

To: Climate Change Authority
By email: consultation@climatechangeauthority.gov.au

Dear Climate Change Authority Team,

Climate Friendly welcomes the opportunity to provide input to the Climate Change Authority's 2026 review of the Australian Carbon Credit Unit (ACCU) Scheme. We strongly support the Authority's commitment to ensuring the Scheme remains a high-integrity, high-impact mechanism for achieving Australia's emissions reduction targets and delivering co-benefits for nature and communities.

The Australian Government's *Net Zero Plan* identifies five priority decarbonisation actions across the economy, including a commitment to 'scale up carbon removals to balance residual emissions.' The Plan identifies the ACCU Scheme as a foundational national carbon market framework helping to achieve low-cost abatement, and commits to "continue to improve the ACCU scheme so it contributes to Australia's net zero transition."

Our submission draws on over two decades of experience supporting carbon farming projects across 10 million hectares of land on more than 180 ACCU projects, partnering with agricultural producers, Traditional Owners, plantation growers, and conservation organisations.

We believe these reforms will strengthen the ACCU Scheme's role in delivering Australia's 2035 emissions reduction target and position the land sector as a leader in climate and nature solutions.

We would welcome the opportunity to discuss our recommendations further and collaborate on implementation pathways.

Thank you for considering our submission.

Kind regards,

A handwritten signature in grey ink, appearing to be "ZR", with a horizontal line extending from the end.

Zoe Ryan

Chief of Integrity & Impact, Climate Friendly

Summary of Recommendations

This Section provides a list of all recommendations in this document. The remaining Sections of the document provide more details on the recommendations and the rationale behind them, grouped by the CCA's broad thematic areas (1: ACCU Scheme Function; 2: Methodology reform; and 3: ACCU Market Dynamics and Contribution to 2035 emission reduction target).

ACCU Scheme Function

Recommendation 1: Appropriately resource and prioritise the implementation of recommendations from previous ACCU Scheme reviews.

Recommendation 2: Establish a Federally coordinated, decentralised environmental and land data sharing system, supported by a national data discovery portal and robust governance standards.

Recommendation 3: Scheme buffer operating rules should be clarified. The Scheme buffer should be 'issued' and managed by the Australian Government as a non-tradable credit type.

Recommendation 4: Develop and implement a National Carbon Market Strategy in line with recommendations from the Carbon Market Institute.

Recommendation 5: Convene quarterly stakeholder-Government roundtable workshops, focussing on removing friction from the ACCU Scheme

Recommendation 6: Actively manage disinformation and misleading narratives about the ACCU Scheme through a coordinated information integrity strategy.

Recommendation 7: Provide realistic, unbiased guidance to land managers outlining the true complexity of operating carbon projects and the full package of expertise required. This should be done alongside more formalised accreditation of carbon service providers and advisers (as per recommendation 12 from the ACCU Scheme Review).

Recommendation 8: Clarify Australian Government frameworks for voluntary and mandatory greenhouse gas (GHG) reporting in the land sector.

Recommendation 9: Implement recommendation 11 from the Independent ACCU Review in relation to consents on native title land as soon as possible; and introduce time-bound guidelines for obtaining Native Title consents, including a structured escalation and support process for stalled applications.

Recommendation 10: Coordinate an intergovernmental resolution regarding the process to define cadastral boundaries in relation to ACCU Projects.

Recommendation 11: Allow for portfolio-wide audits as an alternative assurance option for project proponents managing multiple ACCU projects.

Recommendation 12: Appoint the Clean Energy Regulator (CER) to act as the primary auditor for ACCU Scheme projects, adopting an "inspector" model similar to State-based regulation of industries such as the contaminated land sector.

Recommendation 13: Introduce disclosure guidelines for property transactions involving carbon farming projects, including a standardised information pack for incoming purchasers.

Recommendation 14: Revise Paragraph 20AA(1)(e) of the Carbon Farming Initiative Rule to reflect its original intent: preventing the replacement of intact, high-carbon native forests, and ensuring proponents do not

benefit from clearing high-carbon vegetation.

Recommendation 15: Newness should be benchmarked to the date of project application rather than the date of registration, provided all eligibility criteria are met. This is consistent with Recommendation 9 from the 2020 CCA Review of the ERF, which has not yet been implemented.

Recommendation 16: Reform the Minister for Agriculture approvals process for certain notifiable projects.

Recommendation 17: Establish a risk-sharing framework to guide transitional arrangements when new or revised methods are applied to pre-existing projects.

Methodology reform

Recommendation 18: Ensure timely and adequately resourced reform of ACCU Scheme methods, with clear service-level targets for method development and updates (e.g., 12–18 months for revisions).

Recommendation 19: Establish the forthcoming IFLM method as the central integrated multi-method framework for the land sector. Avoid introducing multiple overlapping multi-method frameworks for the land sector (noting it may be appropriate to have integrated frameworks for other sectors, like waste).

Recommendation 20: There should be no requirement for mandatory transition to new methods, or from standalone methods to integrated methods. To be clear, proponents should have the option to stay on the method that existed at the time of project registration.

Recommendation 21: Government should appoint a panel of expert advisers who could be engaged to prepare ACCU methods, similar to arrangements under the Nature Repair market.

Recommendation 22: Clarify that abatement generated from carbon farming projects must be aligned to the National Greenhouse Gas Inventory (NGGI) but that project level accounting and the national inventory may have some consistent but different steps, as is appropriate for the scale of calculation.

Recommendation 23: Clarify the treatment of additionality for carbon projects that are also used as biodiversity offsets under the Nature Repair Act.

Recommendation 24: Implement Recommendation 16 from the 2020 CCA Review (i.e. allow the Minister to extend a crediting period), and also allow permanence periods to be changed.

ACCU Market Dynamics

Recommendation 25: Remove the word "offset" from the Carbon Farming Initiative Act and replace it with the word "carbon credit" to more appropriately differentiate between the verification of abatement which results in issuance of a carbon credit vs the end use of the credit (insetting, offsetting or voluntary action).

Recommendation 26: Amend the CFI Act to change the Government purchasing mechanism from 'least cost abatement' to 'highest impact abatement', prioritising projects that deliver significant co-benefits

Recommendation 27: Develop a transparent, government-endorsed long-term ACCU price signal mechanism, such as a published forward price curve or benchmark index, to provide market participants with visibility on expected ACCU values over 10–15 years.

Recommendation 28: Market appetite for increased transparency of ACCU Project data should be achieved via the national land database (Recommendation 2).

ACCU Scheme Function

The recommendations below relate to the following consultation questions about ACCU scheme function in the CCA issues paper:

- How fair and accessible is the scheme, considering the treatment of different sectors, barriers to participation and access to benefits?
- Are there any other ways that the ACCU Scheme could be improved?

Implementation of existing commitments to ACCU Scheme reform

Recommendation 1: *Appropriately resource and prioritise the implementation of recommendations from previous ACCU Scheme reviews.*

Rationale: Implementation of reforms recommended in the 2022 *Independent Review of Australian Carbon Credit Units* and the 2020 *Climate Change Authority review of the Emissions Reduction Fund* have been slow or incomplete. This has reduced certainty, and has reduced uptake of new carbon farming projects.

To meet its Commitments in the Australian Government Net Zero Plan, existing recommended reforms to the ACCU Scheme should be appropriately funded and implemented as soon as possible, with time-bound commitments announced by the Minister.

A list of the outstanding recommendations that have yet to be implemented from the 2022 Independent Review of ACCUs are provided below:

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| 2 | Re-establish ERAC as the Carbon Abatement Integrity Committee |
| 6 | Updated Offsets Integrity Standards and ACCU scheme principles |
| 11 | Reformed process for Native Title consents in line with Free, Prior, Informed Consent principles |
| 12 | Formalise regulation / accreditation of carbon service providers and advisers |
| 15 | Reform participation opportunities for First Nations Australians |

Outstanding recommendations from the 2020 CCA Review:

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|----|--|
| 7 | Continue to streamline ACCU Scheme processes |
| 9 | Amend 'newness' requirement |
| 13 | Establish Steering Committee for method processes |
| 16 | Legislative change to allow Minister to extend crediting periods |
| 17 | Update free, prior and informed consent for Native Title holders |
| 18 | Risk-sharing framework for method/rule/tool changes |

National land database

Recommendation 2: *Establish a Federally coordinated, decentralised environmental and land data sharing system, supported by a national data discovery portal and robust governance standards.*

Rationale: Carbon farming projects generate extensive environmental, carbon, and land management data over decades, offering significant opportunities to improve national information and monitoring systems, support research, and inform land management decisions. However, data sharing must address legal, ethical, and technological considerations to protect privacy and livelihoods. A common data sharing framework with Federal governance will ensure integrity, interoperability, and appropriate use, while enabling insights across carbon, biodiversity, water, and agriculture sectors, that cannot otherwise be achieved through disconnected systems. This approach aligns with recommendations from the Independent ACCU Review and EPBC Act Review for a Federal data custodian role. [Appendix 1](#) outlines some recommended design features of the national land database. Despite being accepted by the Australian Government as part of multiple reviews, the establishment of a national database has lagged and this continues to create challenges in enhancing information transparency. Addressing this standing commitment should be appropriately resourced and prioritised.

Risk buffers

Recommendation 3: *Scheme buffer operating rules should be clarified. The Scheme buffer should be 'issued' and managed by the Australian Government as a non-tradable credit type.*

Rationale: The Scheme risk (5%) and permanence (20%) buffers play a central role in ensuring the environmental integrity of issued ACCUs. However, the current lack of clarity on buffer operating rules, including when and how cancellations occur (e.g., in force majeure situations), creates uncertainty for project proponents, investors, and the broader market. The size of these buffers already withheld from projects is in the tens of millions of ACCUs, but this important integrity measure is not currently being appropriately used, accounted for and reported on transparently by the Australian Government.

Clarifying these rules would:

- Enhance predictability and trust: Clear guidance on buffer management reduces perceived regulatory risk and supports informed investment decisions.
- Strengthen accountability: Transparent processes ensure that buffer use aligns with the Scheme's objectives and avoids unintended consequences, such as over- or under-compensation for reversals.
- Improve governance and auditability: Explicit rules enable better oversight and reduce the risk of inconsistent application.
- Support market efficiency: Considering whether buffers should be represented as a non-tradable credit type would improve visibility of the Scheme's risk management approach without distorting supply-demand dynamics for tradable ACCUs.

National carbon market strategy

Recommendation 4: *Develop and implement a National Carbon Market Strategy in line with recommendations from the Carbon Market Institute.*

Rationale: The current policy landscape regulating the ACCU Scheme is fragmented, with overlapping frameworks and inconsistent signals for investors and land managers. A National Carbon Market Strategy, as outlined in previous submissions from the Carbon Market Institute and other stakeholders, would set clear Government messaging about the crucial role the ACCU Scheme is making towards meeting Australia's net zero emissions targets. It would align carbon market development with national climate goals, safeguard integrity, and unlock private capital for high-impact projects, ensuring the ACCU Scheme remains credible, scalable, and fit for purpose during the decisive decade for climate action.

Formalise stakeholder involvement via a quarterly roundtable workshop

Recommendation 5: *Convene quarterly stakeholder-Government roundtable workshops, focussing on removing friction from the ACCU Scheme*

Rationale: The ACCU Scheme is widely acknowledged as complex, with friction points across the entire project cycle. These inefficiencies increase transaction costs, deter participation, and undermine confidence in the scheme's integrity and accessibility. Regular, structured engagement between government and the carbon market stakeholders is critical for identifying and addressing these barriers. Quarterly roundtables would:

- Accelerate problem-solving by creating a direct feedback loop between regulators, project service providers, policy makers, and market participants;
- Improve regulatory clarity by highlighting rules and processes that add cost without delivering integrity;
- Enhance uptake and trust by demonstrating responsiveness to stakeholder concerns, which is essential for scaling carbon farming and meeting Australia's 2035 emissions reduction targets;
- Support continuous improvement in line with recommendations from previous ACCU reviews, which emphasize transparency, governance, and stakeholder collaboration as key to scheme integrity and effectiveness.

International and domestic experience shows that frequent, inclusive stakeholder engagement improves policy design, reduces conflict, and fosters shared ownership of climate initiatives.

ACCU Scheme Information

Recommendation 6: *Actively manage disinformation and misleading narratives about the ACCU Scheme through a coordinated information integrity strategy.*

Rationale: Rigorous, science-based scrutiny of the ACCU Scheme is essential and a welcome feature of a high-integrity scheme. However, disinformation campaigns targeting the ACCU Scheme have eroded public trust and discouraged participation, despite the Scheme's strong integrity framework. Deliberate misinformation campaigns seeking to characterise land-sector decarbonisation as "offsets" create confusion and undermine climate action. Land sector decarbonisation is critical to achieving our national 2035 targets, and land sector carbon farming ACCUs can be used for the land manager's own sustainability goals, within supply chains, for voluntary action, or in some instances offsetting. The Government should implement a structured approach to information management, particularly tailored to the land sector where reliability of forecasts are linked to semi-natural ecosystems, not industrial facilities. Information management strategies could include proactive myth-busting campaigns, rapid response protocols for misinformation, and partnerships with trusted scientific and industry bodies to disseminate accurate, evidence-based information. The communication strategy could draw on lessons learned from previous Federal Government information management campaigns such as those during the COVID-19 pandemic and bushfire responses, where rapid correction of misleading narratives was critical.

Recommendation 7: *Provide realistic, unbiased guidance to land managers outlining the true complexity of operating carbon projects and the full package of expertise required. This should be done alongside more formalised accreditation of carbon service providers and advisers (as per recommendation 12 from the ACCU Scheme Review).*

Rationale: Since the inception of the Carbon Farming Initiative, government messaging has often portrayed navigation of the scheme as simple and implied that land managers could self-service. In reality, best practice management of ecosystems and high integrity ACCU projects is complex, and necessarily requires a wide breadth of specialist expertise from at least twelve different skillsets including:¹

1. Ecology
2. Agronomy & Forestry
3. Modelling & data science
4. Geospatial mapping
5. Regulatory compliance & other legal services
6. Traditional Owner partnerships
7. Audit and assurance
8. Project management

¹ A more detailed description of the package of expertise that Climate Friendly brings together for our partners is provided in Part 1 of our submission to the 2022 Independent Review of ACCUs.
<https://consult.dcccew.gov.au/independent-review-of-accu/submission/view/211>

9. Financial services including ACCU sales
10. Research & development (R&D)
11. Government relations
12. Capital investment

Recognising that most ACCU Scheme participants will require expert support will enable better regulation of the service industry, build trust in the advice provided by the carbon service industry, and enable land managers to conduct an honest appraisal of whether to self-manage the project, or appoint a specialist service provider. This should include implementation of the Independent ACCU Review reforms around carbon service provider and adviser accreditation.

Recommendation 8: *Clarify Australian Government frameworks for voluntary and mandatory greenhouse gas (GHG) reporting in the land sector.*

Rationale: The proliferation of overlapping voluntary and mandatory GHG reporting frameworks has created confusion for land managers and businesses in the agriculture and land sector. Many are uncertain whether to engage in the ACCU Scheme, report emissions for supply chain purposes, or pursue carbon neutrality certifications, leading to a “wait and see” approach that delays critical action during the decisive decade for climate mitigation. The Australian Government should outline the purpose, scope, and interaction of existing frameworks, including the ACCU Scheme, Climate Active, AASB S2 mandatory disclosures, and voluntary GHG estimation standards, and provide indicative pathways for participation based on business size, objectives, and compliance obligations. A clear communication framework would reduce complexity, provide clear market signals, and accelerate uptake of ACCU projects and adoption of reporting requirements.

Native title consents

Recommendation 9: *Implement recommendation 11 from the Independent ACCU Review in relation to consents on native title land as soon as possible; and introduce time-bound guidelines for obtaining Native Title consents, including a structured escalation and support process for stalled applications.*

Rationale: The reformed process for consents on native title land should be finalised to prepare for a potential influx of new and transition projects on native title land, driven by the new Savanna Burning and Integrated Farm and Land Management (IFLM) methods. Climate Friendly supports the implementation of revised consent requirements in the CFI Act that are aligned with the two-step process in the Nature Repair Act legislation.

Native Title consent is essential for ACCU projects on Indigenous land, but current processes often stall or take years, making projects commercially unviable and creating significant investment uncertainty. Delays are frequently due to capacity constraints within Prescribed Body Corporates (PBCs) and the complexity of negotiations. Establishing time-bound guidelines with an escalation pathway, such as mediation or regulator-facilitated resolution, would provide certainty for proponents while respecting cultural protocols and decision-making rights.

Additional support for Native Title groups ensures negotiations remain fair and informed, enabling greater participation of First Nations in carbon markets and delivering cultural, social, and economic benefits alongside climate outcomes. This support should be provided direct to the Native Title groups, and not via

regional advisory bodies. Each Native Title group should have the ability to use the support to appoint legal, financial or other advisers of their choosing, and also to enable representatives of the group to participate in the consent process and be adequately remunerated for the time, since these negotiation processes can require them to step away from their other employment or family obligations and hence come at a cost.

Titles and cadastral boundaries

Recommendation 10: *Coordinate an intergovernmental resolution regarding the process to define cadastral boundaries in relation to ACCU Projects.*

Rationale: Current inconsistencies between state-based cadastral systems, deposited plans, and physical property features create uncertainty for project proponents and the Clean Energy Regulator, leading to delays and administrative burden. The problem disproportionately affects smaller projects, and undermines cost savings associated with the alternative assurance arrangements, such as those in place for smaller under 200Ha Environmental Plantings projects. An intergovernmental resolution would provide a nationally consistent approach, reducing ambiguity and ensuring that project areas are accurately represented.

Audits

Recommendation 11: *Allow for portfolio-wide audits as an alternative assurance option for project proponents managing multiple ACCU projects.*

Rationale: Current audit requirements apply at the individual project level, creating high transaction costs and administrative burden, which can be prohibitive particularly for small and medium scale projects. Portfolio-wide audits would streamline compliance by enabling service providers to demonstrate integrity across a group of projects through a single audit process, supplemented by targeted checks. This approach would allow auditors to conduct a deeper-dive into technical processes, while reducing per-project costs, improving efficiency, and incentivising smaller landholders to enter the ACCU Scheme.

Recommendation 12: *Appoint the Clean Energy Regulator (CER) to act as the primary auditor for ACCU Scheme projects, adopting an “inspector” model similar to State-based regulation of industries such as the contaminated land sector.*

Rationale: The current audit framework requires third-party auditors and a subsequent CER assessment, creating duplication, inefficiency, and higher costs for project proponents. Third party auditors can struggle to bring together the diversity and experience of skills needed to assess the multiple and complex facets of an ACCU project. By contrast, the CER is in a unique position to accumulate learnings and assess project quality, because they assess every ACCU application in the Scheme, from project registration all the way to end of crediting period. This provides them with a breadth of understanding over time that the auditors can find hard to replicate.

This approach would also provide a sustainable funding mechanism for the Regulator. Under this model, proponents would pay an application and audit fee directly to the CER, which would conduct audits and recover costs through a transparent fee structure. [Appendix 2](#) provides some examples of sectors where Government-appointed auditors or inspectors are used instead of third party auditing.

Property sales

Recommendation 13: *Introduce disclosure guidelines for property transactions involving carbon farming projects, including a standardised information pack for incoming purchasers.*

Rationale: Property sale involving carbon farming projects is a vulnerable time in the project cycle. Property buyers may face information asymmetry when purchasing land with an existing carbon farming project. Projects nearing the end of their crediting period may carry greater liabilities (e.g., permanence obligations) and fewer income opportunities, creating a risk of uninformed decisions, financial disadvantage and permanence risks. Standardised disclosure and guidance would ensure buyers understand the implications of project commitments, improve transparency in property markets, and reduce disputes post-sale. This reform would protect buyers and sellers, maintain confidence in the ACCU Scheme, and support orderly participation in carbon markets. Standardised information packs could include project status, remaining crediting period, permanence obligations, and associated risks and benefits. Additional optional information on natural capital condition may also be beneficial to understand the carbon, biodiversity and production potential of the property.

Redraft Section 20AA of the CFI Rule to clarify re-clearing eligibility and forest definition

Recommendation 14: *Revise Paragraph 20AA(1)(e) of the Carbon Farming Initiative Rule to reflect its original intent: preventing the replacement of intact, high-carbon native forests, and ensuring proponents do not benefit from clearing high-carbon vegetation.*

Rationale The current interpretation of Paragraph 20AA(1)(e) has drifted from its original purpose under Regulation 3.36 of the CFI Regulations (2011). Instead of targeting the protection of intact native forests, the legislation could inadvertently exclude projects that have undertaken reclearing within the last five to seven years. This is problematic given these projects offer high additionality and significant abatement potential. This creates a narrow eligibility window for projects where the intended management change is avoided re-clearing. This risks undermining participation in carbon farming, particularly for projects that could deliver substantial climate and biodiversity benefits. Clarifying the rule will restore its intended focus, align with nature repair objectives, ensuring integrity without unnecessarily limiting project scope. In reviewing this recommendation, we suggest the CCA also consider any interactions with the recent amendments to the EBPC Act, which we have not taken into account in making this recommendation.

Newness

Recommendation 15: *Newness should be benchmarked to the date of project application rather than the date of registration, provided all eligibility criteria are met. This is consistent with Recommendation 9 from the 2020 CCA Review of the ERF, which has not yet been implemented.*

Rationale: Current “newness” requirements link project commencement to the date a project is declared registered by the Clean Energy Regulator. This can be several months after project application. This creates uncertainty and delays for land sector projects that often depend on narrow seasonal windows for implementing land management changes. The unpredictable timeline for processing applications by the Clean Energy Regulator can result in missed opportunities and reduced abatement potential. Aligning project commencement with the application date, similar to newness-in-lieu provisions in environmental plantings and plantation forestry methods, would enable timely implementation without compromising integrity.

Department of Agriculture approvals

Recommendation 16: *Reform the Minister for Agriculture approvals process for certain notifiable projects.*

Rationale: The CFI Rule Minister contains a requirement for Minister of Agriculture approval for projects seeking registration under the Human-Induced Regeneration (HIR) and Native Forest from Managed Regrowth (NFMR) methods. This legislation was introduced to address concerns about land-use changes negatively impacting agriculture and regional communities. We are not aware of any circumstances where the Minister has declined a project registration. However, we agree that a streamlined approval process for the Minister of Agriculture is useful and that an updated mechanism could be beneficial for forthcoming method and some other existing methods which are not currently subject to this approval process. Given both the HIR and NFMR methods have now sunset and no new projects can be registered under these methods, it is now timely to update this legislation in the context of the evolving ACCU Scheme method suite. The current blanket approvals process could be more streamlined and replaced with a risk-based approach, where Ministerial intervention is triggered only if projects present a demonstrable risk to agricultural productivity, regional communities, or food security. Clear criteria and timelines for decision-making should be published to ensure transparency and predictability.

Risk sharing for rule-changes

Recommendation 17: *Establish a risk-sharing framework to guide transitional arrangements when new or revised methods are applied to pre-existing projects.*

Rationale Method or rule changes can create uncertainty and financial risk for project proponents, particularly when updates occur mid-project. Without a clear framework, these risks could fall disproportionately on land managers, discouraging participation and investment, and generating distrust in the Australian Government and the ACCU Scheme. A structured risk-sharing approach, consistent with principles outlined in the King Review, would differentiate between changes driven by ACCU Scheme design refinements and/or Government tool updates (eg: FullCAM, SavCAM); and those prompted by improvements in scientific understanding and/or clarity around management changes.

Methodology reform

The recommendations below relate to the following consultation questions about methodologies in the CCA issues paper:

- How can the development and approval of high-integrity, scalable methodologies be accelerated?
- What are the current barriers to method development and how could they be overcome?
- What additional resources may be required to deliver the methods faster? How can transparency of method development and projects be improved?
- What potential new methods or refinements to existing methods could unlock significant new abatement?
- Do the rules on permanence and crediting periods get the balance right between integrity and project viability?

Timely reform of ACCU Scheme methods is important

Recommendation 18: *Ensure timely and adequately resourced reform of ACCU Scheme methods, with clear service-level targets for method development and updates (e.g., 12–18 months for revisions).*

Rationale: Method development and maintenance are critical to stimulate investment in carbon farming and enable the land sector to contribute meaningfully to Australia's net zero goals. However, recent delays—such as the multi-year drafting of the IFLM method and remake of the savanna burning method, have created instability and hesitancy among land managers and investors. Taking five or more years to reform an existing method, even with well-established science, is unacceptable during the decisive decade for climate action.

Establish IFLM as the central framework integrated method for the land sector with expanded modules

Recommendation 19: *Establish the forthcoming IFLM method as the central integrated multi-method framework for the land sector. Avoid introducing multiple overlapping multi-method frameworks for the land sector (noting it may be appropriate to have integrated frameworks for other sectors, like waste).*

Rationale: The ACCU Scheme needs a clear, streamlined approach to enable consistent application of multi-activity methods, and simplify participation for land managers seeking to combine multiple carbon management activities and sources of abatement on a single property. IFLM is designed as a comprehensive, modular framework that supports diverse land management activities under one project structure. Introducing additional multi-method frameworks, such as is proposed under the current draft of the Improved Avoided Clearing method, would create market confusion, increase administrative complexity for the Clean Energy Regulator, and create ACCU Scheme inconsistencies and duplication of effort. Consolidating around IFLM as the central integrated method for the land sector will improve efficiency, avoid market confusion, and provide a consistent foundation for addition of new modules over time. The prompt addition of additional activity modules should be prioritised, including avoided clearing (provided this is not in conflict with recent EPBC Act reforms), livestock, farm electrification, agro-forestry and dam management, among other prospective activities. Other modular methods may be appropriate for other sectors, such as the waste sector, but multiple modular methods in the land sector should be avoided.

No forced transitions

Recommendation 20: *There should be no requirement for mandatory transition to new methods, or from standalone methods to an integrated method. To be clear, proponents should have the option to stay on the method that existed at the time of project registration.*

Rationale: Forced transition to new methods would reduce certainty over abatement forecasts. This would reduce land manager trust in the ACCU Scheme resulting in reduced uptake of ACCU projects. It would also negatively impact investment certainty for commercial investors.

Specifically for IFLM, the standalone methods that preceded the IFLM method should be recognised as fundamentally different to the IFLM method. Projects transitioning to the IFLM method will take on different land management obligations associated with an expanded set of carbon management activities and/or carbon pools. Some proponents may not be willing to take on such obligations, and they should have the right to choose to continue with the current selected activities. Forcing such transitions would reduce trust and threaten integrity of the scheme.

To ensure industry stability, proponents should have the option to stay on the method and model that existed at the time of project registration/transition. The only exception to this rule should be if there are fundamental issues with method equations, such as those that affected the 2018 soil carbon and savanna burning methods.

Fund method development

Recommendation 21: *Government should appoint a panel of expert advisers who could be engaged to prepare ACCU methods, similar to arrangements under the Nature Repair market.*

Rationale: Developing carbon farming methods is highly technical and requires specialist expertise in ecology, agronomy, data science, and regulatory compliance, skills that are often difficult to recruit and retain within Government. It requires experience in implementing projects, as well as deep academic and technical experience. The current proponent-led process has relied on proponents to have the necessary suite of expertise and self fund method development, and it has lacked transparency and consistency in timelines. We recommend establishing a structured, Government-managed procurement model for method development, such as a panel of experts that could be engaged via a competitive tender process, similar to the Nature Repair Act method development process. The panel should sit under the ERAC (or CAIC once established). The advisers should then develop methods with a clear timeframe (suggest 12 – 18 months), under a genuine co-design process. Methods are ultimately public goods, and hence should have some level of public resourcing. The co-design process enables industry and other stakeholders to contribute expertise, alongside a dedicated group of experts that can develop the method to a timeline.

This would ensure that once methods are prioritised through a transparent consultative process, they are delivered efficiently, maintain integrity, and meet market needs within predictable timeframes. Leveraging external expertise under clear contractual arrangements will accelerate method development timeframes, while providing greater opportunity for stakeholder engagement through the co-design process.

Consistency with the national inventory

Recommendation 22: Clarify that abatement generated from carbon farming projects must be aligned to the National Greenhouse Gas Inventory (NGGI) but that project level accounting and the national inventory may have some consistent but different steps, as is appropriate for the scale of calculation.

Rationale: There are currently inconsistent interpretations around whether ACCU methods must strictly adhere with NGGI abatement calculation rules as opposed to having aligned or consistent steps. This risks constraining innovation, limiting adoption of higher accuracy methods and can slow the development of new methodologies. Overly rigid interpretations can prevent the adoption of approaches that could deliver high-integrity abatement but differ slightly from inventory accounting conventions at the national level. We recommend clarifying the interpretation of the requirement for CFI Act methods to have “eligible carbon abatement” and how this interpretation relates to the NGGI.

For example, in [Appendix 3](#) we have summarised an alternative multi-phased sampling approach could be used to measure and model vegetation carbon stock changes and how this is consistent and aligned to FullCAM, but noting where it has some different calculation steps.

Interaction with nature repair projects

Recommendation 23: Clarify the treatment of additionality for carbon projects that are also used as biodiversity offsets under the Nature Repair Act

Rationale: The Nature Repair Act will create a strong incentive for implementation two types of nature repair projects:

1. Biodiversity offsets projects – Projects located in areas with biodiversity loss, where purchase of biodiversity offsets is mandatory; and
2. Nature Repair projects where purchase of biodiversity credits is voluntary, for example driven by requirements under the Taskforce on Nature-related Financial Disclosures.

Clear guidance is needed on the additionality of carbon projects that are delivered alongside mandatory biodiversity offsets. i.e. where delivery of biodiversity outcomes is a primary and likely well-funded driver. Revising the framework to define how additionality applies when projects serve dual purposes will safeguard against perverse incentives, maintain public confidence, and ensure that carbon credits reflect real, measurable climate benefits.

Permanence periods

Recommendation 24: Implement Recommendation 16 from the 2020 CCA Review (i.e. allow the Minister to extend a crediting period), and also allow permanence periods to be changed.

Rationale: Allowing flexibility to modify permanence periods to match crediting periods, and to revert between the nominated permanence periods, would better align incentives with practical realities where farm succession plans can be a major barrier to project uptake. Allowing the flexibility to change permanence periods allows future generations more agency in their ongoing management commitments. Any changes to permanence periods should only be approved once the abatement difference is rebalanced.

ACCU Market Dynamics

The recommendations below relate to the following consultation questions about ACCU market dynamics in the CCA issues paper:

- How can the right price signals be established to incentivise high-quality abatement?
- How do you decide which ACCUs to buy? How much is your ACCU purchase impacted by factors such as cost per unit, and the social, environmental or economic co-benefits involved?
- What role, if any, should the Government play in ACCU purchasing? Are there any approaches, besides direct purchase, the Government should consider to support an orderly transition for businesses?
- Are there particular attributes (for example biodiversity, durability or socioeconomic benefits) that should be prioritised in any future government purchasing?

Appropriate Market Governance – Recognising Insetting, Offsetting & Voluntary Action

Recommendation 25: Remove the word "offset" from the Carbon Farming Initiative Act and replace it with the word "carbon credit" to more appropriately differentiate between the verification of abatement which results in issuance of a carbon credit vs the end use of the credit (insetting, offsetting or voluntary action).

Rationale: Conflating critically important land sector decarbonisation and the generation of abatement via the ACCU Scheme with the end use of the carbon credits, which can include but is not limited to offsetting, has led to reputational risk and public criticism, as some stakeholders question the legitimacy of ACCUs as offsets for fossil fuel emissions. ACCUs should be more appropriately referred to as "carbon credits" rather than "offsets" throughout the CFI Act, as this clarifies their role as a verified unit of abatement, rather than foreshadowing the end-use of the credit (where it may be used to offset other emissions, for example under the Safeguard Mechanism, but may also include at point decarbonisation for the property that generated the abatement, insetting within the broader agri-supply chain, or purchase towards voluntary action including via certification mechanisms like Climate Active). This change would depoliticise carbon farming and the scheme which is designed to incentivise critical decarbonisation of the land sector, and reinforces the integrity and independence of the ACCU Scheme. Debates around offsetting should be directed to the mechanisms and policies that govern the end use, rather than the decarbonisation projects themselves.

Government purchasing mechanism

Recommendation 26: Amend the CFI Act to change the Government purchasing mechanism from 'least cost abatement' to 'highest impact abatement', prioritising projects that deliver significant co-benefits

Rationale: The introduction of the Safeguard Mechanism has shifted the demand for ACCUs to compliance buyers and other voluntary mechanisms such as Climate Active. Emerging policies such as mandatory climate reporting requirements are increasing the demand for insetting in agri and financial supply chains. These mechanisms reduce the need for Government auctions focused on least-cost abatement. The Government purchasing mechanism should switch to a "highest impact" purchasing model, focussed on purchasing ACCUs from projects that deliver integrated outcomes such as biodiversity repair, drought resilience, and cultural benefits for First Nations communities. The market for these additional benefits remains immature and government policy and finance can play an important role in helping this additional benefit market develop.

Market price signals

Recommendation 27: *Develop a transparent, government-endorsed long-term ACCU price signal mechanism, such as a published forward price curve or benchmark index, to provide market participants with visibility on expected ACCU values over 10–15 years.*

Rationale: The absence of a long-term price signal is a major barrier to investment in carbon projects, particularly those requiring significant upfront capital for land management changes or infrastructure. Without price certainty, landholders and financiers face high risk, which limits participation and slows the scale-up of carbon farming. A forward-looking price signal, similar to mechanisms used in renewable energy markets (e.g., LGC forward curves), would reduce uncertainty, enable better financial planning, and attract private capital. The price curve could be informed by compliance demand forecasts under the Safeguard Mechanism, voluntary market trends, and cost containment measures. This reform would accelerate project development and help deliver the abatement needed to meet Australia's 2035 emissions reduction target.

Market transparency – Disclosure of information about projects

Recommendation 28: *Market appetite for increased transparency of ACCU Project data should be achieved via the national land database (Recommendation 2).*

Rationale: Climate Friendly understands the public and market appetite for greater transparency regarding ACCU Project information. This can be best achieved via the establishment of a national integrated land database (refer to earlier recommendation 2 and [Appendix 1](#)). A national integrated land database would minimise the cost of project level due diligence for ACCU buyers, and provide greater confidence in the market while protecting IP and private information. It also has a range of other public information benefits.

Appendix 1: Recommended design features of a national integrated land database

Data sharing is expected to be increasingly needed for carbon and nature-repair markets (including development of new, and improvement of existing methods), market-based mechanisms (e.g., sustainable finance and supply chain incentivisation), research, monitoring systems; and to aid land managers private decision making. In Climate Friendly's experience, the biggest hurdle with data sharing is currently the limited underlying data infrastructure. As such, we suggest the design and establishment of a National Environment & Land Data Platform to facilitate this while enhancing transparency for market confidence. Current methods of data publication are often not user friendly.

Climate Friendly and our carbon farming and nature repair partners collect an enormous amount of environmental, carbon and land management data, as part of our rigorous feasibility assessments when planning and implementing projects that can span 35-year contracts.

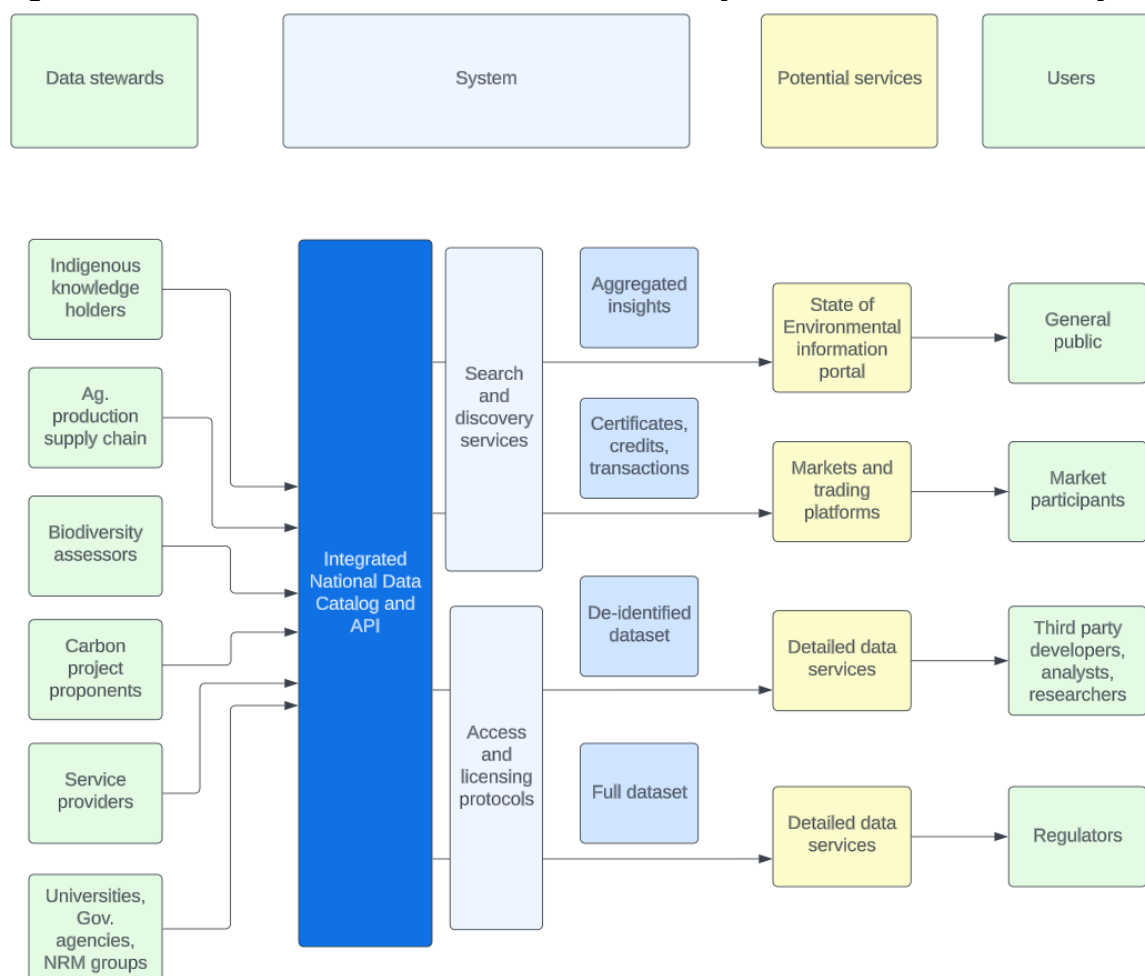
Integrating private and public data collections requires good governance and strong controls given some data sets are tightly linked to privacy laws and the livelihoods of individual land managers. Therefore, there are careful legal, ethical and technological considerations around levels of access. Aggregated insights and/or de-identification of data can balance the need for transparency while protecting privacy and security.

The Australian Research Data Commons provide FAIR principles that data should be findable, accessible, interoperable and re-usable. Tracing and verifying the provenance of a data sets is also important as using incorrectly sourced data can lead to incongruous results. Moreover, the provenance of data underpinning carbon and nature projects must be maintained over the lifetime of the credit.

Advances in data infrastructure technology mean it is now possible to develop a decentralised national land data platform with a data discovery portal. This would give access to agreements and usage licenses with private organisations or individuals who are able to opt-into data sharing. Our proposed structure is to consider an adaptation of the National Water Data Hub² design. Figure 1 below outlines a potential structure for such a data sharing system for environmental and land data.

² Being implemented by the Bureau of Meteorology.

Figure 1: Environment and land information in a Federally coordinated decentralised system.



While previous attempts have been made to create national systems, these have typically relied on traditional data sharing systems and structures which aim to centralise data within a single location and IT system. Modern data sharing systems can be decentralised with data housed on multiple interconnected IT systems.

This [short video](#) helps explain how the database could work and how governments, conservation organisations and agricultural producers might all contribute information and obtain benefits.

An information supply chain ‘Custodian’ for environmental data was recommended in the Independent Review of the EPBC Act as well as the Independent ACCU Review. This Custodian role could set these Federal standards for a common framework and standards for exchanging information and build search and discovery capability. The Custodian could also deliver access and licensing protocols for a variety of common users and use cases. Given similar functions currently performed by the ABS/ABARES, the ABS could be a good candidate to take on this function.

The newly created “Environment Information Australia” entity may appropriately take on this role or it may fit within the Australian Bureau of Statistics functions, with support from Office of the Australian Information Commissioner. Administration of this function requires an agency that has powers to coordinate across line agencies and functions, including coordinating across the following portfolios:

- Climate Change & Energy

- Environment & Water
- Indigenous Australians
- Agriculture, Fisheries & Forestry
- Various other economic and regional development portfolios.

Climate Friendly is not in a position to assess the costs of developing or administering the proposed data sharing approach at a national scale. We do however note that the recent Federal Budget included over \$150 million for delivery of programs that include relevant data system improvements:

- Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) - \$38.3 million over 4 years from 2023-24 and \$7.6 million per year ongoing from 2027-28 to strengthen the Department of Agriculture, Fisheries and Forestry's capability, particularly through the ABARES.
- Bureau Of Meteorology - \$32.7 million to support strong, efficient and transparent water market
- National Greenhouse Accounts - \$21.8 million has been committed to enhancing the emissions-tracking capability of the National Greenhouse Accounts
- Environment Information Australia - \$51.5 million towards up-to-date and reliable environmental data to support the Nature Positive Plan.

We believe that if coordinated the more than \$150 million included in these budget allocations, along with other related budget allocations across various agencies, present the opportunity to develop the proposed environment and land data system that Climate Friendly has outlined above.

Appendix 2: Examples of Government-appointed auditors

The list below provides examples of industries and frameworks where government-appointed auditors or inspectors replace third-party auditing (as per Recommendation 12).

1. Environmental Protection – Contaminated Land

Model: The Environment Protection Authority (EPA) in NSW and Victoria acts as the regulator and can accredit site auditors or directly enforce compliance under the Contaminated Land Management Act 1997.

Inspector Role: EPA issues management orders, conducts inspections, and validates remediation plans. In some cases, EPA-appointed auditors provide site audit statements rather than relying on private auditors.

2. Workplace Health and Safety

Model: SafeWork NSW and equivalent state regulators act as inspectors under WHS legislation.

Inspector Role: Government inspectors conduct compliance audits, issue improvement notices, and enforce penalties. No third-party audit is required for statutory compliance.

3. Food Safety and Biosecurity

Model: Department of Agriculture, Fisheries and Forestry (DAFF) inspectors audit export meat establishments and biosecurity compliance.

Inspector Role: Government officers conduct audits and inspections under the Export Control Act and Biosecurity Act, funded through cost-recovery fees.

4. Aviation Safety

Model: Civil Aviation Safety Authority (CASA) performs audits and inspections of operators under the Civil Aviation Act.

Inspector Role: CASA inspectors verify compliance with safety regulations and issue approvals, replacing private audit requirements.

Appendix 3: Summary of how alternative high accuracy project models can be aligned with national inventory models such as FullCAM

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
Vegetation maps	To group eligible land into areas of similar carbon stock & ecological characteristics, so all land in the same group can modelled using the same approach / settings.	Locally validated maps (85% or greater accuracy) are classified into eligible CEA that meets FullCAM regeneration assumptions. Eligible land is then grouped into CEAs with similar carbon stock & ecological characteristics so it can be represented by a single model point location, with a single FullCAM event queue.	The Inventory uses spatial FullCAM, avoiding the need to group areas and represent them with a single modelling point. The National Forest and Sparse Woody Vegetation Dataset (NFSWVD) classifies areas into bare, sparse woody or forest. The transition of sparse woody pixels to forest (or <i>vice versa</i>) are modelled independently of each other using FullCAM. Changes in carbon stock for other vegetation classes are modelled, but not using FullCAM (e.g. sparse remaining sparse is modelled with a straight line carbon storage assumption from 0-10 tDM over 20 years). NFSWVD does not aim to be locally accurate and often fails to	Option 1: Spatially explicit maps of woody biomass, representing a validated estimate of biomass at a single point in time, with unique values for each pixel showing how much carbon is present. Like spatial FullCAM, this avoids the need to group areas and represent them with a single modelling point. Woody biomass maps are validated with project specific data to a specified accuracy threshold (e.g. 85%). This approach could be used for all forest classes – it is not necessary that land changes from sparse woody to forest, as carbon stock change is calculated based on the difference in carbon stock between T0 and T1 & both time points have validated maps. This is equivalent to the inventory which also models change for all classes. Option 2: Spatially referenced maps of woody biomass group areas of similar carbon stock and ecological characteristics and estimate the average carbon stock for the CEA from	Savanna Burning method (Validated vegetation map) Human Induced Regeneration method (Map Accuracy Assessment) Avoided Deforestation (Estimation of CEA average carbon stock)

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
			achieve the 85%+ accuracy requirement of ACCU projects at a local / property scale (e.g. Sparse woody had 51% overall accuracy over five HIR projects ³)	measurements. Similar to current project approach, this would involve a validated map and a single model point. The remainder of this document summarises the approach assuming Option 1, which is more aligned with the inventory.	
Initial carbon stocks	To estimate the carbon stock at the beginning of the carbon farming project.	The initial carbon stock of CEAs is projected forward from the model commencement date (i.e. assumed date of germination), and calculated at the time of project commencement. For regeneration CEAs, the model commencement date can occur before the project started, to reflect the reality that seedlings/saplings existed prior to project	The FullCAM growth model is 'turned on' if a pixel transitions from sparse woody vegetation to forest. The pixel is initialised at zero, corresponding with the regeneration event, and grows forward from there until it reaches carrying capacity, or until a disturbance event occurs. Forest pixels remaining forest are estimated using a 'spin-up' to an equilibrium value, over hundreds of years (i.e. assumed at carrying capacity, but for disturbances).	The first woody biomass map, validated at the beginning of the project, provides an overall estimate of the carbon stocks of all vegetation in the project area.	Human Induced Regeneration method (Modelling Guidelines) Avoided Deforestation (Estimation of CEA average carbon stock)

³ Moore, T., O'Reilly-Nugent, A., Clarke, K., & Waters, C. (2025). National-scale datasets underestimate vegetation recovery in Australian human-induced native forest regeneration carbon sequestration projects. Communications Earth & Environment, 6(1), 802. <https://doi.org/10.1038/s43247-025-02725-z>

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
		commencement, albeit in a suppressed state. This initial carbon stock is deducted from eligible abatement. However it does not represent 'baseline' (i.e. mature) vegetation, which is assumed to be unaffected by the management change.			
Biomass growth (inc. recruitment of new cohorts)	To estimate the carbon stock change between years.	The increase of aboveground biomass is modelled using the FullCAM Tree Yield Formula, and expanded to include belowground biomass using a root:shoot ratio. This is converted to carbon stocks using the carbon content (%).	No difference.	Woody biomass maps represent a current point-in-time estimate of carbon stock. To model growth, the map is updated with the passing of time, based on observed progression of the proxy variables such as tree height, canopy cover, canopy volume etc. As such, it is not envisioned that the method would make provision for ex ante or forward projections in time using the spatially explicit biomass map. Carbon stocks are obtained by applying the root:shoot ratio and carbon content, then the maps are differenced (subtracted) to estimate carbon stock change.	Human Induced Regeneration method (Modelling Guidelines) Avoided Deforestation (Estimation of CEA average carbon stock) Soil Carbon Method (Continuous validation and CEA validation groups)

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
				Updated maps undergo continuous validation (e.g. annual) across a validation group of validated on similar CEAs, and CEA carbon stocks are directly measured at project gateways.	
Calibration & validation data	To learn the relationship between carbon stocks and environmental variables (e.g. forest age, productivity) in order to estimate and verify that predicted carbon stocks are accurate.	Stand scale carbon stocks estimated non-destructively using aboveground allometric (size) measurements. All trees are measured and the age of the forest plot (time since disturbance) is estimated. Measurements are used to develop regional calibrations (e.g. native species regeneration < 500m rainfall). Pre-existing (i.e. baseline) trees are removed and	No difference	No difference, except that the allometric measurements of aboveground biomass are used to estimate (or validate) the spatial distribution of carbon stocks at a point in time ⁴ . It is not necessary to estimate the age of the forest plot.	Avoided Deforestation (Estimation of CEA average carbon stock) Reforestation and Afforestation Farm Forestry

⁴ Duncanson, L., Armston, J., Disney, M., Avitabile, V., Barbier, N., Calders, K., ... & M., Margolis, H. (2021). Aboveground Woody Biomass Product Validation Good Practices Protocol. Version 1.0. Land Product Validation Subgroup (WGCV/CEOS), <https://doi.org/10.5067/doc/ceoswgcv/lpv/agb.001>

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
		the FullCAM curve is fitted to the measurements representing a regenerating cohort (calibration) or used test how accurate the calibration is (validation).			
Aboveground biomass allometry	To learn the relationship between tree biomass stocks and readily measurable indicators of tree size (e.g. trunk diameter and/or height). The objective is to estimate tree carbon stocks relatively accurately without having	Uses generic (national) equations for five vegetation types (e.g. Euc, Acacia, Shrub) that relate woody biomass to trunk diameter, developed from a database of destructive, whole-tree biomass measurements ⁵ .	No difference	Regional equations developed using destructive or non-destructive (lidar) measurements. Equations may be validated for each project. Non-destructive (lidar) measurements require estimates of wood density, typically at a species or vegetation group level from the literature or national databases.	Avoided Deforestation (Development and validation of an allometric equation) Reforestation and Afforestation Farm Forestry

⁵ Paul, K. I., Roxburgh, S. H., Chave, J., England, J. R., Zerihun, A., Specht, A., ... & Sinclair, J. (2016). Testing the generality of above-ground biomass allometry across plant functional types at the continent scale. *Global change biology*, 22(6), 2106-2124.

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
	to cut the tree down.				
Belowground biomass allometry	To estimate the belowground woody biomass stock (i.e. biomass in tree roots), based on readily measurable indicators (i.e.. the estimated aboveground woody biomass)	Because belowground destructive measurements of woody biomass (i.e. roots) are difficult and expensive to obtain, a root:shoot ratio is used to estimate belowground biomass from aboveground biomass for the five vegetation types used in the generic allometric equations described above.	None	No difference. If there are more detailed information available (e.g. NVIS), suitable for the aboveground biomass allometry being used.	Avoided Deforestation (Development and validation of an allometric equation)

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
Carbon content (% carbon in biomass)	To estimate the carbon stored per unit (kg or tonne) of woody biomass.	Carbon content is known to be relatively constant across all vegetation types, and ranges between 47-50% for the five vegetation types used in the generic allometric equations described above.	None	No difference. If there are more detailed information available, suitable for the aboveground biomass allometry being used.	Avoided Deforestation (Development and validation of an allometric equation)
Mortality	To estimate carbon stock losses that occur due to natural demographic processes (i.e. not disturbance)	A fixed background mortality rate is applied annually, transferring a small fraction of live biomass to the debris pools.	None	Mortality is included in the process of updating the carbon stock map, rather than needing to be modelled as a forward projection.	Human Induced Regeneration method (Modelling Guidelines) Avoided Deforestation (Estimation of CEA average carbon stock)
Disturbance	To estimate the carbon stock losses that occur due to disturbance events (e.g. clearing, fire)	The loss of woody biomass is modelled by moving a of a fraction of live biomass to the debris pool. In the case of fire, some of this debris pool is assumed to be combusted and emitted of the atmosphere. In the case	The treatment of carbon stocks in FullCAM is equivalent, however disturbances are only modelled if a pixel transitions from forest to bare or sparse.	Disturbance is estimated as part of total woody biomass change. The woody biomass maps account for any losses that occur.	Human Induced Regeneration method (Modelling Guidelines) Avoided Deforestation (Estimation of CEA average carbon stock)

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
		of clearing and fire, debris is assumed to decay over time as described below. Disturbances are identified and modelled if and when they are detected as part of project monitoring.			
Coarse woody debris	To estimate the carbon stock of deadwood that accumulates naturally in a forest	Coarse woody debris is modelled as accumulating due to background mortality and disturbance. The coarse woody debris is modelled as decomposing, with a fixed turnover rate based on the climate and ecosystem, e.g. 7 yr half-life for rangelands ecosystems	The same process is used for pixels that transition from sparse woody vegetation to forest (i.e. accumulating from the regeneration event). Forest pixels remaining forest are estimated using a 'spin-up' to an equilibrium value, over hundreds of years (i.e. assumed at carrying capacity, but for disturbances).	Optional – projects can either report zero carbon stock change (which is conservative), measure coarse woody debris directly and include it in the woody biomass maps, or model the accumulation of coarse woody debris using same fixed fractional allocation of aboveground biomass used in FullCAM with the same turnover rates	Human Induced Regeneration method (Modelling Guidelines)

Model component	Purpose / Function	Process summary: FullCAM for ACCU projects	Difference in process: FullCAM project vs national inventory	Process summary: Other high accuracy, inventory aligned validated model for ACCU projects	Precedents for equivalent approach from ACCU methods
Soil organic carbon	To estimate the organic matter stored in soils in forest or grassland / agricultural settings	Soil organic carbon is included as a module in FullCAM but there is no suitable calibration for project level accounting – i.e. it is assumed that there is zero change in soil carbon stock in vegetation methods	Soil carbon is estimated using FullCAM using a 'spin up' procedure to estimate the equilibrium soil carbon stock, over hundreds of years (i.e. assumed at carrying capacity, but for disturbances).	Optional – projects can either report zero stock change (which is conservative) or estimate soil organic carbon using direct measurement and repeat application of validated models.	Soil Carbon Method (Estimating CEA average carbon stocks)