CERTIFICATION OF FAST-GROWN PLANTATION FORESTS – ISSUES, COSTS, AND BENEFITS

The theme of the XXII IUFRO World Congress 2005 held in Brisbane, Australia was "Forests in the Balance: Linking Tradition and Technology". The congress included subplenary sessions on "Integrating approaches to achieve multiple goals" and "Demonstrating sustainable management". Forest certification is a means to ensure that integrated forest management demonstrates economic, ecological, and social acceptability to stakeholders who might have widely different goals.

Certification that wood products originated from trees in "well-managed" forests is a requirement for entry to many markets — the USA and Europe in particular. Fast-grown plantation forests are variously described as having high growth rates with short rotations and are established specifically for providing large quantities of wood and fibre, usually to achieve a desired return on investment. There are several certification standards world-wide and certification of these plantations is the subject of some debate. Short rotation, uniform, extensive monocultures with clear-felling regimes are regarded less favourably than are uneven-aged, mixed species, "natural" forests.

A subplenary paper by Chris Goulding (*New Zealand*), which has been published separately*, set the scene by describing the effect of certification on the management of industrial plantations in New Zealand, 700 000 ha of which are certified by the Forest Stewardship Council (FSC). Compliance costs can be significant but certified logs now rarely command a price premium. The most frequent issues are environmental, but social issues and the rights of indigenous people to benefit from their plantation forests are also of concern.

This issue of the New ZEALAND JOURNAL OF FORESTRY SCIENCE contains refereed versions of four papers on the theme of certification, presented at a Technical Session in the Congress organised by IUFRO Unit 4.04.02 — "Planning and Economics of Fast-growing Plantation Forests".

In Chile, the certification of environmental standards and practices for the sustainable management of industrial plantations has increased rapidly over the last 5 years.

^{*} Goulding, C.J. 2006: Forest Stewardship Council certification of industrial plantation forests. *Allgemeine Forst- Und Jagdzeitung 177(3-4)*: 42–47.

Gonzalo Paredes (Chile) describes the current status and the factors and motivation behind the drive for certification. Certification compliance impacts on competitiveness of industrial plantations, while other issues include the role of Government forestry agencies and the problems faced by small forest owners. Frederick Cubbage, Jacek Siry, and Robert Abt (United States) provide information on the current status of certification and analyse the objectives and performance measures of major certification programmes, particularly as they apply to the 15 million ha of fast-grown pine plantations of the U.S. South. These programmes assist landowners to practise responsible forestry but at the same time evoke controversy and public debate. Jean-Michel Carnus, Margarida Tome, and Christophe Orazio (France and Portugal) suggested that sustainable forestry management indicators will need to be evaluated at local scales. Their paper proposes an integrated approach combining use of reference pilot zones, elaboration and evaluation of indicators, comparative testing of common protocols, and dissemination of information to stakeholders and the public. Angus Carnegie, Christine Stone, Simon Lawson, and Mamoru Matsuki (Australia) discuss costeffective management of insect pests that have the potential to challenge the commercial viability of eucalypt plantations in subtropical Australia. Plantations will continue to require synthetic chemicals but certification will require integrated strategies to reduce chemical use over time.

The contributions demonstrate aspects of certification of plantation forests under the environmental and social conditions in the different countries. They show how certification is being implemented, its problems and opportunities, and how it is contributing to change plantation forestry to meet the demands of society.

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