



# THE FUTURE OF FORESTRY AND FOREST SCIENCE CONFERENCE

A CONFERENCE RECOGNISING THE CENTENARY OF FORESTRY EDUCATION IN AUSTRALIA

30 SEPTEMBER - 1 OCTOBER 2010

THE UNIVERSITY OF MELBOURNE, PARKVILLE, AUSTRALIA



Professional forestry education began in Australia 100 years ago with the establishment of the Victorian School of Forestry at Creswick. In the following year a forestry program began at the University of Adelaide. Forestry and Forest Science have developed to become well-established degree programs at the Australian National University, the University of Melbourne and Southern Cross University. Forest research is conducted at many other Australian universities and at the CSIRO.

Forest science and forestry education in Australia have undergone considerable change throughout this 100 year history. Forest research and education need to continue to evolve in order for forest management to meet the needs of future generations in a rapidly changing world.

This conference brought together over 170 of Australia's leading forest scientists, thinkers, forest industry and community leaders, recent graduates and students to consider the future prospects for forest science and professional forestry education. In the final session the delegates discussed the elements of the following Conference Communiqué.

## DISCUSSION AT THE CONFERENCE FOCUSED ON THREE THEMES:

- providing for multiple values within a forested landscape,
- community engagement and
- forestry education.

Forested landscapes in Australia consist of many forest types, uses and tenures. These include state and private native forests, larger-scale plantations and farm forests. Forests have cultural, social and economic, recreation and aesthetic values; they provide a wide variety of ecosystem services including carbon storage, biodiversity conservation and high quality water and benefit agricultural production through pollination, shelter and other services. Forests have important spiritual and cultural values, particularly for Aboriginal communities. Forests with long-lived trees are also a store of scientific information. Tree ring and other forms of research can reveal valuable information on climate and disturbance histories.

The area of forest in Australia is likely to expand, through plantation development or other forms of afforestation to meet the future needs of a growing population for different types of forest goods and services, in addition to cultural, conservation and aesthetic values.

With their specialist knowledge and professional focus on forests, foresters have much to offer the community in defining and articulating how forests can best be expanded, sustained and managed to meet the needs and expectations of current and future generations.

Modern forest management in Australia emerged from several philosophies. These different forestry philosophies led to different approaches to the production of timber and the provision or maintenance of other forest values. Integrating these different forestry philosophies and aligning them with evolving community expectations has been challenging and future forest management will continue to involve reconciliation of multiple demands and different views of forest management.

The first professional foresters focused on protecting forests from conversion to agriculture and sustaining supplies of timber to meet the needs of a growing population. Forests are now managed for a wide range of values and uses. Foresters work in a wide variety of land management and related roles, including biodiversity conservation, forest health, fire management, silviculture, recreation, tourism, water catchment and carbon management. They remain connected by an ethic of forest landscape stewardship.

While formal management has always aimed to provide for multiple uses and values,

future forest management is likely to be best conceived in 'multi-functional' landscapes where different types of production systems for food, fibre or energy are integrated to provide for multiple values and services. This will require creative new approaches to landscape conception and design.

Forest industries have traditionally been viewed as those involved with growing, managing, harvest and processing of timber products. It is clear that new-generation industries are emerging in the forestry sector including conservation management and monitoring, carbon accounting and trading, water management, tourism and recreation, certification and auditing. Corporate and individual participants in these new sectors should be viewed as part of the forest industry sector and employment and economic statistics should reflect their involvement.

Australian forests have also been landscapes of disharmony and conflict, in forms ranging from the displacement of Aboriginal people by European colonizers to the clashes between environmentalists and timber producers. With different approaches to public engagement and the better accommodation of multiple viewpoints, forests may become 'landscapes for reconciliation'. Achieving this will require commitment to community engagement, and enabling skills and institutions.

Professional foresters have traditionally had a generalist, multi-disciplinary education. There was considerable debate about whether this is the most appropriate future path. While the notion of multiple future forestr<sup>ies</sup> highlights multiple potential specialities, many argued for the need for forestry education to be soundly-based in traditional subjects such as silviculture, forest ecology and forest management. It also needs to be soundly-based in the relevant social sciences.

There will be an increasing need for on-going training in specialised areas through on-the-job training and further tertiary study. Maintaining this specialised education capacity will require

support from industry and government. Post-graduate training capacity is an important element of specialised forestry training. Universities can work collaboratively to deliver teaching and research programs such as the National Forestry Masters Program and the CRC Forestry.

Future challenges such as climate change (with, for example, likely lower rainfall and increasing wildfire frequency in southern Australia), an increasing global population and more rapid spread of insect pests and disease, will need continued investment in integrative and collaborative research between research institutions and industry.

The role of a forester has changed over the last 100 years from a primary focus on providing a sustained timber yield to the maintenance and long-term sustainability of multiple forest values for many different sectors of society. Foresters will continue to have an important role in managing forests to provide these different values in Australia and internationally.

The following recommendations are made to ensure a strong future for the role of forestry education and forest science in meeting the aspirations and needs of the Australian community:

## RECOMMENDATIONS FOR GOVERNMENTS AND THE COMMUNITY:

1. Support the role of forests in reconciliation between indigenous and non indigenous peoples through the recognition of our multiplicity of stories and the articulation of a shared vision for the future. There are a variety of opportunities to support reconciliation through processes such as joint management and development of indigenous community based forest management and associated industries.
2. Provide leadership in clarifying and articulating a vision for Australia's forests and forest management, ideally leading to a review of the 1992 National Forest Policy).
3. Provide for on-going dialogue between forest managers and the community.
4. Encourage improvements in forest practices across all land tenures through appropriate laws and regulations.
5. Provide the appropriate policy settings to support the role of forests and the use of forest products in responding to climate change.
6. Provide a comprehensive and stable policy framework for forest management and industry development.
7. Invest in research and research capacity through universities and other research institutions to increase innovation and provide for adaptive management.
8. Ensure new-generation forest industries are included in statistics associated with employment and economic output for the forestry sector.
9. Support effective forest management across all forest land tenures.
10. Provide career paths to senior levels for foresters with government to ensure that government has access to sound forest management expertise and advice.

## RECOMMENDATIONS FOR UNIVERSITIES:

1. Regularly review curricula to ensure that it is relevant to the current challenges of forest management and the forest industry and includes an understanding of social and political processes required for future forest management.
2. Ensure that options exist for graduate and post-graduate training in areas such as science, engineering, sociology, economics that are relevant to forest management issues facing society.
3. Recognise the need for a structured forestry education with a set of core subjects as pre-requisites for qualification as a professional forester. These subjects can be obtained through under-graduate or post-graduate training
4. Promote the diversity of career options available to forestry graduates, including in catchment and fire management, conservation management, climate change mitigation, in policy and international development. A key message: 'fight deforestation, become a forester'.
5. Maintain high quality research capacity and enhance research across the spectrum of forest interests.
6. Support academics in communicating research findings and promoting the role of ecological sustainable forest management.

## RECOMMENDATIONS FOR THE FOREST INDUSTRIES

1. Recognize the different values people place on forests and improve capacity to work constructively with stakeholders and facilitate community engagement through two-way dialogue. This will build trust in the community, reduce misconceptions and improve the public image of the profession.
2. Invest in formal education, in-service training and specialised courses to ensure the future of the forestry profession.
3. Provide career paths for professional and technical foresters to encourage people to obtain appropriate qualifications.
4. Where possible and appropriate, engage with indigenous communities to foster communication and employment opportunities and increase capacity for these communities to manage their forest resources.
5. Strive to achieve continual improvement in forest practices by meeting legal and regulatory obligations. Consider voluntary certification to meet market demands and community expectations.
6. Better quantify ecosystem services from managed forest landscapes, in order to demonstrate the benefits of sound management and take advantage of emerging markets for these services.
7. Demonstrate the crucial, positive opportunity for forest-based industries to address the challenge of climate change through analysis of greenhouse gas emissions in production chains, adoption of new approaches (where necessary) and widely communicating the benefits of managing forests and using timber products to sequester carbon.

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