ECONOMICS OF FOREST RESOURCE USE FOR TIMBER PRODUCTION:

THE CASE OF EAST GIPPSLAND

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AUTHORSHIP STATEMENT

This thesis has been researched and prepared by Carol Maree Jeffs. It is presented in fulfilment of the Master of Economics Degree by Research, offered by the Department of Economics within the Faculty of Economics, Business and Law, University of New England.

It contains no material that has been accepted, in whole or in part, in respect of any other award, and to my best knowledge it contains no material previously published or written by another person except where due reference is made in the thesis.

Carol Maree Jeffs 13 December 1997

To my unborn child, for whom I hope there will be forests.

ABSTRACT

Many of Australia's remaining native forest resources exist in a relatively untouched state. The unique characteristics and relative scarcity of these forest resources has caused much public controversy over their use for timber production. The East Gippsland region of Australia contains extensive forest resources which carry a wide range of forest values. For this reason, East Gippsland has been at the centre of the debate over public forest management for the past three decades. Although East Gippsland has been studied many times, there has been no comprehensive research undertaken from the point of view of the forest as a public timber resource.

The aim of this research is to determine whether the native forest resources of the East Gippsland region are being used in a socially optimal manner for timber production. To achieve this aim, the research is approached in three stages. Firstly, a clear understanding is developed as to how the forests of East Gippsland are currently utilised for timber production. Secondly, the relevant economic theory is identified which suggests socially optimal solutions. Finally, the economic theory is applied to the particular case of East Gippsland to develop pragmatic policy suggestions.

The results of the research show that the allocation of forest resources depend crucially upon the institutional arrangements currently in place in the state of Victoria. These arrangements clearly divide decisions about forest resource use for timber production between forest management and forest utilisation. Forests are currently managed for timber production using a sustainable yield regime. Utilisation of forests for timber production is regulated using the 'sawlog-driven concept' whereby sawlogs are the main focus of harvesting operations.

The study concludes, with limitations, that the current institutional arrangements do not result in a socially optimal allocation of forest resources for timber production. When applied to the East Gippsland situation, the microeconomic theory surrounding forest management suggests that a smaller, more intensively managed timber production area would maximise returns to the public. Joint production theory is used to assess integrated harvesting as the main technique for forest utilisation. When applied to the East Gippsland situation, it seems that integrating the harvesting of sawlogs and pulplogs is likely to be more efficient than specialised harvesting. However, the current framework used to implement such harvesting has resulted in inflexible and inefficient utilisation of forest resources.

The policy recommendations attempt to address the deficiencies of the current institutional arrangements. It is suggested that a constrained economic solution to the forest rotation problem should replace the sustainable yield management regime. The heavily regulated and complex utilisation system should be replaced by a simple tender based timber sale system. Finally, the management and utilisation functions should be more closely linked and made more flexible by including price signals in the forest information system.

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