Defining deforestation free supply chains for red meat products

FINAL REPORT

A pathway forward on defining deforestation-free supply chains for the Australian red meat industry

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Contents

Executive Summary

The concept of establishing deforestation-free commitments has gained prominence in the climate change agenda over the past couple of decades. The issue has been particularly highlighted in the context of international efforts and treaty agreements to address climate change and promote sustainable development.

Further to these international treaty agreements, there has been a growing trend of companies making deforestation-free commitments, particularly in the agriculture and forestry sectors. Over the past decade, many major corporations including Australian companies have pledged to eliminate deforestation from their supply chains, acknowledging the role of sustainable forest and land management practices in mitigating climate change. This range of pledges has featured the use of varying terminology and definitions of forests and deforestation, or in some cases, no specific definitions, which can create ambiguity and uncertainty for processors and producers.

Objectives and approach

The purpose of this research report is to assist Australia's meat processors in understanding issues arising in relation to defining deforestation-free supply chains in response to emerging customer and stakeholder expectations.

The approach to conducting this research report was based on an extensive literature review, including a cross-jurisdictional comparison of relevant definitions in Europe and the United States of America (U.S.) and Brazil, as representative of some of the largest red meat producers and exporters in the world. This research was supported by engagement with representatives of leading meat processors, Meat & Livestock Australia, and the Australian Meat Industry Council, as well as targeted interview discussions and broader engagement with the Australian Government (including the Department of Agriculture, Fisheries and Forestry, and ABARES) and State government agencies responsible for native vegetation mapping and environmental impacts.

As a research project, the approach involved synthesising fact-based information and relevant comparisons of country reporting and industry positioning, to inform Australia's meat processors. Based on this synthesis, the report identifies arguments that could be made for demonstrating the sustainability credentials of Australia's red meat industry relative to regulatory and non-regulatory requirements imposed by domestic and international jurisdictions.

Project outcomes and insights

This research has observed that assessing and comparing levels of deforestation is a complex and multifaceted challenge with various definitional issues that can vary across countries. The term "deforestation" generally refers to the large-scale removal or destruction of forests, leading to the conversion of forested land into non-forest uses. However, the interpretation and measurement of deforestation can differ based on several factors, including local contexts, land-use practices and data collection methods.

For example, Australia's national definition of 'forest' is notably different from leading definitions applied worldwide, including the definition applied by the Food and Agriculture Organization of the United Nations (FAO) and subsequently adopted by the European Union (EU), and countries including the U.S. and Brazil.

One key difference includes settings for biophysical parameters of tree height and canopy cover. The Australian definition of forest used by the National Forest Inventory has evolved through a collaborative and consultative process involving various stakeholders, scientific experts, and policymakers, and was influenced by both international standards and Australia's specific environmental and forestry contexts – noting forest types in Australia vary significantly in terms of structure, floristic composition, height and crown cover, and include sparse woodland forests. Notwithstanding the merits of this process, these differences may present some challenges for Australia responding to international requests for data on forest cover and land use change over time, for various purposes.

Another key difference is that some international definitions of 'forest', including that used by the European Union Deforestation Regulation (EUDR), exclude tree cover on land predominantly under agricultural or urban land use.

The intended meaning of '*land that is predominantly under agricultural land use*' is not entirely clear within the EUDR; and a lack of specific guidance or associated explanatory notes for aspects of the agricultural use definition, including for 'set-aside agricultural areas' and 'areas for rearing livestock' creates some ambiguity and uncertainty for determining applicable forest cover and assessing deforestation-risk. Therefore, while it is unlikely this land use criteria would result in the exclusion of vast areas of native forest cover on land use areas attributed to 'grazing native vegetation' for example, Australian producers and processors should clarify its intended meaning and appropriate application to agricultural land uses recognised across the country. Further work on industry positions will rely on Australia having comprehensive and credible datasets to identify agricultural land use areas relevant to baseline years and progressively afterwards.

More broadly, this research shows there is a clear trend of increasing awareness and corporate commitments to take positive action on ensuring commodity supply chains do not contribute to deforestation. As the target dates set for 2025 and 2030 loom closer, it is reasonable to expect there will be increasing focus and attention to aligning actions. The commitments and the associated definitions vary, in some cases considerably, and to some extent this may reflect the varying levels of understanding of the complexity of agricultural supply chains, the range of different settings across countries, and the formative nature of sustainability pledges relating to 'no deforestation'.

Some major customers and corporate interests have incorporated a risk-based approach and gone so far as specifying the exclusion of countries that have already been designated as high risk – while others are applying a broader ambition that is not clearly defined or bounded. Therefore, the Australian red meat industry will need to be able to respond to a range of domestic and export market requirements; and engage with stakeholders to assist their understanding of reasonable expectations and pathways that reflect a risk-based approach, which do not unduly burden relatively low risk producers and processors.

In the case of Australia, there are important contextual aspects that need to be considered, vis-à-vis other countries and regions in which there may be larger concerns about deforestation and conversion of forests to other land uses. Significant features of the Australian context include:

- The strong regulatory framework for sustainable forest management, biodiversity conservation and vegetation management with support and cooperation across federal and state governments
- The vast and highly diverse extent and range of forest types, including forests, woodlands, and rangelands
- The extensive history of rangeland grazing management systems and practices
- State regulations for vegetation management, incorporating provisions for agriculture and other land uses
- The trends in total forest cover across Australia, which has increased in national level reporting.

Landholders in Australia have historically engaged in varying levels of clearing of vegetation to create open pastureland for livestock grazing. However, over recent decades, there has been a shift in land use policies in Australia, with increased recognition of the environmental importance of conserving and managing native vegetation. Across the states, there is now a range of detailed regulations and restrictions on vegetation clearing to protect biodiversity, prevent soil erosion, and maintain ecosystem health. These regulations and restrictions mean the extent of vegetation clearing and management for agricultural purposes is now largely limited to clearing of regrowth on land that has previously been cleared or is on land that is designated for agricultural land use.

Furthermore, the total areas of primary conversion and re-clearing have both trended downwards since 2004-05. National data shows that net forest cover change resulting from forest conversion, re-clearing and regrowth has oscillated over time, but was net positive and trending upwards in 2020-21. In 2020-21, the total area of primary forest conversion nationally was around 22,000 ha, and the total area of re-clearing nationally was around 155,000 ha (based on Australia's National Greenhouse Gas Accounts). Australia's State of the Forests reporting show that Australia's forest area has increased progressively since 2008 and the net increase in forest area between 2011 to 2016 was 3.9 million ha, representing an increase of 3% over this period.

Conclusions and recommendations

Over the past decade, Australia's red meat industry has actively engaged in both national and international initiatives that are striving to demonstrate environmental stewardship and 'nature positive' production by addressing a range of sustainability challenges that broadly encompass the impacts of deforestation and primary conversion of forests around the world. Through the Australian Beef Sustainability Framework (ABSF), and its membership of the Global Roundtable for Sustainable Beef (GRSB), the Australian beef industry for example is engaged with a broad range of stakeholders, including civil society representatives and consulting members (such as regulatory authorities, governmental agencies, consulting and auditing firms and donor organizations) to address these issues and constructive frameworks to demonstrate environmental stewardship and sustainable agricultural practices

In this context, the following recommendations are presented for consideration by AMPC and industry stakeholders. ***Based on the outcomes of this research study, AMPC and industry stakeholders should***:

1. ***Recognise there is a broad range of 'deforestation free' commitments being made by corporate interests and regional trade interests***. In some cases, the commitments represent a formative position at this stage, with limited or minimal guidance on specific definitions, targets, and timeframes.

2. ***Recognise the EUDR represents the first set of regulations to emerge in key markets.*** Its design and implementation are expected to shape and influence the further development of market and stakeholder expectations over the next few years, including consumer requirements in domestic markets.

3. ***Seek further clarification of the extent to which the land use criterion in international definitions of 'forest' (notably in the EUDR) excludes specific agricultural land uses.*** It is not entirely clear in the EUDR how this exclusion would apply to Australia's regulatory settings and the operating environment for agricultural set-asides and rearing livestock especially. Australia's red meat industry should work with the Australian Government and the European Commission to clarify its intended meaning and application to tree cover located on lands that are predominantly under agricultural use across Australia.

4. ***Support ABARES and other government agencies in Australia (federal and state) to review the recently released EU Observatory 'Global Forest Cover' map (released in December 2023),*** to check the extent to which it has appropriately identified and classified forest, including on land predominantly for agricultural use. This may include liaising with the Department of Agriculture, Fisheries and Forestry's EU delegation to present any concerns about the accuracy or validity of the Global Forest Cover map in respect to Australia's forest coverage.

5. ***Consider further the most cost-effective approach for industry members to work with government agencies to establish credible datasets that delineate land use areas with forest cover that align with 'agricultural use' definitions and EUDR specific requirements***, or those agreed with key customers in Australia and key export markets. This consideration should encompass discussion within the ABSF forum and directly with ABARES and consider relevant baseline years such as December 2020 for the EUDR.

6. ***Consider further the scope and cost-effective options to build upon the NLIS traceability system capabilities to capture basic information relating to forest and tree cover on supplier land holdings.*** This would assist meat processors and their suppliers to compile information for due diligence requirements for the EUDR or other requirements.

7. ***Test and refine the due diligence decision support tool with members***, noting it was designed to assist processors with understanding the emerging information and deforestation-free due diligence requirements.

8. ***Prepare a clear and coherent narrative on Australia's red meat industry's sustainability credentials in relation to the deforestation risk***, and its capacity to provide assurances of deforestation-free supply chains, using the synthesis of evidence compiled in this research.

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1   Introduction

The purpose of this research report is to assist Australia's meat processors by addressing key issues arising in relation to defining deforestation-free supply chains in response to emerging customer and stakeholder expectations. This report is intended to provide clear guidance based on sound research and evidence that enables processors to respond effectively and differentiate their meat products in key markets from those that may be considered as representing a substantive risk to contributing to deforestation around the world.

1.1   The rise of deforestation-free commitments

The concept of establishing deforestation-free commitments has gained prominence in the climate change agenda over the past couple of decades. The issue has been particularly highlighted in the context of international efforts to address climate change and promote sustainable development. Key milestones include:

- *Kyoto Protocol* (1997): The Kyoto Protocol, an international treaty aimed at reducing greenhouse gas emissions, did not explicitly address deforestation but laid the groundwork for subsequent discussions on land use and forestry. However, it was not until later that deforestation gained more explicit attention.

- *Bali Action Plan* (COP 13, 2007): The Bali Action Plan, adopted at COP 13 in 2007, identified reducing emissions from deforestation and forest degradation (REDD) as a key component of future climate change mitigation efforts. REDD aimed to create financial incentives for developing countries to protect their forests and reduce emissions associated with deforestation.

- *Copenhagen Accord* (COP 15, 2009): The Copenhagen Accord acknowledged the importance of REDD+ (including the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks) and included provisions for financial support to developing countries willing to undertake actions to reduce deforestation.

- *Paris Agreement* (COP 21, 2015): The Paris Agreement marked a significant step forward in the global commitment to addressing climate change. While not explicitly mentioning 'deforestation-free commitments', the agreement recognized the importance of conserving and enhancing sinks and reservoirs of greenhouse gases, including forests. Many countries and companies subsequently made voluntary commitments to eliminate deforestation from their supply chains.

Further to these international treaty agreements, there has been a growing trend of companies making deforestation-free commitments, particularly in the agriculture and forestry sectors. Over the past decade, many major corporations including Australian companies have pledged to eliminate deforestation from their supply chains, acknowledging the role of sustainable practices in mitigating climate change. This range of pledges has featured the use of varying terminology, for example:

- *No Deforestation Commitment* - e.g. Westpac Corporation
- *Deforestation-Free* - e.g. ALDI (deforestation- and conversion-free supply chains), Costco, Unilever, Cargill
- *Zero Deforestation* - e.g. Domino's, Nestlé
- *Net Zero Deforestation* - e.g. Woolworths Group (for high impact commodities in Own Brand), Kellogg Company
- *Zero Gross Deforestation* - e.g. Procter & Gamble
- *Sustainable Sourcing* - e.g. Woolworths Group (for fresh beef and soy in its brands), McDonald's
- *Responsible Sourcing* – e.g. Coles Group
- *Forest Positive* - e.g. IKEA, and the Consumer Goods Forum's 'Forest Positive Coalition of Action'.

In many cases, company pledges reflect commitments to meeting targets in specified years, e.g. deforestation free supply chains by 2025 or 2030, and working along a pathway of actions towards those targets.

In addition, in 2023, the European Union introduced the EU Deforestation Regulation (EUDR), which aims to address deforestation associated with agricultural commodities (including red meat products) by prohibiting the placement of products linked to deforestation on the EU market starting from 2023. The regulation requires companies to conduct due diligence on their supply chains, disclosing and mitigating risks of deforestation, and encourages the use of sustainable sourcing practices. The EUDR will apply from 30 December 2024.

The Australian red meat industry has observed these developments over the past couple of decades and recognises the expectations arising in relation to the supply of red meat products to customers in domestic and export markets.

The industry has also observed the broad range of corporate pledges, and the introduction of the EUDR, and noted they have given rise to varying definitions of key terms, including 'forest' and 'deforestation', which may present issues for consistent interpretation and application, particularly when applied across a broad range of countries with different regulations and standards for sustainable forest management and sustainable agriculture.

Australia's red meat industry prides itself on its sustainability credentials and commitments to standards and targets, with examples of achievements set out Meat & Livestock Australia's Sustainability Impact Report series and the Australian Beef Sustainability Framework (ABSF). Through the application of sustainability impact assessments and the sustainable management frameworks, the industry has recognised the importance of demonstrating its sustainability credentials to its customer base and the wider community:

> *"We know the Australian community has increasingly high expectations when it comes to agriculture and food production. At the same time, primary producers are also dedicated to improving – and to demonstrating – their sustainability credentials. Transparent demonstration of commitments around environment, social and governance (ESG) is an increasing expectation of investors, multi-nationals and listed companies, driven by the information needs of shareholders and the broader community.*
>
> *Meat & Livestock Australia, 2023"*[1]

With this broad intent, the Australian Meat Processor Corporation (AMPC) has commissioned this research report to assist meat processors in working with their supply chains to respond to the evolving market requirements.

1.2 Research objectives

Specifically, the objectives for this research project encompassed the following:

1. Provide a clear, concise summary of Australia's red meat industry credentials related to forest stewardship and sustainable vegetation management practices.

2. Map the high-level issues driving the global deforestation agenda in relation to cocoa, coffee, soy, wood, palm oil, rubber, and red meat supply chains.

3. Map the EU-centric deforestation public policy issue and definitions for the red meat processing sector, with reference to the Australian Government position and the ABSF.

4. Chart the drivers of Australia's key customers' deforestation goals and the commercial implications for Australian red meat if not addressed.

5. Analyse and develop a framework to help industry understand the different definitions and explain the Australian system and context to customers and stakeholders.

6. Prepare an evidence-based analysis of the EU-centric definition, tailored to the Australian context that will support AMPC and the industry to better communicate and influence customers regarding Australia's deforestation credentials and help safeguard the industry.

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[1] Meat & Livestock Australia (2023) *Sustainability Impact Report 2023*.

2 The Australian Context

International programs seeking to eliminate deforestation need to consider the context of specific countries to enable a more nuanced understanding of the extent to which it may occur, the underlying causes and potential solutions.

In the case of Australia, there are several important contextual aspects that need to be considered, vis-à-vis other countries and regions in which there may be concerns about deforestation and conversion of natural forests to other land uses. Significant features of the Australian context include:

- The vast and highly diverse extent and range of forest types, including forests, woodlands, and rangelands.
- The National Reserve System for Protected Areas, encompassing a broad range of forest types and values.
- The extensive history of rangeland grazing management systems and practices.
- State regulations for vegetation management, incorporating provisions for agriculture and other land uses.
- The trend in forest cover, which has increased in national level reporting.

2.1 Forest stewardship and the National Reserve System

Australia is a signatory to the international Convention on Biological Diversity (CBD)[2], which encompasses the Kunming-Montreal Global Biodiversity Framework adopted in December 2022[3]. The CBD requires signatory countries to:

- establish a system of protected areas or areas where special measures need to be taken to conserve biodiversity;
- regulate or manage biological resources important for the conservation of biodiversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;
- promote the protection of ecosystems, natural habitats, and the maintenance of viable populations of species in natural surroundings; and
- promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas.

Following ratification of this convention in 1993, Australia established the National Strategy for Conservation of Australia's Biological Diversity (NSCABD) to bridge the gap between national and state activities at the time and the effective identification, conservation, and management of Australia's biological diversity. Concurrently, Australian governments endorsed a National Forest Policy Statement in 1992, which emphasized the need for ecologically sustainable forest management, recognized the importance of biodiversity conservation, and aimed to balance environmental, social, and economic considerations in the management of forests.

These policy commitments led to the development of a "Comprehensive, Adequate and Representative System of Reserves" for Australia, and successive Governments have supported three processes to work towards a comprehensive, adequate and representative (CAR) system of reserves – the National Reserve System (NRS) program, the Regional Forest Agreement (RFA) process, and the National Representative System of Marine Protected Areas (NRSMPA).

Of specific relevant to addressing risks of deforestation in Australia, Australia's National Reserve System (NRS) is directly aligned with the Convention of Biological Diversity's requirement to establish a system of protected areas

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[2] The Convention on Biological Diversity (CBD) was signed by 150 government leaders at the 1992 Rio Earth Summit and is dedicated to promoting sustainable development.
[3] DCCEEW (2023) *Kunming-Montreal Global Biodiversity Framework*. Online: https://www.dcceew.gov.au/environment/biodiversity/international/un-convention-biological-diversity/global-biodiversity-framework

and areas where special measures are needed to conserve biodiversity. The NRS is a network of protected areas that includes national parks, reserves, and other conservation lands. It encompasses a wide range of ecosystems, including forests, woodlands, wetlands, and other natural habitats (Figure 1).

Figure 1 Australia's National Reserve System featuring IUCN Protected Area categories
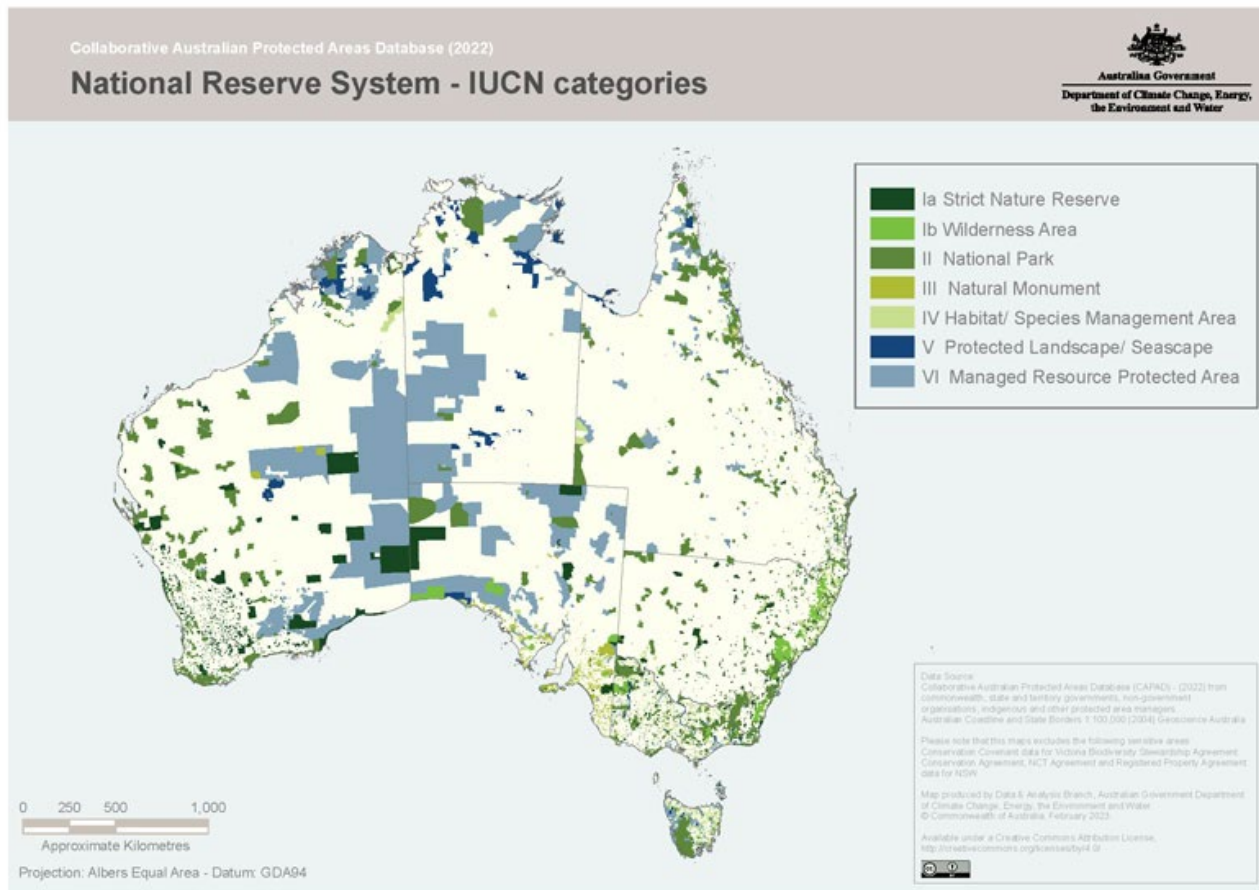
Source: DCCEEW

Through the NRS, Australia has established a CAR system of protected areas across the country to conserve Australia's native biodiversity. It was designed to contain samples of all ecosystems identified at an appropriate regional scale, with specific consideration of the ecological requirements of rare or threatened species and rare or threatened ecological communities and ecosystems, notably those listed in the *Environment Protection and Biodiversity Conservation Act 1999* and other State, Territory and local government legislation or policy instruments.

In 2018, a total of 46 million hectares (ha), or 35%, of Australia's native forest was on land protected for biodiversity conservation, or where biodiversity conservation is a specified management intent.[4] These protected areas provide refuge for species facing various threats, including habitat loss, invasive species, and climate change. The NRS was designed to facilitate ecological connectivity by establishing corridors connecting different protected areas. This connectivity is essential for species movements, allowing for migration, dispersal and maintaining genetic diversity.

In addition to biodiversity conservation, the NRS recognizes and protects areas of cultural significance to Indigenous communities, and provides opportunities for recreational activities, education, and scientific research, contributing to the broader value of these protected areas.

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[4] ABARES (2018) *Australia's State of the Forests Report 2018*., pg. 5.

The NRS aligns with Australia's commitments under international agreements, such as the UN Convention on Biological Diversity and Montreal Process adopted in 1992. The Montreal Process Criteria and Indicators provide a framework for sustainable forest management. Australia's adoption of these criteria demonstrates a commitment to balancing environmental, social, and economic consideration, emphasizing the maintenance of health, diversity, and productivity of forest ecosystems. These international agreements emphasize the importance of protected areas in achieving global biodiversity conservation goals and ensures the long-term sustainability of Australia's forests. On 30 June 2022, the NRS covered over 22% of Australia's land mass (169.9 million ha in 13,903 protected areas)[5]. Changes in the NRS are tracked through the Collaborative Australian Protected Areas Database (CAPAD).

Several agencies and organizations are involved in monitoring the effectiveness and resilience of Australia's National Reserve System (NRS). Key players include the Australian Government Department of Agriculture, Water and the Environment (DAWE), Parks Australia, the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), State and Territory Environmental Agencies, CSIRO, as well as collaborative research initiatives. Monitoring efforts typically involve assessing biodiversity health, tracking changes in ecosystems, evaluating the impact of threats, and ensuring the cultural and recreational values of the protected areas are maintained.

In this way, Australia has an extensive national reserve system and collaborative governance arrangements in place to ensure protection measures for forests and biodiversity values across the country, which can serve to allay concerns about deforestation occurring at scale.

2.2 Forest and agricultural land use in Australia

Australia's land comprises approximately 132 million ha of native forests (17% of Australia's land), with eucalypt forests accounting for nearly 80% of Australia's forest types, and Acacia forests the second largest species grouping, covering 8% of Australia's land mass.[6] The area of woodland forest (20–50% crown cover) is around 92 million ha (or 69% of the total native forest area). Forests vary significantly in terms of structure, floristic composition, height and crown cover, and forest types that range from sparse woodland forest types to closed canopy forests, such as rainforest.

Illustrative examples of woodlands that are defined as 'forests' in Australia (exceeding 2 metres in height and crown cover of at least 20%) but may not be conform to other definitions such as those of FAO and the EUDR (exceeding 5 metres in height and crown cover of at least 10%), are set out in **Appendix 1**.

Significantly for this research, more than 58 million ha (approximately 44%) of Australia's native forests are situated on land designated as predominantly agricultural land, the majority of which is utilised for grazing. A summary of the total areas of native forest on land designated as agricultural land compared to non-agricultural land, by State and Territory, is shown below in Figure 2. The spatial extent of Australia's agricultural land use, based on ABARES' catchment scale land use mapping across the country, is shown in Figure 3.

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[5] DCCEEW (2024) *National Reserve System*. Online: https://www.dcceew.gov.au/environment/land/nrs
[6] ABARES (2018) *Australia's State of the Forests Report 2018*.

Figure 2 Breakdown of native forest area on lands designated as agricultural land vs non-agricultural land, by state.
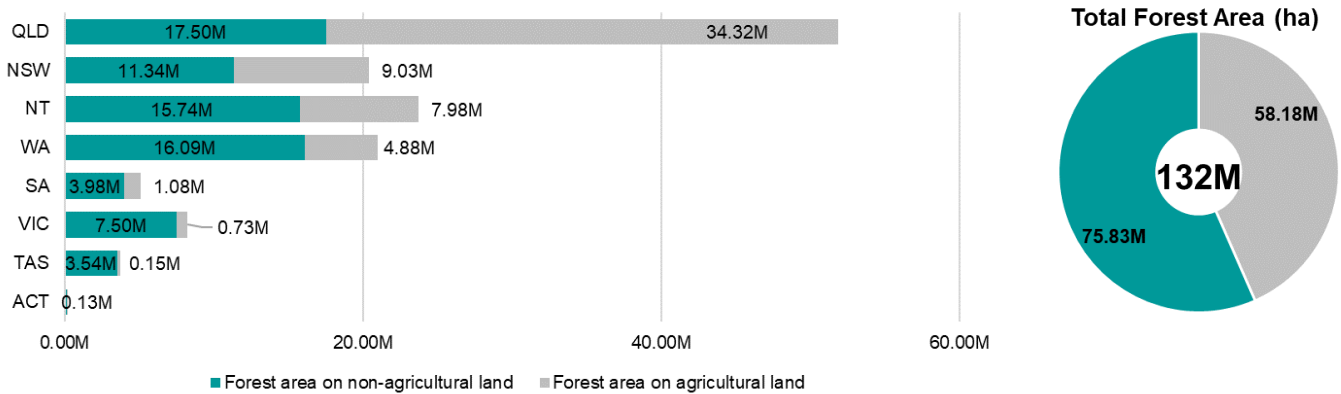
Source: ABARES 2023, Catchment scale land use data for Australia (CLUM), as of December 2022.

Figure 3 Spatial extent of Australia's agricultural land use vs non-agricultural land use.
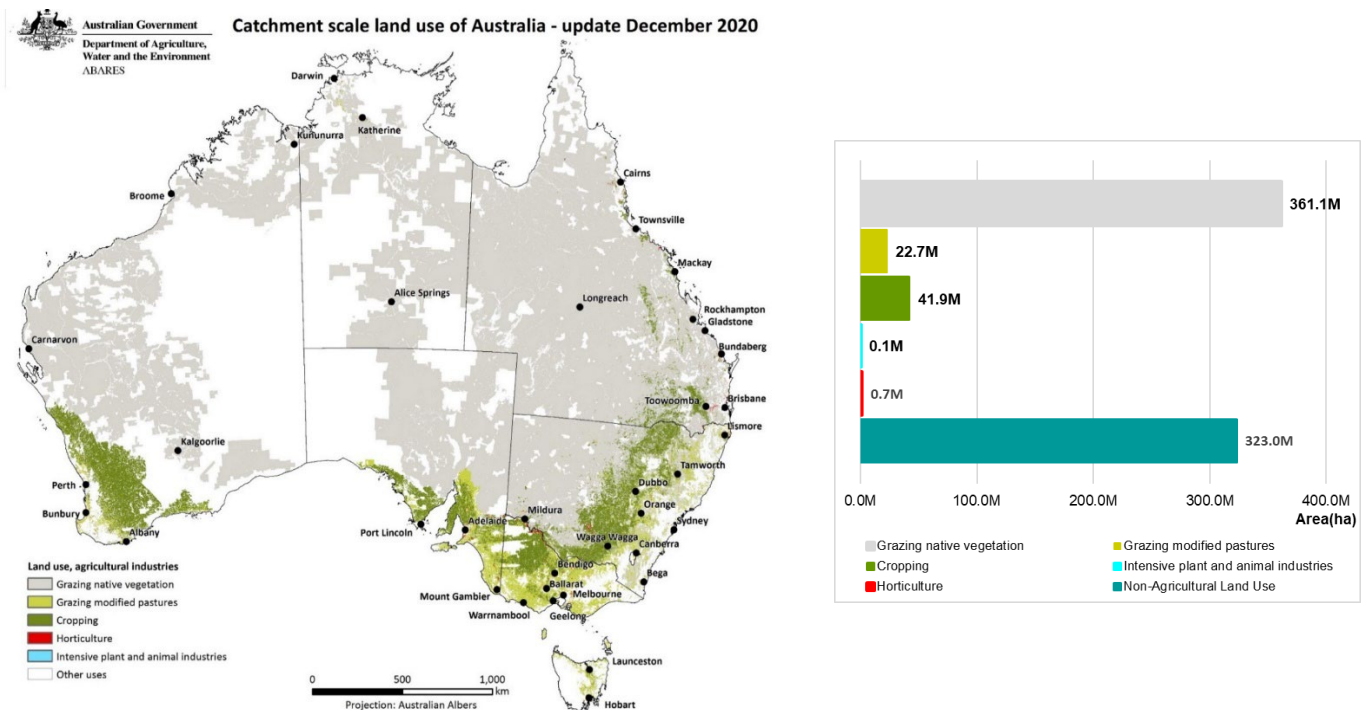
Source: ABARES (2021), Indufor data analysis (2023).

While a significant portion of Australia's native forest extent (44%) is situated on land used for agriculture, only 14% of agricultural land is mapped as 'forest cover' (Table 1). Most of Australia's grazing land is covered with native grasslands and rangelands, Australia's rangelands are those areas where the rainfall is too low or unreliable and the soils too poor to support regular cropping. They cover about 80% of Australia and include savannas, woodlands, shrublands, grasslands and wetlands[7].This is an important distinction internationally – Indonesia and Brazil landscapes are more dominated by rainforests while Europe has (and had) more heavily wooded forests.

This profile for rangeland grazing production in Australia is distinctly different from countries with predominantly dense tropical forests, such as in Indonesia and Brazil, or thick wooded forests, such as in Europe, and in which agricultural enterprises comprising cropping and grazing are typically conducted on and within cleared lands, with no

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[7] DCCEEW (2023) *Australian Rangeland Boundaries.* Online: www.environment.gov.au

remnant vegetation. Australia's settings for sustainably managed rangeland grazing systems are more akin to 'low forest' density areas in which grazing can be integrated into remnant vegetation management.

Table 1 Summary of Australia's forested and non-forested land area, highlighting agricultural land use area contributions

Australia's Land Area Categories	Native Forest Area (ha)	Non-Forest Area (ha)	Total Area (ha)
Agricultural land (Industry category)	**57.9M**	**368.4M**	**426.3M**
Cropping	0.2M	41.6M	41.9M
Grazing modified pastures	1.1M	21.5M	22.7M
Grazing native vegetation	56.6M	304.5M	361.1M
Horticulture	0.02M	0.7M	0.7M
Intensive plant and animal industries	0.01M	0.1M	0.1M
Non-Agricultural land	73.7M	268.7M	342.4M
Total land	**131.6M**	**637.1M**	**768.7M**

Source: Indufor analysis based on ABARES' CLUM data and Forests of Australia datasets.

2.3 Agricultural grazing systems

Australia's agricultural grazing systems include rangeland grazing, across extensive pastoral areas and other rangelands that feature large tracts of relatively sparse, scrubby vegetation, which can grow to meet the varying definitions of 'forest'. This type of grazing system is prevalent in arid and semi-arid regions of Australia, where the climate and soil conditions may limit the growth of lush vegetation.

In these rangeland grazing systems, the clearing of vegetation regrowth is a practice that has been employed for various reasons. The extent to which this practice is incorporated varies based on factors such as land management policies, environmental considerations, and the goals of individual graziers.

Historically, landholders in Australia have engaged in clearing vegetation to create open pastureland for livestock grazing, often as a condition of their lease. However, over recent decades, there has been a shift in land use policies in Australia, with increased recognition of the environmental importance of conserving and managing native vegetation. Across the states, there is now a range of regulations and restrictions on vegetation clearing to protect biodiversity, prevent soil erosion, and maintain ecosystem health. These regulations and restrictions mean the extent of clearing of vegetation for agricultural purposes is now largely clearing of regrowth of land that has previously been cleared or is designated for agricultural land use. Across a large proportion of these lands, the clearing of regrowth for rangeland grazing is considered part of land management practices that are conducted in accordance with State and regional regulations. This clearing can include control of weeds and regrowth, which may be critical to maintain functioning ecosystems, and potentially reducing fire risk around remnant vegetation as well as agricultural enterprises.

More broadly, sustainable rangeland management aims to balance agricultural production with the conservation of natural resources and biodiversity. Key features of good agricultural practice in rangeland grazing include:

- *Rotational grazing*: Rotational grazing strategies involve dividing the rangeland into sections and rotating livestock between them, with rest periods to allow vegetation to recover, promoting natural regrowth and maintaining the health of the ecosystem.

- *Managing stocking rates*: Careful consideration of stocking rates is critically important to sustainable grazing practices, to prevent overgrazing and allow the natural regeneration of vegetation. Stocking rates are often adjusted based on seasonal conditions and available forage.

- *Water management*: Adequate water sources are essential for sustaining livestock and supporting vegetation growth and proper water management contributes to the overall health of the rangeland ecosystem.

- *Fencing and infrastructure*: Infrastructure including fencing, watering points and mustering facilities, are strategically placed to optimize grazing patterns and minimize environmental impact.

- *Fire management*: Controlled burning is sometimes used to manage vegetation and promote natural regrowth. Fire can help control invasive species (e.g. weed species, stimulate the germination of certain plants, and maintain the overall ecological balance in the rangelands.

- *Monitoring and adaptive management*: Graziers often use monitoring techniques, such as satellite imagery and on-the-ground assessments, to track vegetation health and livestock impact. Adaptive management practices involve adjusting grazing strategies based on changing environmental conditions to ensure the long-term sustainability of the rangeland ecosystem.

In these ways, Australia's agricultural settings and farming practices differ from those observed in other countries, especially where they feature more intensive grazing or cropping systems, with minimal interaction with woody vegetation that may constitute forest by some definitions.

2.4 Regulatory frameworks for vegetation management

Across Australia, state regulations permit land clearing for agricultural land use under specified conditions. However, these conditions can vary significantly across different states and territories. The conditions under which land clearing for agricultural purposes is permitted can include factors such as the size of the clearing, the type of vegetation, and adherence to specific codes or guidelines. Additionally, some states may have specific programs or initiatives to encourage sustainable land management practices within the agricultural sector. For example:

- Queensland's regulations, under the *Vegetation Management Act 1999*, include provisions for land clearing for agriculture but under specific conditions. Clearing may be permitted through accepted development applications or under specific codes and guidelines. These codes vary based on factors such as regional ecosystems and land types.

- New South Wales regulates land clearing under the *Biodiversity Conservation Act 2016*. The legislation includes provisions for clearing native vegetation, and permits are required for certain activities. Agricultural clearing may be allowed under specific circumstances, and the state has biodiversity offsetting and certification programs for certain developments.

- Victoria's regulations comprise the *Flora and Fauna Guarantee Act 1988* and the *Planning and Environment Act 1987*. Land clearing for agricultural purposes is subject to planning permits. Exemptions and controls exist for certain agricultural activities, and the state encourages sustainable land management practices.

- Western Australia regulates land clearing through the *Environmental Protection Act 1986* and the *Wildlife Conservation Act 1950*. The state classifies vegetation types, and clearing permits are required. Agricultural clearing is subject to specific conditions and codes. The state government periodically reviews regulations to balance conservation objectives with agricultural needs.

Australia's red meat industry has observed that in some of the emerging customer expectations, most notably in the EUDR, demonstrating the *legality* of production systems is not sufficient to meet set objectives. That is, while clearing of woody vegetation may be permitted under some State regulations and specified conditions, the clearing of that vegetation – if deemed to be forest and then used for agricultural uses - will be assessed as deforestation and therefore commodities produced from that land cannot be exported to the EU. However, as part of the Australian context for considering definitions of deforestation, it should be recognised the red meat industry operates under

regulatory frameworks that make some provision for vegetation management and land clearing (as distinct from deforestation) under certain conditions and in the context of broader objectives of conserving regional ecosystems and encouraging sustainable land management practices.

2.5 Trends in forest cover and land use change

Another important feature of the Australian context for addressing deforestation is the recent trends in forest cover. Australia's most recent *State of the Forests Report* (prepared every five years) observed Australia's forest area has increased progressively since 2008 and the net increase in forest area between 2011 to 2016 was 3.9 million ha[8] (Figure 4).

Figure 4 Australia's forest area extent, 1990 - 2016
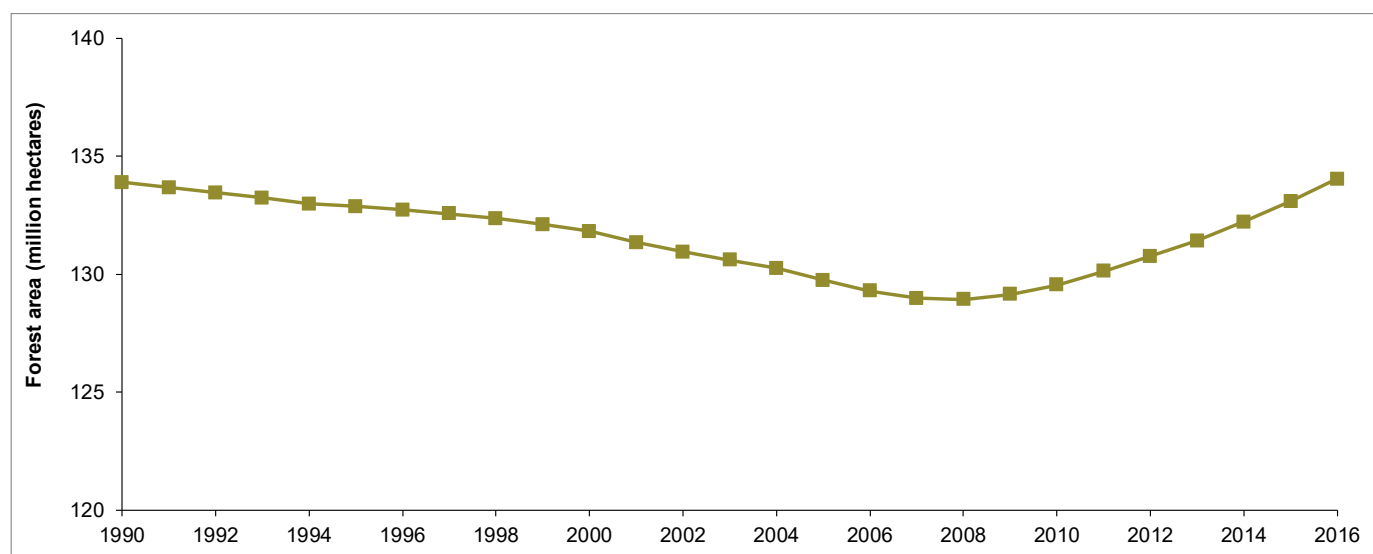
Source: *Australia's State of the Forests Report 2018*

This increase is the net effect of forest clearing for agricultural use, regrowth of forest on areas cleared for agricultural use, expansion of forest onto areas not recently containing forest, environmental plantings, and changes in the plantation estate. In each year of the period 2011–2016, the area of forest cleared or re-cleared was less than the area of forest regrowing from previous clearing.

Additional data is available within Australia's National Greenhouse Gas Accounts and the Activity Tables provide a specific breakdown by state and the type of clearing (primary conversion compared to re-clearing) as well as identified regrowth. A summary of time series data between 2000-01 and 2020-21 is shown below (Figure 5) and discussed further in **Appendix 2**.

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[8] ABARES (2018) *Australia's State of the Forests Report 2018*.
Online: www.agriculture.gov.au/abares/forestsaustralia/sofr/sofr-2018

Figure 5 Australia's LULUCF Activity Tables, showing net forest change, 2000-01 to 2020-21
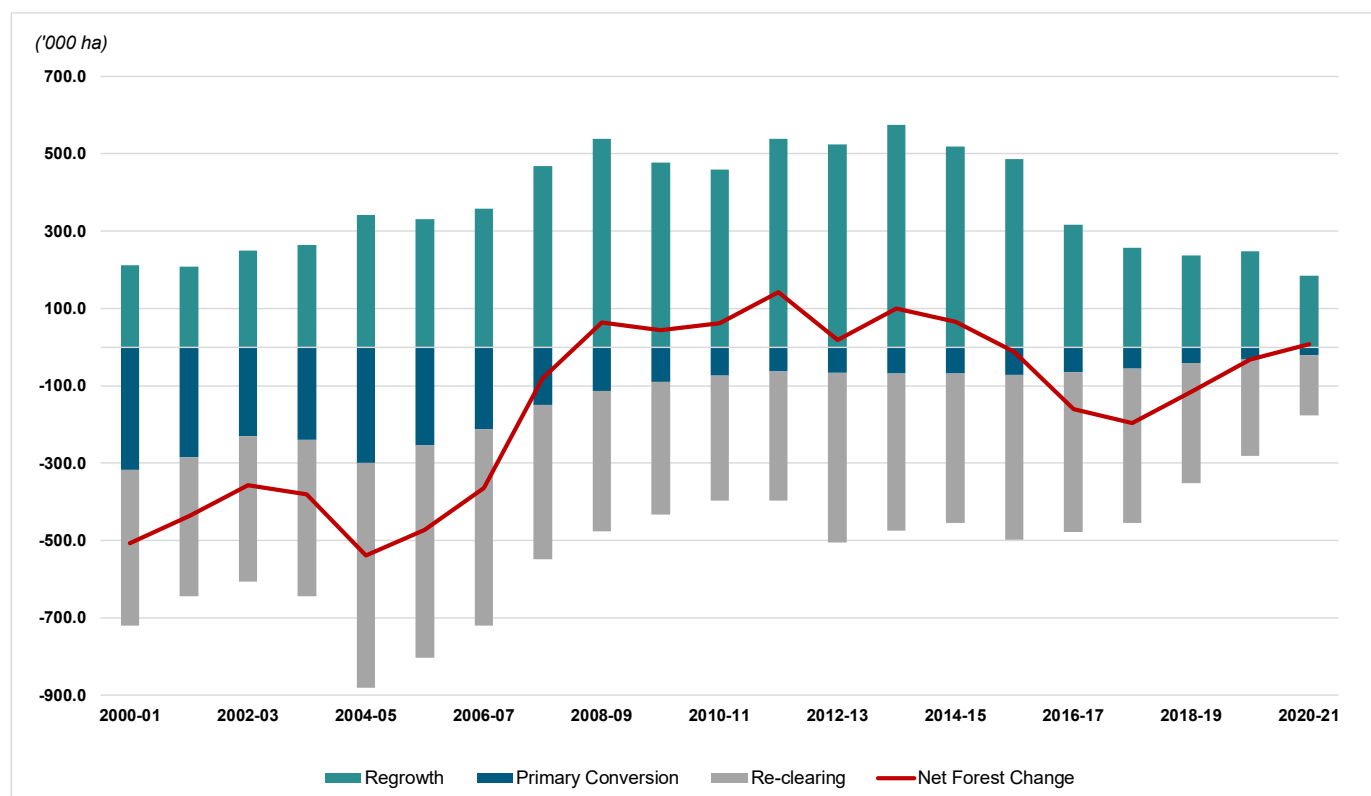
Source: Indufor, LULUCF Activity Tables 2020-21 (AGEIS).

This data shows that net forest cover change resulting from forest conversion, re-clearing and regrowth, which has oscillated over time, was net positive and trending upwards in 2020-21. Over the past 20 years, most forest clearing activity has been classified as re-clearing rather than primary forest conversion and includes rotational harvesting of forests for timber production. In 2020/21, the total area of primary forest conversion nationally was reported to be around 22,000 ha, and the total area of re-clearing nationally was around 155,000 ha (based on Australia's National Greenhouse Gas Accounts). Most significantly, the total areas of primary conversion and re-clearing have both trended downwards since circa 2004-05.

2.6 Key points: Australian context

◆ There are distinctive features of the Australian context that differ markedly from some other countries in how the impacts or risks of large-scale deforestation are being considered.

◆ Agricultural land management practices in Australia incorporate provision for some extent of vegetation clearing and re-growth management under specified conditions, under State government regulations.

◆ International programs seeking to eliminate deforestation should consider the context of specific countries to enable a more nuanced understanding of the settings and broader trends. However, this consideration may not be afforded, which presents risks for countries such as Australia with distinctive characteristics that could be overlooked in the specification and implementation of regulatory requirements and customer expectations.

3 Customer Expectations

Australian red meat processors are currently engaged in a broad range of conversations with their customers and other industry stakeholders about 'deforestation commitments' – i.e. to eliminate any risk that their supply chains are contributing to deforestation. This includes fielding questions from EU customers about their supply chains and ensuring they are not contributing to 'deforestation practices' – and some processors have observed that EU customers are asking about this issue more than emissions reduction commitments more broadly or any other issue.

Meanwhile, an increasing number of retailers are committed to reducing deforestation to zero in their supply chain by 2025 (for example, Woolworths and Dominos) or 2030 (Aldi and McDonalds). Others have already committed to sourcing meat that is deforestation free (for example, Costco), while first movers have demonstrated an intent to move ahead of EU regulations and European trends.

In addition, some environmental advocacy groups are investigating and reporting on red meat production supply chains, based on concerns that these supply chains may be linked to threats to Australia's native forests, and are looking to processors and other agricultural sector companies to address the 'deforestation risk' in their supply chains.

An outline of these drivers of customers' deforestation goals and commitments is set out below, to inform the consideration of key definitions and issues arising in relation to the lack of differentiation between Australia's red meat production systems and the agricultural systems in place and land use changes observed across a broad range of countries which may pose considerably higher risk to European markets and potentially other key markets for Australian red meat products, in terms of contributing to deforestation.

3.1 Industry customers

First and foremost, Australian red meat processors have observed domestic customers (such as Woolworths and Coles) and international customers (such as ALDI, Costco and IKEA) are implementing deforestation requirements, reflecting their corporate commitments to different international standards and to meet the expectations of consumers. As noted above, customer companies have made commitments and pledges that feature the use of varying terminology. Leading examples are set out below.

Among the largest domestic customers, the Woolworths Group has stated in its *Sustainability Plan 2025* that '*by 2025, fresh beef and soy in our brands and soy in livestock feed (assessing high-risk/high volumes) will be sourced sustainably and not contribute to deforestation*'[9]. Woolworths' Sustainability Plan does not define 'deforestation' specifically. However, in 2022 Woolworths became the first retailer in Australia and New Zealand to join the Global Roundtable for Sustainable Beef (GRSB) and has committed to best-practice sourcing to support sustainability. This includes a stated ambition to achieve net-zero deforestation in its beef supply chains[10].

Concurrently, in 2023, the Coles Group stated, '*we [have] completed a deeper assessment on the commodities identified as having the highest potential environmental impacts – this included meat, eggs and dairy ... This work has provided Coles with valuable insights that will inform further enhancement of our Responsible Sourcing Program*'[11]. This statement by the Coles Group does not specifically refer to deforestation-free requirements; however, the intent and market trends are clearly aligned with increased attention to providing assurances to customers that the supply chains for their products are not contributing to adverse environmental impacts.

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[9] Woolworths Group (2022) *Sustainability Plan 2025*. Refer pp. 22.

[10] Global Roundtable on Sustainable Beef (2022) *Woolworths Group joins leading sustainability body in the beef industry.* Online: https://grsbeef.org/2022/09/woolworths-group-joins-leading-sustainability-body-in-the-beef-industry/

[11] *Coles Group 2023 Annual Report*. Refer section on Sustainability, pp.17-19.

ALDI is a leading example of a major international group of companies with a 'deforestation-free commitment', which is published in its 'Position Statement on Deforestation- and Conversion-Free Supply Chains'[12]. In this policy, ALDI observes the definitions provided by the Accountability Framework Initiative[13], which comprise:

- *Deforestation*: Loss of natural forest as a result of conversion to agriculture or other non-forest land use, conversion to a plantation, or severe or sustained degradation.
- *Conversion*: Change of a natural ecosystem to another land use or profound change in the natural ecosystem's species composition, structure, or function.

ALDI's position statement sets out its commitment to eliminate deforestation and conversion by 2030, and for its high-priority supply chains, its commitment to eliminate deforestation and conversion of natural ecosystems by December 2025[14]. For soy, beef, and coffee, ALDI has started the process towards more transparency and identified suitable measures to address deforestation and conversion risks in our supply chains. These measures currently include assessing deforestation-risk of beef in supply chains (completed in 2020); an international exclusion of Brazilian beef and support of national beef supply chains in the countries of our selling operations; continuous screening for beef standards that address deforestation-risks; continuous monitoring of beef origin in our supply chain; and actively collaborating with suppliers to focus on sourcing national beef products.

Costco has published a Forest Conservation Commitment, in which it has committed to eliminating deforestation in the supply chains for five key commodities in its Kirkland Signature products, including beef[15]. Costco has also stated that it is concerned that beef production contributes to tropical deforestation in countries such as Argentina, Brazil, Colombia and Paraguay – and its intent is not to source beef from high-risk deforestation regions until comprehensive traceability and monitoring systems are in place[16]. More specifically, under the Forest Conservation Commitment, Costco has stated that it does not source beef from Brazil for its Kirkland Signature products. As part of its move towards comprehensive traceability and monitoring systems, Costco is now updating its progress on deforestation efforts each year and disclosing sourcing information about the 'forest risk commodities' through the Carbon Disclosure Project (CDP) Forest questionnaire.

Another leading example is Cargill, which has a Policy on Forests, in which it has committed to *transform our agricultural supply chains to be deforestation-free, through prioritized supply chain policies and time-bound action plans*[17]. Of relevance to this study, Cargill specifies the need to '*Apply appropriate and measurable forest definitions to the individual supply chain and/or origination biome so that progress against our commitment can be measured, monitored and verified. Cargill sees that forest and land definitions are situational where the unique characteristics of each different supply chain and/or biome must be considered*'[18].

Cargill also notes that definitions should consider local social, rural economic factors and farmer considerations, as well as the broader issue of indirect land use change. Cargill businesses are responsible for working through multi-stakeholder channels and/or consulting with multiple stakeholders to align on a sufficient definition of forest. Forest definitions may include the High Carbon Stock Approach (HCSA) or conversion free approaches. In this way, the Cargill policy on forests represents a notably nuanced approach and consideration of the complexity of tackling deforestation across a broad range of supply chains extending across a broad range of countries.

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[12] ALDI (2022) *Position Statement on Deforestation- and Conversion-Free Supply Chains*, May 2022.

[13] Accountability Framework Initiative (2023) *Deforestation and Conversion*. Online: https://accountability-framework.org/issues/deforestation-and-conversion/

[14] ALDI South, *International Position Statement on Supply Chains Free from Deforestation and Conversion*, September 2022.

[15] Costco Wholesale's *Forest Conservation Commitment: Kirkland Signature Raw Material Sourcing*, September 2020.

[16] Costco (2022) *Environmental Impacts & Land Stewardship*. Accessible via www.costco.com

[17] *Cargill Policy on Forests* (2019) Online: https://www.cargill.com/doc/1432136544290/cargill-policy-on-forests.pdf

[18] *Ibid*.

There are many other companies that have made deforestation-free commitments in various ways. Others include:

- Nestlé has committed to a '*deforestation free supply chains'* policy for key commodities such as palm oil, soy, and paper, and is aiming for all supply chains to be deforestation-free by 2025[19]. Nestlé takes take a risk-based approach to implementing the actions on which our commitment is based. This comprises mapping its supply chains to identify the origins of raw materials; then taking steps to assess whether its sourcing is preventing the risk of deforestation. Raw materials are confirmed as deforestation-free when either they can be traced to low-risk origins or have been assessed as deforestation-free either from remote sensing or from the ground.

- McDonald's Corporation has a Commitment on Forests, in which it has committed to eliminating deforestation from its global supply chains[20]. In this commitment, McDonald's has not defined forests or deforestation, but it has clearly identified a primary focus (like other countries) on ensuring no deforestation of primary forests or areas of High Conservation Value, no development of 'High Carbon Stock' forest areas, and no development on peatlands, regardless of depth, and the utilization of best management practices for existing commodity production on peatlands. In this way, McDonald's has identified key priority areas based on forest values.

The implications of these customer goals and corporate commitments for Australia's red meat industry are:

- There is a clear trend of increasing awareness and corporate commitments to take positive action on ensuring commodity supply chains do not contribute to deforestation, and as the target dates set for 2025 and 2030 loom closer, it is reasonable to expect there will be increasing focus and attention to aligned actions.

- The commitments and the associated definitions vary, in some cases considerably, and to some extent this may reflect the varying levels of understanding of the complexity of agricultural supply chains, the range of different settings across countries, and the formative nature of sustainability pledges relating to no deforestation.

- Some major customers and corporate interests have incorporated a risk-based approach and gone so far as specifying the exclusion of countries that have already been designated as high risk – but others are applying a broader ambition that is not clearly defined or bounded.

- Therefore, the Australian red meat industry will need to be able to respond to a range of market requirements; and engage with stakeholders to assist their understanding of reasonable expectations and pathways that reflect a risk-based approach that does not unduly burden relatively low risk producers and processors.

3.2 Sector financing and other corporate interests

Concurrent with the development of these customer goals for no deforestation, Westpac Corporation became the first major financial lender in Australia to establish a specific 'no deforestation' target. In 2023, the bank committed to no deforestation (i.e. not lending to any customers whose business practices are or may contribute to deforestation) – and specifically, no further conversion of natural forest to agricultural land use within farm systems, from 31 December 2025 onwards, for customers in the scope of its agricultural emission reduction targets[21].

Westpac has established its position with reference to, and as a member of the Net Zero Banking Alliance (NZBA), a group of leading global banks committed to financing ambitious climate action to transition the real economy to net-zero greenhouse gas emissions by 2050[22]. NZBA members have committed to transition the operational and attributable greenhouse gas emissions from their lending and investment portfolios to align with pathways to net-

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[19] Nestle, *Deforestation-free supply chains*. Online: https://www.nestle.com/sustainability/nature-environment/forest-positive/deforestation-supply-chains

[20] *McDonald's Corporation Commitment on Forests.* Released April 2015, updated February 2017.

[21] Westpac Corporation (2023) *2023 Climate Report, Creating Better Futures Together*.

[22] UN Environment Programme (2024) *Net Zero Banking Alliance*. Online: https://www.unepfi.org/net-zero-banking/

zero by 2050 or sooner; and within 18 months of joining, to set targets for 2030 or sooner and a 2050 target, with intermediary targets to be set every five years from 2030 onwards.

Under this framework, Westpac has established a suite of 'NZBA agriculture 2030 targets' (for beef, sheep and dairy products) – and under this suite of targets, has committed to no deforestation, which provides for no further conversion of natural forest to agricultural land use within farm systems from 31 December 2025.[23]

It is important to note that Westpac has moved to clarify that it will 'take a pragmatic approach with its customers', and that the 'no deforestation policy' "does not apply to the clearing of regrowth or revegetation and nor does it apply to areas currently used for grazing'. Westpac has stated specifically, '*This policy will apply to bush that's been untouched for decades—larger areas of land with a high tree canopy and structured understorey and species consistent with a natural forest ecosystem.*"[24]

Therefore, Westpac has set out a specific exclusion for clearing on land that is deemed to be existing grazing land; in contrast to some corporate commitments to no deforestation, which do not define or differentiate between primary forest, natural forest with high conservation values or high carbon stocks, and woody vegetation that has regenerated on land that was used for grazing prior to the baseline year.

While other major banks in Australia are members of NZBA, as at January 2024, none have yet established a specific commitment to deforestation-free, through its lending to customers.

3.3 The European Union Deforestation Regulation

Arguably the most prominent development in the establishment of deforestation free supply chain goals is the EU's Deforestation Regulation, which entered into force in May 2023 and will take full effect from 30 December 2024.

The EUDR is essentially a prohibition (*Article 3*)[25], which states that *relevant commodities and relevant products shall not be placed or made available on the [EU] market or exported, unless all the following conditions are fulfilled:*

a)   *they are deforestation-free;*

b)   *they have been produced in accordance with the relevant legislation of the country of production; and*

c)   *they are covered by a due diligence statement*.

Cattle is specified as one of the relevant commodities, and meat of cattle is a relevant product under the regulation. The EUDR is a detailed regulation that contains an extensive set of definitions. There are five definitions that are central to the EUDR requirements:

- **Deforestation** is defined as *the conversion of forest to agricultural use, whether human-induced or not*;
- **Forest** is defined as *land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use*;
- **Deforestation-free** means *the relevant products contain, have been fed with or have been made using, relevant commodities that were produced on land that has not been subject to deforestation after 31 December 2020*.
- **Agricultural use** means *the use of land for the purpose of agriculture, including for agricultural plantations and set aside agricultural areas, and for rearing livestock.*

[23] Westpac Corporation (2023) *2023 Climate Report, Creating Better Futures Together*, pp. 5, 52 & 79.
[24] Westpac Corporation (2023) *Westpac's plan to support farmers in net zero transition*. News release, 13 November 2023. Online: https://www.westpac.com.au/news/making-news/2023/11/westpacs-plan-to-support-farmers-in-net-zero-transition/
[25] *European Union Regulation 2023/1115 of the European Parliament and of the Council*, of 31 May 2023 (the 'EUDR 2023/1115').

- ***Agricultural plantations*** means *land with tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems where crops are grown under tree cover; it includes all plantations of relevant commodities other than wood; agricultural plantations are excluded from the definition of 'forest'*. (However, it should be noted that this may not be the only exclusions).

These EUDR definitions present issues of alignment with the Australian definition of 'forest', which are discussed later. However, it should be noted the EUDR does not make any distinction between types of forest, other than excluding tree cover in specific settings, which may or may not be limited to the exclusion of agricultural plantations. In this way, it differs from some corporate commitments that focus efforts particularly on primary forests, forests of certain condition, or forests with high conservation values or high carbon stocks. However, the EUDR does specifically exclude consideration of land that is predominantly under agricultural or urban land use, which differs from Australia's definition of forest in that it does not consider the underlying land use or tenure.

AMPC recently assessed the potential impacts and mitigations of market-imposed environmental disclosures[26], including the EUDR. This assessment in 2023 described the regulation as aimed at avoiding the purchase, use, and consumption of any product that contributes to deforestation and forest degradation in the EU and globally, especially activities associated with agricultural expansion. AMPC also noted the expected impacts include barriers to market access, the burden of compulsory compliance, competitive price pressure, and the cost of practice changes.

In addition, the AMPC review reported the first phase of EUDR (June 2023–June 2025) '*excludes land currently used for agricultural purposes, including rearing livestock'.* This was a key finding of the initial AMPC study, indicating immediate potential conflict with grazing land management is not part of the regulation. However, the intended meaning in the EUDR is likely more nuanced and limiting in its exclusion of certain agricultural land uses from the meaning of 'forests'. The EUDR Clause 37 notes that, "*in line with FAO definitions, agroforestry systems, including where tree crops are grown under tree cover, as well as agrisilvicultural, silvopastoral and agrisilvopastoral systems, should not be considered forests, but as constituting agricultural use.*"[27] As of February 2024, there remains a lack of guidelines that fully clarify the intended meaning of this aspect of the 'forest' definition.

Compliance with the EUDR will require all suppliers (exporters and 'operators') to exercise due diligence (*Article 8*) with all relevant products supplied by each supplier. This due diligence incorporates requirements for risk assessment and risk migration measures, specifically within and along the operator's supply chain. In addition, all exporters will be required to assist EU operators to gather an extensive set of information for consignments. According to market access advice provided the Australian Government[28], this will include:

- a description, including the trade name and type of relevant products.
- the list of relevant commodities or products contained in, or used to make, those products.
- geolocation of all plots of land where the commodities that the relevant products contain, or were made using, were produced or the geolocation of the establishments where cattle were kept.
- date or time range of production.
- evidence that the commodities were legally produced.
- adequately conclusive and verifiable information that the relevant products are deforestation-free and
- details of the supply chain.

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[26] AMPC (2023) *Market-imposed Environmental Disclosures*. Final report, September 2023.
[27] EUDR (2023) Clause 37.
[28] Australian Government Department of Agriculture, Fisheries and Forestry (2024) *Market Access Advice - European Union: Notice on the European Deforestation Regulation*. Reference no. MAA2403. Advice issued 11 January 2024.

To further support compliance, the EU's Joint Research Council (JRC) released the '*EU observatory on deforestation and forest degradation*' in December 2023[29] as a global map of forest cover that is expected to become an authoritative, defining reference source for the EUDR. The Global Forest monitoring component of the EU observatory provides interactive visualisations of 'Global Forest Cover' presence in year 2020, forest attributes and forest cover change.

The recently released EU observatory will need to be checked and validated by Australian authorities, given the importance of consulting multiple data sources, and building up evidentiary databases of forest cover and actual land use when providing assurance. An example of the Global Forest Cover 2020 extent for a particular parcel of land in Gippsland Victoria, known to comprise agricultural land, is shown below (Figure 6). The GFC dataset correctly excludes the agricultural 'olive grove' plantation as 'non-forest', however there is a portion of forest cover (highlighted within the red circle) that appears to be incorrectly classified as 'forest' when compared with Google Earth imagery dated from mid-August 2020.

Figure 6 An example of forest classification issues within Global Forest Cover dataset, applied in Gippsland, Victoria

Source: Global Forest Cover 2020 (https://forest-observatory.ec.europa.eu/forest/gfc2020); Google Earth Pro – Imagery 11/08/2020; Australia's Tree-Crop Map Dashboard (AARSC).

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[29] European Commission (2024) *EU observatory covering deforestation and forest degradation worldwide goes live*, 8 December 2023. Online: https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/eu-observatory-covering-deforestation-and-forest-degradation-worldwide-goes-live-2023-12-08_en

In addition, the EUDR incorporates a process for the assessment of countries (*Article 29*), in which countries will be classified into one of three risk categories: 'high risk'; 'low risk'; or 'standard risk'. This assessment and classification of countries will be completed by no later than December 2024. Further implementation details in relation to this country risk assessment, and other aspects of the EUDR, are still to be determined by the European Commission[30].

As it stands, the EUDR has set a hard compliance date at the earliest of target dates established under corporate commitments, i.e. by the end of 2024. In addition, the EUDR has established a detailed set of rules that must be observed this from this fixed date onwards, after which the supply of relevant commodity products like beef must be 'adequately conclusive and verifiable' as deforestation-free.

3.4 Key points: Customer expectations

◆ There is clear overlap if not alignment between the intent of the EUDR and emerging market expectations for responsible sourcing and achieving deforestation-free supply chains for high-impact commodities.

◆ The EUDR has set a hard compliance date at the earliest of target dates established under corporate commitments, i.e. by the end of 2024. In addition, the EUDR has established a detailed set of rules that must be observed from this fixed date onwards, after which the supply of relevant commodity products like beef must be 'adequately conclusive and verifiable' as deforestation-free.

◆ Given this, the EUDR is considered to be representative of emerging market-imposed environmental disclosures and compliance requirements, providing important precedents for key definitions and aligned datasets.

◆ The EUDR definition of forest incorporates a limited, yet ambiguous exclusion of land predominantly under agricultural or urban land use. However, the intended meaning as applied to agricultural land uses lacks guidance regarding 'set-aside agricultural areas' and 'areas for rearing livestock'. This requires clarification to ensure certain vegetation management activities on agricultural land are not confused with deforestation in other contexts. In contrast, there is a range of corporate commitments to 'deforestation free supply chains' that do not make a land use-based distinction on the eligibility of tree-cover being defined as forest.

◆ At this stage it is apparent that most of the Australian red meat industry customers' deforestation goals, and their associated definitions and disclosure and compliance requirements for red meat processors, are not yet defined to a similar level of detail as the EUDR. In the near term, this may mean there is less onerous burden of compliance and assurance.

◆ However, this situation does present some uncertainty for Australian red meat processors, and potential risks, in that requirements for more specificity may lead to requirements or demands for direct alignment with international standards (such as the EUDR) or potentially different or more onerous standards in measuring and reporting. This may lead to processors potentially needing to address multiple, differing sets of requirements.

◆ Conversely, this situation presents an opportunity for processors to engage with and assist major customers in Australia and in export markets to ensure their sustainability policies and goals are well directed and can and are being addressed effectively, and proactively.

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[30] *Ibid*.

4 Broader Stakeholder Expectations

Customer expectations and regulatory settings relating to working towards deforestation free supply chains, including the EUDR as well as corporate positions of major customers, have been shaped and formed with substantive input and influence from a broad range of stakeholder input, notably non-government organisations (NGOs) comprising environmental advocacy organisations. This stakeholder input and influence is provided in a range of ways, including direct engagement with processors and producers, as well as through national and global forums and initiatives focussing on sustainable agriculture. An outline of the expectations of some of these key stakeholder interests and positions is outlined below.

4.1 NGO positions

Across the world, including in Australia, environmental advocacy organisations have called for increased national action and global action to address deforestation; specifically, through conducting analyses and assessments to identify drivers of deforestation and on the supply chains that contribute to deforestation activity.

For example, WWF is a leading environmental advocacy organisation with campaign positions on deforestation attributable to the conversion of forest to agricultural land use. In 2021, WWF published a global report on deforestation fronts, which identified Eastern Australia as one of 24 deforestation hotspots around the world where deforestation (as defined) increased significantly from 2004-2017[31]. The report stated the most significant driver was 'cattle ranching', with other forms of large-scale agriculture declining slightly. The report also noted that wildfires are increasing and were particularly devastating in 2020 but are not generally associated with long-term conversion of forests to other uses and were not included within the timeline of the analysis. The analysis of the deforestation fronts was based on multiple available remote sensing datasets, using multiple sets of definitions of forests (based on available data) and a 250m x 250m (6.25ha) spatial resolution.

In its 2021 report, WWF defined deforestation as '*the permanent conversion of forest to another land use or significant long-term reduction of tree canopy cover. This includes conversion of natural forest to tree plantations, agriculture, pasture, water reservoirs and urban areas; but excludes logging areas where the forest is managed to regenerate naturally or with the aid of silvicultural measures*'.[32] This definition is broadly aligned with key customer views of deforestation as the conversion of forest to another land use, notwithstanding that it does not specifically exclude land this is designated as predominantly for agricultural or urban use, in the same way as FAO or the EUDR. However, as noted by WWF, the alignment of datasets can be challenging for a range of reasons:

> '*The challenge of producing robust estimates relates not only to how forests are defined, but also to the methods, timeframes and sources of information that are used, as well as whether the analysis takes into account forest gains. Measuring forest degradation is even more challenging, since definitions vary from those that only look at the productive capacity of forests, carbon stocks or canopy cover to others acknowledging that forest degradation is a multi-dimensional phenomenon*'.[33]

The WWF 2021 report set out to support a range of ongoing national and international policy processes aimed at addressing deforestation and forest degradation and identifying leverage points in efforts to halt and reverse global forest loss where efforts to introduce sustainable practices are needed, particularly in landscapes and supply chains. Specifically in relation to Eastern Australia and agricultural land uses, the 2021 report called for: promoting verifiable progress in deforestation-free supply chains, especially for beef; and enhancing funding to support farmers and graziers to regenerate forests, with incentives for those who demonstrate improved forest condition.

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[31] Pacheco et al. (2021) *Deforestation fronts: Drivers and responses in a changing world*. WWF, Gland, Switzerland.
[32] *Ibid*.
[33] *Ibid*.

WWF Australia has used this report to inform the further development of its Sustainable Agriculture programs, and engagement with leading agricultural producers on sustainable land management practices.

The Wilderness Society (TWS) is another leading environmental advocacy organisation that has a concerted campaign program focused on deforestation in Australia. TWS also contends that Australia is a deforestation hotspot and has a deforestation crisis caused mainly by clearing for large-scale agriculture, mining and logging[34]. Key TWS campaign activities to address this situation include:

- calling on major Australian companies and international companies to source and sell products free from deforestation;
- advocating for stronger state and federal laws that ensure special forests are protected;
- monitoring satellite imagery and documenting clearing to uncover deforestation as it happens;
- seeking to influence European banks and policymakers to cut ties with Australian companies that are considered to be contributing to deforestation; and
- building a case for restoration funding as a climate solution[35].

The WWF and TWS positions on deforestation can be broadly described as campaigning for zero deforestation, with clearing of woody vegetation that meets the physical definitions of a forest (under Australian, FAO or EUDR definitions) as effectively deforestation, regardless of the underlying land use such as grazing land or land designated for agricultural land use. Like national governments and state agencies around the world, WWF and TWS are using publicly available datasets complemented by additional analysis using remote sensing satellite imagery to identify changes in the presence and absence of woody vegetation that may meet the definition of forest.

This approach to monitoring tree cover can be used to detect and identify clearing year to year, or a loss of tree cover over a period of 1-2+ years, which WWF and TWS would typically classify as 'deforestation'. However, this approach based on identifying changes in pixels year-to-year may not be definitive in identifying land use change, especially conversion to agricultural land use – particularly for Australian landscapes and agricultural land management practices, where there can be extensive regrowth across rangeland grazing areas and clearing is used to manage this regrowth over time while maintaining a balance between grazing activity and ecosystem integrity.

In this context, the policy positions of leading NGOs may be based on analysis of datasets that differ significantly from government datasets and industry datasets. However, these stakeholder perspectives and campaign positions will continue to shape and influence the further development and implementation of customer expectations for sustainable red meat production in Australia.

4.2 Australian Beef Sustainability Framework

The ABSF is a collaborative initiative within the Australian beef industry that aims to ensure the long-term sustainability of beef production. Launched in 2017, the framework brings together various stakeholders, including producers, processors, retailers, and environmental organizations, to address key sustainability challenges and set goals for improvement.

Environmental Stewardship is one of four key themes for the ABSF (the others comprising Best Animal Care, Economic Resilience, and People & The Community). Under the environmental stewardship theme, the framework aims to enhance the industry's environmental sustainability by addressing issues such as land use, water use, greenhouse gas emissions, and biodiversity. Practices related to land management, conservation, and resource use are considered.

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[34] The Wilderness Society (2024) *Deforestation*. Online: https://www.wilderness.org.au/protecting-nature/deforestation
[35] *Ibid*.

The terminology of 'deforestation's is not used in the framework; however, it does focus on 'tree and grass cover', including through a 'Balance of Grass and Tree Cover Dashboard', which enables stakeholders, industry, and producers to analyse trends in woody vegetation and ground cover at a regional level[36]. The dashboard is the result of an extensive ABSF process to develop an international benchmark for agricultural industry reporting, which involved the integration of 30 years of satellite data identifying annual trends in woody vegetation and seasonal trends in ground cover (Figure 7).

Figure 7 Woody vegetation removals rates as a proportion of extent 1995-2021
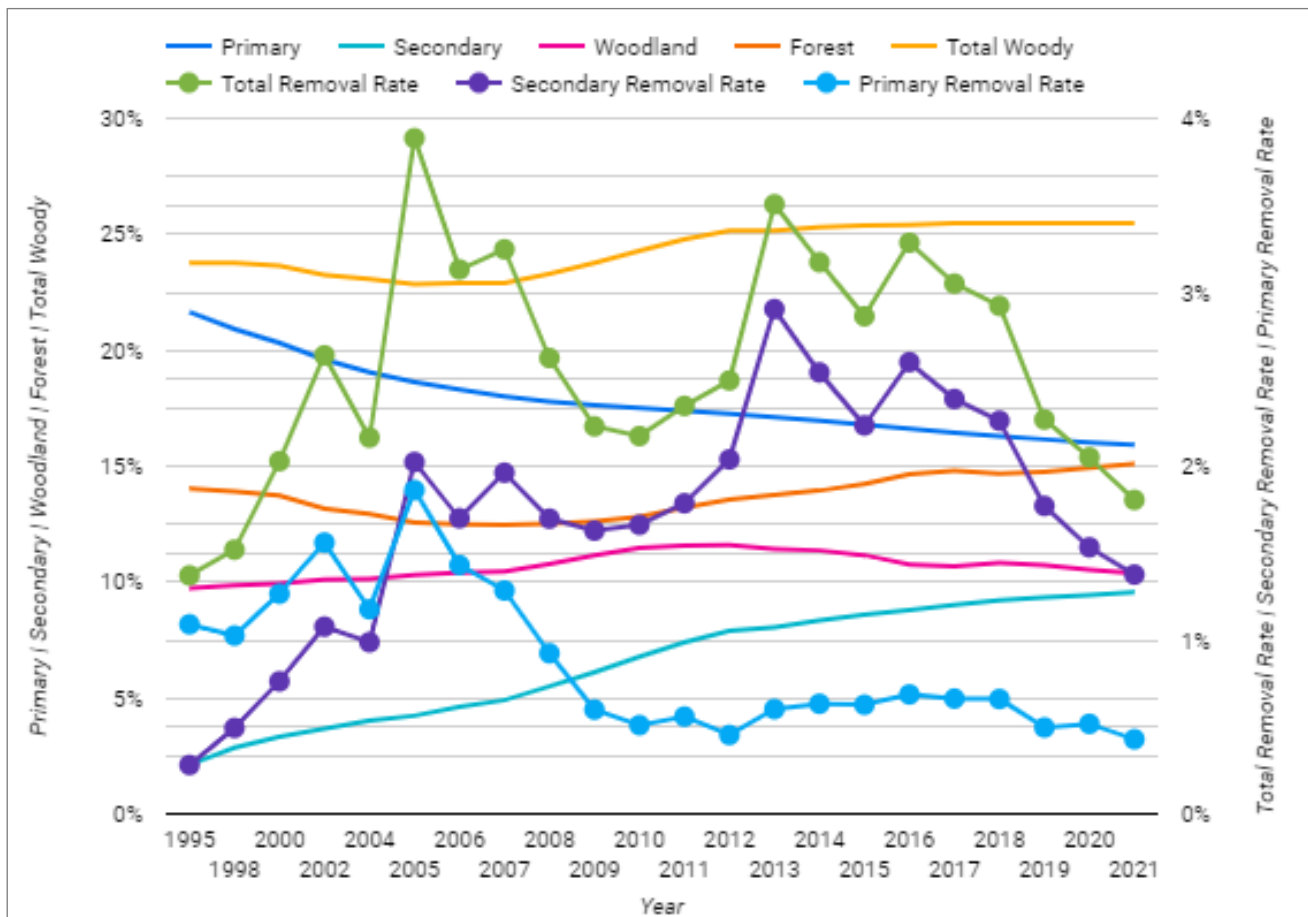
Source: Australian Beef Sustainability Framework – Vegetation Trends Dashboard 2020 (Accessed January 2024)

The ABSF dashboard distinguishes two classes of woody vegetation – woodland and forest, with the aim of addressing persistent movement between vegetation classes. This work has led the ABSF to conclude that overall, Australia's grazed agricultural lands have been increasing in total woody vegetation[37]. Trends in the primary woody vegetation removal have declined by more than 90% from 1990 levels, and since 2009 the national annual removal rate has been less than 0.7%[38]. The ABSF has observed that these losses included fires and commercial forestry on private land, so overestimate annual losses from grazing enterprises.

In this way, the ABSF represents an industry coalition and framework that has not set time bound deforestation free goals, but is working to monitor changes to tree cover, continue reducing vegetation losses and increase net gains.

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[36] Australian Beef Sustainability Framework (ABSF) (2024) *Balance of tree & grass cover dashboard*. Access January 2024: https://www.sustainableaustralianbeef.com.au/resources/botgc-dashboard/

[37] ABSF (2024) *Balance of tree & grass cover*. Accessed January 2024: https://www.sustainableaustralianbeef.com.au/the-framework/six-key-priorities/balance-of-tree--grass-cover/

[38] *Ibid*. Data extracted directly from the dashboard.

4.3 The Global Roundtable for Sustainable Beef

The GRSB is a notable example of an international initiative and forum designed to bring together stakeholder perspectives on key sustainability issues and galvanize industry action to address agreed goals and targets. The GRSB is focussed specifically on beef production, and therefore does not encompass all red meat products, but it represents a leading forum for stakeholder engagement on issues such as working towards assurances of deforestation free supply chains. GRSB members include organisations, roundtables and individuals from over 24 countries, representing processors, producers, retailers, allied services and industries, civil society representatives (including for example WWF and The Nature Conservancy) and consulting members (such as regulatory authorities, governmental agencies, consulting and auditing firms and donor organizations). The ABSF is a member of the GRSB and represents many Australian industry interests in the global programs.

In relation to combating deforestation, the GRSB has represented its collective focus on 'nature positive production', and belief that sustainable beef production can and should have a net positive impact on nature[39]. Furthermore, GRSB, its members and key stakeholders have reported their prioritisation of work on eliminating illegal deforestation and illegal conversion. Beef farmers will have access to greater financing from members within the Roundtable and may receive recognition for their contribution to discontinuation of deforestation.

The GRSB supports national roundtables and has reported on its work with national roundtables to establish metrics to effectively measure, track, report, and verify progress towards nature positive production.

In this way, the GRSB position reflects a multi-stakeholder engagement process that centres on a principle-based goal (nature positive production) and providing support for constituents to continue making progress along a clear pathway towards realising that goal, in demonstrable ways.

4.4 Key points: Stakeholder expectations

◆ NGOs comprising leading national and global environmental advocacy organisations are actively engaged in shaping and influencing key customer expectations and regulatory settings relating to working towards deforestation free supply chains.

◆ NGO definitions of deforestation reflect a clear focus on the conversion of natural forest to another land use, which is broadly aligned with key customer views of deforestation as the conversion of forest to another land use, notwithstanding that it does not specifically exclude forest based on land use criterion in the same way as FAO or the EUDR.

◆ However, clearly NGO have high levels of concern about deforestation in Australia, which need to be addressed through ongoing stakeholder engagement in relation to 'nature positive' production and assurances of deforestation free supply chains.

◆ Industry-led organisations such as the ABSF in Australia and member-led organisations such as the GRSB provide platforms for stakeholder engagement on themes that encompass tree cover monitoring and providing assurances of deforestation free supply chains.

◆ NGOs are already engaging with industry processors and producers in a range of ways, including direct engagement with processors and producers, as well as through national and global forums and initiatives like the ABSF and the GRSB focussing on sustainable agriculture. Further engagement could be directed to more collaborative work on standardising terminology and definitions, consolidating national and state or regional level datasets, and the development of clearly articulated roadmaps or pathways for further development and demonstration of sustainable agricultural production.

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[39] GRSB (2024) *Nature Positive Production*. Online: https://grsbeef.org/sustainability-goals/nature-positive/

5 Definitional Issues for Australia

Deforestation is a complex and multifaceted issue with various definitional challenges that can vary across countries. The term "deforestation" generally refers to the large-scale removal or destruction of forests, leading to the conversion of forested land into non-forest uses. However, the interpretation and measurement of deforestation can differ based on several factors, including local contexts, land-use practices, and data collection methods.

5.1 Definitions of forests

Australia's national definition of forests is notably different from leading definitions applied worldwide, including the definition applied by the FAO and subsequently adopted by the EU and countries including the United States of America (U.S.) and Brazil.

Australia's definition of forests, as reflected in its National Forest Inventory (NFI), is '*an area […] dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 metres and with existing or potential crown cover of overstorey strata about equal to or greater than 20%.*'[40] The definition of forest used by the NFI has evolved through a collaborative and consultative process involving various stakeholders, scientific experts, and policymakers, and was influenced by both international standards and Australia's specific environmental and forestry contexts.

Australia's State of the Forests Report has observed that under this definition, large expanses of tropical Australia where trees are spread out in the landscape are forest, as are many of Australia's multi-stemmed eucalypt mallee associations. What many people would typically regard as forests – i.e., stands of tall, closely spaced trees – comprise a relatively small part of the country's total forest estate[41]. Furthermore, much of Australia's open and woodland forests are available for grazing.

In contrast to Australia, the FAO Global Forest Resources Assessment (FRA) defines forest as: '*land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use*'.[42]

The EU definition of forest is directly aligned with this FAO position, with the EUDR defining forest as '*land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use*'[43]

The U.S. and Brazil, as example countries, have also adopted definitions based on or broadly aligned with the FAO definition. The U.S. has a range of definitions of forests (and deforestation) developed for varying domestic and international reporting or monitoring processes; however, positions taken by the U.S. Department of Agriculture (USDA) appear to mostly align with those established by the FAO, and references to other international organisations such as The United Nations Convention on Climate Change (UNFCCC) and United Nations Environment Programme. The USDA Forest Service has noted one distinction for domestic reporting of 'forest lands', stating, '*in contrast, the domestic definition of forest land used by the Forest Inventory and Analysis program of the Forest Service does not require trees to meet the in-situ height requirement*'. [44]

Brazil is another country with a vast territory and a great diversity of forest types. The definition of forest broadly applicable in Brazil is the one reported to the FAO for the purposes of the FAO Global FRA.

[40] ABARES (2023) *Forests Australia - Glossary*. Refer online: https://www.agriculture.gov.au/abares/forestsaustralia/glossary/
[41] Montreal Process Implementation Group for Australia and National Forest Inventory Steering Committee (2018) *Australia's State of the Forests Report 2018*, ABARES, Canberra, December. CC BY 4.0.
[42] FAO (2020) *Global Forest Resources Assessment – Terms and Definitions – FRA 2020*. Forest Resources Assessment Working Paper 188.
[43] EUDR 2023/1115, Article 2 Definitions.
[44] Oswalt et al. (2019) *Forest Resources of the United States, 2017*. Refer Pg 3, 'Defining a forest'.

A summary of these definitions of forest is set out below (Table 2).

Table 2 Comparison of key forest definition parameters between the EUDR, US, Brazil, and Australia

Parameter	EUDR	US[45]	Brazil[46]	Australia[47]
Min. land area (ha)	0.5 ha	0.4 ha (1 acre)	0.5 ha	0.2 ha
Min. Tree height (m)	>5.0 m	>5.0 m	>5.0 m	>2.0 m
Min. Crown cover (%)	>10%	>10%	>10%	>20%
Includes young stands	Yes	Yes	Unclear	Yes
Includes temporarily unstocked areas	Unclear	Yes	Unclear	Yes
Includes forestry land use	Yes	Yes	Yes	Yes
Excludes agricultural land use	Yes, but definitions are unclear	Unclear	Yes	Assumed to be limited to agricultural plantations

Sources: EUDR; Oswalt et al (2019); Brazilian Government (2022); ABARES (2023).

Based on this comparison, Australia has a distinctly different definition in terms of specifying forests as having tree heights of more than two metres and canopy cover of more than 20%. Furthermore, the international examples feature the exclusion of tree cover associated with land predominantly under agricultural or urban land use. This definitional issue is discussed further in section 5.3.

5.2 Definitions of deforestation

Further differences arise in the comparison of definitions of deforestation. Australia's definition of deforestation is '*type of land clearing involving the permanent removal of tree cover*'[48]. A key feature of this definition is the 'permanent removal' aspect, which means that sustainable timber harvesting, or clearing of vegetation that will regenerate within a few years under the same land use, would not be deemed deforestation.

The FAO definition is more expansive. The FAO Global FRA defines deforestation as '*the conversion of forest to other land use independently whether human-induced or not*'[49]. Explanatory notes clarify this definition as including permanent reduction of the tree canopy cover below the minimum 10% threshold, and including areas of forest converted to agriculture, pasture, water reservoirs, mining, and urban areas. The FAO has also explained the term specifically excludes areas where the trees have been removed because of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures. Therefore, the Australian definition is broadly aligned with this aspect of the FAO definition, together with its explanatory notes.

The EUDR definition of deforestation is directly aligned with the FAO definition, specifying '*the conversion of forest to agricultural use, whether human-induced or not*'[50]. However, the EUDR definition does not contain the same explanatory notes as the FAO, so it is not as explicit in specifically considering the permanent reduction of the tree canopy cover, nor excluding areas where the forest is expected to regenerate naturally or with the aid of silvicultural measures.

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[45] Oswalt et al. (2019) *Forest Resources of the United States, 2017: A technical document supporting the Forest Service 2020 RPA Assessment*.
[46] Brazilian Government (2022) *Brazil's National Forest Reference Emission Level for Results-based Payments*.
[47] ABARES (2023) *Forests Australia - Glossary*.
[48] *Ibid*.
[49] FAO (2020) *Global Forest Resources Assessment – Terms and Definitions – FRA 2020*. Forest Resources Assessment Working Paper 188.
[50] EUDR 2023/1115, Article 2 Definitions.

5.3 Key definitional issues for Australia

Based on this comparison of definitions, two key definitional issues arise for Australia's red meat industry in addressing customer expectations to demonstrate deforestation free supply chains – especially in export markets, which will be applying international definitions that differ to Australia.

Biophysical differences in the definitions

The first key issue relates to the biophysical differences in the definition and classification of 'forest' will likely add to the complexity and create data gaps when identifying what is forest.

Australia has developed datasets for forests – and associated mapping of clearing of forest – which is based on a stand height exceeding 2 metres and with existing or potential crown cover about equal to or greater than 20%; while the EU market and other export markets using the same definition will define forests based on different thresholds; so there may be significant challenges for agriculture producers and processors, as well as government authorities, in aligning datasets for analysis and reporting purposes. This research study has found that extracting data from Australia's national and state datasets to address EUDR requirements will not be straightforward.

Relatedly, the EUDR states that the interpretation of deforestation-free should be '*sufficiently broad to cover deforestation and forest degradation, should provide legal clarity, and should be measurable based on quantitative, objective and internationally recognised data*'.[51] This means that compliance determination and country risk assessments will most likely rely on credible and internationally recognised sources, and the limitations contained within. There is likely to be significant variation globally in systems, data, and associated standards.

Exclusion of land that is predominantly under agricultural land use

The second key issue relates to the FAO and EU definition of forests incorporating a specific exclusion of '*land that is predominantly under agricultural land use*'. Another example of this type of definition is Westpac's 'no deforestation' commitment, for which it has specifically excluded consideration of clearing of regrowth or revegetation and nor does it apply to areas currently used for grazing[52]. This means that forests on certain land classifications may not be considered 'forest' in the first place, or if cleared, may not be captured within the meaning of deforestation.

This exclusion of agricultural land is not a feature specified within Australia's definition of forest; therefore, further data alignment issues arise in terms of how forest is defined across countries. The intended meaning of '*land that is predominantly under agricultural land use'* is not entirely clear within the EUDR specifically, where a lack of guidance or associated explanatory notes for aspects of the agricultural use definition, including for 'set-aside agricultural areas' and 'areas for rearing livestock' creates ambiguity and uncertainty for determining applicable forest cover and assessing deforestation-risk. Therefore, while it is unlikely this land use criteria would result in the exclusion of vast areas of native forest cover situated on land use areas attributed to 'grazing native vegetation', Australian producers and processors should clarify its intended meaning and appropriate application to agricultural land uses recognised across the country. A significant proportion of forest cover clearing activity in Australia is on land that has been cleared previously (with various terms such as 'secondary clearing' or 're-clearing'). However, the implications of this aspect of vegetation management for regulations like the EUDR are not yet clearly resolved.

A clear position on these issues will rely on Australia – specifically its agricultural industries – having 'quantitative, objective and internationally recognised data'[53], including credible spatial data, to identify specific land use areas

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[51] EUDR 2023/1115. Refer clause 35.
[52] Westpac Corporation (2023) *Westpac's plan to support farmers in net zero transition*. News release, 13 November 2023, online: https://www.westpac.com.au/news/making-news/2023/11/westpacs-plan-to-support-farmers-in-net-zero-transition/
[53] EUDR 2023/1115. Refer clause 35.

and demonstrate that it was clearly predominantly under agricultural use prior to baseline years; for example, before December 2020 in the case of the EUDR requirements, and before December 2025 in the case of Westpac's 'no deforestation' commitments.

5.4 Key points: Definitional issues

◆ Australia has a distinctly different definition of forest from leading international organisations, the EU, and other countries including the U.S. and Brazil. While Australia's definition of deforestation also differs from international examples, it is in the different definitions of 'forest' that both issues and opportunities arise for the industry. The differences in the biophysical definitions are likely to give rise to continuing challenges in aligning datasets for analysis and reporting purposes.

◆ International definitions of forest (such as the FAO and EUDR) include a land use criterion, that specifically exclude land that is predominantly under agricultural land use. It is not entirely clear in the EUDR how specific agricultural land uses i.e., agricultural set-asides or areas for rearing livestock, would be applied in Australian settings. Australia's red meat industry should work with the Australian Government to clarify its interpretation and application to lands that are predominantly under agricultural use across Australia.

◆ Seeking further clarity on 'predominant land use' and intended meaning of undefined agricultural uses like 'set-asides and areas for rearing livestock' as a criterion for defining (or excluding) a forest is important, as it may have implications for negotiations, implementation, monitoring, and reporting under the EUDR requirements.

◆ The primary driver behind the EUDR would appear to be permanent primary forest conversion caused by agricultural commodities i.e., agricultural land expansion at the expense of natural forest cover (whether primary forest or naturally regenerating forest). Land use status (i.e. what the land is committed or designated to be used for) would appear to be a significant factor in determining risk and managing compliance.

◆ Addressing these definitional challenges will be very important for Australia's agricultural industries in developing effective strategies to address the increasing requirements associated with deforestation-free commitments. Standardized definitions and improved data collection methods would assist to enhance the accuracy and comparability of deforestation assessments across countries.

6 Commercial Implications for the Industry

The EUDR has brought into sharp focus the commercial risks for agricultural industries that are not able to address and satisfy EU-specific market requirements to demonstrate deforestation free supply chains. The commercial implications of this can be considered in the context of the proportion of Australia's red meat products exported to Europe, while recognising that customer expectations relating to deforestation free supply chains are evident or emerging in domestic markets as well as other export markets.

Value and relative proportion of export and domestic sales

In 2021-22, Australia's red meat and livestock industry turnover was reported as $75.4 billion[54], with domestic sales of beef, sheep, goat and pork contributing $22.8 billion[55] and meat and livestock exports contributing approximately $17.6 billion (23%)[56].

In terms of turnover value, EU market sales represent a relatively small proportion of Australia's total meat and livestock export value, accounting for $270 million (<2%) in 2021-22, with beef meat exports representing approximately $160 million in the same year[57]. As a proportion of Australia's total meat and livestock industry turnover, the EU export market share was less than 0.5% in 2021-22. Australia and the EU commenced negotiations on a free-trade agreement in mid-2018[58], and as of January 2024, negotiations for agricultural products are ongoing.

Australia exports meat and livestock to more than 100 countries, with a summary of key export countries by value and relative proportion set out below (Table 3). Australia's largest export markets for total meat and livestock products are the U.S. ($3.4bn), China ($3.3bn), Japan ($2.6bn), and the Republic of Korea ($2.3bn). Focussing specifically on exports of beef meat products (accounting for $9.9bn in total), Japan, China, and Korea are currently the largest markets, with these three Asian countries accounting for close to 60%. Indonesia and China dominate the livestock exports, representing more than 60% of the total livestock export market share in 2021-22.

Table 3 Value and relative proportion of Australia's meat and livestock export market by Country

Export Country	Beef Meat ($B)	% of Total Beef Meat	Non-Beef Meat ($B)	% of Total Non-Beef Meat	Livestock ($B)	% Total Livestock	Total Meat & Livestock
United States	$1.73B	17.4%	$1.61B	26.3%	$0.01B	0.4%	**$3.35B**
China	$1.90B	19.2%	$1.10B	17.9%	$0.33B	22.8%	**$3.33B**
Japan	$2.13B	21.5%	$0.47B	7.7%	$0.03B	2.2%	**$2.64B**
Republic of Korea	$1.83B	18.4%	$0.48B	7.8%	$0.00B	0.0%	**$2.30B**
Indonesia	$0.35B	3.6%	$0.20B	3.2%	$0.56B	37.9%	**$1.11B**
Europe*	$0.16B	1.7%	$0.10B	1.6%	$0.01B	0.7%	**$0.27B**
Other	$1.81B	18.3%	$2.18B	35.5%	$0.53B	36.1%	**$4.52B**
Total	**$9.92B**	-	**$6.14B**	-	**$1.47B**	-	**$17.6B**

Source: Indufor summary derived from DFAT SITC Pivot Table (2023) – Australia's Merchandise Exports and Imports.

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[54] MLA (2023) https://www.mla.com.au/news-and-events/industry-news/australias-robust-red-meat-and-livestock-industry-well-positioned-in-the-face-of-volatile-climate-cycle/

[55] Australian Meat Industry Council (AMIC) *Pre-Budget Submission 2022-23*, January 2022.

[56] DFAT SITC pivot table (2023)

[57] *Ibid*.

[58] MLA (2023) *Market Snapshot – European Union*. Online: https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/red-meat-market-snapshots/eu_2022-mla-industry-insights-market-snapshot_270323.pdf

While the introduction of the EUDR has elevated the focus on exports, and the EU especially, domestic markets continue to provide a major source of sales revenue, with reports that the Australian meat supply chain accounted for around $13.6 billion in domestic sales for beef, sheep, and goat in 2021-22[59].

Noting this, leading Australian companies such as Woolworths and Coles have made their own commitments to responsible sourcing and moving towards deforestation free supply chains; and similar customer expectations are evident in commitments made by leading international companies such as ALDI, Costco and McDonald's, which can be expected to influence market sentiment in domestic markets as well as other export markets. Therefore, the commercial implications associated with customer expectations for Australian processors to demonstrate deforestation free supply chains are likely to extend well beyond the EU, and any stepped change in preparedness and response to expectations will need to consider the potential costs and benefits more broadly.

Broader impacts and commercial opportunities

AMPC's recent report on market-imposed environmental disclosures[60] highlighted the likely impacts of the EUDR on the Australian red meat industry are market access, compliance burden, price pressure, and the cost of practice change. Collectively, these potential impacts represent commercial risks for the industry.

These impacts are certainly valid concerns. The EUDR clearly sets out specific requirements for operators that include suppliers such as the Australian red meat processors. Furthermore, the EUDR requirements for operators to conduct risk assessments, which would cross-reference country risk assessments, and engaging in the processes of clarifying and addressing these requirements will impose costs of practice change and represent a burden, which may lead to price pressure or market access constraints for Australian processors.

However, the same report also identifies the key opportunity arising for Australia – that it could comply with the EUDR through use of sophisticated systems and consistent reporting, and demonstrate its environmental management credentials, not only to the EU but to major domestic markets and other export markets as required. The benefits of realising this opportunity are more compelling in the context that Australia's major domestic customers are developing similar requirements for processor assurances of deforestation-free supply chains as part of their responsible sourcing programs. While there are no regulated requirements for reporting environmental performance in international markets at present, moves are being made to develop these reporting frameworks.[61]

Therefore, setting aside the EU requirements, the Australian red meat industry will likely need to address these market-imposed requirements in one form or another within the next 1-2 years. The potential benefits from industry investments in this opportunity include the following:

◆ Australian operators could establish first mover advantage by being proactive in establishing compliance systems, building on competitive advantages relative to some other producer countries, and recognising that operators in those other countries may find compliance difficult; particularly if the country is classified high risk.

◆ Australian operators could use the existing definitions, including the EUDR but Westpac also, and compliance requirements to proactively inform domestic customers and other markets of their capacity to address specific requirements, prior to the further development of their requirements, which could potentially differ and thereby create more onerous compliance burden to address multiple requirements. This could also provide further encouragement to domestic customers to preference and support local supply in contrast to imported products that may not be well placed to address Australian market deforestation-free supply requirements.

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59 Australian Meat Industry Council (AMIC) *Pre-Budget Submission 2022-23*, January 2022.
60 AMPC (2023) *Market-imposed Environmental Disclosures*. Final report, September 2023.
61 *Ibid*.

7 Existing Datasets, Systems and Frameworks

This section discusses existing datasets, systems, and frameworks in place to support Australia's red meat industry in addressing customer expectations for assurances of deforestation free supply chains. It addresses the extent of readiness and capability while also noting issues and challenges relating to alignment of data or systems with current and emerging requirements.

7.1 Existing datasets

Australia has a range of credible datasets to inform and address risk assessments for deforestation and forest degradation. Collectively, these datasets provide an extensive range of data. However, a key issue for deforestation assessments is that they report a range of forest cover loss and change and vary substantially between national and sub-national jurisdictions, due to differing purposes, scope, and resolution.

Australia's most recent *State of the Forests Report* (prepared every five years) observed that Australia's total forest area increased by 3.9 million ha from 2011 to 2016. This increase is the net effect of forest clearing for agricultural use, regrowth of forest on areas cleared for agricultural use, expansion of forest onto areas not recently containing forest, environmental plantings, and changes in the plantation estate. In each year of the period 2011–2016, the area of forest cleared or re-cleared was less than the area of forest regrowing from previous clearing.[62]

Australia's *National Greenhouse Gas Accounts* and Activity Tables (accessible through AGEIS) provide a specific breakdown by state and the type of clearing (primary conversion compared to re-clearing) as well as identified regrowth. A summary of time series data between 2000-01 and 2020-21 is shown in **Appendix 2**. This data shows:

◆ Net forest cover change resulting from forest conversion, re-clearing and regrowth, which has oscillated over time but was net positive and trending upwards in 2020-21.

◆ Over the past 20 years, most clearing activity has been classified as re-clearing rather than primary forest conversion.

◆ In 2020/21, the total area of primary forest conversion nationally was around 22,000 ha, and the total area of re-clearing nationally was around 155,000 ha.

◆ The total areas of primary conversion and re-clearing have trended downwards since circa 2004-05[63].

National and State-Government reporting shows that over the past 20 years, Queensland and (to a lesser extent) NSW have been the largest contributors to forest cover change, with primary drivers relating to agricultural land use.

Both Queensland and NSW maintain an annual *Statewide Landcover and Trees Study* (SLATS) report, which uses satellite imagery and field data to monitor and report changes in woody vegetation extent in Queensland and provide information about other woody vegetation attributes such as foliage density and age. The SLATS programs are managed by State governments; hence the reported data is authoritative and aligned with State based land management policy and monitoring arrangements.

The SLATS programs have tended to report significantly higher levels of clearing activity than reported through Australia's National Greenhouse Gas Accounts. For example, for Queensland, SLATS program reports the total area of 'full clearing' in 2020-21 was around 322,500 ha[64]. This data for Queensland is considerably higher than the AGEIS national total for forest conversion and re-clearing (across all states) of around 177,000 ha. This difference in

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[62] ABARES (2018) *Australia's State of the Forests Report*. Refer Criterion 1.

[63] AGEIS (2023) *Activity Table 1990-2021 Land Use Land Use Change and Forestry (LULUCF)*.

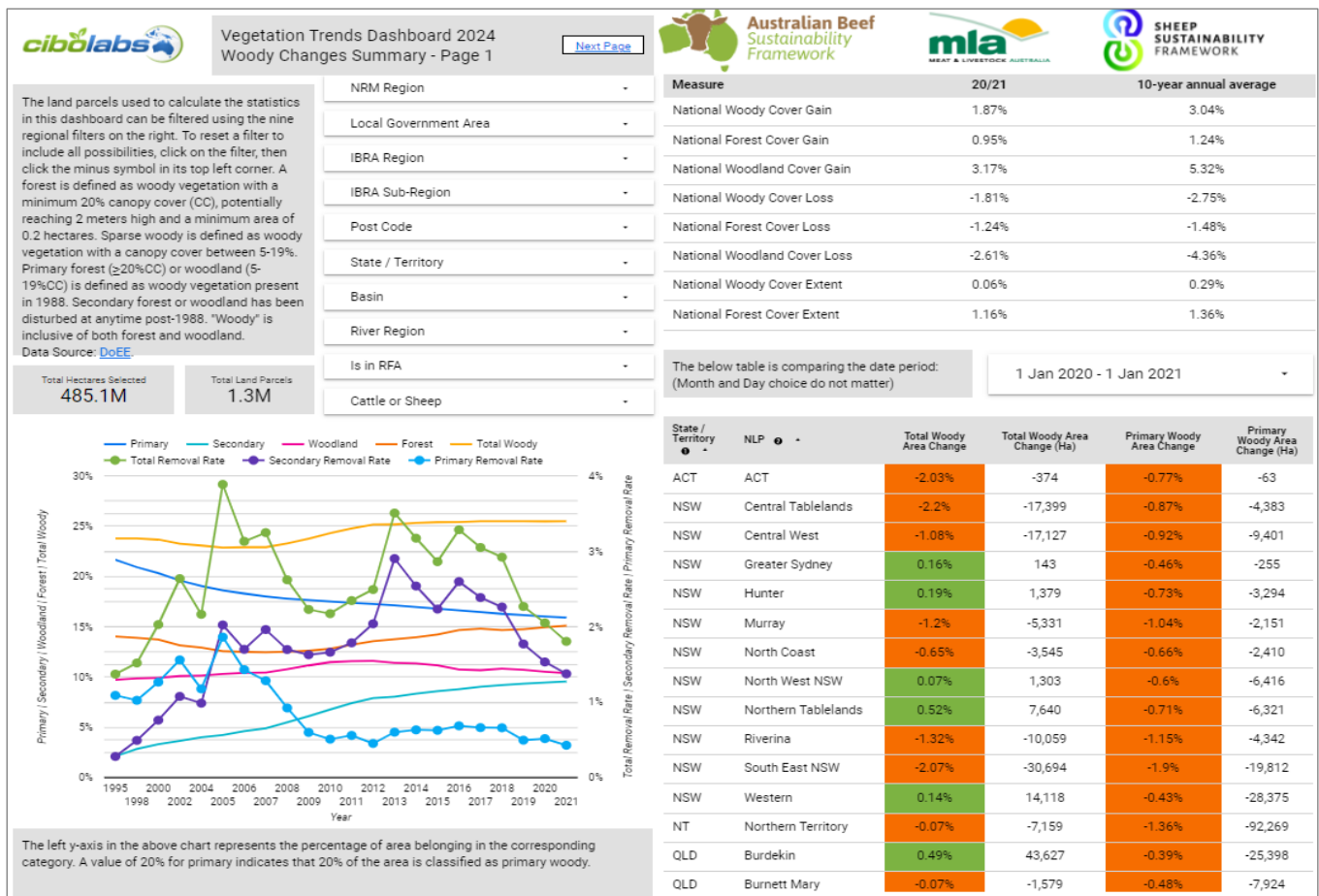[64] Queensland Government (2023) 2020-21 *SLATS Report*. Refer online:
https://www.qld.gov.au/environment/land/management/mapping/statewide-monitoring/slats/slats-reports/2020-21-slats-report/key-findings

estimates can be attributed in part to SLATS monitoring changes in woody vegetation down to 10% crown cover, which includes forests recognised by the national greenhouse accounts, but can include areas of very sparse vegetation or low shrublands, scrub and heath lands. Noting this, SLATS current methodology does not consider vegetation height, so it is unclear whether SLATS reporting of forest clearing may overestimate the area that could be considered as deforestation under the EUDR. It is possible a significant proportion of the low shrublands, scrub and heath that constitutes woody vegetation for SLATS may not be classified as forest if height greater than 5m under the EUDR definition is considered.

SLATS programs for both states show the area of woody vegetation affected by clearing activity has continued to decrease over recent years. The total area of clearing activity reported in Queensland for 2020-21 (349,000 ha) is a 17% decrease in clearing activity from 2019-20 and a 49% decrease from 2018-19. In NSW, the total area of full clearing of woody vegetation across the state (27,000 ha) in 2020-21 was 38% less than in 2017-18[65].

Another source of relevant data is the ABSF and its *Balance of Tree and Grass Cover* dashboard[66]; which comprise charts and tabular tools that show changes in forest and woody vegetation on Agricultural land over time. The dashboard is based on Australian Government datasets, and it is unclear if and how State government SLATS data is considered. A summary of the dashboard data is shown below (Figure 8).

Figure 8 ABSF Balance of Tree and Grass Cover dashboard

Source: ABSF (2024)

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[65] NSW Government (2023) *2021 NSW Vegetation clearing report*. Refer online:
https://www.environment.nsw.gov.au/topics/animals-and-plants/native-vegetation/landcover-science/2021-nsw-vegetation-clearing-report

[66] Australian Beef Sustainability Framework (2023) *Balance of tree and grass cover*. Refer online:
www.sustainableaustralianbeef.com.au/balance-of-tree-and-grasscover

Like the AGEIS Activity Tables and the SLATS reports, the ABSF dashboard shows the area of woody vegetation affected by clearing activity (reflected in the 'removal rate') is primarily attributable to secondary clearing rather than primary clearing, and it has continued to decrease over recent years.

Nevertheless, national and state datasets show there is a level of forest clearing continuing across the states, notably in Queensland and NSW; and there may be limited scope to argue that deforestation, as defined by the EUDR, is not occurring in Australia. This view is actively promoted by NGOs that are campaigning against 'deforestation' in Australia.[67] However, the counter position to this may comprise the following positive attributes:

- firstly, most of the clearing activity in recent years is re-clearing rather than primary conversion of forest, and it may be that a large proportion is occurring on land that is predominantly under agricultural uses;

- secondly, total areas of clearing activity are relatively low compared to the total forest estate, and recent reporting and trend trajectories show there has been an overall net gain in forest cover in Australia over the past decade; and

- thirdly, Australia is continuing to reduce clearing levels in accordance with an increasing focus and legislative controls on vegetation management, biodiversity conservation and net zero emission targets, across all states.

7.2 Existing traceability systems

At the individual operator level, Australian red meat processors and their suppliers may have limited control or capacity to influence the national and state datasets, and therefore limited capacity to influence the outcome of the EU assessment of countries based on those datasets. However, through industry collaboration and support, individual operators do have a level of control and influence over their supply chain and the requirements they can place on their direct suppliers, including cattle producers and feedlot managers.

The Australian red meat processing sector has already established a range of red meat product and livestock traceability systems and standards that respond to various food safety, commercial and product quality pressures imposed by consumers and government certification requirements (e.g. the Organic and European Cattle Accreditation Scheme). Overseen by a Red Meat Supply Chain Committee (RMSCC) comprising producer, processor and Australian Government representation, together with accreditation and auditing service providers such as AUSMEAT and AUSQUAL, the Australian red meat processing sector has methods and systems that facilitate the tracing of animal and packaged products back to property of origin[68].

In addition, the National Livestock Identification system (NLIS), which combines traceability and quality assurance for biosecurity and food safety, allows the tracking of livestock from on-farm through the supply chain, and enabling industry to protect its reputation of clean, safe, and natural, underpinning product quality. Importantly, this work on systems development is continuing. The Australian Government has committed to investing over $100 million into Australia's agricultural traceability systems and is reportedly working with industry and states and territories to improve traceability approaches and systems that will clearly continue to show consumers and countries that Australia exports to, that our products are safe, clean, and sustainable from paddock to plate, which will drive our access to premium overseas markets.[69] Recent developments including consideration of blockchain's utility and

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[67] Refer WWF Australia publications: *Trees Scorecard (2023)* - refer online: https://wwf.org.au/get-involved/we-all-need-trees/the-trees-scorecard/ ; and *Deforestation Fronts - Eastern Australia* (2023) - refer online: https://wwfint.awsassets.panda.org/downloads/deforestation_fronts_factsheet___eastern_australia.pdf

[68] Red Meat Supply Chain Committee - Information Standards along the Meat Supply Chain. Refer online: https://rmscc.org/

[69] Australian Government Department of Agriculture, Fisheries and Forestry (2023) *National traceability*. Refer online: https://www.agriculture.gov.au/biosecurity-trade/market-access-trade/national-traceability

promise as the underlying technology of a food supply chain platform, with full individual animal tracking from birth to processing facilities.[70]

With these programs and systems in place, there would appear to be considerable scope for the Australian red meat industry to establish direct linkages to forest cover monitoring programs that can monitor forest cover on agricultural land that is utilised in supply chains, for cattle grazing and feedlot production.

Likewise, forest cover monitoring programs are becoming increasingly sophisticated and more readily available - including Earth observation data such as from the EU-sponsored Copernicus programme, which is specifically referred to in the EUDR (clause 49). The EUDR states:

> '… *building on existing monitoring tools, including Copernicus products and other publicly or privately available sources, the EU Observatory should facilitate access to information on supply chains for public entities, consumers, and business, providing easy-to-understand data and information linking deforestation, forest degradation and changes in the world's forest cover to Union demand for, and trade in, commodities and products'* (clause 31).

The baseline date for the EUDR is 31 December 2020, which means that forest monitoring would need to capture spatial time series data that starts in late 2020 and is ongoing from that time.

While other countries have access to the same or similar systems, Australia has an opportunity to build on existing traceability systems developed for the red meat industry, rather than establish entirely new monitoring tools. This may assist to establish a competitive advantage in addressing EU export market requirements and in turn, establish efficient programs and systems to address domestic market requirements. Further work may be required to identify readily available, low-cost, forest cover monitoring systems that can be cross-referenced in a systematic way, or alternatively, customised solutions for the red meat industry.

7.3   Sustainability frameworks

As outlined above, the Australian beef industry – which represents a significant proportion of Australia's red meat industry – has established the ABSF, which is a collaborative initiative within the Australian beef industry, which in turn contributes to global discussions on sustainability and environmental stewardship through forums including the Global Roundtable on Sustainable Beef.

The ABSF provides an industry stakeholder platform for engagement with industry- and non-industry stakeholders, and a platform for providing reliable data resources to members and stakeholders, specifically on metrics relating to deforestation or woody vegetation loss. Through the ABSF, the Australian Red Meat Advisory Council in partnership with Meat and Livestock Australia is already underway in reporting primary and secondary clearing trends across Australia's agricultural land as part of its ABSF[71]. The 'Balance of Tree & Grass Cover' provides a transparent time series on woody vegetation gain and loss across Australia (Figure 8).

Australia's red meat industry can use this type of dashboard to provide trend data as part of 'due diligence' inquiries about trends in deforestation and clearing of woody vegetation. The dashboard incorporates the functionality to support processors and producers to obtain some more granular spatial data information, to an extent. However, there are some limitations in respect to using this data to address customer expectations such as the EUDR, i.e.:

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[70] Meat & Livestock Australia (2020) *Supply chain for the 21st Century in Australia*. Final report.
[71] Australian Beef Sustainability Framework (2023) *Balance of Tree and Grass Cover dashboard*. Refer online: https://www.sustainableaustralianbeef.com.au/resources/botgc-dashboard/

- It is designed as an industry dashboard, representing states and regions, and is not designed specifically for reporting on the status of woodland and forest cover for specific properties and farming enterprises.

- It incorporates a focus on 'net' change (gain or loss) in woody vegetation rather than a narrower focus on whether there was any loss of woody vegetation since a defined baseline date, e.g. 2020.

- It is based on work of Cibo Labs and datasets compiled by ABSF involving the integration of Extensive satellite data and can therefore be considered credible data; however, is not based on the same remote sensing systems and datasets used by the Australian Government or State governments or the EU observatory covering deforestation and forest degradation; and therefore, may not align and may not be considered as definitive for customer compliance.

7.4 A decision-support tool for Australian processors

Recognising the EUDR represents a regulatory requirement that is expected to shape and influence the further development of market expectations and stakeholder expectations over the next few years, this project has prepared a new decision support tool for Australian meat processors, specifically to guide decision making in relation to what information may be required by EU customers and how that information can be compiled.

The most recent market access advice[72] states that operators (processors or exporters) who place commodities or products on the EU market will need to provide the EU competent authorities with a due diligence statement produced prior to the product's arrival to demonstrate their imports are not associated with deforestation or forest degradation. This statement must include geo-coordinates of all production locations for the commodity up to the point of processing (such as birth to slaughter for cattle), and as part of the due diligence process should include information to demonstrate that the relevant laws in the country of production have been complied with.

Based on the latest market access advice, a due diligence decision support tool has been prepared to assist Australia's meat processors in navigating the definitional nuances related to 'forests' and 'deforestation' and provide assurance to customers that their meat products have not contributed to deforestation (Figure 9).

This decision support chart, combined with a series of relevant checklists (Appendix 5 Due diligence decision support tool for Australian processors) and supporting guidance notes (Appendix 6 Guidance notes), is intended to provide practical guidance for processors to understand how, with the use of relevant datasets available, to identify and manage potential deforestation risks in their supply chain. However, the value of this due diligence decision support tool will be determined through testing and refining with members, and application to addressing deforestation-free supply chain commitments.

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[72] Australian Government Department of Agriculture and Forestry (2024) *Market Access Advice - European Union: Notice on the European Deforestation Regulation*. Reference no. MAA2403. Advice issued 11 January 2024.

Figure 9 Due Diligence Decision Support Flow Chart

Due Diligence – Decision Support Flow Chart
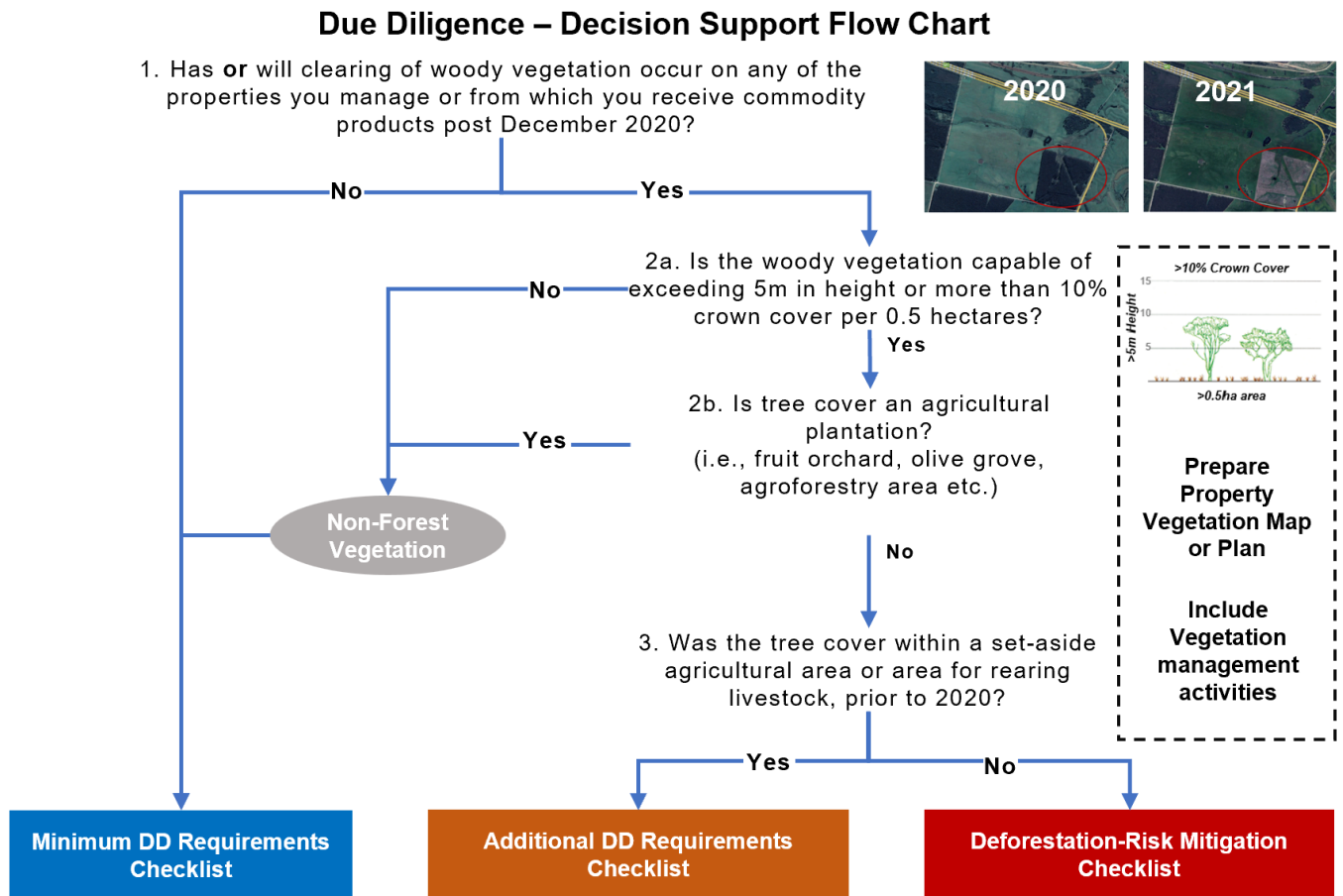
Source: Indufor

7.5   Opportunities for further development of systems and tools

As outlined above, the Australian red meat industry already has access to a range of existing datasets and sustainability frameworks, as well as existing livestock traceability systems, to respond to customer and stakeholder expectations for assurances of deforestation free supply chains.

With the additional decision support tool prepared as part of this research, Australian meat processors now have further guidance to assist in responding to the EUDR requirements specifically, and other customer requirements more broadly.

Building upon these existing systems and frameworks, this study has observed several opportunities for additional industry initiatives that may reduce burden on individual landowners and meat processors and assist to address strategic land management risks associated with the production and supply of beef and other red meat products. The following opportunities are proposed for consideration and further analysis by AMPC and the industry:

◆ Incorporate agricultural land use (property-level) history and/or land use rights information into the existing NLIS and RMSCC traceability systems and methods to enhance the efficiency of industry systems to also provide assurance for sustainable land management practice.

◆ Identify and differentiate any other parcels of land that could be considered 'agricultural set-asides', for example 'Category X' land use areas recognised under Queensland's Vegetation Management Framework. As spatial data, these areas could assist in more clearly differentiating deforestation from Australia's traditional agricultural land management practices.

◆ Collaborate with government agencies to develop a national and state register to document any conversion of non-agricultural land use areas to agricultural land, including land use conversion dates.

◆ Collaborate with government agencies to develop and include forest re-clearing history datasets to better differentiate between vegetation and land management and 'conversion' activity. Initially, this could draw upon historic versions of land clearing and forest change datasets, cataloguing the instances and times certain parcels of land were cleared as evidence of past, committed practice, whereby any contemporary clearing activity can be shown to be re-clearing' not land conversion.

◆ Engage with federal and state government agencies to include vegetation removal / deforestation risk into existing national-level risk management framework, with active, well-communicated risk mitigation strategies. The inclusion of this risk within nationally recognised register's, will assist the industry in collectively understanding and mitigating against reputational and commercial risks to their supply chain.

◆ Construct a coherent narrative that presents Australia's positioning in respect to responding to customer and stakeholder expectations for assurances of deforestation-free supply chains. A synthesis of Australia's sustainability credentials and capacity to provide assurances of deforestation-free supply chains, based on evidence from this research, is set out for reference in **Appendix 7**.

These opportunities will need to be considered in the context of broader industry priorities as well as funding and other resourcing aspects.

7.6   Key points: Existing datasets, systems and frameworks

◆ Australia has a range of credible datasets to inform and address risk assessments for deforestation and forest degradation. Collectively, these datasets provide an extensive range of data.

◆ Various reporting by governments and the ABSF shows that over the past decade, Australia's total forest cover change was net positive and trending upwards in 2020-21. Over the past 20 years, most clearing activity has been classified as re-clearing rather than primary forest conversion, and the total areas of primary conversion and re-clearing have trended downwards since circa 2004-05.

◆ Australia's red meat industry has established sustainability frameworks as reflected in the ABSF and its membership of the GRSB and these frameworks and forums provide platforms for the industry to continue to share knowledge, collate and present industry dashboard information, and promote sustainable land management practices that effectively exclude further conversion of forest land to agricultural land sues.

◆ However, there are some limitations in respect to the extent to which the industry's existing datasets and frameworks can be used to address specific customer expectations such as those of the EUDR. These limitations include: the differing definitions of forest; the ABSF focus on 'net' change (gain or loss) in woody vegetation rather than a narrower focus on whether there was any loss of woody vegetation since a defined baseline date, e.g. December 2020; and perhaps most significantly, the use of different remote sensing systems and datasets from the EU observatory covering deforestation and forest degradation, which will – in the case of the EUDR - be considered as the authoritative data for operator compliance around the world (though potentially subject to cross-referencing and engagement through government agencies).

◆ Through the ongoing work of the ABSF and other red meat industry forums, there is scope to continue engaging with customer constituents and other stakeholders to discuss the alignment of definitions and datasets as well as practical and effective measures to continue applying and improving sustainable land management practices that are designed for Australian settings. This ongoing work can include further development and refinement of dashboard systems and data, for use by individual enterprises.

◆ This study has prepared an additional decision support tool for Australian meat processors, specifically to guide decision making in relation to what information may be required by EU customers and how that information can be compiled by Australian processors and exporters.

◆ While the impacts of the EUDR on the Australian red meat industry will include barriers to market access, compliance burden, price pressure, and the cost of practice change, it also presents a key opportunity – especially in the context that Australia's major domestic customers are developing similar requirements for processor assurances of deforestation-free supply chains as part of their responsible sourcing programs. Furthermore, Australia may have some competitive advantages compared to some other producer countries, notably in relation to trends in forest cover change, and existing agricultural traceability systems.

8 Recommendations

This research report has been prepared to assist Australia's meat processors in understanding the key issues relating to deforestation-free supply chains. This report sets out contemporary information on customer and stakeholder expectations, including the nature of emerging requirements, and definitional issues for Australia, together with guidance on existing datasets, systems and frameworks in Australia. This report also sets out evidence-based analysis tailored to the Australian context, to assist meat processors in presenting a clear and coherent narrative on its sustainability credentials, and the basis on which Australia's red meat products can be considered low risk in terms of contributing to global deforestation beyond 2020.

In this context, the following recommendations are presented for consideration by AMPC and industry stakeholders. *Based on the outcomes of this research study, AMPC and industry stakeholders should*:

1. *Recognise there is a broad range of 'deforestation free' commitments being made by corporate interests and regional trade interests*. In some cases, the commitments represent a formative position at this stage, with limited or minimal guidance on specific definitions, targets, and timeframes.

2. *Recognise the EUDR represents the first set of regulations to emerge in key markets*, and its design and implement is expected to shape and influence the further development of market expectations and stakeholder expectations over the next few years, including consumer requirements in domestic markets.

3. *Seek further clarification of the extent to which the land use criterion in international definitions of forest (notably the EUDR) excludes specific agricultural land uses.* It is not entirely clear in the EUDR how this exclusion would apply to Australia's regulatory settings and the operating environment for agricultural set-asides and rearing livestock especially. Australia's red meat industry should work with the Australian Government and the European Commission to clarify its intended meaning and application to tree cover located on lands that are predominantly under agricultural use across Australia.

4. *Support ABARES and other government agencies in Australia (federal and state) to review the recently released EU Observatory 'Global Forest Cover' map (released in December 2023)*, to check the extent to which it has appropriately identified and classified forest, including on land predominantly for agricultural use. This may include liaising with the Department of Agriculture and Forestry's EU delegation to present any concerns about the accuracy or validity of the Global Forest Cover map in respect to Australia's forest coverage; including any requirements for appropriate excising of lands that are predominantly under agricultural use.

5. *Consider further the most cost-effective approach for industry members to work with government agencies to establish credible datasets that delineate land use areas (with land cover) that align with 'agricultural use' definitions and EUDR specific requirements*, or those agreed with key customers in Australia and key export markets. This consideration should encompass discussion within the ABSF forum and directly with ABARES and consider relevant baseline years such as December 2020 for the EUDR.

6. *Consider further the scope and cost-effective options to build upon the NLIS traceability system capabilities to capture basic information relating to forest and tree cover on supplier land holdings*, which would assist meat processors and their suppliers to compile information for due diligence requirements for the EUDR or other requirements.

7. *Test and refine the due diligence decision support tool with members*, noting it was designed to assist processors with understanding the emerging information and deforestation-free due diligence requirements.

8. *Prepare a clear and coherent narrative on Australia's red meat industry's sustainability credentials in relation to the deforestation risk*, and its capacity to provide assurances of deforestation-free supply chains, using the synthesis of evidence compiled in this research.

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10 Appendices

Appendix 1 Examples of vegetation that may be defined as forest in Australia

Australia's land comprises approximately 132 million ha of native forests (around 17% of Australia's land), with Eucalypt forests accounting for nearly 80% of Australia's forest types and Acacia forests the second largest species grouping, covering 8% of Australia's land mass.[73] The area of woodland forest (20–50% crown cover) is around 92 million ha (or 69% of the total native forest area). Forests vary significantly in terms of structure, floristic composition, height and crown cover, and forest types that range from sparse woodland forest types to closed canopy forests, such as rainforest. The following images illustrate various examples of woodland forest types that are likely to conform to the quantitative parameters of the EUDR definition of forests.

Acacia forests and woodlands[74]   **Eucalypt open woodland**   **Eucalypt woodlands**

Figure 10 Various structural forms of Australia's forests and corresponding proportions (%)
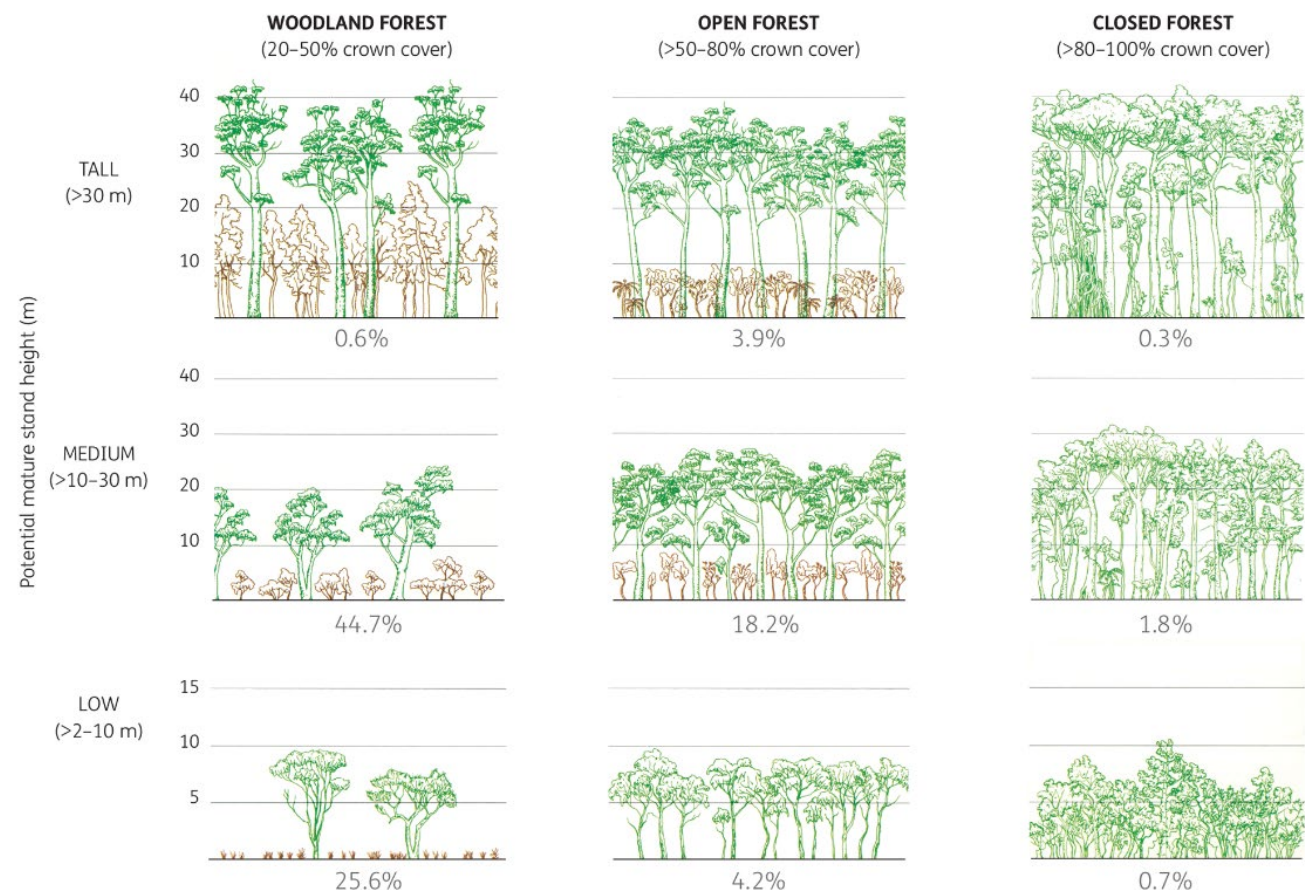
Source: ABARES, 2018

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[73] ABARES (2018) *Australia's State of the Forests Report 2018*.

[74] *Australian National Herbarium* (2023) Refer online: https://www.anbg.gov.au/photo/vegetation/acacia-forests-woodlands.html

The map figures below depict mapped native and plantation forest extents by type and land use descriptions across Australia based on a 2015-16 agricultural businesses census and mapped according to the Australian Land Use and Management (ALUM) Classification version 8. In 2015-16, more than half (51%) of Australia's land area is used for agricultural production[75]. Land use means the purpose to which the land cover is committed, not necessarily the approach taken to achieve a land use outcome, which is usually termed 'land management practice'.[76]

Figure 11 Forest coverage by forest type and land use descriptions across Australia, 2015-16
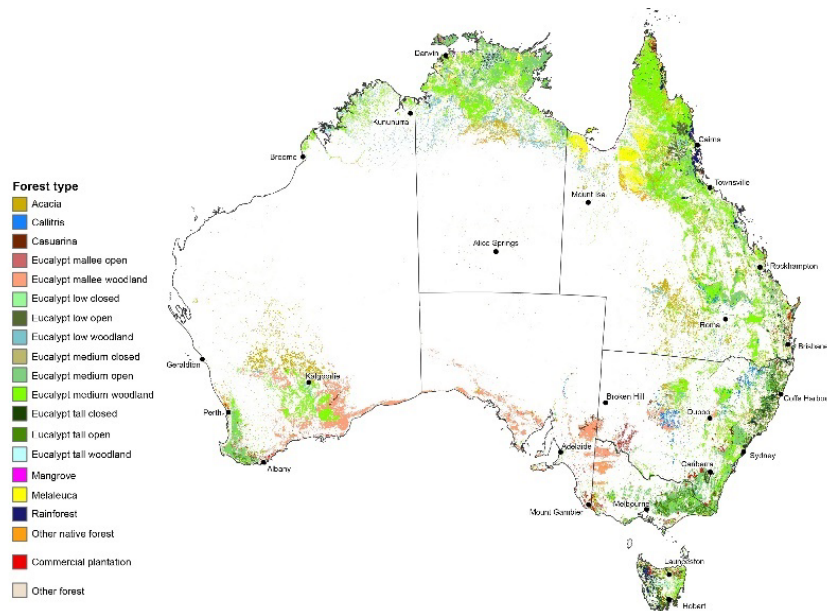
Source: State of the Forest 2018 (ABARES)
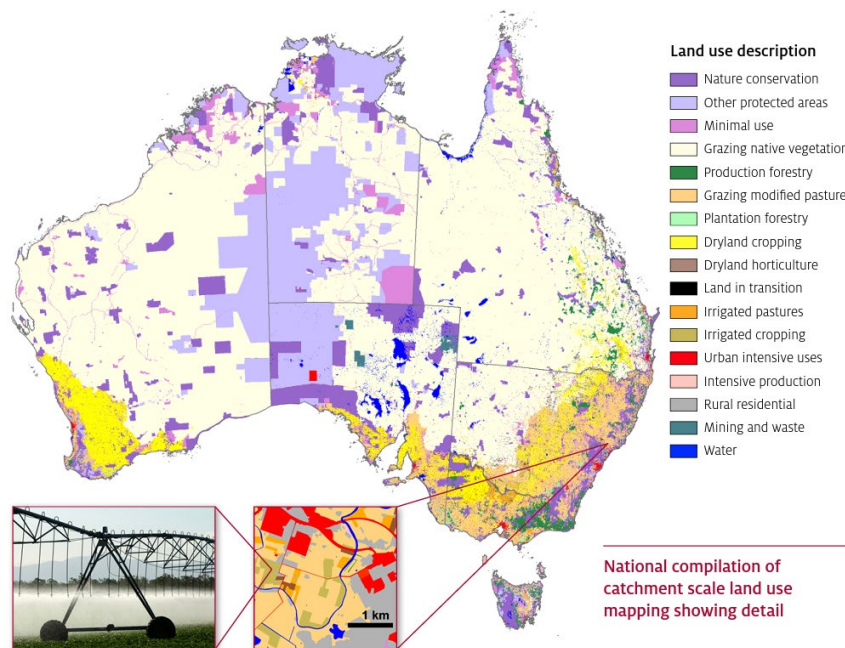
Source: Land Use Infor of Australia v1.0 (ABARES)

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[75] ABS (2017) Refer online: https://www.abs.gov.au/statistics/industry/agriculture/land-management-and-farming-australia/2016-17#methodology
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Appendix 2 Trends in forest cover change in Australia

Australia's national greenhouse gas emissions accounting, which includes land use, land use change and forestry sector activity reporting, provides annual quantifications regarding forest land changes. Figure 12 shows LULUCF activity tables for conversion of primary forest land and re-clearing of forest land to other uses, noting that these figures include forest land changes to settlements. Figure 13 shows vegetation removal trends on agricultural land.

Figure 12 Net forest changes in Australia, 2000-01 to-2020-21
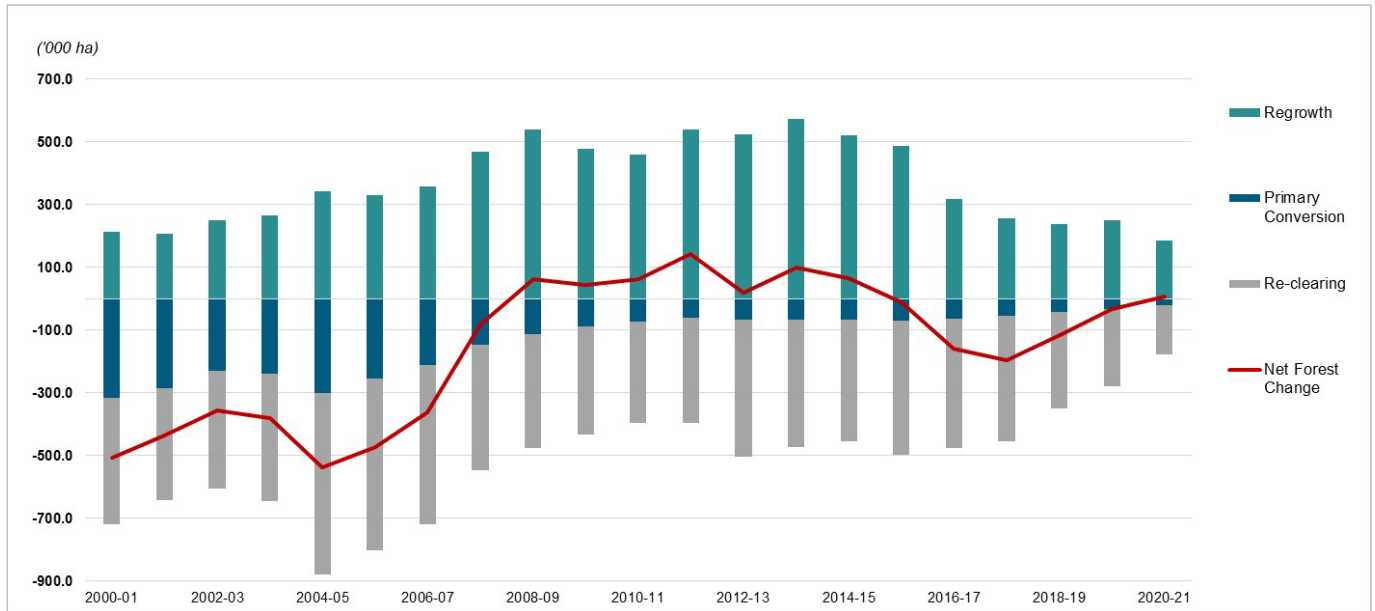
Source: Indufor, LULUCF Activity Tables 2020-21 (AGEIS)

Figure 13 Woody vegetation removals rates as a proportion of extent 1995-2021
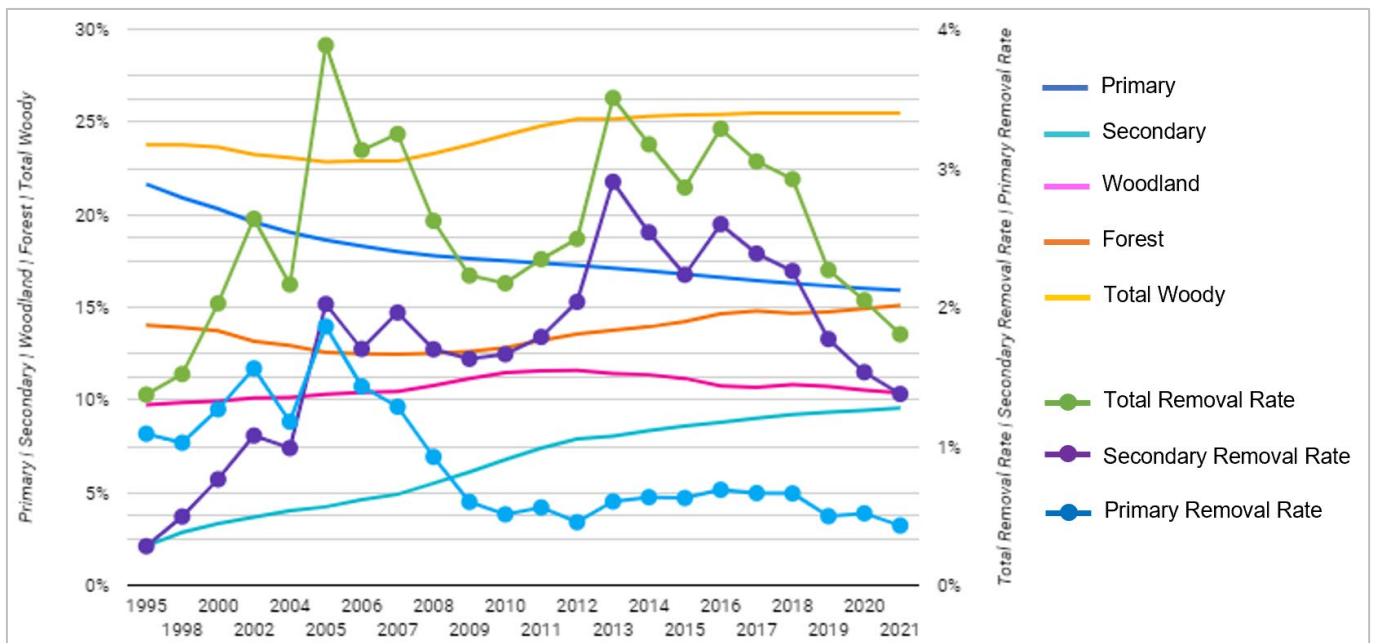
Source: Australian Beef Sustainability Framework – Vegetation Trends Dashboard 2020.

Appendix 3 Selected jurisdictional comparisons

United States of America

In contrast to Australia, the United States (U.S.) has a range of definitions of 'forest' and 'deforestation' developed for varying domestic and international reporting or monitoring processes. However, positions taken by the US Department of Agriculture on the definition of 'forest' for instance, appear to mostly align with those established and recognised under United Nations Framework Convention on Climate Change (UNFCCC) and FAO. The USDA Forest Service technical report on Forest Resources (2017) notes the following key distinction applied for domestic reporting of 'forest lands': "*In contrast, the domestic definition of forest land used by the Forest Inventory and Analysis (FIA) program of the Forest Service does not require trees to meet the in-situ height requirement.*"[77]

Estimates of deforestation in the U.S. vary significantly depending on the source and the data analysis method. For example, the U.S. Environmental Protection Agency (EPA) Land Use, Land Use Change and Forestry (LULUCF) reports indicate that in 2021, the U.S. had a total of 280 million ha of managed forest land, representing a 0.71% decrease compared to the area in 1990[78]. This would equate to a total decline in forest land of 1.994 million ha, i.e., an annual net change of approximately 64,000 ha/year of managed forest land (counting all land uses, not only for agricultural purposes). A summary of changes in land use for the U.S. managed forest land base, 1990 – 2021, is shown in Figure 14.

Figure 14 Land Use and Land-Use Change for the U.S. managed forest land base, 1990 – 2021
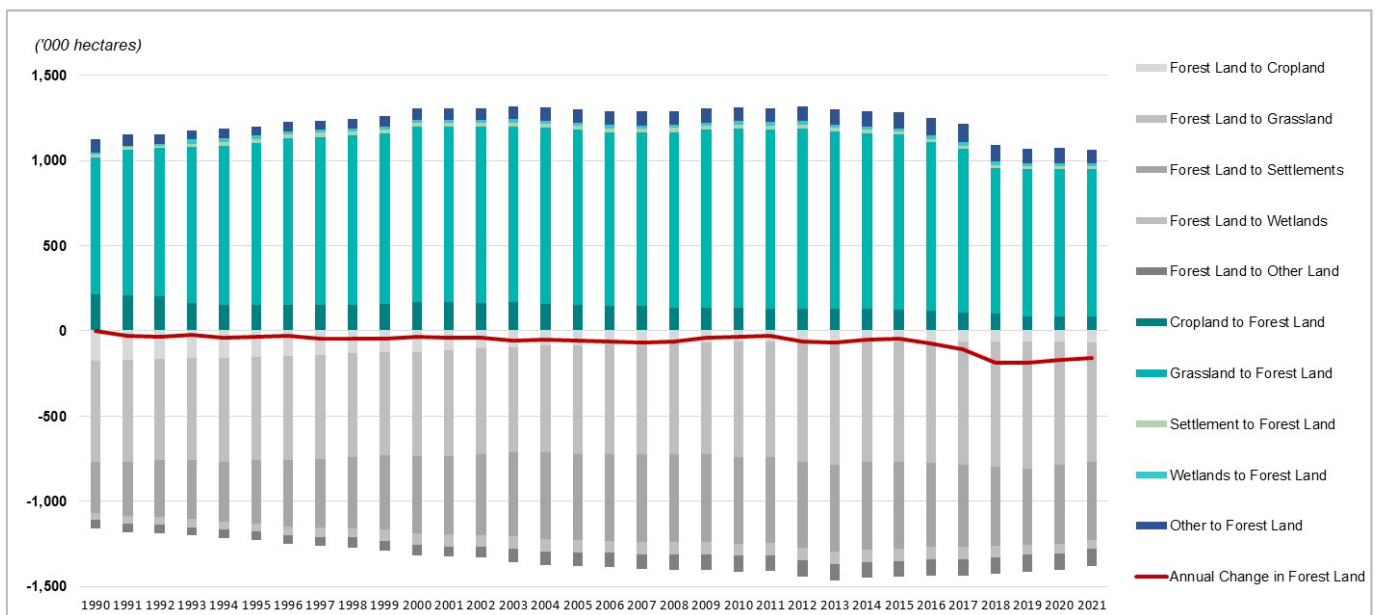
Source: Indufor, EPA (2023). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021.

In comparison, the Global Forest Watch (GFW) indicates total deforestation of ~46.5 million ha between 2001 and 2022 (~2.1 million ha/year), and just 14 million ha of gain – for a net loss of 31.5 million ha over that period.

However, GFW does not consider areas that are reforested or naturally regrown, in their deforestation calculation. This is an important distinction in reported statistics on deforestation – in some cases, the reporting is focussed solely on forest loss or gain (e.g., GFW), whereas other reporting reflects the net change (e.g., EPA LULUCF).

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[77] Oswalt et al. (2019) *Forest Resources of the United States, 2017*. Refer Pg 3, 'Defining a forest'.
[78] EPA (2023) *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021*. U.S. EPA 430-R-23-002. Refer pp. 581.

Finally, a paper published by U.S. Geological Survey (USGS) reports net tree cover loss in the U.S. between 1985 and 2016 to be approximately 4.5 million ha (~144,000 ha/year)[79].

The research conducted for this review of published reports and media reports indicates the U.S. is primarily concerned with deforestation outside its borders, especially in the Amazon, Congo Basin, and in Southeast Asia. For example, the Biden administration signed the Executive Order on *Strengthening the Nation's Forests, Communities, and Local Economies* in 2022[80], and while this instrument commits the U.S. to 'pursue science-based, sustainable forest and land management' and '*restoring and conserving the nation's forests, including mature and old-growth forests*', it is also strongly focussed on '*stopping international deforestation*'. Similarly, the *New York Tropical Deforestation-free Procurement Act 2023*, passed by the New York State this year, requires that companies contracting with the state do not contribute to tropical primary forest degradation or deforestation directly or through their supply chains[81].

Domestically within the U.S., there is little mention of commodity-driven deforestation within the media, published reports, or other sources. The USDA noted that attaining a "low risk" designation under EUDR is a priority, to reduce financial and administrative burden. The cattle industry holds the position that cattle raising does not contribute to deforestation within the U.S.

Brazil

Brazil is a country with a vast territory and a great diversity of forest types. The definition of forest broadly applicable in Brazil is the one reported to the FAO for the purposes of the Global Forest Resources Assessment (FRA):

> 'Forests' means *land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use*.

Therefore, like the primary U.S. definition, the Brazil definition for forest is closely aligned with the definition is set out by the EUDR – which means Australia has the most distinctly different definition in terms of specifying forests as having tree heights of more than 2 metres and canopy cover of more than 20%. Furthermore, Brazil defines forest as excluding land predominantly under agricultural or urban land use, which aligns directly with the EUDR.

A summary of changes in forest land use for Brazil over the period 1990 – 2020 is shown below. This shows that since 2010, net forest loss has reduced from over 4 million ha/year to around 1.5 million ha/year in 2020. This assessment is based on FAO data, which presents average annual forest change over a decade. Additional data sources will be required to assess net forest change in Brazil from 2020 onwards.

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[79] Auch et al. (2022) Conterminous United States Land-Cover Change (1985–2016): New Insights from Annual Time Series.
[80] U.S White House (2022) *Executive Order on Strengthening the Nation's Forests, Communities, and Local Economies, Sec. 3.* Stopping International Deforestation (2022) Refer online: https://www.whitehouse.gov/briefing-room/presidential-actions/2022/04/22/executive-order-on-strengthening-the-nations-forests-communities-and-local-economies/
[81] New York Tropical Deforestation-free Procurement Act (2023) Refer online:
https://www.nysenate.gov/legislation/bills/2023/S4859/amendment/A

Figure 15 Annual afforestation, deforestation and net change for Brazil 1990-2020
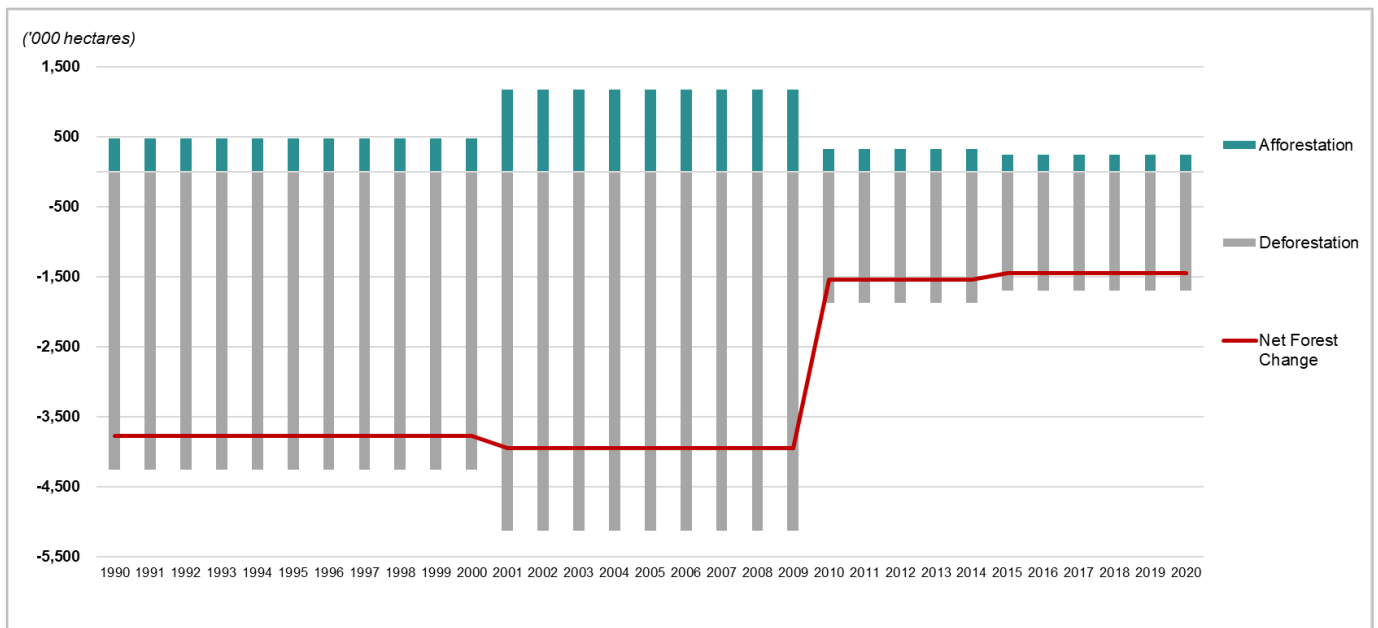
Source: Indufor, Global Forest Resource Assessment FAO (2020)

Key points

◆ Differences between these nationally applied 'forest' definitions and the EUDR are attributable in large part to variations in domestic reporting requirements, and in some cases, biome-specific nuances.

◆ It is important to make the distinction in statistics on deforestation, between reporting focussed solely on forest loss or gain (e.g., GFW), whereas other reporting reflects net land use change (e.g., EPA LULUCF and FAO).

◆ Rates of forest land change or loss in forest land that have been reported in the U.S. as a proportion of baseline forest area extents are comparable with national reported rates of forest clearing in Australia.

◆ Australia would appear to have some quantitative and qualitative parameter differences as distinct from the EUDR, Brazil and the U.S., including:

   o Differing thresholds for minimum height, minimum area, and minimum crown cover percentage; and

   o More limited inclusion or exclusion of specific non-forest land uses.

Appendix 4 Comparison of selected EUDR and Australian definitions

A summary of selected definitions from the EUDR with Australian definitions in the National Forest Inventory and Australia's State of the Forests Report is set out below (Table 4).

Table 4 Comparison of selected EUDR definitions with Australian definitions for the same terms

Term	EUDR	Australia's National Forest Inventory
Forest	land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use. Note: *'agricultural use'* is defined to mean the use of land for the purpose of agriculture, including for agricultural plantations and set- aside agricultural areas, and for rearing livestock.	"An area, incorporating all living and non-living components, that is dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 metres and with existing or potential crown cover of overstorey strata about equal to or greater than 20 per cent. (This includes Australia's diverse native forests and plantations, regardless of age. It is also sufficiently broad to encompass areas of trees that are sometimes described as woodlands.)[82] "A vegetation type dominated by woody vegetation having a mature or potential mature stand height exceeding 5 meters, with an overstorey canopy cover greater than 20%.[83]
Deforestation	the conversion of forest to agricultural use, whether human-induced or not.	"Deforestation is the permanent removal of forest. The forest is cleared, and the land is then used for another purpose, such as agriculture or urban development.[84]
Forest degradation	means structural changes to forest cover, taking the form of the conversion of: (a) primary forests or naturally regenerating forests into plantation forests or into other wooded land; or (b) primary forests into planted forests;	"1. Loss of specific aspects of a forest ecosystem, such as tree cover, structural features or species, or of habitat characteristics that support the requirements of species or communities, short of being defined as deforestation. 2. Reduction in the capacity of a forest to provide a range of goods and services, including ecosystem services. 3. Any process that lowers the value of the wood in timber and other wood products.[85]
Primary forest	naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities, and the ecological processes are not significantly disturbed.	"Naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities and where ecological processes are not significantly disturbed. Can describe native forest at any of the four growth stages recognised in Australia: Regeneration, Regrowth, Mature and Senescent.[86]

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[82] ABARES (2023) *Australia's forests*. Online: https://www.agriculture.gov.au/abares/forestsaustralia/australias-forests#forest-area

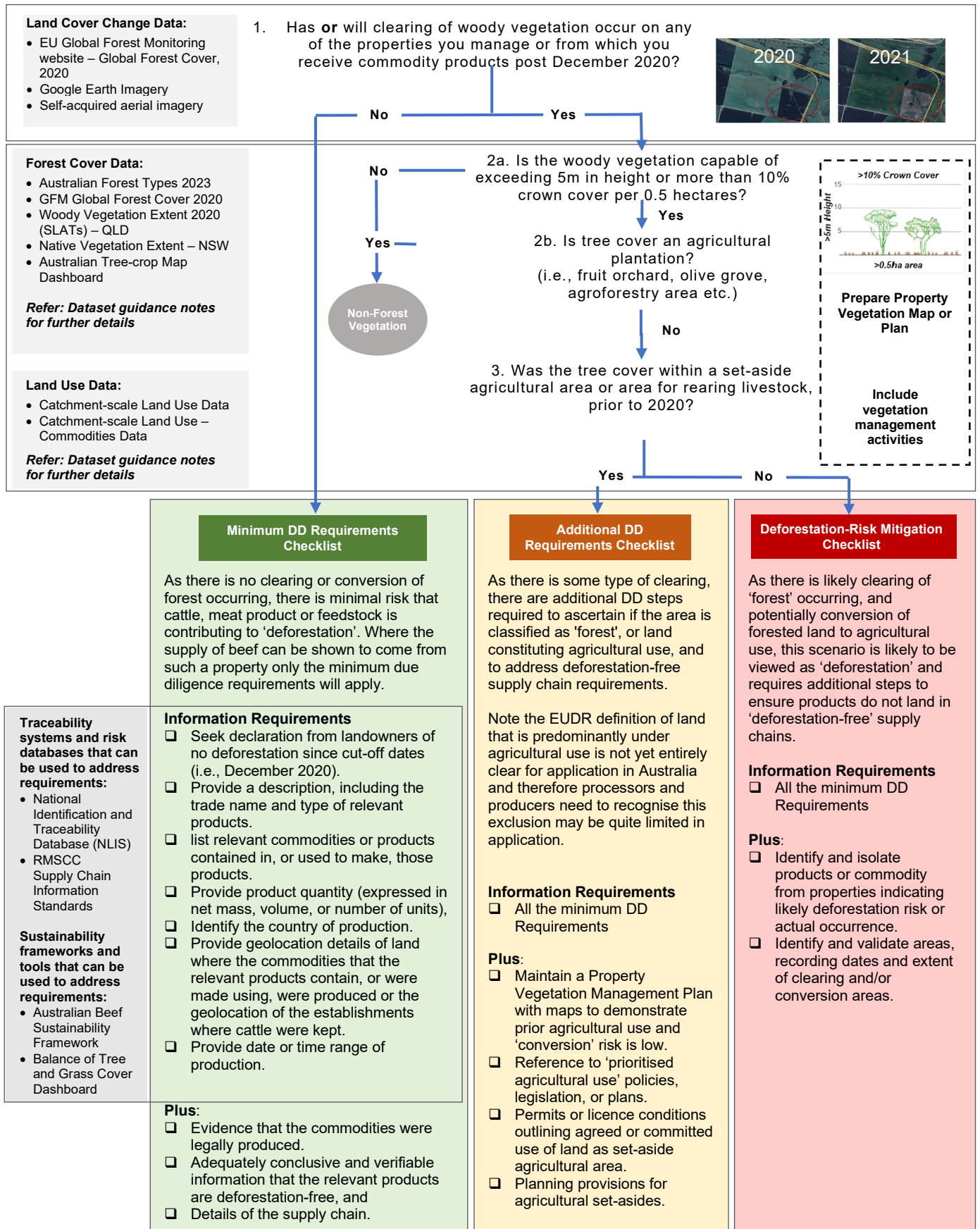[83] ABARES (2023) *Australia's forests and forestry glossary*. Online: https://www.agriculture.gov.au/agriculture-land/forestry/policies/rfa/glossary

[84] *Ibid*.

[85] *Ibid*.

[86] *Ibid*.

Appendix 5 Due diligence decision support tool for Australian processors

Key Datasets | **Due-Diligence Decision Flow Chart**

Land Cover Change Data:
- EU Global Forest Monitoring website – Global Forest Cover, 2020
- Google Earth Imagery
- Self-acquired aerial imagery

1. Has **or** will clearing of woody vegetation occur on any of the properties you manage or from which you receive commodity products post December 2020?

No — **Yes**

2020   2021

Forest Cover Data:
- Australian Forest Types 2023
- GFM Global Forest Cover 2020
- Woody Vegetation Extent 2020 (SLATs) – QLD
- Native Vegetation Extent – NSW
- Australian Tree-crop Map Dashboard

Refer: Dataset guidance notes for further details

No

2a. Is the woody vegetation capable of exceeding 5m in height or more than 10% crown cover per 0.5 hectares?

Yes

Yes

2b. Is tree cover an agricultural plantation? (i.e., fruit orchard, olive grove, agroforestry area etc.)

Non-Forest Vegetation

No

3. Was the tree cover within a set-aside agricultural area or area for rearing livestock, prior to 2020?

>10% Crown Cover

>5m Height

>0.5ha area

Prepare Property Vegetation Map or Plan

Include vegetation management activities

Land Use Data:
- Catchment-scale Land Use Data
- Catchment-scale Land Use – Commodities Data

Refer: Dataset guidance notes for further details

Yes — **No**

Minimum DD Requirements Checklist	**Additional DD Requirements Checklist**	**Deforestation-Risk Mitigation Checklist**
As there is no clearing or conversion of forest occurring, there is minimal risk that cattle, meat product or feedstock is contributing to 'deforestation'. Where the supply of beef can be shown to come from such a property only the minimum due diligence requirements will apply.	As there is some type of clearing, there are additional DD steps required to ascertain if the area is classified as 'forest', or land constituting agricultural use, and to address deforestation-free supply chain requirements.	As there is likely clearing of 'forest' occurring, and potentially conversion of forested land to agricultural use, this scenario is likely to be viewed as 'deforestation' and requires additional steps to ensure products do not land in 'deforestation-free' supply chains.

Traceability systems and risk databases that can be used to address requirements:
- National Identification and Traceability Database (NLIS)
- RMSCC Supply Chain Information Standards

Sustainability frameworks and tools that can be used to address requirements:
- Australian Beef Sustainability Framework
- Balance of Tree and Grass Cover Dashboard

Information Requirements
- ☐ Seek declaration from landowners of no deforestation since cut-off dates (i.e., December 2020).
- ☐ Provide a description, including the trade name and type of relevant products.
- ☐ list relevant commodities or products contained in, or used to make, those products.
- ☐ Provide product quantity (expressed in net mass, volume, or number of units),
- ☐ Identify the country of production.
- ☐ Provide geolocation details of land where the commodities that the relevant products contain, or were made using, were produced or the geolocation of the establishments where cattle were kept.
- ☐ Provide date or time range of production.

Plus:
- ☐ Evidence that the commodities were legally produced.
- ☐ Adequately conclusive and verifiable information that the relevant products are deforestation-free, and
- ☐ Details of the supply chain.

Note the EUDR definition of land that is predominantly under agricultural use is not yet entirely clear for application in Australia and therefore processors and producers need to recognise this exclusion may be quite limited in application.

Information Requirements
- ☐ All the minimum DD Requirements

Plus:
- ☐ Maintain a Property Vegetation Management Plan with maps to demonstrate prior agricultural use and 'conversion' risk is low.
- ☐ Reference to 'prioritised agricultural use' policies, legislation, or plans.
- ☐ Permits or licence conditions outlining agreed or committed use of land as set-aside agricultural area.
- ☐ Planning provisions for agricultural set-asides.

Information Requirements
- ☐ All the minimum DD Requirements

Plus:
- ☐ Identify and isolate products or commodity from properties indicating likely deforestation risk or actual occurrence.
- ☐ Identify and validate areas, recording dates and extent of clearing and/or conversion areas.

Appendix 6 Guidance notes for due diligence decision support tool and checklists

These notes accompany the Due Diligence Decision Support Flow Chart. For all your suppliers, completing step 1 is a minimum requirement for each property supplying beef commodities to Europe and potentially other markets. Where necessary, additional steps 2-3 may be required to further justify deforestation-free claims or mitigate against deforestation impacted supply chain risks.

Requirement	Relevant Definition(s)	Useful Data Source(s)	Data Notes	Guidance
1. Verify Land Cover Status (December 2020) or Land Cover Change Visual check / confirmation of vegetation extent or changes in land cover (potential vegetation clearing activity).	**'deforestation'** means the conversion of forest to agricultural use, whether human-induced or not.	EU Global Forest Monitoring website (Forest Cover 2020)[i]	Global Forest Monitoring has prepared a forest cover extent layer as of December 2020. It should be used as a general indicator of likely presence and extent of forest cover on land as of December 2020.	Each landowner to: • Prepare map of property extent with cattle/feedstock holdings and • Obtain imagery of property on 1 Jan 2020 with 10 metre spatial resolution (or better) to identify extent and/or changes in any vegetation cover. • Annually, source or obtain aerial imagery of property to verify any changes in vegetation extent of >0.5 ha. • Annually, prepare assessment and declaration for customers confirming whether any clearing has been conducted (no or yes)
		Google Earth Pro Imagery[ii] *Other Datasets*: Statewide Land and Trees Study (SLATs) woody vegetation change data produced by QLD[iii] and NSW[iv] governments.	Publicly available aerial and satellite imagery can also be used to observe, monitor, and map land cover extent at a point in time or changes in land cover over time. These databases may provide useful tools to demonstrate (as evidence) that no clearing of native woody vegetation has taken place since December 2020.	*If no clearing activity*: • Landowner to provide annual declaration accompanying consignments, that no vegetation clearing (therefore no deforestation) has occurred since December 2020. • Maintain an annual record of land (vegetation) cover year-to-year. • Meat Processor (and/or Exporter) to complete **Minimum Due Diligence Requirements Checklist**. *If clearing activity has occurred*: • Proceed to step 2a & 2b.

Requirement	Relevant Definition(s)	Useful Data Source(s)	Data Notes	Guidance
2(a) Identify and delineate 'forest' from 'non-forest' vegetation types.	'**forest**' means land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 %, or trees able to reach those thresholds in situ, <u>excluding land</u> that is predominantly under agricultural or urban land use.	**Australian Forest Types 2023** - Raster Layer *(aus_for23.tiff)* [v]	Note Australia's national dataset for 'forest' cover on terrestrial land recognises tree heights down to 2m, however, is limited to crown cover exceeding 20%, which may over-represent on height and under-represent on crown cover compared to the EUDR definition. Reductions in this category (type of forest) cover may indicate, particularly conversion (or reversion) to agricultural land use, which could constitute 'deforestation' under the EUDR. **Frequency of Update**: Every 5 years. **Note**: The 'Catchment scale Land Use of Australia (CLUM) dataset (2020), is used by ABARES to identify and mask out land uses that are inappropriate to map as forest (i.e., agricultural plantations).	Prepare or update Property Vegetation Map and Plan, including: • A map delineating area and extent of forest, as distinct from 'non-forest' areas. • Highlight any disputed areas between national forest coverage and Global Forest Cover datasets. • Proceed to Step 3.
		Woody Vegetation Extent - QLD: (woody) [vi] - NSW: (Native Vegetation Extent) [vii]	Limited to QLD and NSW, the Woody Vegetation 2020 datasets prepared to 5m pixel resolution provide a 2020 extent of native and non-native vegetation classes conforming to 10% crown cover or projected foliage cover, however, don't include consideration of vegetation 'height'. **Frequency of Update**: Annual	

Requirement	Relevant Definition(s)	Useful Data Source(s)	Data Notes	Guidance
2(b) Identify and delineate agricultural plantations from forest / vegetation extent.	Note 'agricultural plantations' are excluded the from 'forest' definition and extent.	See for #2a above and/or Australia's Tree-Crop Map Dashboard.[viii]	Australia's definition of forests excludes agricultural plantations i.e., fruit orchards, olive groves, however it does include forestry plantations. Australia's Forest Types 2023 – raster layer, and the SLATS databases in Queensland and NSW, exclude agricultural plantations of this nature.	Each landowner to: • Identify any areas of agricultural plantations from areas that could be classified as 'forest' per the EUDR definition. • Note any other exceptions to GFM Forest Cover 2020 extent or Australian Forest Type 2023 dataset (i.e. non-forest areas mapped as 'forest'). • Identify whether there has been any change/reduction in the 'forest' extent since December 2020. *If no change in 'forest' since December 2020*: • Provide annual declaration for processor client, and accompanying consignments, that no deforestation has occurred since December 2020 • Maintain an annual record of forest cover and any change year-to-year. • Processor to complete Minimum DD Requirements Checklist. *If clearing of forest has occurred*: • Proceed to step 3.

Requirement	Relevant Definition(s)	Useful Data Source(s)	Data Notes	Guidance

3 Identify and delineate land that may be a set-aside agricultural area or area for rearing livestock as of December 2020.
 	
Note: While Agricultural plantations are well defined in the EUDR, and agroforestry systems should not be considered forests, the terms 'set-aside agricultural areas' or 'areas for rearing livestock' are not clearly defined.
	'agricultural use' means the use of land for the purpose of agriculture, including for agricultural plantations and set-aside agricultural areas, and for rearing livestock.
	
	'agricultural plantations' means land with tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems where crops are grown under tree cover; it includes all plantations of relevant commodities other than wood; agricultural plantations are excluded from the definition of 'forest'.
	
	'land use' means the purpose to which the land cover is committed. [l]
		Catchment Scale Land Use of Australia - Raster Layer *(clum_50m1220m. tiff)[ix]*
		
		Catchment Scale Land Use of Australia – Commodities *(CLUM_Commodities_2020)[x]*
			Australia's Catchment-scale Land Use dataset for committed land use provides 50m x 50m pixel resolution and allocation of land parcels to land use categories.
			
			This dataset, updated in December 2020 provides a point in time view of committed land use, including designations of land for a range of agricultural use categories. Key categories for identification include:
			- Grazing (Native vegetation and modified pastures)
			- Cropping (Dryland and Irrigated)
			- Pasture (Dryland and Irrigated)
			- Horticulture
			- Intensive production
			- Production forestry
			
			Related to the definition of 'forests', land that is 'predominantly under agricultural use' is excluded from the EUDR's consideration of 'forest' (noting that terms like 'agricultural set asides' and 'areas for rearing livestock' are ill-defined).
			
			The commodities data complements the Catchment Scale Land Use of Australia – Update December 2020 dataset, providing for select predominantly agricultural commodities, where available, their location and extent, at the date verified.
			
			Frequency of Update: Usually annual.
				Each landowner to:
				- Identify areas predominantly under agricultural use as of December 2020, and compile evidence of this, which may include:
				  ○ Current licences, permits or other documentation from government agencies designating the specific areas as predominantly allocated to agriculture, with permissions for clearing of post-grazing regeneration to support ongoing agriculture.
				  ○ Timeseries maps continuous agricultural use across these specific areas, and vegetation identified as 'forest' in 2020 was regrowth less than 10 years old, which has regenerated following grazing activity over a period of 20+ years (two agricultural grazing cycles)
				  ○ Reconciliation of these areas with the EU Global Forest Monitoring mapping of forests, to clearly identify discrepancies.
				- Clearly delineate between areas of forest (undisputed) and areas that may be considered predominantly under agricultural use.
				
				If tree cover occurs on agricultural set-asides or area of rearing livestock:
				- **Proceed** to **Additional DD Requirements Checklist**.
				
				If tree cover is outside areas constituting agricultural use:
				- Proceed to **Deforestation-Risk Mitigation Checklist**.

End notes on guidance notes for due diligence decision support tool and checklists:

[i] *https://forest-observatory.ec.europa.eu/*

[ii] *https://www.google.com.au/earth/*

[iii] QLD *https://www.qld.gov.au/environment/land/management/mapping/statewide-monitoring/slats/slats-data*

[iv] NSW *https://datasets.seed.nsw.gov.au/dataset/woody-change-data-slats-2015-clone-c276-clone-a495*

[v] ABARES (2023) *https://data.gov.au/data/dataset/forests-of-australia-2023*

[vi] QLD DES (2020) *https://qldspatial.information.qld.gov.au/catalogue/custom/detail.page?fid={6334BD69-51E4-4CCF-AB44-E5B2309BD9F5}*

[vii] NSW (2017) *https://datasets.seed.nsw.gov.au/dataset/nsw-native-vegetation-extent-5m-raster-v1-0*

[viii] *https://www.arcgis.com/apps/dashboards/f6dd44763f0b476e8a1c2f0504fc8779*

[ix] ABARES (2021) *https://www.agriculture.gov.au/abares/aclump/catchment-scale-land-use-of-australia-update-december-2020*

[x] ABARES (2020) *https://www.agriculture.gov.au/abares/aclump/land-use/catchment-scale-land-use-of-australia-commodities-update-december-2020*

[xi] ABARES (2016) *https://www.agriculture.gov.au/sites/default/files/abares/aclump/documents/Land%20use%20in%20Australia%20at%20a%20glance%202016.pdf*

Appendix 7 Industry communications on deforestation free supply chains

Australia's meat processors contend that Australia's red meat products should be considered low risk in terms of contributing to global deforestation beyond 2020. The following arguments support this industry positioning. These arguments are based on sound evidence and are detailed in the Indufor research report on '*Defining Deforestation Free Supply Chains for Red Meat Products*' (February 2024).

The key arguments comprise:

1. *Australia has in place a strong regulatory framework for sustainable forest management and vegetation management, with support and cooperation across federal and state governments.*

   Key features of Australia's regulatory framework for forest management include:

   o A National Reserve System, established and managed in accordance with the Convention for Biological Diversity, which comprises a 'comprehensive, adequate, and representative' (CAR) reserve system of protected areas for forests and other ecosystems. The NRS and management arrangements are underpinned by *Australia's National Forest Policy Statement 1992* and Australia's *National Strategy for the Conservation of Australia's Biological Diversity*.

   o In 2018, a total of 46 million ha, or 35%, of Australia's native forest was on land protected for biodiversity conservation, or where biodiversity conservation is a specified management intent.[87] These protected areas provide refuge for species facing various threats, including habitat loss, invasive species and climate change.

   o Regional Forest Agreements (RFAs) covering specific areas of Australia where significant native forest resources are present. The RFAs are agreements between the Australian government and the state governments that are intended to provide a comprehensive framework for the conservation and sustainable management of native forests, considering ecological, economic, and social aspects.

   o Alignment with the *Montreal Process Criteria & Indicators for sustainable forest management*. The Montreal Process is an international initiative that provides a set of criteria and indicators used to monitor and evaluate the social, economic, and environmental aspects of forest management. Australia was one of 12 founding members of the Montreal Process, and the alignment between Australia's RFAs and the Montreal Process reflects the country's commitment to meeting international standards for sustainable forest management.

   o Forest management in State forests is conducted in strict accordance with State-based Codes of Practice, which are regulatory instruments that all comprise principles and practices for biodiversity conservation and environmental care, with internal and external audit processes.

2. *Where land clearing occurs, it is predominantly clearing of secondary regrowth, not primary forest conversion.*

   o Significantly for this research, more than 58 million ha of Australia's 132 million ha of native forests (approximately 44%) are situated on land predominantly under agricultural use. Much of this land is leasehold land and is privately managed under long-term pastoral leases that grant the lessee rights of custody of the land. These leases impart a level of responsibility for the management of the land.

   o In this context, Australia's agricultural grazing systems include rangeland grazing across extensive pastoral areas and other rangelands that feature large tracts of relatively sparse, scrubby vegetation, which can grow to meet the varying definitions of 'forest'. In these rangeland grazing systems, the clearing of vegetation regrowth is a practice that has been employed for many years and tailored to the landscapes and vegetation.

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[87] ABARES 2018, *Australia's State of the Forests Report 2018.*, pg. 5.

- o Over recent decades, there have been shifts in land use policies and regulations in Australia, with increased recognition of the environmental importance of conserving and managing native vegetation. Across the states, there is now a range of regulations and restrictions on vegetation clearing to protect biodiversity, prevent soil erosion, and maintain ecosystem health.

- o These regulations mean the extent of clearing of vegetation for agricultural purposes is now largely clearing of regrowth on land that has previously been cleared or is designated as grazing lands or for other agricultural land use.

- o In these ways, Australia's agricultural settings and farming practices differ from those observed in other countries, especially in countries that feature more intensive grazing or cropping systems with minimal interaction with woody vegetation that may constitute 'forest' by the relevant definition.

3. ***Land clearing for agriculture is relatively limited in scale, and rates of clearing are continuing to decrease, with significant reductions over the past decade and since 2020.***

- o Both national and state level reporting shows vegetation clearing in Australia has trended downwards over the past decade. According to National Greenhouse Gas Inventory accounts, since 2011/12, the total area of primary forest conversion nationally has reduced from 62,000 ha to around 22,000 ha (a 65% decrease), and the total area of re-clearing nationally has reduced from around 335,000 ha to 155,000 ha (a 54% decrease). These areas represent less than 0.02% and 0.1%, respectively, of Australia's total native forest estate.

- o Over the past 20 years, Queensland and NSW have been the largest contributors to forest cover change, with primary drivers relating to agricultural land use. Rates of land clearing are continuing to decrease in these states. The total area of clearing activity reported in Queensland for 2020-21 (349,000 ha) was a 17% decrease in clearing activity from 2019-20 and a 49% decrease from 2018-19. In NSW, the total area of full clearing of woody vegetation across the state (27,000 ha) in 2020-21 was 38% less than in 2017-18.

- o As outlined above, this clearing activity is occurring largely on land has previously been cleared or is designated for agricultural land use - e.g. in Queensland, on lands that are exempt from requirements under the Vegetation Management Framework, and therefore may not be considered 'forest' for the purpose of validating deforestation-free supply chains. Nonetheless, land clearing rates have been declining to progressively smaller proportions of the total estate.

4. ***Total forest cover in Australia has increased over the past decade and currently has an upward trajectory.***

- o Conversely, through cycles of forest regrowth across vast areas of rangelands and other landscapes, as well as ongoing plantation development and reforestation programs, Australia's total forest cover has grown over the past decade and was trending upwards in 2020-21.

- o Australia's most recent *State of the Forests Report* (prepared every five years) observed Australia's forest area has increased progressively since 2008 and the net increase in forest area between 2011 to 2016 was 3.9 million ha; an increase of 3% on the base year (Figure 16).

- o While noting that not all definitions of deforestation take account of forest gain and *net* change, Australia can demonstrate this net positive position, which contrasts with some of other largest beef exporting countries including, for example, the U.S. and Brazil.

Figure 16 Australia's net forest change over time, 2000-01 to 2020-21
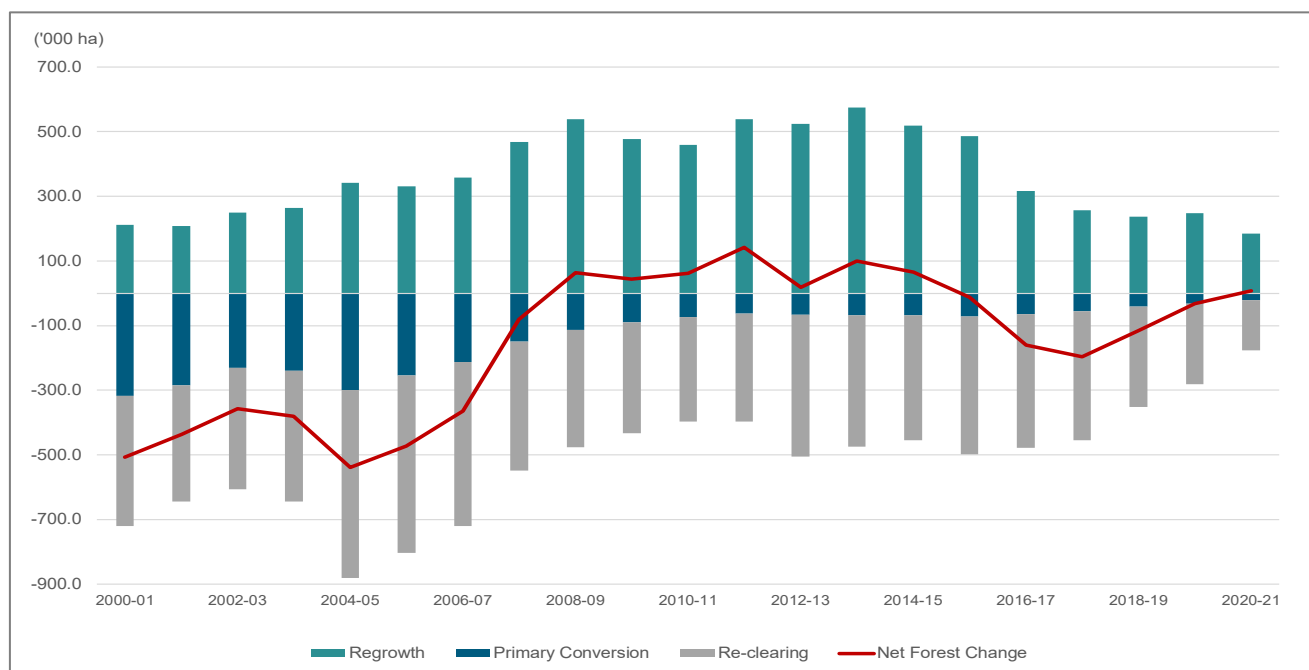
Source: Australian Greenhouse Emissions Information System (DCCEEW)

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5. Australia's red meat industry has established multi-stakeholder forums and sustainability frameworks to focus on environmental leadership on land management practices.

o   Over the past decade, Australia's red meat industry has actively engaged in both national and international initiatives that are striving to demonstrate and environmental stewardship and 'nature positive' production by addressing a range of sustainability challenges that broadly encompass the impacts of deforestation and primary conversion of forests around the world.

o   Through the Australian Beef Sustainability Framework (ABSF), and its membership of the Global Roundtable for Sustainable Beef (GRSB), the Australian beef industry for example is engaged with a broad range of stakeholders that include processors, producers, retailers, allied services and industries, civil society representatives (including for example, WWF and The Nature Conservancy) and consulting members (such as regulatory authorities, governmental agencies, consulting and auditing firms and donor organizations). Through this engagement, the industry has established platforms focussed specifically on reporting trends in vegetation management and progress towards achieving a range of sustainability goals and targets, such as the ABSF *Balance of Tree and Grass Cover Dashboard*.

o   Other examples include Meat & Livestock Australia's Sustainability Impact Report series, which reports on industry impacts for an agreed set of metrics and targets (e.g. the Climate Neutral by 2030 'CN30' target), and highlights changes and improvements in systems and practices over time.

o   Through these types of national and international initiatives, notably transparent reporting on metrics, together with further work on targets relating to minimising clearing activity to support sustainable forest management and sustainable agricultural management practices, there is scope to continue work on engaging with customer constituents and other stakeholders to discuss the alignment of definitions and datasets as well as practical and effective measures to continue applying and improving sustainable land management practices that are designed for Australian settings. This ongoing work can include further development and refinement of dashboard systems and data, for use by individual enterprises while working towards demonstrating its sustainability credentials to its customer base and the wider community.

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