

# Welcome and Overview of Colloquium

**Professor Peter Kanowski**

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Welcome to ANU Forestry's Third Annual Research Colloquium, whether you're joining us in person or accessing the papers over the WWW. To mark the millennium, our 2000 Colloquium is presented in partnership with the Cooperative Research Centre for Sustainable Production Forestry, of which ANU Forestry is an Associate Member, and the Joint Venture Agroforestry Program, which is managed by the Rural Industries Research and Development Corporation. We thank both these important research partners for their support.

The idea of an annual Colloquium arose from our wish to better engage in dialogue about our research activities and results with those outside the Department; Jürgen Bauhus' experience with similar events elsewhere led to the Inaugural Colloquium in 1998. The program for the 2000 Colloquium has been further developed in the light of previous years' experience; Digby Race, whose post at ANU Forestry is part-supported by the CRC-SPF, has been instrumental in developing it.

Today's program focuses on social sciences research which members of the CRC-SPF are conducting, in the context of the growing importance of farm forestry in Australia. The program does not pretend to represent in any comprehensive sense the wider body of such work underway in Australia; rather, it focuses on the research activities of CRC-SPF partners. The CRC-SPF makes only a very modest investment in social sciences research, but – as this program demonstrates – that investment has achieved substantial leverage and a wealth of results. As rural and regional Australia search for solutions to pressing economic and environmental challenges, research such as that presented here represents an important contribution to the information base of many decision makers in farm forestry, at levels ranging from policy to practice. It exemplifies the science–industry–society linkages central to the CRC program, to the Research and Development Corporations, and to ANU Forestry.

We hope you find the presentations, discussions and posters stimulating, and encourage you to provide us with feedback on the day and subsequently. Proceedings will be published with the assistance of the JVAP.

Further information about the research of all Departmental staff – which of course encompasses a much wider scope than the topic of this Colloquium – is available in our 1999 Yearbook (soon to be replaced by its 2000 successor). Please let us know if you would like a copy, or access it over the WWW.

Thank you for joining us.

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# **Session 1: The Context for Farm Forestry in Regional Australia**

## **Chair – Dr Marlène Buchy**

**Dr Marlène Buchy** has extensive experience and expertise on social issues within the context of natural resources management (NRM) – especially forestry, agroforestry and participatory forestry. Her forestry experience is complemented by solid credentials in the adult training/education sector, where she has developed and run courses on rural extension (RECOFTC 1998), participatory forestry and gender in NRM (Women's studies' extra mural Masters; British Council support project, Ethiopia; ANUTECH). Marlène has been involved in two international consultancies directly related to farm forestry extension issues for the UK's Department for International Development (then the UK's Overseas Development Agency) at ICFRI (Jhansi, India) and IFGTB (Coimbatore, India). She has also undertaken consultancy work for AusAID as a gender and rural development specialist.

## **Synthesiser – Jason Alexandra**

**Jason Alexandra** grew up along side the Yarra River flood plain in the landscape that was blend of Heidelberg impressionist and 1950's suburbia. He roamed the farms (and golf courses), swam in river and got to know the reptiles, amphibian and birds that shared the landscape. Walking home from primary school he dreamt of the red gum forests returning (mostly as a home for the birds). At secondary school on hot summers days he day-dreamed, as he looked over the flood plain, of a future where the magnificent redgums regained their dominance of the valley. In adult life he became involved in the fledging revegetation movement about 20 years ago, after brief stint at art school. Since then he has operated a large tree nursery, a salvage sawmill, various farming businesses and worked as a conservation advocate and policy analyst for the ACF. He currently divides his time between organic farming (fruit production), parenting, consulting and research. Last year he completed a review of the issues and opportunities of using Environmental Management Systems for Australian Agriculture and several of the Mid-term reviews of the Commonwealth's NHT. He is a Director of the Land and Water Resources R&D Corporation and has been instrumental in getting the socio-economic, policy and institutional R&D program commissioned. Jason can be contacted at Alexandra and Associates, 16 Homestead Rd, Eltham Vic. 3095; Tel:/Fax: 03 9431 3426 (work); Tel: 03 9431 3657 (home); Email: [jasona@sympac.com.au](mailto:jasona@sympac.com.au)

## **A CRC Partner View on Farm Forestry**

**Dr Hans Drielsma**

General Manager – Forest Management, Forestry Tasmania

There are strong forces which are increasing the focus on traditional rural farm lands for production of forest products. The NFPS/RFA processes are reserving increasing proportions of our native forests for conservation purposes, and constraining timber production on the remainder. There is a consequent shift to more intensive forest management on smaller areas to maintain production requirements, and forestry is moving out of the hinterland into more settled rural landscapes. At the same time there has been a recognition of international market opportunities with the Plantation 2020 Vision driving increased investment largely on farm lands.

These shifts are raising significant new issues in the rural community. They provide a new focus for social unrest, however they need to be placed within a broader context of the ongoing social changes resulting from internal migration, rural industry decline, and technological shifts.

The social sciences have much to offer in assisting us to understand the dynamics of rural social change and inform policy and enterprise level initiatives to more successfully integrate forestry into the farming community and landscape. There is a wealth of relevant rural, social scientific knowledge which has not yet been harnessed in pursuit of these issues in Australia.

### **Biographical note**

**Dr Hans Drielsma** has held his current role with Forestry Tasmania since 1997, when he joined the team negotiating the Tasmanian Regional Forest Agreement. He currently chairs the Australian Forestry Standard Steering Group, and is a member of the Tasmanian Forest and Forest Industries Council, the Tasmanian Timber Promotion Board, and the Forest Practices Advisory Council. Hans previously held a number of roles with State Forests of New South Wales from 1973 - 1997, including Managing Director from 1993 - 1997. Hans has a Bachelor of Science (Forestry) (Honours) from Australian National University, Canberra, for which he received the University Medal and the Schlich (Forestry) Medal and a Master of Forest Science and Ph.D from Yale University. He is also a Fellow of the Australian Institute of Company Directors and a Fellow of the Institute of Foresters of Australia.

## **Forestry and Regional Australia: Changes for the Good?**

**Professor Roy Rickson**

Australian School of Environmental Studies, Griffith University,  
Nathan, Queensland.

Integrating economic and environmental goals are now fundamental to development. We further have to consider the social impacts of either or both. Modern industry now refer to the “triple bottom line” and yearly reports routinely list how they are integrating these activities or how they propose to do so. This is especially critical for such important initiatives as farm forestry. As it is a type of development that can contribute to production and conservation goals at the farm and the community level, programs designed to promote farm forestry must be careful that they too consider that the social and environmental consequences of tree production are on the minds of many farmers and rural communities. Spatial and scalar dimensions need always to be considered in this type of development. Questions that need to be asked include (1) what does farm forestry mean for the rural community? More specific questions include (2) How does farm forestry affect population, the number of people in rural communities? (3) How does it affect the diversity of services (schools, hospitals, access to physicians, economic activities associated with these services)? At another level, other farmers may see what may be an opportunity for the individual farmer as detrimental to the community they live in. What do individual farmers think about growing trees for production on their land? How do they feel about farming next to a farm forest? I would argue that these are critical questions if production forestry is to achieve the balance of production and conservation goals necessary for it to conform to modern conceptions of sustainable development or environmental sustainability. Clearly, forestry and farm forestry refer to much more than the biology of growing trees.

Farmer reactions to farm forestry programs have not been the focus of our research in Australia or overseas, but we are increasingly getting comments about it. These include distinct concerns about the decline of services due to population declines. There is a conception among those we study that farm forestry will accelerate declines in rural areas. Farm families are already faced with declining services. They have to travel further and further for routine medical care, financial services, hospitals and schools are being centralized. Concern about opportunities for their children with declining services and declining numbers of people are paramount for many rural families. Farmers have routinely said to us that they do not want to farm next to a forest. They are concerned about vermin, insects and plant disease that could affect the quality of their contract crops (potatoes, onions, peas, beans). Evidence for a general concern is illustrated by a public meeting in one of the Tasmanian rural farming communities entitled: “Chemicals in the Water and Forestry Next Door”. Because our research program has focused on the environmental and social consequences of contract production in Australia and overseas, we cannot offer definitive data about farmer or farm community reactions to farm forestry. Other papers, in this symposium, and elsewhere are beginning to report good data that will help us understand what is happening. However, our data do clearly demonstrate some of the important parameters of modern change and development, which will affect farm forestry.

One is that local issues can rapidly become national and even global issues. The agri-food and cement companies we study are well aware of that. Local non-government associations can now easily and effectively connect with national and global

organizations to block change. At the height of the environmental protests over forestry and other issues in Tasmania a few years ago, there was a statement, rather exaggerated, that “The World is Watching”. You can be assured that it is now with 26,000 registered NGOs capable of connecting with local groups through the Internet and influencing national policies on development. For this reason, a careful balancing of environmental and economic goals has to be considered in any development. This includes setting-up means for public involvement so that issues can be handled as they arise rather than exploding into rancorous conflict and inaction.

### **Biographical note**

**Professor Roy Rickson** is Professor at the Australian School of Environmental Studies, Standing Deputy to the Dean, Faculty of Environmental Sciences, Griffith University, Nathan, Qld. His professional and research interests include: Sociology of Natural Resources, Community Sociology, Sociology of Agriculture, Organizational Analysis, and Interdisciplinary Analyses. In the context of these broader interests, his research has been on how production and conservation activities and structures might be integrated on the farm and in the factory and community. Studies include research on farmer responses to land and water degradation on their farms and in their communities, a comparative and organizational analyses of transnational agribusiness corporations and transnational cement corporations (currently the Holderbank Group of Companies, the world’s largest cement corporation). The research focuses on corporate relationships with rural and urban communities and how these relationships affect local decisions about development, environmental quality and resource conservation. Complementary research and teaching interests are community development and change affecting land use and other natural resource issues, and social assessment of development. Roy’s research and writing in social assessment concentrates on the local social and environmental consequences of national, international and, increasingly, global production and planning structures. This work has discussed the basis of local community autonomy in large-scale corporate frameworks, ability of local communities to influence decision-making in that framework and local power and influence structures. Research and writing on interdisciplinary analyses centres on establishing and managing interdisciplinary relationships in university teaching and research.

## **Farming communities and change: What can we expect from farm forestry?**

**Dr Neil Barr**

Centre for Land Protection Research – Department of Natural Resources and  
Environment, Bendigo, Vic.

The changing demographics of the basin farming community offer some challenges and opportunities for those promoting farm forestry. Given the ageing of the farm population, investment in farm forestry by individual farmers is becoming less likely with each succeeding year, as the period of before a return on investment increases in relation to the remaining years of life available to farmers. Demographic trends may offer some opportunities for the promotion of investment in forestry rights. One of the barriers to the creation of a forestry industry based upon forestry rights is the difficulty of obtaining a sufficient area of forestry rights in a region to justify future investment in wood processing infrastructure. The ageing of the farm population and the potential for a future acceleration of the rate of properties being placed upon the market may offer an opportunity to foresters to position themselves to enter the land market and make significant land purchases in a relatively small time. Overseas experience of farmland to forestry conversion programs has shown that these generally meet with significant resistance. They are most successful in regions where there is a high proportion of older farmers entering the retirement phase, and where purchase is targeted at the sale of the farm on retirement.

As an example in the Basin, there are plans to develop a farm forestry industry in the Delatite shire (Victoria). This would occupy 7 per cent of the current farm area. The median age of farmers in the Delatite North SLA is almost 54 years of age. A third are over the age of 60. The farm population median age has increased by over four years in the last 10. These figures all suggest a strong pattern of delaying adjustment till the point of inter-generational transfer, and the strong possibility of increased property sales within a decade. Such assumptions could be confirmed with an improved understanding of the current retirement patterns of farmers, and demographic analysis extended to a greater level of resolution (collector districts). It may be possible to develop marketing plans for farm forestry which are based upon such a detailed understanding of the future changes in the structure of rural communities.

The major demographic threat to the establishment of plantation forestry in upland areas may be where the agricultural values of a region have been overtaken by demographic trends which increase the value placed by the local community on landscape amenity. Again, overseas research indicates that the loss of population caused by agricultural adjustment is often counter-balanced by in-migration in areas where there is high natural amenity and the opportunity for commuting to large centres with employment opportunities. Such “suburbanisation” appears to be occurring in north-east Victoria, and in proximity to centres such as Bathurst and Canberra. The value placed upon landscape amenity by the community of these districts may be greater than the value placed upon salinity control.

## **Biographical note**

**Dr Neil Barr** is Leader – Rural Social Research Group at the Centre for Land Protection Research, DNRE. Neil was raised on a farm which no longer exists. He studied social psychology as an undergraduate. His first job was a survey of adjustment pressures on West Gippsland farmers, some 20 years ago. Today he is undertaking research into structural change in agriculture and its implications for catchment management. What, you might ask, has changed over the last 20 years for Neil? The venues (various), the salary (increasing, albeit slowly), and thankfully, the understanding of the subject matter. Milestones along the way have included a book covering the history of rural environmental management in Australia, "Greening a Brown Land", and a couple of higher degrees exploring the intersections of environmental psychology, salinity control and structural change in agriculture.



## **Session 2: Workable Solutions #1: Research by the CRC and Partners**

### **Chair – Dr Roslyn Prinsley**

**Dr Roslyn Prinsley** is currently General Manager, Research at the Rural Industries Research and Development Corporation (RIRDC). Roslyn was previously the Corporation's Manager for Corporate Strategy. She is committed to the development of a sustainable and profitable agricultural sector and is furthering this ambition through her work in innovation in the sector - particularly in the fields of farm forestry, new communications systems, and other new industry development. Roslyn manages the Future Agricultural Systems Area, Agroforestry and Farm Forestry, Human Capital, Information Systems and Communications and Tea Tree Oil programs at RIRDC. Roslyn is currently a member of the Rural Women's Advisory Group to the Secretary of AFFA. She is also the Chairman of the Biomass Taskforce, member of the ATTIA / RIRDC Tea Tree Oil Research Advisory Committee, on the National Steering Committee for the AFFA Farm Forestry Program; Project Group Deputy of the IUFRO Agroforestry Project Group and on the Steering Committee for the review of the National Agricultural and Horticultural Training Packages. She has also published over 60 books and reports relating to agroforestry and innovation in agriculture.

### **Synthesiser – Dr Chris Beadle**

**Dr Chris Beadle** is Principal Research Scientist with CSIRO Forestry and Forest Products. He has worked at the Tasmanian Research Centre in Hobart since 1983. His main interest is the use of physiology to further the understanding of how leaves and canopies respond to environmental factors and silvicultural practice and to use this information to improve the management and productivity of plantation forests. The main context for this work has been eucalypt plantations managed for pulp and solid wood products. He is currently Program Manager of the Sustainable Management Program of the CRC Sustainable Production Forestry.

## **Decision making in the farm family business: Implications for the adoption of farm forestry**

**Amabel Fulton<sup>1</sup>, Professor Rob Clark<sup>2</sup>, Paul Dargusch<sup>3</sup>, and Tim Tabart<sup>3</sup>**

<sup>1</sup>CRC for Sustainable Production Forestry, University of Tasmania, Hobart, Tas.

<sup>2</sup>Head of School, School of Agricultural Science, University of Tasmania,

<sup>3</sup>Masters candidate, CRC for Sustainable Production Forestry, School of Agricultural Science, University of Tasmania

The development of effective strategies for the integration of farm forestry into agriculture requires a detailed understanding of the farm family business. The paper defines the farm family business, showing it to be the dominant structural unit of Australian agriculture. Its key components are examined. Agrarian ideology is shown to impact on the organisation of the farm family business, in combination with the family cycle and the desire for intergenerational transfer. The goals, labour use, decision making and human capital in farm family businesses are examined. It is concluded that for farm family businesses to adopt farm forestry, extension efforts need to recognise the diversity of farm family businesses and of those contributing to their functioning. This can be done by:

- developing farm forestry options to suit the needs of the relevant parties;
- providing relevant information in useable form;
- working with the particular member(s) of the farm family business involved in the decision making, decision taking and/or implementation of decisions relating to entry into farm forestry; and
- making the technology, information and associated education or training accessible to farm family businesses, particularly through the use of existing networks and communication structures.

### **Biographical note**

**Amabel Fulton** is a Rural Sociologist with the CRC for Sustainable Production Forestry. Her role is research into the social and economic aspects of the integration of farm forestry into agriculture. **Professor Rob Clark** lectures in Farm Management at the University of Tasmania and supervises postdoctoral research fellows and research higher degree students within the School of Agricultural Science. He is involved in research on new industry development and production horticulture. **Paul Dargusch** and **Tim Tabart** are Masters students in farm forestry.

## **Strategies for Improving Landholders' response to farm forestry development**

**Digby Race**

Department of Forestry – Australian National University &  
CRC for Sustainable Production Forestry, Canberra, ACT.

Small-scale forestry, largely represented as farm forestry, is a growing and important component of Australia's forest industries. Farm forestry is largely promoted by government and industry as a land-use likely to deliver important benefits in terms of increasing future timber supplies, arresting natural resource degradation, enhancing regional development, and improving farm viability. In short, farm forestry appears to have considerable potential to provide socio-economic and environmental benefits to regional Australia. If viable, self-sustaining farm forestry industries are to develop, thousands of landholders will need to be involved in the growing of forest products, and an integrated network of service providers and processors will need to be formed. In several regions there are promising signs that such farm forestry industries are emerging. Equally however, there are signs that current approaches to farm forestry development may not be reaching their full potential, particularly if communication efforts are inadequate or misdirected, and farm forestry options are unnecessarily inflexible. Understanding the socio-economic factors affecting landholders can assist those organisations investing in farm forestry to refine their approaches to farm forestry development and so lead to a better investment. This paper outlines some of the major socio-economic issues affecting landholders, and suggests how those landholders most likely to adopt farm forestry can be better identified and involved.

### **Biographical note**

**Digby Race** has been a Research Fellow (Farm Forestry) at the Department of Forestry – Australian National University, since January 1998. His primary research focus is upon analysing the socio-economic outcomes of farm forestry development for regional Australia, and he works as a partner of the CRC for Sustainable Production Forestry. In addition, he has current research contracts with the Commonwealth's Agriculture, Fisheries & Forestry – Australia (AFFA), Greening Australia Ltd., and the United Nation's Food & Agriculture Organisation (FAO). Digby was earlier employed as a Research Officer (Farm Forestry) at The Johnstone Centre – Charles Sturt University (Albury, NSW) (1995-'97), and the Department of Agriculture (Victoria) (1991-'94) as an Agroforestry Development Officer.

# **Modelling Non-Industrial Timber Supply: An economic approach**

**Dr Sarah Jennings**

School of Economics, University of Tasmania, Hobart, Tas.

This paper reviews progress to date on the economics of non-industrial timber supply undertaken as part of the Farm Forestry Group of the CRC for Sustainable Production Forestry. The economists' notion of timber supply will be identified and an overview of theoretical and empirical literature in the field presented. Preliminary results of a case study in which the empirical long-run, positive timber supply relationship for a hypothetical region are discussed. The strengths and weaknesses of this approach, from both conceptual and practical perspectives, are identified. The paper also foreshadows the future direction of this research by illustrating the stated preference choice modelling approach to timber supply analysis.

## **Biographical note**

**Dr Sarah Jennings** attained a PhD in Forestry Economics at the University of Alberta, and has since worked as a lecturer in the School of Economics at the University of Tasmania. Sarah teaches primarily in the areas of Resource and Environmental Economics and Introductory Microeconomics. Her research interests include Resource and Environmental Economics and the Economics of Social Policy. Recent forays have been into the economics of childcare, youth justice programs and policing. Sarah is a member of the CRC for Sustainable Production Forestry. Her main project area is the economics of non-industrial timber supply. She has also been involved in joint projects on the economics of fertilisation and biological sprays.

## **Refining North Forest Product's Approach to Farm Forestry Development**

**John Hewitt & Stephen Manson**  
North Forest Products, Tamar, Tas.

Plantations have been established on farmland in north-east Tasmania since the 1970's however, getting farmers interested in planting trees as a commercial crop was difficult. In 1997-'98 Jacki Schirmer did a study of landowners attitudes towards commercial farm forestry and from this study put forward some recommendations that would help sell commercial farm forestry to landowners.

Tamar Tree Farms a joint venture between North Forest Products, Mitsubishi Paper Mills, Mitsubishi Corporation and more recently the Tokyo Electric Power Company has taken on these recommendations with some success.

### **Biographical note**

**John Hewitt** is the Operations Manager with Tamar Tree Farms – a joint venture between Associated Forest Holdings (AFH) and Tas Forest Holdings (TFH) – Mitsubishi Paper Mills, Mitsubishi Corporation and Tokyo Electric Power Company, commencing in May 1995. John's responsibility with Tamar Tree Farms is to manage plantation establishment, share farm and lease agreements and property purchases, landowner relations. He has liaisons with contractors, staff, landowners and government agencies. John has a background in agriculture in Tasmania and Victoria. His family owns land and timber, and he is a Forest Practices Officer with experience in timber harvesting and forest and land assessment. **Steve Manson** is Manager of Tamar Tree Farms, and is responsible for liaison with customers, staff, contractors, Government agencies. The aim of the project is to produce 500,000 tonnes per annum of high quality eucalypt woodchips on a sustainable basis. Tamar Tree Farms is currently in its 5<sup>th</sup> year of plantation establishment. Steve is Canadian born, and has worked in the forest industry in Canada, Solomon Islands, Indonesia, Middle East and extensively throughout Australia. Throughout his career he has gained experience in different forms of forest harvesting and management and more recently has been involved in the start up of a significant eucalypt plantation at North Forest Products, a joint venture between North Forest Products and Japanese interests.

## **‘It’s not easy being green’: Perceptions of the 2020 Vision in regional Australia**

**Jacki Schirmer**

Department of Forestry & CRC for Sustainable Production Forestry,  
Australian National University, Canberra, ACT.

The Plantation 2020 Vision aims to treble the area of Australia’s plantation estate by the year 2020. This requires a significant increase in rates of plantation establishment, and hence a visible change to many rural landscapes. Rapid visible change to a landscape commonly results in concern about the development causing that change. Concern about the impacts of the 2020 Vision has been raised in several regions targeted for plantation development by various individuals and groups. These have included landholders adjoining new plantations, environmental organisations, local councils and indigenous peoples.

A three-month study from December 1999 to February 2000 funded by the CRC-SPF and ANU Forestry examined nationwide media reports on plantation disputes and conducted five on-ground case studies of disputes over plantation development. The study found that a wide range of social, environmental and economic concerns are commonly raised about the expansion of the plantation estate. However, these concerns were rarely a negative response to plantations in and of themselves, but most commonly were concerns over the placement of plantations, off-site impacts of plantations, and the scale of plantation development in particular regions. Concerns are being expressed primarily through the development of ‘grass roots’ organisations opposing plantation development. These organisations commonly form in response to a proposal to establish a plantation in a high profile location in a rural community, such as along a main road. They express opposition to plantations primarily through media articles, lobbying local members of parliament, and lodging objections to proposed plantation developments with relevant planning authorities. There is little research available to prove or disprove many of the concerns being raised over the impacts of expansion of the plantation estate. As a result, while considerable resources are spent on dealing with the concerns raised, decisions by planning authorities relating to plantation development are often based on perceptions and concerns without any ability to objectively assess the potential impact of plantations. This indicates a need for research to quantify the potential impacts of the Plantation 2020 Vision on various aspects of rural viability.

### **Biographical note**

**Jacki Schirmer** is a PhD student with the Department of Forestry, Australian National University and the CRC for Sustainable Production Forestry. Her research interests include the socio-economics of farm forestry, with particular reference to the decision making processes landholders undertake to decide whether or not to enter into farm forestry. Other recent work includes a nationwide survey on the economic costs of revegetation by community organisations in Australia. Her current work focuses on natural resource conflicts surrounding both afforestation of cleared land and the use of forested land.

## **Session 3: Workable Solutions #2: Additional Farm Forestry Research**

### **Chair – Simon Greenaway**

**Simon Greenaway** currently works as Community Education and Training Officer for Greening Australia in the South East NSW Farm Forestry Project and is the coordinator of the NHT funded PNF management project. Simon has previously coordinated revegetation program in Central Australia with Aboriginal communities. In addition he is putting his farm forestry ideas into practice on the family property.

### **Synthesiser – Graham Brooks**

**Graham Brooks** is Director of the Plantations and Farm Forestry Section – Forest Industries Branch, for the Commonwealth's Department of Agriculture, Fisheries and Forestry Australia (AFFA). He is a graduate of the University of Queensland's Gatton College and the University of New England. Following six years with the Queensland Department of Primary Industries, Graham gained extensive private sector experience in agricultural research, extension and marketing prior to joining the Commonwealth. During the last 15 years he has worked in scientific, industry policy, corporate financial management and program management roles within AFFA.

# Private Native Forest Management in South East NSW: Challenges, opportunities and approaches

**Dr Jürgen Bauhus<sup>1</sup>, Simon Greenaway<sup>2</sup> and Peter Deane<sup>1</sup>**

<sup>1</sup> Department of Forestry, Australian National University, Canberra, ACT.

<sup>2</sup> Greening Australia, South East NSW Farm Forestry Project

The potential of private native forests (PNF) to maintain regional wood supply and to complement the reserve system on public land are being increasingly appreciated. This appreciation is partly a result of the Regional Forest Assessments, and it is reflected in the financial support, largely through the National Heritage Trust, that has been provided to improve the management of private native forests in a number of regions. Here, we will present a project attempting to facilitate, support, and integrate management for conservation and management for production objectives. On public land the integration of these often conflicting objectives has led to much dispute. Currently, land is allocated to a single management purpose in order to avoid the perceived conflict between different management objectives. In PNF, however, landholders often pursue both objectives simultaneously, though commonly without firm knowledge about how to do so. The extent to which PNF management can achieve this balancing act will influence whether or not the conflict over native forest use will shift to private land.

Work on this project is based on the premise that both conservation of biodiversity and utilisation of forest products require active management, that they are not mutually exclusive, and that the latter can provide the financial resources for the former. However, incentives for active management depend on market opportunities. This project takes a variety of approaches to improve PNF management in the South East of NSW with an overarching aim of establishing a native forest management culture in the local community that is sensitive to sustainability. This involves:

1. improving the knowledge and skill base of private landholders with regard to the ecology and management of the forests and the processing and marketing of products;
2. providing assistance to develop forest management plans, harvesting applications, and applications for voluntary conservation agreements;
3. investigating the motivations, values behind, and impediments to PNF management; and
4. establishment of trials and demonstration sites to showcase management approaches.

In this presentation, we will provide a general overview of the project, discuss the social science component of the project, and provide the rationale for the forest management research.

## Biographical note

**Dr Jürgen Bauhus** is Senior Lecturer in the Department of Forestry – Australian National University, teaching Silviculture, Forest Ecology, and Tree Physiology. His research focuses on the impacts of forest management on nutrient cycling, on silviculture of native forests, and indicators of sustainable forest management. Jürgen



also takes great interest in the dissemination of scientific knowledge in the wider community and the application of it in management, which is reflected in his work on private native forests. **Simon Greenaway** works currently as Community Education and Training Officer for Greening Australia in the South East NSW Farm Forestry Project and is the coordinator of the NHT funded PNF management project. Simon has previously coordinated revegetation programs in Central Australia with Aboriginal communities. In addition he is putting his farm forestry ideas into practice on the family property. **Peter Deane** is currently undertaking research into values, knowledge and practices surrounding the management of native forests by private landholders in the Eden Region, for a Masters degree at the Department of Forestry – Australian National University. He has an undergraduate qualification in ecology, a postgraduate qualification in environmental sociology and is pursuing his interest in interdisciplinary study between the natural and social sciences.

## **Farm forestry and regional development: Communities making collaborative decisions**

**Tim Tabart**

School of Agricultural Science – University of Tasmania, Hobart, Tas.

In regional Australia, as in many other parts of the world, there is an increasing trend toward local and regional communities coming together to collectively plan future development in a way that seeks to balance economic, social and environmental considerations. Many models of such collaborative processes are being implemented which involve representation from a wide spectrum of interest groups - including the general community, industry and different spheres of government - in decision-making forums.

This trend has potential ramifications for the development of farm forestry. Such forums offer an opportunity for the range of players that would be engaged in and affected by the development of farm forestry to consider what the consequences of such development might be. For instance, what may the consequences be for farmers - income, lifestyle and independence; for rural communities - employment, population and amenity; for the environment - native forests, soil and water, flora and fauna; for Councils - rates and infrastructure? How can investment be attracted? How can downstream processing and value-adding be encouraged? Will farm forestry complement or detract from other regional developments?

A balanced consideration of all these aspects would then allow regional farm forestry to be planned strategically to maximise the potential economic, social and environmental benefits, while minimising potential negative side-effects. To evaluate the potential of collaborative decision-making in this context, this paper reports on a literature review of several case studies of regional development processes, as well as an initiative currently in progress in the Derwent Valley region of Tasmania which is the subject of the authors Masters research project.

### **Biographical note**

**Tim Tabart** is a Masters student from the School of Agricultural Science at the University of Tasmania. His research is an evaluation of a collaborative regional development process currently underway in the Derwent Valley region of Tasmania. This research is supported by the CRC for Sustainable Production Forestry.

## Impacts of isolated trees: What's the difference?

**Amanda Ozolins<sup>1</sup>, Dr Cris Brack<sup>1</sup> and Dr David Freudenberger<sup>2</sup>**

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Before the advent of European settlement, the Lachlan Catchment in central-west New South Wales was dominated by forests and woodlands. However, extensive vegetation clearances, undertaken as an integral part of agriculture establishment and growth has reduced the tree cover to widely spaced patches, linear strips along roads and waterways, and isolated trees. Up until recently, research into the importance of trees and tree decline in the agricultural matrix has concentrated on the remnant patches and linear strips of trees. The isolated trees have been considered relatively unimportant because it has been thought that they were relatively few in number, were dying and not being replaced, and had effectively ceased to exist as ecologically functioning communities.

This presentation discusses a recent study of isolated trees in agricultural lands of the Lachlan Catchment (central-west NSW). Line intersect sampling on aerial photographs were used to determine number and spatial distribution of isolated trees in 1993-1997 and 1963-1965. This information is used to estimate the value of isolated trees and changes over the last three decades. The number of isolated trees has declined by about 20% over the period of study with the current density about 0.3 trees/ha. However these trees are not evenly spaced throughout the area and have values that are disproportionate to their abundance.

### Biographical note

**Amanda Ozolins** completed her B.Sc. (REM) with Honours in 1999. Her thesis - Abundance and decline of isolated trees in the agricultural landscape of Central West New South Wales - was submitted in partial fulfilment of this degree. The other authors acted as Supervisors for this study. **Dr Cris Brack** is a Senior Lecturer, Forest Measurement and Modelling, in the Department of Forestry – Australian National University. **Dr David Freudenberger** is a Senior Researcher within Wildlife and Ecology at CSIRO.

# **N.S.W. Local Government Land Use Policy Development Processes: Implications for Farm Forestry**

**Christina O'Grady and Dr John Field**

Department of Forestry – Australian National University, Canberra, ACT.

Local government has been identified as having an important role in farm forestry due to land use and planning responsibilities. At times, the regulatory requirements of local government land use policies are at variance with the aspirations of farm foresters. Eight local councils on the Southern Tablelands of NSW were analysed using surveys and interviews to determine: the nature of land use regulations affecting farm forestry; the processes used to create the regulations; and the, understanding, experiences and attitudes of community members in relation to land use regulations.

The prescriptive nature of Local government regulations results in farm forestry being difficult to manage because the wide range of activities which the term describes does not fit within existing land use categories. Regulations for "forestry" activities will generally be applied to farm forestry. The local government regulatory requirements for carrying out farm forestry vary across the Southern Tablelands due to different experiences with, and perceptions of, the activity. In some situations, the regulations impede the establishment and operation of farm forestry but in others, there are no constraints. There may also be a perception that the local government inhibits farm forestry, whether or not this is actually the case.

Despite the imposition of regulations, councils generally see farm forestry as a valid rural land use. Councils do not see their regulations as a problem but as a necessity under their 'duty of care' responsibilities to the whole community. This contrasts with landholders who, in the main, see regulations as an unnecessary imposition. If farm forestry is to gain the support of the local government in a way which satisfies the aspirations of practitioners, an understanding of the various viewpoints needs to be encouraged and facilitated.

## **Biographical note**

**Christina O'Grady** completed her B.Sc. (Hons) in 1999, with her research being the basis of this paper. It is written in partnership with her Supervisor – **Dr John Field**, who is a Senior Lecturer in the Department of Forestry – Australian National University.

## Session 4: Synopsis and Future Directions

**Chair – Professor Peter Kanowski**

### **Socio-economic Research to Support Successful Farm Forestry**

**Professor Craig Pearson, Dr Sheridan Coakes & Heather Aslin**

Bureau of Rural Sciences, Canberra, ACT.

There is a clear role for social sciences research in maximising the benefits to individuals, communities and the economy from farm forestry while minimising the pain from (or helping develop creative solutions to) the associated structural adjustment by individuals and by rural communities. This paper will take account of discussion earlier in the colloquium; examine the social research literature relevant to the rapidly changing Australian farm forestry context; and suggest social issues and research gaps that will need to be addressed to ensure the development of an economically and socially sustainable farm forestry industries.

To structure this overview, we will frame colloquium outcomes, literature, and speculations within a matrix. On the one axis, our understandings may helpfully be categorised by: existing social knowledge and research activity, the mismatch or conflicts which arise within existing knowledge, and the alignment of this knowledge with present public policy and agency advocacy. On the other axis, we place the issues or decisions, such as individual or corporate commitment (to land-use change into farm forestry), issues of implementation, and issues of community adjustment.

#### **Biographical note**

**Professor Craig Pearson** is Chief of the Agriculture, Food and Social Sciences Division – Bureau of Rural Sciences, Canberra. In this role, Craig is responsible for leading research and provision of scientific advice to government agencies, in the disciplines encompassed within the Division, including climate change modelling, feral animals and weeds, gene technology and food chain organisation, and social sciences research. He also coordinates the Bureau's Greenhouse program across three Divisions. Craig is Adjunct Professor at the Centre for Resource and Environmental Studies (CRES) – Australian National University. He was previously Dean of the Faculty of Natural Resources, Agriculture and Veterinary Science and Pro Vice-Chancellor at the University of Queensland (Gatton) (1995-1999). Earlier he was Professor of Agronomy at the University of Sydney (1985-1995). He was a foundation member of the Wool Research and Development Corporation Council (1986-1990), and is currently a member of Board of CRC for Greenhouse Accounting and the Plant Industries Committee of SCARM. Craig has considerable professional experience in Australia, New Zealand, Canada, Sweden, USA, Argentina, Indonesia, Thailand, Ethiopia and the United Kingdom.