Forestry and Timber

Employs around
63,000 people[47]

Industry value added:
$6.36 billion[48]

Revenue of 23.112 billion[49]

Australia's forest, timber and wood related industries are responsible for producing the raw materials for a range of paper and timber products that are essential to daily life, including office supplies, health products and construction materials for buildings, furniture and other structures. Australian forests are a valuable renewable resource, managed by a skilled workforce. While the forest management and harvesting industry is at the forefront of maintaining forests sustainability, this work is supported across the supply chain by the innovations of those who process, design, manufacture and sell wood and timber products.

The national skills standards and qualifications for Australia's forestry and timber industry are overseen by the Forest Management and Harvesting Industry Reference Committee (IRC), Timber and Wood Processing IRC and Timber Building Solutions IRC.

47 IBISWorld Industry Wizard (2022)
48 IBISWorld Industry Wizard (2022)
49 IBISWorld Industry Wizard (2022)

Industry Skills Report

This year, Skills Impact prepared a Forest and Timber Products Industry Skills Report, at the request of the Industry Reference Committee (IRC), to provide in-depth information about industry-specific issues impacting skills and training.

Australia's forest and wood products industries play a major role in mitigating climate change, growing regional communities and stimulating economic activity. The importance of maintaining the skills of the forest and timber products industries has been reinforced in recent years, as industry has navigated challenges including COVID-19, bushfires, climate change and policy changes. Across the supply chain the forest and timber products workforce has contributed to tackling these issues, which have had broad impacts across many industries.

The forest and timber products industry is particularly susceptible to the impacts of climate change compared to other industries. However, it also has a key role to play in addressing it. Forestry is one of the most efficient and effective methods of carbon sequestration. Plantation expansion would help Australia meet its future wood needs, increase carbon stores in the built environment, and contribute to the circular economy through the sustainable, renewable and recyclable potential of timber products.

Attracting people to the industry has been identified by all 11 Regional Forestry Hubs as an industry priority. Many industry stakeholders have undertaken promotional activities in schools and each forestry region either plans to or has undertaken tours and taster programs for young people. Industry is undergoing an image change to highlight evolving job roles, with a focus on the many technical roles available and a reframing of perceptions of an environment dominated by manual labour.

Employers report that they are happy with the quality of the FWP Training Package, but still need access to RTOs who can deliver the training in a flexible manner while meeting specific workplace needs. Partnerships between RTOs and businesses utilising a workplace-based trainer and assessor model is seen as a solution to improving the disconnect between businesses and the VET system.

The three Industry Reference Committees (IRCs) have identified priorities which they recommend for future consideration, including:
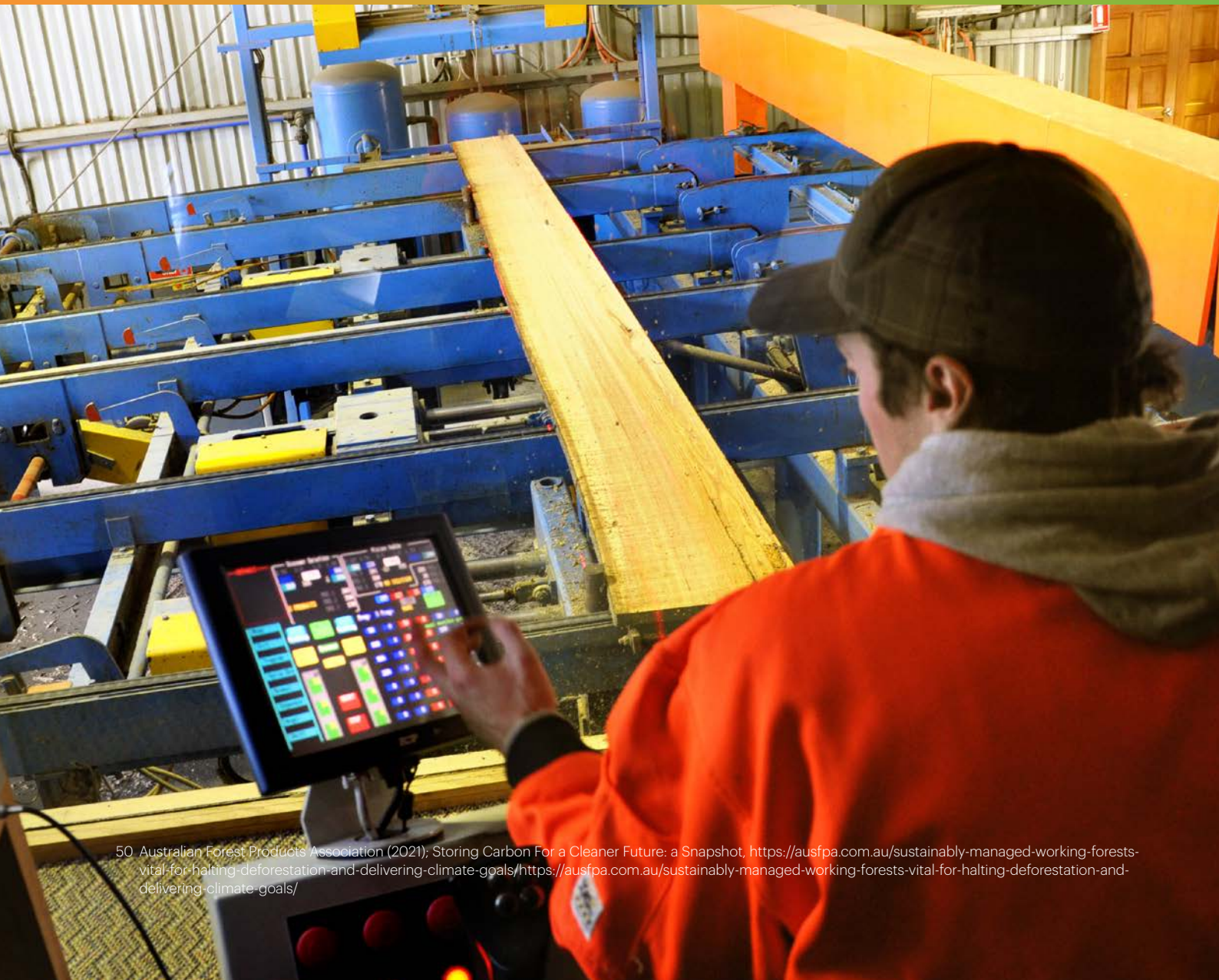
- development of action plans to implement industry identified solutions to address low enrolments and thin markets

- development of industry shared resources to support delivery of accredited training

- identifying digital skills needs using the Digital Workforce Capability and VET framework currently in development (along with other digital capability frameworks). This will need to include development of specific digital skills related to:

  – development of digital forest operational maps

  – development of cutting instructions files for forestry harvesters

  – management and analysis of harvesting optimisation data and

  – collection of forestry data using uncrewed aerial vehicle (UAV).

The Food and Agriculture Organisation (FAO) of the United Nations released a State of the World's Forests Report in May 2022 which reinforces that sustainable forestry is essential to help curb the global climate crisis and help avert major biodiversity loss.[50]

The Australian Forest Products Association (AFPA) note that:

- 'Trees capture the most carbon when they are in their early to mid-growth phase, which is why the continuous harvest-and-replant cycle of Australia's forestry operations deliver such good carbon sequestration.'

- 'The average timber framed house stores as much carbon as is emitted by a car driving two-thirds the way around the world.'

- 'Wood products in use in Australia store enough carbon to offset the emissions generated by all the cars on our roads for one year.'

50 Australian Forest Products Association (2021); Storing Carbon For a Cleaner Future: a Snapshot, https://ausfpa.com.au/sustainably-managed-working-forests-vital-for-halting-deforestation-and-delivering-climate-goals/https://ausfpa.com.au/sustainably-managed-working-forests-vital-for-halting-deforestation-and-delivering-climate-goals/

Projects

Project work between 2021-22

Outlined over the following pages is a summary of projects managed by Skills Impact, with support from ForestWorks, between July 2021 and June 2022.

The Forest Management and Harvesting IRC oversaw the project development, as part of their responsibility to support engagement with their industry and to ensure the projects meet stakeholder needs.

The skills standards and qualifications updated as part of the following projects are expected to be endorsed by the AISC and State and Territory Ministers later in 2022.

Responding and Assisting in Bushfires Project

The bushfires of 2019-2020 brought to light the important contributions forestry operators, arborists and other service providers make in clearing and clean-up following bushfires. This is a high-risk activity, requiring strong communication skills and the ability to make assessments about potential hazards.

Consultation has taken place throughout this project to develop units that will support safer and more efficient post-bushfire vegetation clearing and clean-up operations. They describe how to use communication protocols and structures while conducting tasks in a bushfire zone and how to perform tree hazard assessment according to national standards.

Industry was also consulted on the revision of four units for chainsaw operations so that they are accessible for use by non-forestry industries, including agriculture, conservation and ecosystem management, local government and emergency services.

Key Outcomes

- One unit was developed to addresses the skills required to use communication protocols and structures in a bushfire zone while conducting tasks such as vegetation clearing and clean-up operations on private and public land, including main roads.

- Two units were developed to address the skills required to perform tree hazard assessment in a bushfire zone. One is designed for personnel authorised to perform tree hazard assessments during the early stages of bushfire recovery to take timely actions to prevent injuries. This unit will be hosted within the Certificate IV in Forest Operations. The other unit is intended for professional arborists who conduct complex assessments of fire-affected or fire-damaged trees as part of the later stages of bushfire recovery. This unit will be consulted on for potential inclusion in the Diploma and Advanced Diploma of Arboriculture as part of a future project.

- Four units on felling and cutting trees with a chainsaw were updated so that they can be delivered and assessed by non-forestry sectors without changing the learning outcomes.

Sawmilling and Timber Processing Project

Rapid digital transformation and technical progress are shaping the skills needs of the sawmilling and timber processing sectors. Workplaces are integrating state-of-the-art equipment to increase productivity and produce innovative products, including cross laminated timber (CLT) and glue laminated timber (GLT). This has required operators, line technicians, and production supervisors to develop updated expertise.

Thanks to the contributions of everyone involved in this project, qualifications, skill sets and units for timber and wood production have been redeveloped into a more flexible structure and updated to reflect the practical skills required. These updated qualifications and units will provide learners with the opportunity to select subjects that best suit their needs and provide skills that are transferable to a wide range of jobs or occupations. They also reflect the unique requirements for skills development and professional growth at different occupational levels.

Key Outcomes

- The Certificates at level II and III were consolidated so that there is one qualification available at each level.
- The Certificates II, III and IV were re-named to be certificates in 'Timber and Wood Products Operations' and broadened in their application to support jobs and skills across all operational areas.
- Four specialisations were created for the Certificate III in timber production, glue laminated timber or cross laminated timber production, plywood or laminated veneer lumber production, and reconstituted wood panel production.
- Fifty existing units were updated, with 21 being consolidated into 8, to remove duplication and reflect the current work tasks requirements.
- Eight new units were developed to address skills gaps, including in chain of custody certification principles, mechanical equipment maintenance, engineered wood products and communicating effectively with members of the public or external stakeholders concerned about forest practices.
- Eight skill sets were developed to further enhance flexibility and serve as entry pathways into critical jobs, such as saw technicians and wood machinists, and programs to train future leaders.

Completed Projects (started in the previous year)

The following projects were endorsed by the Australian Industry and Skills Committee (AISC). The revised qualifications, skill sets and units of competency that were developed as part of these projects, are published on training.gov.au and available for delivery by registered training organisations (RTOs).

Visit www.skillsimpact.com.au/completed-projects for further details.

Entry Level Forestry Skills Project

The forestry industry requires access to skilled workers in regional and rural locations to deliver on planting commitments and address the future skills needs of industry. Industry representatives volunteered their time throughout this project to update the national entry level qualifications to better meet current skills needs and attract new young entrants. They were updated as part of this project so that they are easier to deliver, better support the career journey of learners and reflect the hands-on skills required.

High-Level Forestry Skills Project

With new digital and spatial technologies being adopted by industry, the high-level planning, supervision and management skills required to grow and maintain sustainable forests have been changing. Thanks to the contributions of everyone involved in this project, the qualifications and skills standards that support these skills have been updated to better support career pathways and reflect the current expertise required to grow and harvest forests safely and sustainably. The qualification structure was revised as part of this project, so that they are more flexible, enabling participants to select subjects which best suit their needs.

Remote Forestry Operations Project

Specific skills are required to support the physical and mental wellbeing of forest workers who operate in remote locations. Driven by industry, this project was undertaken to capture the safety skills required to promote individual and team safety in remote and isolated conditions. One unit was developed for operational forestry roles to support skills in situational awareness and a safety mindset, and another was designed for those leading small work teams in remote forestry operations to support skills to influence safety culture.