

# The logging jam is clearing

If Australia's forestry industry develops according to expectations, conservationists and loggers could soon find themselves united on the same environmental front.



Such a prediction seems improbable as divisive debate on old-growth logging in Tasmania continues to dominate forestry news nationally. But it's in-line with a vision for the way forward emerging from other parts of the industry.

Despite the long-standing us-and-them hostilities embroiling Tasmania's forestry, elsewhere the line traditionally separating the wishes and wants of the environmental movement and forestry industry is beginning to blur. Obvious signs include the recent appointments of high-profile former green lobbyists Tricia Caswell and Phillip Toyne to senior forestry industry roles in the Victorian Association of Forest Industries (NAFI) and Integrated Tree Cropping Ltd, respectively.

But there are also many more subtle indicators. Relevant government and industry bodies, for example, are producing more and more policy discussion documents that consider forestry in terms of natural resource management (NRM) and broader ecological sustainability. Similar terminology is also becoming increasingly evident in forestry education with tertiary courses now addressing these and related concepts in considerable detail.

Support for this emerging direction in Australian forestry was also evident during a recent review by CSIRO Forestry and Forest Products in which relevant government and corporate bodies were surveyed about NRM issues in relation to the industry's future.

Dr Michael Robinson, an environmental manager with the Division, says the survey, which will help steer R&D directions, identified a widespread recognition of the need for a more holistic attitude to growing and harvesting trees in Australia.

'Ecosystem services is the big new direction forestry can embrace, particularly for the development of new plantations' he says, explaining that this recognises output from forests as going well beyond the traditional wood and paper pulp.

Also known as *environmental services*, the concept exploits the diverse ways in which trees and forests impact positively on landscapes. They can, for example,

prevent soil erosion and help ameliorate salinity.

'This approach isn't converting into management quite yet but it's where research and policy is headed and is a direction forestry could embrace,' Robinson says.

The federal government's 1997 industry statement *Plantations for Australia: the 2020 Vision* set a target for the area covered by plantation forests to expand nationally from one million hectares in 1996 to three million in 2020. So far that objective is on track. Already, plantation forests provide over 50% of Australia's wood production and that proportion continues to climb.

This increase in plantation area is intended to help service new markets. The annual value of the forestry industry to Australia is \$15.2 billion, or 2.3% of GDP, and thought to be rising; these emerging opportunities are seen as a robust vehicle for further long-term growth.

The continuing expansion of the plantation estate is not being advocated at the expense of native forests. These can, of course, also be valued in terms of environmental services and so land already wholly or partially cleared is seen as the preferred option for new plantations.

Unfortunately, only a small proportion of land in Australia receives the 750 mm-plus annual rainfall required for successful commercial forestry. Most prime sites – those receiving above 800 mm a year – are along the coastal fringe and competition from urban development and intensive agriculture bumps prices up beyond what would normally be considered cost-effective for the industry.

'And so there's a recognition in industry that they'll need to expand plantations into more difficult [drier] environments and



**A scientist and a logger in front of harvesting equipment. Modified forestry practice will provide some profitable solutions to serious environmental problems, such as salinity.** CSIRO Forestry and Forest Products

that may mean using new species or new methods of management or silviculture,' Robinson says.

There's also growing awareness – particularly in research and policy circles – that the positive environmental benefits provided by forests could actually be measured, valued and used to generate financial returns.

'If those services to the community can be quantified and valued financially, that could push plantations in these more difficult environments into commerciality,' explains Robinson.

One environmental service, for example, could be the sequestering of carbon from the atmosphere to help offset global warming. There are now many countries with carbon markets where industry pays for the opportunity to counter carbon output by locking some away in living trees.

Appropriately located plantation forests could also benefit rural communities by combating salinity. Through the federal government's *National Action Plan for Salinity and Water Quality*, money is already being forwarded to regional areas with targets to remove salt from their waterways. Such communities could find that a wise use for their funding is to invest in plantation forests in their areas.

Biodiversity is another area in which plantations could have a significant impact while returning commercial gains. Theoretically, a productive forest could be configured so that its biodiversity values can be maximised and costed by regions wanting to retain or enhance it.

A large-scale trial of how commercial forestry might operate based on the value of environmental services is underway in Victoria's Goulburn Broken catchment. There, a consortium of private and government interests, including CSIRO, the Natural Heritage Trust and National Association of Forest Industries is developing tools, information and processes to establish commercial forests based on both traditional timber products and environmental products using a system known as commercial environmental forestry. The aim is to enable 'investors to optimise commercial outcomes while delivering long-term environmental benefits'.

Despite the feeling in the industry that plantations are the way of the future, there is still widespread support for timber production from native forests and a belief that these can be harvested without reducing their environmental services. Domestic operations are looking with interest at low impact harvesting methods used elsewhere in the world. For example, a selective harvesting approach known as variable retention silviculture being trialled in North America could have local application.

While many of the seeds have already been sown for a cleaner, greener forestry industry, how it develops from here will depend largely on public perceptions and support. In some circles, forestry is seen as secretive and arrogant and the ongoing conflict in Tasmania is doing little to improve that.

What forestry now needs, as several industry leaders have recently indicated, is to be loved by the public, to be perceived as a beneficial rural industry contributing to the health and prosperity of regional communities.

In line with this and the emerging accent on a more holistic approach, obser-



**Logging has been a staple, traditional, and regularly controversial part of Australia's history. At the beginning of the 21st century, after a turbulent period, the timber industry's operating priorities and partnerships are under dramatic change.** CSIRO Forestry and Forest Products

vations have been made within the industry that forestry needs to become more directly involved with local communities, particularly in catchment management.

'Forestry has an opportunity to include itself in catchment management systems in such a way that you can have a commercial forestry operation integrated into agricultural systems, improving whole-of-catchment health,' explains Robinson.

'There really is huge potential for the industry to embrace its role in catchment management, and to be part of an integrated solution.

'The forestry industry is smart enough to know that the NRM sector is not thinking about wall-to-wall trees. They're thinking about trees in the right places, for the right reasons, in the right quantities, integrated with other land-use systems so that we have sustainable healthy catchments.'

There's a bizarre irony, in view of the anti-green sentiments that pervade the Tasmanian fracas, that this line of thinking could ultimately see forestry making a critical contribution to the amelioration of some of Australia's biggest environmental threats: biodiversity loss, global warming and salinity.

These are, however, early days with varying levels of progress across the country. One of the most exciting current investigations in Western Australia is based on an Integrated Wood Processing Demonstration Plant in the wheatbelt town of Narrogin. Supported by the Australian Greenhouse Office, Western

Power, the Oil Mallee Company and Enecon Pty Ltd, the operation is based on native mallee trees, millions of which need to be planted by local farmers to support the plant.

The intent is that, while the deep roots of the mallees will help reduce salinity by suppressing underground salts from rising, branches will be harvested (without the need to kill or remove adult trees) and processed to produce eucalyptus oil, charcoal, activated carbon (for filtering systems) and electricity.

Depending on outcomes at the demonstration plant, another 10 similar operations could appear throughout the State. Western Power estimates each full-scale commercial plant would be up to five times as big as the pilot operation at Narrogin and each would require some 20 million new mallees to be planted.

It might sound like a vast number of trees but they have a huge job to do. If the Western Australian experiment is successful, not just other States, but the world will see that unusual alliances and fresh thinking in forestry can mean global progress on environmental challenges.

● Karen McGhee

**More information:**

Forestry Facts: an overview (The National Association of Forest Industries): [www.nafi.com.au/briefings/index.php3?brief=2](http://www.nafi.com.au/briefings/index.php3?brief=2)

Contact: Anne Lawrence, CSIRO Forestry and Forest Products, [Anne.Lawrence@csiro.au](mailto:Anne.Lawrence@csiro.au)