

**The Institute of Foresters of Australia**

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Secretary  
House of Representatives  
Standing Committee on Agriculture, Fisheries and Forestry  
Parliament House  
Canberra ACT 2600

**Inquiry into Rural Skills Training and Research**

Please consider this submission to the Standing Committee's inquiry into rural skills training and research. The submission briefly outlines the Institute's growing concern for the future supply of trained professional foresters in Australia.

**Introduction**

The Institute of Foresters of Australia (IFA) is a non-profit professional organisation that represents Australian professional foresters. The IFA was formed in 1930, has active branches in all Australian States and the ACT, and is governed by an elected Board. Membership of the IFA requires tertiary qualifications in forestry or in a closely related scientific discipline, or extensive practical experience in forest management or forest science.

The IFA is an advocate for environmentally sensitive and sustainable forest management in Australia, for the application of forest science, and for the active management of forests for the multiplicity of uses society ascribes to them.

Current membership is approximately 1200. Members are employed throughout Australia, and internationally, and in a variety of occupations, including native forest, plantation and national park management, research, watershed and bushfire management, land care, education, public service administration, international organizations, private forest ventures and forest industries. The age and experience profile of our members ranges from recent graduates to retirees with over 50 years of professional experience.

The present Australian forest industry, both in native forests and plantations, has been founded upon the skills and experience of Australian trained professional foresters. Until the early 1980's, most State government forestry agencies and some forestry companies sponsored numbers of students to undertake the four year university degree in forest science. These graduates subsequently played a major role in building, managing and preserving the significant forestry resource enjoyed by Australians today. Foresters have been managing Australia's forests for a range of wood and non-wood values and have forged successful careers in State and federal forestry agencies, national parks services, water management authorities, other land use agencies and in the pulp, paper and timber industries.

Foresters have also made a strong contribution to research in Australia due to an excellent and well-resourced tertiary education sector providing opportunities for post-graduate training. In recent years the Co-operative Research Centre program has produced over 70 PhD and Masters graduates, most of whom have been employed in the forestry sector and now live in rural and regional communities.

Australian foresters are highly regarded overseas and a number occupy important positions in international organisations, such as the World Bank and the World Conservation Union (IUCN).

The IFA has recently introduced a Registered Professional Forester (RPF) program to encourage continuing professional development within the profession. The continuing development of the RPF will require the continuing availability of graduate training at Universities and other educational institutions.

The above is testament to the high level of training Australian foresters have received.

### **The Australian forestry tertiary education issue**

At its recent biennial conference in Mount Gambier 10 - 14 April 2005, the IFA debated two recognised developing problems in Australian forestry tertiary education – firstly, a growing shortfall of professional foresters sought by the forestry sector, and secondly, falling enrolments at Universities for forestry undergraduate courses.

Hard data on this developing problem are not yet available but anecdotal evidence of a looming shortage of professional foresters is strong. Forest industry employers indicate an increase in recruitment efforts in non-traditional areas, either from overseas or from natural resource graduates with some forest relevant training. Another indicator of the shortfall is the strong competition by industry for Australian graduates, to the extent that forestry students are increasingly securing future work prior to graduation. Advertisements for professional foresters within the IFA's publications have increased in recent years.

Despite this apparent demand, and a corresponding increase in courses offered by Australian universities, student enrolments in forestry seem to be falling to less than 60 graduates per year. At our Mount Gambier conference, Jerry Vanclay, Professor of Sustainable Forestry, School of Resource Science and Management at Southern Cross University had this to say:

“Recent events in forestry education in Australia mean:

- More institutions teaching forestry courses than ever before (6 bachelor programs);
- Total annual undergraduate intake remains relatively low;
- Increasing pressure for forestry to become a 3-year course (cf Melbourne);
- Scholarships in forestry are few and small (cf cadetships);
- Financial obstacles lead many students to choose a ‘home-town’ university;
- Most Australian universities offer a 3-year environmental science course; and
- Employer demand for new forestry graduates remains high (exceeds supply).”

Professor Vanclay described the effect of these trends.

“Low intakes mean on-going pressure for University Departments to make forestry subjects more popular, and to cut back on expensive field trips and practical classes. This threatens to erode the skill base of forestry agencies, both directly because specialist forestry subjects may be modified or withdrawn, and indirectly because forestry agencies may employ fewer forestry and more environmental science graduates.”

These observations were echoed by other forestry degree course providers at the conference, including Professor Peter Kanowski of the Australian National University (Head of the School of Resources, Environment and Society and Convenor of ANU's National Institute for Environment) who stated:

“Most forestry degrees are characterised by relatively low and static undergraduate numbers, and sustaining positions at universities is increasingly dependent on staff members' ability to earn external research income.”

“In a worst-case scenario, no single institution will maintain sufficient critical mass to sustain what has been considered a credible forestry program, at either undergraduate or graduate level.”

“Stronger and more coherent partnerships between the universities and forestry sector would undoubtedly be advantageous, but these have proven difficult to construct in the absence of targeted additional funding such as that provided by CRCs.”

Despite the increase in the number of institutions offering forestry courses in Australia, the IFA is becoming concerned with the course content of some of these courses and the resulting competencies of graduates to perform the duties required of professional foresters. Professional foresters have traditionally been trained in a number of specialist subjects requiring university lecturers with specific expertise. Universities must be able to provide lecturers from a number of disciplines to provide these courses.

For example, forestry courses have included botany and zoology, silviculture, surveying, engineering, land use planning, sociology, economics, statistics, chemistry and physics. If universities are deficient in any of these areas then graduates require additional training during employment to fill the gaps.

Although the traditional Australian forestry degree of four years has given students the opportunity to cover the full range of required subjects, it is noted that in Europe and South America, forestry degrees are five-year courses with a substantial practical component in the field (usually up to six months). Australian universities offering forestry degrees are now considering three year courses.

IFA members, many of whom are based in rural and regional communities, are concerned by increased migration of young people to large urban communities, due in part to the perception that employment and high paying occupation opportunities are limited in rural and regional Australia. That perception is not universal and requires some correction. Forestry, agriculture and natural resource management professions, largely rural based occupations, offer significant opportunities to rural young people.

At this stage it is difficult to accurately quantify the effect and interaction of the above factors in contributing to falling enrolments but the IFA will be pursuing this further. However, participants at the IFA conference were convinced that the current low public image of forestry as a desirable occupation is a significant reason for low interest by high school students in a forestry career.

## **Conclusions**

The following IFA observations are made.

- Forestry, and the role of the professional forester in the Australian rural economy, is important.
- The demand for professional foresters in Australia is increasing.
- Enrolments in Australian university forestry courses are falling;
  - The cost to students undertaking a four year undergraduate degree may be a discouraging factor.
- Current market forces influencing University education administration may:
  - prejudice the provision of tertiary courses for professional foresters, and consequently the stream of qualified graduates available to the forest sector,
  - force a drop in the quality of forestry education.
- Australian forestry employers in both public and private sectors are not yet actively participating in determining the quantity and quality of forestry graduates required to meet needs.
- There is a continuing need for post-graduate training opportunities in forestry.
- Australia may lose international competitive advantage in forestry unless improvements are made to Australian tertiary forestry education.

## Recommendations

The following recommendations are submitted for the Committee's consideration.

That the Australian government:

- Foster the need for scientifically based training in the management of Australia's forests and woodland and recognise that forestry graduates of Australian universities are ideally placed to provide such skilled forest management;
- Encourage school leavers to consider forestry as a professional career;
- Provide financial assistance to rural school leavers, perhaps through forestry scholarships, to encourage university enrolment in forestry degree courses;
- Consider incentives for the forestry sector to provide scholarships to potential forestry students;
- In cooperation with the IFA,
  - investigate options for change to tertiary education in forestry to better meet the national need by, for example, financially assisting the Primary Industries Ministerial Council's Forestry and Forest Products Committee's deliberations on this topic;
  - consider the accreditation of Australian undergraduate degree courses in forestry with respect to relevance, content, quality and delivery, and the advantage to Australia of such accreditation in attracting prospective international students;
- Consider ways to assist the IFA provide continuing professional development needs of forestry graduates living and working in rural and regional Australia.

The IFA expresses its appreciation to the Committee for the opportunity to present this submission. The Institute would appreciate an opportunity to answer questions by the Committee.

Yours faithfully



J. Adrian O'Loughlin  
(Executive Director)

## References

Kanowski Prof P 2005 "Contemporary challenges to forestry education in Australia" Proceedings of the 22<sup>nd</sup> Biennial Conference of the Institute of Foresters of Australia April 2005.

Vanclay Prof J 2005 "Challenges and opportunities for forestry education in Australia" Proceedings of the 22<sup>nd</sup> Biennial Conference of the Institute of Foresters of Australia April 2005.