



THE INSTITUTE OF FORESTERS OF AUSTRALIA &
AUSTRALIAN FOREST GROWERS

**Discussion Paper – National Agricultural Workforce Strategy Submission
3 August 2020**

The Institute of Foresters of Australia & Australian Forest Growers (IFA/AFG) is pleased to make this submission regarding the Government's National Agricultural Workforce Strategy Discussion Paper.

The IFA/AFG is aware of submissions made by organisations such as Tasmanian Forests & Forest Products Network and Australian Forest Products Association and we endorse their submissions.

About the IFA/AFG

The IFA/AFG is the professional body representing approximately 1000 members who are forest scientists, professionals, managers and growers operating in all aspects of forest and natural resource management, including forest conservation, agroforestry, timber production, research, policy and education throughout Australia.

Forestry professionals, informed by the science of natural resource management, play a crucial role in shaping the future of forests, including plantation forests and farm forestry projects. We advocate balanced land use that meets society's needs for sustainable forest management, timber supply, and conservation outcomes.

Introduction

For the forestry sector to prosper and contribute to the agricultural sectors' achievable aim of becoming a \$100 billion sector by 2030, we need the right people with the right education and skill set for the job. Highly qualified and skilled foresters are essential to the sectors' ongoing viability and the prosperity of communities who rely on it. Like Australia's agricultural industry, the forestry sector is experiencing ongoing labour challenges and skill shortages, which threaten the future of forest management and ultimately the health and productivity of our forests.

The forestry sector is a high-tech and sophisticated sector. Along with their science qualifications, foresters require training and knowledge in the use of technology including GIS and remote-sensing, LiDAR, drones, sonic wood quality assessment tools, economic and operational planning and forecasting IT packages and other technologies. Advancement in technologies will have a significant positive impact on forestry over the next decade with exciting applications in areas such as forest fire management, agroforestry, planning, research and conservation.

**Australia desperately needs the skills and knowledge of foresters and
the forestry profession to provide year-round land management across**



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all land tenures. Year-round land management will support Australia to address a number of significant challenges we currently face, including forest fire, climate change, biodiversity conservation, aboriginal disadvantage, and producing renewable raw materials that can support Australia's self-sufficiency.

About foresters

Foresters are specialists who use a multi-disciplinary approach to sustainably manage our diverse and unique forest ecosystems.

In Australia, foresters undertake a whole-of-landscape approach to land management. This means foresters engage with farmers, engineers, water supply and soil conservation officers, ecologists, zoologists, entomologists and pathologists and Aboriginal and Torres Strait Islander people to achieve holistic, sustainable systems of forest management.

As part of their day-to-day job, a forester requires skills and knowledge to perform the following tasks:

- study, monitor and assess forests, including growth rates, general health, disturbance history, ecological restoration and replanting trees
- manage and plan for bushfire, and conduct prevention, detection and suppression activities such as prescribed burning
- monitor and protect forest fauna and their habitat
- undertake landscape management planning, including manual and satellite mapping (including LiDAR surveying technology), aerial photo interpretation (with drones) and field measurements
- work with traditional owners and aboriginal communities to protect cultural heritage and incorporate traditional ecological knowledge
- monitor soil health and water quality
- manage pests and weeds
- maintain forests for recreation, cultural and agricultural uses
- develop management strategies to improve carbon sequestration
- undertake economic modelling for carbon, timber or other ecosystem services
- plan, build and maintain roads
- plan and prepare for forest harvesting operations
- collaborate, liaise and meet with community members
- undertake sustainable timber yield modelling and planning
- monitor and collect seed for forest regeneration
- supervise forest contractors



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- advise governments and clients on forest management strategies

Australia has a shortage of foresters and many graduates are not well equipped with the required knowledge

The factors and barriers that contribute to the shortage of foresters

There are a number of factors and barriers that contribute to the shortage of suitably skilled and qualified foresters including, but not limited to:

- There are very few opportunities in Australia to obtain a specialist forestry degree
- Degrees are becoming increasingly broad and graduates are missing key educational components required by a forester including silviculture, forest fire management and control, road location and construction, indigenous land and fire management, managing forests for carbon, forest technology and machinery, and forest valuation methodology.
- Modern degrees and pathways do not offer significant opportunities to build up a practical core set of forestry skills and to learn alongside experienced foresters
- The lack of investment in forestry research limits pathways and opportunities for scientists
- Foresters with decades of experience are ageing and retiring, Australia is facing a forestry skill shortage tsunami
- Social perceptions and misunderstanding about forestry impact its desirability as a career choice
 - A majority of Australians don't understand that a forester is a university trained professional and mistakenly believe that foresters are loggers
 - Generally, the media poorly represents forestry, which reinforces this misunderstanding
 - Extremist attitudes and behaviours unfairly impact the perception of forestry
- The politicisation of the sector also negatively influences young people away from selecting forestry as a career

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- RECOMMENDATIONS: Support is required to:**
- underpin a fit-for-purpose university degree that produces graduates with the knowledge required by employers and a practical/broad forestry skill set**
 - develop short term strategies to capture the knowledge and skills of retiring foresters**
 - promote the career and life-style opportunities of working as a scientific professional in forestry**
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Farm-forestry interface and forest growers

Farm-forestry activities can enhance agricultural productivity through beneficial impacts on pasture, crop, and animal production, primarily through provision of shade and shelter, nutrient cycling, and soil conservation. Agriculture and forestry are not mutually exclusive and there exists a productive continuum of tree planting and forestry activities across rural landscapes at a range of scales and tree densities.

Small private forest growers and agroforestry is undertaken for a range of commercial, Landcare and conservation purposes, such as salinity reduction and riparian protection plantings through to farm woodlots and plantations used primarily for wood production.

From the perspective of smaller private forest growers, there is chronic gap in the training opportunities available for farm forestry skills and education in Australia. A majority of current training (with the exception of The Master Tree-Grower Course) is often not appropriate or relevant to the farm forester. The farm forestry skills needed relate more to agribusiness and marketing than specialist forest science or silviculture. More training opportunities are required to enable a new generation farmer to integrate tree plantings into their farming operation to increase productive benefits, income flexibility and resilience that complements existing farming activities.

RECOMMENDATION:

Develop and support initiatives for foresters, with a different blend of knowledge, skills, and training, to support farmers and private forest growers to implement farm forestry activities in the existing landscape.

Further comment and contacts

If you have any further queries on this submission, please contact Jacquie Martin, CEO of the IFA/AFG office on (03) 9695 8940.

We look forward to further contact on this matter and request that you keep us informed of further developments.

Yours sincerely

Robert Gordon
President
INSTITUTE OF FORESTERS OF AUSTRALIA & AUSTRALIA FOREST GROWERS
GPO Box 1272
Melbourne, Victoria 3001
