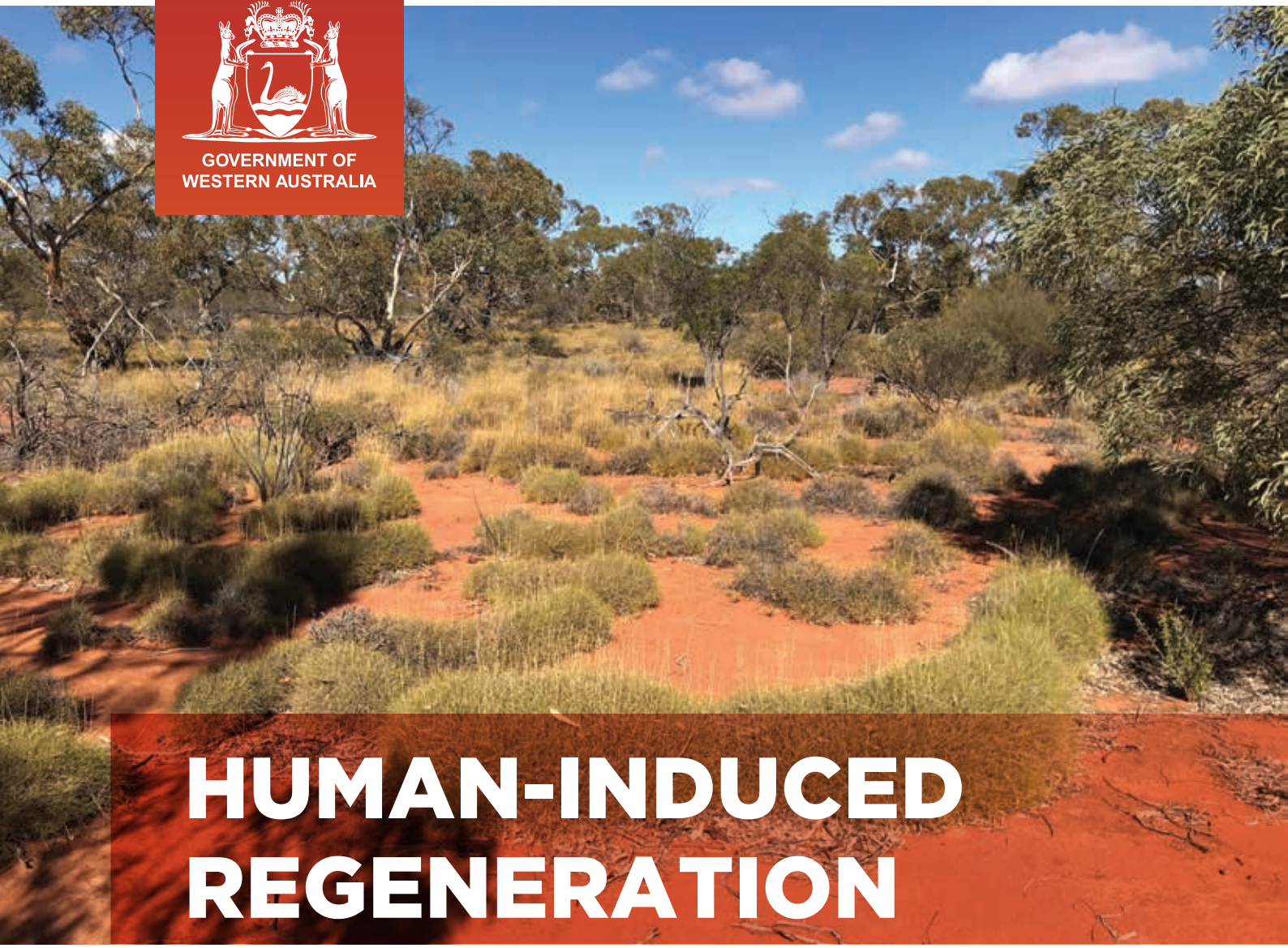
GOVERNMENT OF WESTERN AUSTRALIA

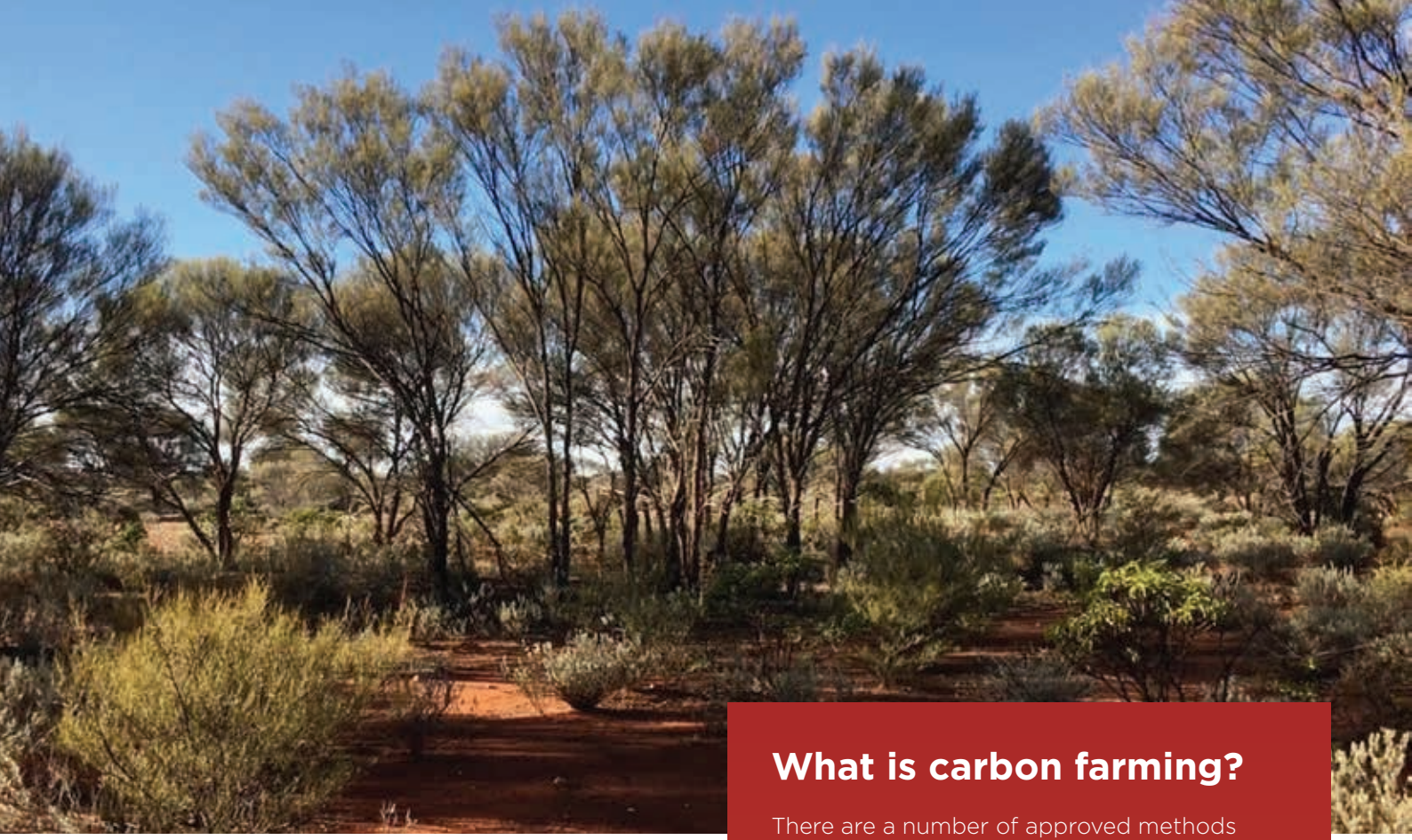


HUMAN-INDUCED REGENERATION

CARBON FARMING AND THE RESOURCES SECTOR

AT A GLANCE

- The Western Australian Government is finalising matters related to providing eligible interest holder consent for Human-Induced Regeneration (HIR) carbon farming projects on pastoral lease lands
- The interaction between pastoral and resource sector activities will be the focus of consultation
- Submissions due by COB Wednesday 2 October 2019



The Clean Energy Regulator and the Emissions Reduction Fund

The Commonwealth *Carbon Farming (Carbon Farming Initiative) Act 2011* (CFI Act) allows proponents to register projects that will sequester carbon to generate Australian Carbon Credit units (ACCUs) — one ACCU equates to one tonne of carbon dioxide equivalent (tCO_2-e) avoided or sequestered. ACCUs can be purchased via Emissions Reduction Fund (ERF) auctions or sold in the secondary market to businesses, both national and international, seeking to offset their greenhouse emissions (GHE).

The Clean Energy Regulator (CER) manages the registration, crediting, auditing and reporting framework for Australian carbon projects. The CER also administers the ERF, a scheme that provides incentives to develop projects that avoid or sequester carbon dioxide emissions consistent with approved methodologies. The ERF is central to meeting Australia's 2015 Paris Agreement commitments to reduce GHE.

In 2014 the Commonwealth allocated $2.55 billion to the ERF. Of this, $1.8 billion has been contracted to purchase ACCUs from carbon offset projects, of which Western Australia (WA) has received only 4% (see Figure 1). The Climate Solutions Fund was allocated another $2 billion. The State Government would like WA's regions to receive a greater share of the ERF's remaining $237 million and the Climate Solutions Fund.

What is carbon farming?

There are a number of approved methods broadly described as 'carbon farming' designed to reduce greenhouse emissions or to remove carbon dioxide from the atmosphere. The land based methods include savannah burning, soil carbon, revegetation and human-induced regeneration (HIR). HIR projects can occur on grazing lands in semi-arid regions, restoring rangelands and increasing biodiversity.

Advantages of carbon farming

Benefits from carbon farming include increased agricultural productivity through reduced soil erosion, improved soil structure and fertility, reduced salinity, increased biodiversity,buffering against drought and greater water efficiency. This in turn increases profitability and assists WA to meet national objectives.

Safeguard mechanism

As part of Australia's strategy to reduce its carbon emissions, the ERF includes a safeguard mechanism. This requires businesses with direct emissions in excess of 100,000 tCO_2-e a year to keep net emissions at or below baseline levels. Growth in the carbon farming sector gives these emitters the opportunity to invest in Western Australian carbon offsets, promoting economic growth and allowing international targets to be met.

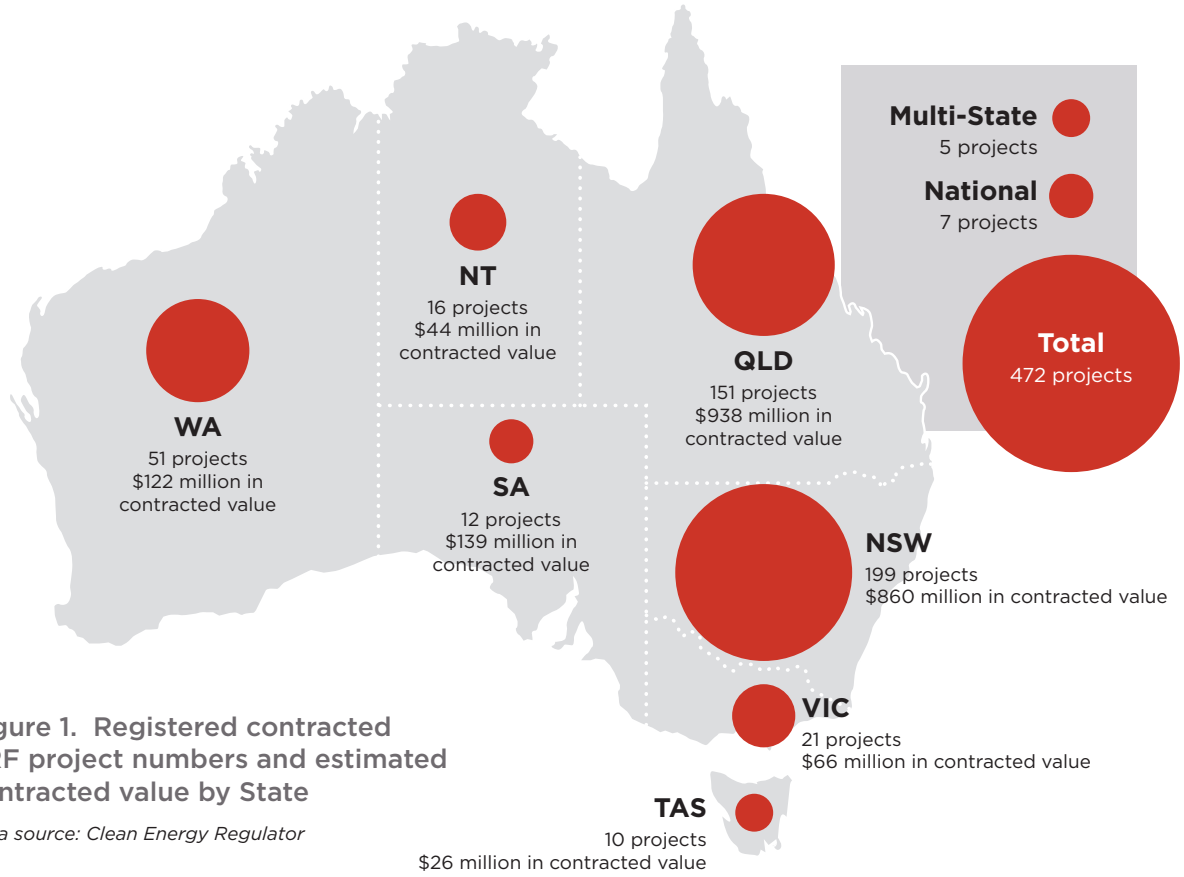


Figure 1. Registered contracted ERF project numbers and estimated contracted value by State

Data source: Clean Energy Regulator

What is the Human-Induced Regeneration carbon farming methodology?

One type of carbon sequestration project uses a methodology called Human-Induced Regeneration (HIR), which captures carbon by changing land management practices to facilitate regeneration of a 'native forest'. This methodology is the focus of the State's eligible interest holder policy considerations.

HIR projects change the pastoral practices used to manage grazing animals using water access, nutrition and animal behaviour to manage the distribution of livestock and their impact on native vegetation regeneration. Carbon farming does not necessarily require additional infrastructure beyond that normally required by pastoral activities. Eligible activities include:

- excluding livestock and taking reasonable steps to keep livestock excluded
- managing the timing and extent of grazing
- managing feral animals in a humane manner
- managing plants that are not native to the project area
- (pastoralist) implementing the decision to cease mechanical or chemical destruction or suppression of native regrowth.

HIR projects must be located on eligible land where:

- regrowth of 'native forest' has been suppressed for at least 10 years; and
- where current activities occur that suppress growth.

Carbon farming using HIR is a pastoral activity consistent with the *Land Administration Act 1997 (WA)*. All pastoral lease requirements under the Act, need to be met when undertaking a carbon farming project. When applied appropriately HIR activities are consistent with the Act and diversification permits are not required.

To meet the CER's 'additionality' requirements the proponent must demonstrate that the activity is undertaken to a level 'above and beyond normal management' practices.

The carbon project will have a patchwork of Carbon Estimation Areas (CEAs) which have reforestation potential of 20% canopy cover by trees reaching at least 2m in height. Detailed Full Carbon Accounting Model (FullCAM) software analysis, project reporting and auditing are required for projects to demonstrate the generation of ACCUs and continued sequestration of carbon.

Carbon sequestered has a permanence period requirement of 25 or 100 years.

Where are WA's proposed HIR projects?

The State Government recognises the potential for the HIR carbon farming methodology to support improvement to the Southern Rangelands while providing a supplemental revenue stream to pastoralists.

As at September 2019, 43 HIR projects located on WA pastoral leases were declared eligible offset projects by the CER, subject to EIH consent being granted by the State Government. Of those projects, 39 have been conditionally contracted by the CER.

The projects are located across the Mid West, Gascoyne and Goldfields Regions where suitable vegetation type and regrowth potential exists (see Figure 2). Climate and other environmental factors, as well as past and current land use, limit the area suitable for HIR projects.

Figure 2. Proposed HIR project areas on pastoral leases

"The pastoral industry contributes much to the social and economic fabric of this State, but, the industry faces many challenges, not least of which, the land on which it operates is some of the State's most fragile. Pastoral lands have been under threat for over 75 years and during that time there has been limited progress to halt the decline in pastoral land condition."

***MANAGEMENT OF PASTORAL LANDS IN WESTERN AUSTRALIA*, AUDITOR GENERAL REPORT, 2017**

Why is the State Government interested in carbon farming?

Carbon farming provides an opportunity to increase the economic value of the State's natural assets and the resilience of the agricultural industry, facilitate economic diversification, and create job opportunities contributing positively to the State's ongoing prosperity. Additional benefits include improved quality of land and water, increased biodiversity, and more effective control of feral animals and weeds.

EIH consent for HIR

For land-based methods with a permanence period of 25 or 100 years, the CFI Act requires HIR project proponents to obtain eligible interest holder (EIH) consent. This is consent from the persons who hold an eligible interest in the land over which the project is to be conducted.

Because the proposed HIR projects take place on pastoral lease lands, which is Crown Land, the State Government must provide its EIH consent if a project is to be registered unconditionally with the CER and able to generate ACCUs. Other potential EIH parties whose consent must be sought include mortgage holders and native title holders.

In 2018, the State Government provided 'in-principle support' for HIR carbon farming projects, on the basis that they met a range of criteria, some of which have been reconsidered in the intervening period.

These criteria were:

- The project is conducted on an existing pastoral lease, having a term of at least 25 years.
- The project proponent is the pastoral lessee and not a third party.
- The project involves the use of the grazing management techniques that are permitted activities under the *CFI Act (Methodology Determination 2013)* (HIR).
- The project permanence period is 25 years.

However, in-principle support does not amount to providing EIH consent. The State has been developing its position on whether to provide consent to HIR carbon farming, and consent may or may not be provided at it's discretion. Each project would be assessed case by case. Given WA's land tenure system, holders of mining tenements and petroleum titles over pastoral land are not treated as having an 'eligible interest' under the CFI Act. This means there is no statutory requirement under the Act for proponents to seek the consent of mining tenement and petroleum title holders. The State Government, however, recognises the importance of the resources sector to the WA economy and is therefore carefully considering the impact of carbon farming on the sector.

Determining a project area and CEAs

HIR carbon projects must cover large areas to be financially viable. The value of carbon is low per hectare but at the scale of pastoral leases (100,000–500,000 ha) is sufficient to create viable projects.

Carbon farming project areas can cover an entire pastoral property, but areas can be excluded. Examples of exclusions include mining leases, salt lakes, areas without regeneration potential or that are already reforested. Areas eligible for earning carbon credits (carbon estimation areas or CEAs) occur as a function of soil, landforms and vegetation.

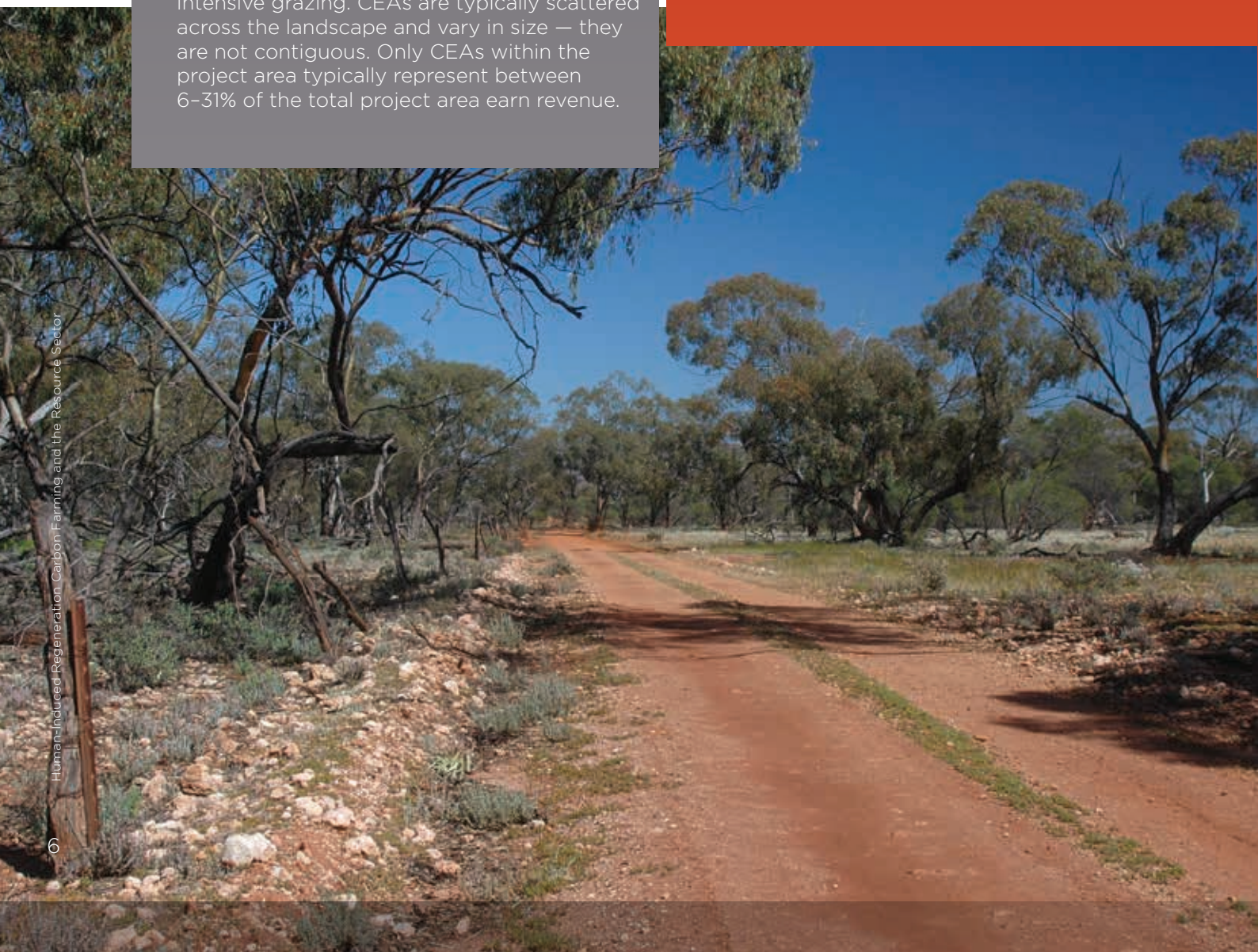
A carbon project will have a patchwork of CEAs with reforestation potential, located where regrowth of 'native forest' has been suppressed for at least 10 years and where activities occur that suppress growth, such as intensive grazing. CEAs are typically scattered across the landscape and vary in size — they are not contiguous. Only CEAs within the project area typically represent between 6–31% of the total project area earn revenue.

Monitoring, reporting and auditing

Proponents are required to monitor the project area to track regeneration of vegetation and attainment of forest cover and to account for disturbances such as fire and clearing. This is done through a combination of remote sensing analysis, modeling and on-ground data collection.

Projects must report (at least once every five years) to demonstrate method requirements are being met, including progress to and eventual attainment of forest cover, and to report on carbon abatement.

ACCUs are financial products as defined under the *Corporation Act* (Cth). To support an application for crediting of ACCUs project offset reports and independent audit reports must be submitted to the CER. Subject to verification, the CER then issues the number of ACCUs quantified in the reports.



SHARING THE LAND: CARBON FARMING AND RESOURCE SECTOR ACTIVITIES

Resource sector intersection with HIR projects

In 2017/18, the resources sector in the Mid West, Gascoyne and Goldfields regions, was valued at more than $15 billion, contributing extensively to the economy through royalties and employment. These regions are also prospective for future gold, nickel, base metals, iron ore and petroleum (gas) operations. In August 2019, 1766 granted mining tenements were held by 451 tenement holders across the registered HIR projects. A further 277 mining tenements from 139 applicants are pending across the project areas. There are ten active gold mining operations and one base metals operation within the project areas, along with petroleum interests.

In developing its position on whether to provide State EIH consent for carbon farming projects, the potential impact on resource sector activities has been a key consideration.

The State Government's proposed approach is designed to not adversely affect the existing rights of mining and petroleum tenement holders — the *Mining Act 1978 (WA)* (Mining Act) and *Petroleum and Geothermal Energy Resources Act 1967 (WA)* (PGER Act) will continue to operate as usual. There are no changes to land access rights or vegetation clearing exemptions, with application processes unchanged.

The CFI Act creates no new rights for pastoral lease holders or carbon farming proponents. The CER recognises that more profitable business opportunities for a piece of land may arise over time, a key policy consideration in drafting the CFI Act. This was to ensure that carbon farming projects using land-based sequestration methods had sufficient flexibility to accommodate new commercial opportunities.

The State Government understands that the resources sector is concerned about 'on the ground' and operational impacts that may inadvertently occur as a consequence of carbon farming on pastoral lease lands. It is committed to working constructively with all parties in order to maximise economic efficiency, protect the fragile environment of the Southern Rangelands and for pastoralists to access a revenue stream that can be utilised for land rehabilitation.

Human-Induced Regeneration Carbon Farming and the Resource Sector

Mining tenements and carbon farming projects

Under section 18 of the *Mining Act 1978*, all Crown land not already the subject of a mining tenement is 'open for mining'. The Act would continue to apply as usual to areas not currently subject to a mining tenement.

It is proposed that carbon farming proponents be required to exclude existing/granted mining leases and petroleum licences from project areas, unless the mining lease or petroleum licence holder expressly consents to the carbon farming proposal.

It is proposed that pending mining leases, granted and pending exploration and prospecting leases, and petroleum licence areas will not be required to be removed from carbon farming project areas.

Do you have any comments on the proposed regime of exclusion from carbon farming project areas?

Where can carbon farm project area and CEA information be accessed?

While the existence of carbon farms on a tenement do not impact the statutory rights of tenement holders, resource sector proponents may want access to information regarding carbon farming projects that intersect with current or potential mining tenements.

Carbon farming project area information is publicly available on the CER website. In addition, any intersecting carbon farming project areas will be noted in the Department of Mines, Industry, Regulation and Safety (DMIRS) spatial enquiry and mapping system, Tengraph. Both sources of information will include the name of the pastoral lease and the name of the carbon farming proponent, if different.

Information about the location, extent and status of CEAs is commercially sensitive. Carbon proponents understand owners of mining tenements may wish to understand where CEAs have been identified and will provide this information directly to registered tenement holders whose tenements intersect carbon farming project areas on submission of a non-disclosure agreement.

Do you have any additional suggestions as to how transparency of project areas and CEAs can be provided while managing commercial-in-confidence requirements?

Can native vegetation in a CEA be cleared?

The potential to improve the environmental conditions of pastoral lease lands is one of the drivers behind the State Government's interest in providing EIH consent for HIR carbon farming projects. The poor state of Western Australia's pastoral lease lands, and rangelands, is a matter of public record and has been the subject of numerous investigations since the 1970s.[2]

The existence of a carbon farming project area does not create any new requirements for assessment of Native Vegetation Clearing Permits (NVCPs) or environmental approvals. The State Government has considered whether improving the rangeland vegetation on the pastoral estate will impact the ability of the resources sector to obtain NVCPs or environmental approvals in future.

The State Government has formed a view that, generally:

- the removal of grazing pressure is likely to improve the vegetation condition in an area and may lead to the identification of previously unrecorded species that were present but unnoticed, however conservation significant flora and communities are unlikely to colonise the area
- conservation significant flora are more commonly associated with restricted landforms, such as banded ironstone formations in the rangelands. These areas are not compatible with the HIR methodology
- if conservation significant flora have persisted in pastoral areas subject to grazing, removal of grazing pressures may lead to an increase in abundance of these species or communities, but this is less likely to be an issue in impact assessment.
- An increase in the abundance of conservation significant species or communities does not make these species/communities more threatened, it makes them less threatened and of lower conservation significance.

[1] http://www.cleanenergyregulator.gov.au/maps/Pages/erf-projects/index.html

[2] *Management of Pastoral Lands In Western Australia, Appendix 2: Summary of selected pastoral land inquiries and reports in WA*, Office of the Auditor General , October 2017

The State Government does not consider that any statutory or regulatory amendment to the operation of Part IV or Part V of the *Environmental Protection Act 1986 (WA)* (EP Act), or the Mining or PGER Acts are warranted in relation to HIR carbon farming projects on pastoral leases in WA.

Permits and environmental approvals

Under section 51O of the EP Act, the Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation must have regard to the clearing principles in so far as they are relevant to the matter under consideration, planning instruments, and any other matter the CEO considers relevant.

An area that is within a carbon farming project has the potential to be 'any other matter that the CEO considers relevant'. Noting the limited clearing associated with most mining activities and the relatively low levels of carbon likely to be sequestered per hectare under the HIR methodology, the existence of a carbon farming project will not necessarily lead to refusal of clearing permits or imposing of additional conditions for relevant mining proposals.

Similarly, the presence of a carbon farm could be an incentive for pastoral lease holders or carbon farming project proponents to object to NVCP or environmental approval applications due to the potential loss in income. This risk is mitigated by the proposed Carbon Guarantee Fund, which will provide compensation for the loss of carbon credit units from vegetation clearing.

Do you have any comments on the potential implications of carbon farming for NVCP and environmental approval processes?

Will compensation be paid for clearing CEAs?

The State Government is exploring options to minimise any potential financial impacts associated with the loss of carbon production that may result from exploration or other low impact mining activities.

Due to the small amount of carbon sequestered per hectare, it is expected that any financial loss due to exploration or other low impact mining activities will be minimal and immaterial relative to the total ACCUs created by a carbon farming project. For example, in year 5 of a project, based on forecasted ACCU prices and typical sequestration rates, the value of removed sequestered carbon could be estimated to be around $180/ha.

Carbon Guarantee Fund

The right to compensation for loss of revenue (and other detrimental impacts) is enshrined in the *Mining Act* and compensation is usually agreed between the pastoral lessee and the tenement holder.

To streamline the process with respect to any loss of sequestered carbon and to support both sectors the State is considering establishing a Carbon Guarantee Fund (the Fund) to address compensation for exploration and other low impact mining activities.

The State Government is considering the thresholds at which 'exploration and low impact mining activities' would be defined. This will determine which losses carbon farming proponents would be able to claim via the proposed Fund.

If a Fund were to be established, it is proposed that compensation for sequestered carbon lost as a result of native vegetation clearing activities on granted exploration or prospecting licence areas would be paid by the Fund rather than the resource sector proponents.

With respect to granted mining leases and associated general purpose and miscellaneous licences, alignment with the *Mining Rehabilitation Fund Act 2012 (WA)* and associated regulations is the preferred approach. Consequently it is proposed that for the purposes of accessing the Fund, 'exploration and low impact mining activities' on granted mining leases and associated general purpose and miscellaneous licences be consistent with Mining Rehabilitation Fund (MRF) thresholds.

If an activity on a mining lease is exempt from making an MRF contribution, compensation for loss of sequestered carbon as a consequence of native vegetation clearing would be eligible to be paid by the Fund.

The existence of the Fund would not prevent carbon farming proponents from seeking compensation under the *Mining Act*. However, in considering matters relating to compensation any amounts paid by the Fund would be deducted.

Do you have any comments to make in relation to compensation for the loss of sequestered carbon as a consequence of resource sector activities?

Carbon maintenance obligations

Carbon farming activities, such as those using the HIR methodology, which store carbon in vegetation or soils on the project land, give rise to 'permanence obligations' that 'run with the land' (Parts 7 and 8 of the CFI Act).

Permanence obligations can mean that areas of land must be dedicated to the sequestration activity, maintained, protected or reinstated for the permanence period, which is 25 years in the case of the proposed HIR projects on WA pastoral lease lands.

Carbon maintenance obligations (CMOs) are a discretionary power that exist under section 97 of the CFI Act that allow the CER to retain the permanence of carbon stores over a particular area of land. It is important to note that CMOs can be revoked or varied.

Should a relinquishment order not be complied with the Commonwealth may invoke a CMO An order can be made for one of the following reasons:

- ACCUs were issued on the basis of false reporting (s88)
- ACCUs were issued and a project was subsequently revoked (s89)
- ACCUs were issued then the stored carbon was completely or partially destroyed (s90).

If a CMO was placed over a project area, the landholder would be prohibited from doing any activity on the land that results, or is likely to result in a reduction below the benchmark level[3] of the carbon sequestered in the land, unless that activity is a 'permitted carbon activity'. Ultimately, the State is the landowner of the pastoral estate in the case of HIR projects.

A key concern for the State Government is that land subjected to a CMO for a HIR project is identified for some other economic activity (e.g. mining). The risk being that, should the State wish to carry out an activity on the project area, be it mining or other, the CMO needs to be revoked or varied to allow it to take place.

The CER is aware of the State Government's concerns and is preparing a guidance note that will provide greater certainty on areas excising from the CMO area through a variation of the CMO by relinquishing the ACCUs associated with the carbon sequestered in the vegetation on that land.

Do you have any comments to make with respect to the potential for CMOs to be imposed on areas on which carbon farming takes place and the associated variation and revocation process?

[3] Tonnes of carbon sequestered when the CMO was put in place.

Consultation feedback

Submissions regarding HIR carbon farming and its interaction with the resource sector can be provided to your peak body representatives for compilation or emailed directly to:

Email: hir@dpird.wa.gov.au

Submissions due by COB Wednesday 2 October 2019.

Find out more

The Department of Primary Industries and Regional Development website has information on carbon farming and HIR.

Visit: www.dpird.wa.gov.au

The Department of Mines, Industry Regulation and Safety and the Department of Planning, Lands and Heritage websites has information on matters related to lands, resources sector and environmental regulations.

Visit: www.dplh.wa.gov.au
www.dmirs.wa.gov.au
www.dwer.wa.gov.au

The Clean Energy Regulator website has information on the ERF, carbon farming methodology, registration and contractual obligations, CFI Act and other regulations.

Visit: www.cleanenergyregulator.gov.au

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