before it may take less time than for the first project.
- Add the low rainfall area to the existing project.

If groups wants to add low rainfall project areas to their existing project, then the following steps need to be taken10:

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10 Phone call Schalk Meliezer and Iqbal (from the Clean Energy Regulator) 18/6/15 16.10
1. **For existing project**: apply to change to the current version of the methodology. Most things, like the baseline and reporting period will stay the same under the new methodology. This will have to be checked at the time groups proceeds with this;

2. **New project area**: add the new project area to the existing project by seeking a variation from the Clean Energy Regulator. The new project area would operate under the current version of the method.

Step 1 and 2 above can be completed at the same time or as two different steps.
6 Risk assessment

It is possible that the revenue from the additional carbon credits won’t cover the extra costs to create them. This is a risk for groups that needs to be managed carefully. The best way to reduce this risk and ensure the costs won’t outweigh the revenue is to carry out a full cost analysis on the low rainfall area. The analysis should look at ways to integrate the new area into an existing carbon project or fire operations at least cost. How can the carbon credits be created without increasing the costs too much? It will also be important to ensure that there is a buyer for the additional carbon credits.

To manage risk group’s need to:

- Analyse costs to operate the low rainfall area under a new or existing savanna fire management carbon project or fire operations with a view to integrating it at least cost; and
- Ensure there is a buyer for the additional carbon credits and the revenue will be available to cover costs.
7 Conclusion

The Australian Government currently has a program called the Emission Reduction Fund that recognises activities that reduce greenhouse gas emissions (GHG) including activities of land managers and farmers. Savanna fire management in low rainfall areas is an approved activity under this program. The government issues carbon credits to projects for GHG emission reductions achieved under the Emission Reduction Fund methods. Native title groups in the Kimberley may have an opportunity to expand existing carbon projects or develop new carbon projects in low rainfall areas.

Many things need to come together in order to develop a successful savanna fire management project to create carbon credits including:

- Validated vegetation map
- Eligible vegetation types
- Meet legal requirements
- Appropriate staff to facilitate project
- Ability to meet requirements in the method
- Approval from Australian Government
- Buyer for the carbon credits
- Legal assistance

If a group has enough eligible vegetation in the low rainfall area it may be feasible to create carbon credits. However there are several next steps which need to be carried out before confirming feasibility which are:

- Decide whether low rainfall areas could be added as a new project or added to the existing savanna fire management carbon projects.
- Determine the costs to start a new savanna fire management carbon project;
- Determine the potential costs to expand an existing savanna fire management carbon project into the low rainfall area to create additional carbon credits;
- Keep a watch on carbon credit demand and prices;
- Determine whether there are more opportunities to reduce costs; and
- Determine whether or not vegetation types that are currently ineligible, become eligible in the future.
8 Annex 1: Market and price analysis

Below is some information on the international and Australian voluntary markets showing prices buyers are paying for carbon credits and preferred types of carbon credits. Information is also included on the ERF which is the other main sales path currently available in Australia. This information is designed to provide a picture of where carbon credits may be sold and for how much.

8.1 Voluntary markets

Companies, governments, organisations and individuals from around the world increasingly want to reduce the impacts of climate change by supporting projects that reduce or remove greenhouse gases. The voluntary purchase of offsets (i.e. carbon credits) from projects by organisations or individuals to negate their climate impact is known as the voluntary carbon market.

International voluntary market

It is unclear at this stage whether carbon credits created from Australian projects will be readily accepted by the voluntary market internationally or whether accreditation will be necessary under one of the already recognised voluntary accreditation schemes.

Australian voluntary market

Australia has a voluntary market with a reasonable level of demand. The main buyers are Australia’s two largest airlines, banks and other financial institutions who voluntarily offset their emissions (such as travel and electricity) or have a program that allows their customers to do so. Prices vary amongst companies and the project types they choose (as can be seen in Figure 11 below), but prices are available within the AUD 8 to AUD 12 range.

Important points about the voluntary market:

- There is a strong worldwide voluntary market with a range of buyers from a range of sectors, including governments. The market presents a viable alternative to the compliance markets and the ERF for native title groups until such time that ACCUs are accepted in compliance schemes at higher prices.
- Looking internationally should also be considered a strong option, although it may be the case that Australian buyers can relate more closely to a project in the Kimberley.
- Higher prices are paid for more unique, charismatic projects. Indigenous savanna fire management projects in the Kimberley typically have many unique features which are appealing to buyers willing to pay a premium for projects with co-benefits and special characteristics that differ from other projects.
Info on 2013 voluntary market

Forestry and land use projects were the main choice for buyers in 2013. It would appear that buyers can relate to these projects and issues associated with the projects are important to buyers. This is a very positive point for native title groups, although savanna fire management may be a new project type for a lot of international buyers.

Figure 11: International market share and value

Governments played an important buying role in 2013, while buyers in the private sector fell by 46% to 35 million offsets. Multinational corporate buyers purchased 23 million offsets. The division by type of buyer is shown in the figure below.

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Companies wanting to do something about climate change was the main reason for buying carbon credits. Companies also wanted to be better than other companies in this area.

**Co-benefits of fire management projects**

There are many co-benefits associated with savanna fire management projects in the Kimberley which may be of interest to buyers in the voluntary market who are interested in marketing their purchase of carbon credits. A buyer may be interested in paying a higher price for the credits if they also have the rights to talk about the ‘story’ more broadly. This will allow companies to show they are a good corporate citizen partnering with Aboriginal communities to achieve positive social, environmental and economic outcomes.

The many co-benefits including Traditional Owners spending more time on country, taking care of important cultural sites and sharing knowledge across generations are very important elements to the projects which a buyer may want to talk about. Native title groups may be able to use this as an additional negotiating tool to get higher prices for the carbon credits. Care needs to be taken in allocating rights to a buyer in regards to what they can talk about and how. Native title groups may also need to consider how they can measure and demonstrate these co-benefits.

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8.2 Emissions Reduction Fund

What is the ERF?
The ERF is a central element of the Australian Government’s Direct Action Plan. The objective of the ERF is to help meet Australia’s emission reduction target of 5% below 2000 levels by 2020. Participation is currently voluntary, however, in the future new features may be added which will make compulsory for certain high emitting companies to participate.

How does it work?
The ERF has three elements:

- crediting emissions reductions;
- purchasing emissions reductions; and
- safeguarding emissions reductions.

Purchasing emissions reductions - The ERF includes a government fund and through this fund, the government aims to purchase lowest cost ACCUs from a wide range of sources. The ERF is intended to provide an incentive to businesses, households and landowners to proactively reduce their emissions. The Clean Energy Regulator (CER) will enter into contracts with project owners to purchase ACCUs from them over a period of 7 or 10 years, or a lesser time if agreed with the CER. A carbon credit delivery schedule will be agreed with the CER and payment made following delivery. Purchasing will take place through a reverse auction process, which means sellers place bids and projects will be selected purely on price.

What will the price be?
Forecasting price under the ERF is quite difficult as it requires knowing what price other projects will bid for their carbon credits. The government has a fixed budget to buy enough ACCUs to meet the bulk of Australia’s national emission reduction target. The budget does not appear large enough to purchase high volumes of ACCUs at above $10.

The first auction under the ERF was held in April 2015. Unfortunately the existing savanna fire management projects in the Kimberley were priced too high and did not receive a contract from the government to buy the carbon credits. Alternative buyers now need to be found. There were many competing projects that can produce carbon credits much more cheaply than the savanna fire management projects. This problem may get worse as more methods are approved that include project types that produce carbon credits very cheaply.

The first auction was held on 15-16 April 2015. The Government purchased 47 million carbon credits and spent about $660 million covering 144 projects and the average price paid was $13.95 per carbon credit.
It is important to note that the Government has already spent a quarter of their budget and the Minister of Environment has stated that no additional funds will be set aside\(^\text{13}\). This could mean that the ERF won’t have sufficient funds in the medium to long term to purchase further carbon credits; only two contracts were awarded to savanna fire management projects (see also Figure 7). It is likely that carbon credits from savanna fire management projects are too expensive as most carbon credits that were contracted will come from waste treatment and sequestration projects. Both these project types have significantly lower costs than savanna fire management projects. This cost disadvantage is likely to get worse as more methodologies are approved.

### 8.3 Sales options

**Main carbon credit sales options**

The main sales options available to sell carbon credits are currently the:

- Australian voluntary market;
- Emissions Reduction Fund; and
- International voluntary market.

In the early stages of the ERF, issues regarding indigenous savanna fire management carbon projects were specifically discussed. This included the potential for the CER to purchase carbon credits outside the auction process. Later in the process however, indigenous projects in particular were not discussed anymore and out-of-auction contracts only seem to be for very large projects. So while it is possible for the CER to purchase outside the auction, the government does not seem to want to do this to purchase from indigenous projects at this time.

As described above none of these options provide secure buyers for carbon credits from savanna fire management projects. The price is also uncertain. Before committing to a project to create carbon credits, native title groups should:

- Contact potential buyers in the voluntary market to understand whether there will be actual buyers at the time the credits will be created.
- Know what prices were paid in previous ERF auctions to determine whether this is a good path for the sale of the credits. Will the price paid by the government cover at least the costs to create the carbon credits? The first auction results show this may not be a good option.
- Contact the CER to find out whether they might purchase carbon credits outside the auction process from savanna fire management carbon projects.

Pathways for sale of carbon credits

A first step for selling into the voluntary market would be to identify some companies that have some sort of alignment with the region or activities of the group.

Some examples include:

- a mining company who operates in the region
- a tourist company who operates in the region or one the group would like to operate in the region
- a bank the group has dealt with or would like to deal with
- any number of other company types that the groups thinks will benefit them over the longer term.

In order to get a suitable price for the carbon credits it will be necessary to offer a broader partnership offering than just selling the carbon credits. This will include a premium paid by the buyer to market the project and the co-benefits of the project.

It will be important for native title groups to develop relationships with potential buyers in the voluntary market in order to facilitate these types of partnerships.
9  Annex 2: Requirements to undertake a project

9.1  Participation in the ERF

To create carbon credits, savanna fire management activities need to be registered as a project with the Clean Energy Regulator (CER). Whether or not a native title group wants to participate in the ERF auction to sell carbon credits to the government or to sell them in the voluntary market, they will need to apply to be a participant under the ERF in order to be issued with carbon credits. There are several requirements in order to be eligible.

**Participation in the ERF is open to:**

- Individuals
- Sole traders
- Companies
- Local, state and territory government bodies and trusts

For groups to participate they will need to meet one of the requirements above to register their project and receive carbon credits under the ERF. If the current corporate structure does not meet these requirements, they will not be eligible to register a project. Registered Native Title Body Corporates (RNTBC) and Prescribed Bodies Corporates (PBC) are eligible corporate structures under the legislation.

9.2  ANREU account

To receive carbon credits earned from a project the group will need to open an account in the Australian National Registry of Emissions Units (ANREU). This is an electronic register. Carbon credits are issued electronically into the account which works something like an online bank account.

**ANREU account application process includes:**

- Fit and Proper Person test.

The group will need to ensure that their corporate structure meet the requirements of the Fit and Proper Person test. A fit and proper person has no prior convictions or history of non-compliance under a range of laws.

9.3  Legal right to carry out an ERF project

In addition to the above CER requirements, the group must have the legal right to carry out the project. This is a very important requirement and will require a review of all land documents.

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The group as an ERF participant:

- is responsible for carrying out the project; and
- has the legal right to carry out the project.\(^{16}\)

It is the responsibility of the group to ensure it has the legal right to carry out the project.

**Legal right is:**

- have the right to carry out the project activities on or for the sites or assets included in the project; and
- have a lawful and exclusive right to be issued all Australian carbon credit units (ACCUs) that may be created as a result of the project activities.

Having an exclusive right to something means no other person can lawfully claim that right.\(^{17}\)

It will be important to review the Native Title as well as any other relevant land documents that may govern the project area. For example, the native title groups’ country assessed for this report could include many tenures such as: Aboriginal Pastoral Lease and Unallocated Crown Land (see Figure 13). These tenure types will have to be reviewed to determine legal right. The group would also need to check what other people, companies or government bodies may have an interest and how their activities could impact on a project.

**Summary of requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>How to meet it</th>
</tr>
</thead>
</table>
| Participation in the ERF | - Individuals  
- Sole traders  
- Companies  
- Local, state and territory government bodies and trusts |
| Open ANREU account | - Pass Fit and Proper Person test |
| Legal right to carry out a project | - Have the right to carry out the project activities on or for the sites or assets included in the project; and  
- Have a lawful and exclusive right to be issued all Australian carbon credit units (ACCUs) that may be created as a result of the project activities. |

If all the legal requirements above are met, there will be no legal barriers to participation in the voluntary market.

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9.4 Potential governance structures

As noted above, there are certain legal requirements that need to be met in order to become an ERF participant to create carbon credits. The native title group will usually meet these requirements if they have an existing fire management carbon project with their current organisational structure. If the project is expanded to include the low rainfall area, the governance structure used for the current carbon project can still be used or a new project or structure can be developed.

The governance of a carbon project is an important consideration. Existing carbon projects involving aboriginal groups across Australia operate under many different models. There is not one structure that will suit all groups as each group has their own unique corporation rule books and laws differ between states.

Below are some governance arrangements which may also be of interest.

1. The **PBC Board** makes decisions regarding a carbon project. The operation and administration is delegated to and undertaken by PBC or Ranger staff.
2. The **Healthy Country Advisory Committee** is delegated authority by the PBC to make decisions regarding the savanna fire management carbon project. The Prescribed Body Corporate would hold the strongest right to the carbon - see below - and therefore the governance defaults to the PBC to make decisions regarding the operation of the carbon project, allocating the benefits, such as money earned, to the Ranger group or other parties.
3. A smaller dedicated committee is created and delegated authority for management of a carbon project. This committee would include the people who will be operating and administering the carbon project such as Rangers or PBC staff.

**Co-participant arrangement**

1. It is possible, through a legal agreement, to transfer the right to carbon to another corporation or company. Some examples of this would be;
   a. A Pastoralist transferring the right to do a savanna fire management carbon project to an Aboriginal Native Title Group or land management organisation;
   b. Native Title Holders giving the right to the carbon to another Native Title Group to create an aggregation. An aggregation is where two or more carbon projects join together to pool carbon credits and share operational costs to increase the benefits and outcomes of the project.

The negative aspects of this are;

   a. You have to give your right to the carbon credits to another corporation for an agreed length of time which is long enough to satisfy a sales contract and method requirements; and
b. Project governance arrangements could be time consuming and costly if members of the involved groups are required to meet. This may lessen the benefit of the project. Legal advice should be obtained prior to any decisions about transferring the legal right to do a savanna fire management carbon project.
10 Annex 3: Legislation history

The government decides the policy for carbon credit projects in Australia. This policy and supporting legislation has a big impact on how projects operate and what value the carbon credits will have when sold. Sometimes an independent market can also be started by market participants such as traders and project developers. The value of carbon credits has changed a lot since the introduction of the CFI and now the ERF. This is because the policy has changed several times over the last years. For example, the CFI was originally created to supply carbon credits to a scheme that no longer exists. If carbon credits are to be sold for a good price there needs to be buyers who want to or have to pay for them.

The table below shows the history of legislative changes and the impact on carbon projects.

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Description</th>
<th>Effect on Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Farming Initiative</td>
<td>A legislated offsets scheme recently replaced by the emissions reductions crediting element of the ERF. The emissions reductions crediting element of the ERF is the successor of the CFI and operates in the same way. Participation in the scheme is voluntary. Land holders and farmers can choose whether they want to be involved.</td>
<td>The legislation underpinning the operation of the CFI has been amended several times since its introduction in 2011. This, however, has not had a major impact on projects. The main impact on projects has been the changing systems that create demand for the carbon credits created under the CFI and now the ERF. That is the change from the carbon pricing mechanism where a variety of organisations could purchase the carbon credits to the Emission Reduction Fund where the only buyer is the government. The savanna fire management method has been amended several times and now includes additional activities. The relevant method at the time of writing this report is Carbon Credits (Carbon Farming Initiative – Emissions Abatement through Savana Fire Management) Methodology Determination 2015.</td>
</tr>
<tr>
<td>Carbon Pricing Mechanism</td>
<td>An emissions trading scheme that put a price on GHG emissions. It was introduced by the former Labor Government and included a fixed price period of 3 years of high prices, then linking to the European emissions trading scheme.</td>
<td>The carbon pricing mechanism was repealed, with effect from 1 July 2014. The removal of the scheme has created a period of price uncertainty for carbon credits. There is no longer predictable demand and prices are also much more difficult to forecast now there is no market mechanism in place.</td>
</tr>
<tr>
<td>Emission Reduction Fund</td>
<td>Currently in force. The ERF has three elements:</td>
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<td>-------------------------</td>
<td>--------------------------------------------------</td>
<td></td>
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<tr>
<td></td>
<td>- crediting emissions reductions;</td>
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<td></td>
<td>- purchasing emissions reductions; and</td>
<td></td>
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<td></td>
<td>- safeguarding emissions reductions.</td>
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</tbody>
</table>

Purchasing emissions reductions - The ERF includes a government fund that aims to purchase lowest cost emission reductions from emissions reduction projects in Australia. Participants bid in a price and the government chooses the lowest cost bids to purchase from. Government contracts with the carbon credit supplier are over a 7 year or 10 year period. The average price paid in the last auction was AUD13.95.

| Crediting emissions reductions | Emission reduction projects are eligible to bid into the Emission Reduction Fund if there is a government approved method. The goal of the fund is to purchase carbon credits at the lowest price. Some project types, including savanna fire management, are disadvantaged by this as it costs more to carry out a savanna fire management project than other project types that are also bidding in the same process. There is no certainty that if a bid is made that it will be successful. For more information on the ERF, see also section 0. |

For more information on the ERF, see also section 0.
Annex 4: Native title group areas discussed in this report

Figure 13: Group areas assessed for potential fire management carbon project