Submission to the Senate Select Committee on Agricultural and Related Industries:

Inquiry into Food Production in Australia – Impact of Managed Investment Schemes

Introduction

The National Association of Forest Industries (NAFI) appreciates the opportunity to provide commentary to the Senate Select Committee on Agricultural and Related Industries in regard to the *Inquiry into Food Production in Australia – Impact of Managed Investment Schemes.*

This submission will address each of the Terms of Reference with specific reference to the Australian forest industry. NAFI's comments provided herein are therefore specifically focused on the retail forestry investment industry and are not necessarily relevant to other areas of MIS (such as agriculture or horticulture).

This submission draws on material provided to the Parliamentary Joint Committee on Corporations and Financial Services and was prepared in cooperation with the Australian Plantation Products and Paper Industry Council (A3P). We also note and support the Submission to the Committee by A3P.

T/R 1: Land and Land Prices

Land-use Change

Broad-acre cropping, farm consolidation and other factors (not plantations) have been the main drivers of land-use change in many rural regions of Australia in the past decade.

Between 1994 and 2004, the total area of land used for cropping and grazing fell by 29 million hectares, compared with an increase in the area of plantations of less than 0.7 million ha (2 percent) while cropping specialists doubled (from 10 to 20 percent of total agriculture). Total number of dairy farms fell 27 percent, but dairy cow numbers rose 14 percent.

Land degradation, urban development and rural residential development are having a far greater impact on land use change than plantation expansion. Although timber

plantations are very obvious and do change the appearance of local landscapes, the total amount of rural land being planted is very small.

In the five regions that in 2000 accounted for about 70 percent of total plantations as well as having major timber processing industries, no more than 6 percent of the land was under plantations. Even in Local Government Areas with the highest concentrations of plantations, maximums of 5 to 20 percent of agricultural land are used for plantations.[1]

Rural land values

Recent research by Australian Agribusiness Group (AAG) into the effects of retail managed investments on land values concluded that retail managed investment projects have not been the major driver of rural property prices. Using statistics from the Valuer-General Victoria, AAG compared rises in values for specific areas in the state. It contrasted areas where there was a strong level of retail managed investment purchases with areas that had few or no retail managed investment purchases. AAG concluded that land prices in retail managed investment activity areas did not go up any differently to other areas.[2]

Rising values of rural land have been driven by a combination of factors that include low interest rates, high commodity prices, strong international demand for Australian farm products, rationalisation in the rural sector with farm amalgamations, competition for farms from overseas buyer, and multiple changes in land use.

Plantations are only one of several competing land uses putting upward pressure on rural land prices in recent years. Plantation companies buying properties have been welcomed by retiring farmers, many having had their properties on the market for some years.

Other strong competitors for land include: broad-acre cropping (a major land-use change); dairying and beef cattle expansion; intensive agriculture; farm consolidation; rural subdivision and lifestyle farms (especially in popular ‘sea-change’ and ‘tree change’ regions, such as Denmark, WA. and Oberon, NSW); and urban encroachment (such as in Wynyard, Tas).

In 2005, BRS confirmed that WA’s Great Southern region saw a steeper increase in land prices since 2002 in non-plantation regions because farmers had experienced “a couple of good seasons”.

Nationally, average prices of broad-acre farms sold in Australia rose by 34 percent in 2004-05, following an average increase of 19 percent in 2003-04.[3] At that time, plantation investment companies had purchased around 3 percent of the total of around 10,000 broad-acre properties sold in each of the previous four years. It is simply not possible that 3 percent of sales could drive a 34 percent increase in land values.

[1] Industry analysis figures
[2] *Financial Review*, Matthew Cranston, 29/06/2009, pp. 47
[3] Elders, Rural Property Index

A rural property forum convened by National Australia Bank Agribusiness presented comparative land values and capital growth in eleven NSW regions from 1978 to 2006. Most notably, "values for most classes of property are shown as having at least doubled since 2002, and in some cases (like Mudgee) nearly trebling or even quadrupling (Yass)."[4] Plantations are not being established or expanded in either of the Mudgee or Yass districts.

Dairy farms

According to Elders (December 2005), several dairy farms in Tasmania were purchased in 2005 by forestry companies at prices of $3,000 to $6,500 per hectare, while interstate and international dairy farmers had pushed the price for established dairies in prime areas up to $14,000 per hectare.

According to the Commonwealth Bank,[5] dairy farmers seeking to expand their holdings in western Victoria had met stiff competition from overseas farming interests – particularly from NZ (where dairy land was about $25,000 per hectare), but also from Holland, England, Germany, Switzerland and Canada. At least 100 overseas families had invested in SW Victorian dairy farms since 1996.

In March 2006, 164 dairy properties were advertised for sale in Victoria, at an average asking price of $11,500 per hectare. Advertised prices for dairy farms currently on the market in SW Victoria range from $12,000 to $15,000 per hectare.

These prices were almost double what plantation investment companies could afford to pay for land. It is illustrative that the three plantation investment companies that had been purchasing such land in Corangamite and Colac Otway Shires in SW Victoria were no longer actively seeking land in that region, and had made no purchases since mid-2005.

Thus, although blue gum plantations had been established on those properties over the succeeding 12 months, the plantation investment companies had not been a force in the market for at least a year, yet were still being blamed for forcing up the price of rural land.

Land purchase statistics

As at mid 2006, plantation investment companies had purchased only several hundred of the thousands of properties inspected over the previous five years. Averaged over the total estates of the major companies, 12 to 35 percent of all properties inspected were purchased. The average was less than 20 percent.

Many a property is offered to a retail forest project manager but not inspected, because the manager already knows the property to be unsuitable (e.g. too far from existing or future processing or port facilities, or fails an initial desk-top analysis). However, for properties that have been inspected, the main reasons for not purchasing, in order of importance, are:

[4] *The Land*, 22/06/2006
[5] Stephen Rafferty, 15/12/2005

- Property was too expensive (in one-to-one sales);
- Percentage of net plantable area was too small (a sub-set of 'too expensive');
- Soils were unsuitable;
- Company was the losing bidder at auction or tender, mostly to farmers;
- Vendor was not serious, and withdrew once commitment was required; and
- Property was too controversial (eg. near a town or a tourist feature).

Contrary to some local stories, the majority of houses on farms purchased or leased by retail forestry companies remain occupied, being let to company employees, contractors, or external tenants (including the previous owners, in some cases).

T/R 2: Water Resources and Water Prices

Plantations, like all forms of agricultural crops, intercept and use water. Trees have a longer growing season, more foliage and deeper roots than pasture or crops, and plantations can improve water quality, and assist in reversing salinity and erosion.

No irrigation is used in mainstream plantation forestry. Instead, plantation managers mostly utilise cleared land in higher rainfall areas. The effect on streamflow of converting agricultural land to timber plantation is related to the catchment area affected. In smaller catchments, it is difficult to detect an impact when less than 20 percent of the catchment is planted. In major plantation regions, plantations occupy between 1 and 6 percent of large catchments.

Some plantations in some parts of some catchments in some soil and rainfall conditions have the potential to reduce environmental flows.

The retail forestry sector strongly supports and contributes to research that will enable plantations to be more strategically located in different catchments, in the context of the impacts of all land uses on water yield and quality.

Water Accounting

Water accounting systems with regard to forestry land use is limited by the available information and data. The kind of standardised system (as currently proposed under Commonwealth water accounting policy) needs to be based on better scientific understanding and measurement of forestry water impacts than is presently available.

"Best available science" for forestry purposes is inadequate, although new research is improving our knowledge of these systems. In order to provide a transparent process, industry and water regulators need to agree on the underlying science and negotiate an acceptable accounting system. Regulators need to accept that, while general principles might be able to be applied across jurisdictions, the actual calculations are likely to vary from management area to management area, because of the number of physical variables involved, such as rainfall and hydrogeology.

Water Markets

The forest plantation industry is only peripherally involved in water markets at present but understands it is the intention of most jurisdictions to develop tradable interception entitlements. The design of an interception entitlement will be crucial to its ability to trade. Ideally, this entitlement will be equal to other water entitlements and be fungible with them. The keys to the water market will be depth (i.e. the number of units on issue and their spread) and liquidity (i.e. supply and demand).

NAFI's observation of the market for irrigation water entitlements is that, while it has had some success, it is far from ideal regarding efficient allocation of resources to the highest value uses. Significant barriers to free trade remain, especially from district to district and across State borders.

In the Lower Limestone Coast region of South Australia, where there are major tree plantations, the trading of water licences has been minimal – five trades in 2007-08, representing 249 megalitres of water, out of total allocations of more than 77,000ML7. This suggests little demand and liquidity.

T/R 3: The Efficient Production of Food, Including the Impact of MIS on Supply and Demand and on the Availability and Efficient Use of Capital

Forestry, Increased Agricultural Production and Impact on Markets

As detailed under '*A Complementary Range of Forestry and Farming Activities*' (T/R 5: Returns to Farmers), forests established on agricultural land (including those established under retail forestry investment programmes) can play an important role in increasing agricultural productivity (and, subsequently, improve the efficiency of food production). Forests play an important role in maintaining ecosystem functions across the landscape. MIS arrangements facilitate investment in plantation forest establishment where otherwise the required capital would not be available.

The markets for forestry products, as derived from plantation forests, are well established, robust and growing. Plantation forests established under retail forestry investment projects provide a range of high-value timber products to these (predominantly international) markets, thus increasing on-farm income as well as decreasing Australia's significant trade deficit in forest products.

Capital Market

Retail forestry investment constitutes a very minor part of the greater investment market. Any view that retail investments in forestry or non-forestry divert available funds away from other productive investment in rural and regional Australia is incorrect. Retail investment forest growers are not generally focused on the flow-on socio-economic consequences (such as regional employment) of their investments. Rather they are motivated by traditional financial growth incentives. The capital that retail forestry projects attract would otherwise be invested in other investment markets such as the share or property markets and may not necessarily result in increased economic activity in rural and regional Australia.

The retail forestry investment model provides a comparative incentive for investment in regional Australia; in areas that would benefit from investment and associated

increased economic activity but would otherwise not attract significant investment at all. Retail forestry investment does not 'crowd out' investment in rural and regional Australia, because without retail forestry, rural and regional Australia would not be able to attract a similar level of investment.

T/R 4: The Social Fabric of Rural and Regional Communities, Particularly the Availability of Employment and Capacity Building Opportunities Within These Communities

NAFI refers the Committee to Dr Jacki Schirmer's submission to this Inquiry. Dr Schirmer has extensively researched the social impacts of MIS and retail forestry investment projects on rural and regional communities. NAFI provides the following related comments as additional to her submission.

Population, employment and services

Independent studies by the BRS of socio-economic impacts showed that, except in isolated cases, plantation expansion did not cause decline in rural populations or services. Contrary to some popular misconceptions, the studies showed that plantations tend to slow or reverse rural decline, by attracting more working-age families, creating new jobs and businesses, providing off-farm work opportunities, and increasing the demand that justifies maintaining and improving community services.

For example, in Bombala (NSW), the hospital was upgraded and the Westpac bank re-opened full-time after six years at three days a week, because of the expansion of the plantation industry.

Plantation forestry is more labour-intensive than local agriculture, providing 2.5 jobs for every 1000 ha of plantation, compared with 1.8 jobs per 1000 ha used by other agriculture.[6]

Plantations have a multiplier of ~2.5 (i.e. an extra 1.5 indirect jobs for every direct job); milling operations have a multiplier of >3 (i.e. an extra 2 indirect jobs for every direct job in the mill).

A modelling study by 'Econtech', conducted as part of the industry submission to the Commonwealth forestry taxation review in 2006, provides an insight into the economic relationship between forestry, the regional community and the broader economy. The study determined the economic consequences of terminating the 12-month prepayment rule that was in place between FY2002 and FY2008.

The dramatic reduction in retail forestry investment offerings that would result from there being no prepayment rule was estimated to result in the following impacts:

- 35% decrease in the annual production of the plantation industry;
- $1.2 billion reduction in the industry's gross value of production;
- Declines in the exchange rate, GDP and housing construction;

[6] CIE, 2005

- An increase in imports of $523 million per annum (25%);
- Substitution away from domestically produced wood and paper products, towards imported wood and paper products;
- A fall in employment of around 35% within the plantation industry (predominantly in regional communities, as illustrated in Table 1);
- Movement of resources out of the main plantation timber-dependent regions such as Northern Tasmania and Lower Western WA and into mining-dependent regions such as the Northern Territory;
- A halt to most of the $7 billion of planned industry investment in value-adding; and
- Potential to reduce the ability of the plantation industry to reach the critical mass required to sustain harvesting and processing facilities in each region over the long term.

Region	**Job Losses**
Southern and Eastern South Australia (Mount Gambier)	1600
Barwon-Western (Southwest Victoria)	1100
South Eastern NSW (Eden-Bombala, Tumut)	1100
Northern Tasmania (Northeast Tasmania)	900
Goulburn-Ovens-Murray (Myrtleford-Albury)	1300
Inland Northern and Central NSW (Oberon)	1400
Lower Western WA (Albany)	1900
Wide Bay-Burnett (Gympie)	700

Table 1: Long-term regional employment impact of removing the 12-month prepayment rule

The report concluded that it is essential to have a stable investment regime for new plantations to address the changing nature of Australia's wood resource base. This will encourage investment on the scale required to build the plantation timber resources required by industry.[7]

T/R 5: Returns to Farmers

A Complementary Range of Forestry and Farming Activities

It is important to acknowledge that agriculture and forestry are not necessarily mutually exclusive and there exists a continuum of tree planting and forestry activities across the landscape at a range of scales and tree densities (refer Figure 1). These activities are undertaken for a range of production and environmental purposes, such as salinity and riparian plantings through to farm woodlots and plantations used primarily for wood production.

Where forestry and agricultural outputs are jointly produced from the same unit of land, agroforestry can take many forms such as tree belts, alleys and widespread tree

[7] Econtech, 2006

plantings. Livestock grazing, for example, is commonly practised within plantations following seedling establishment and initial tree maturity.

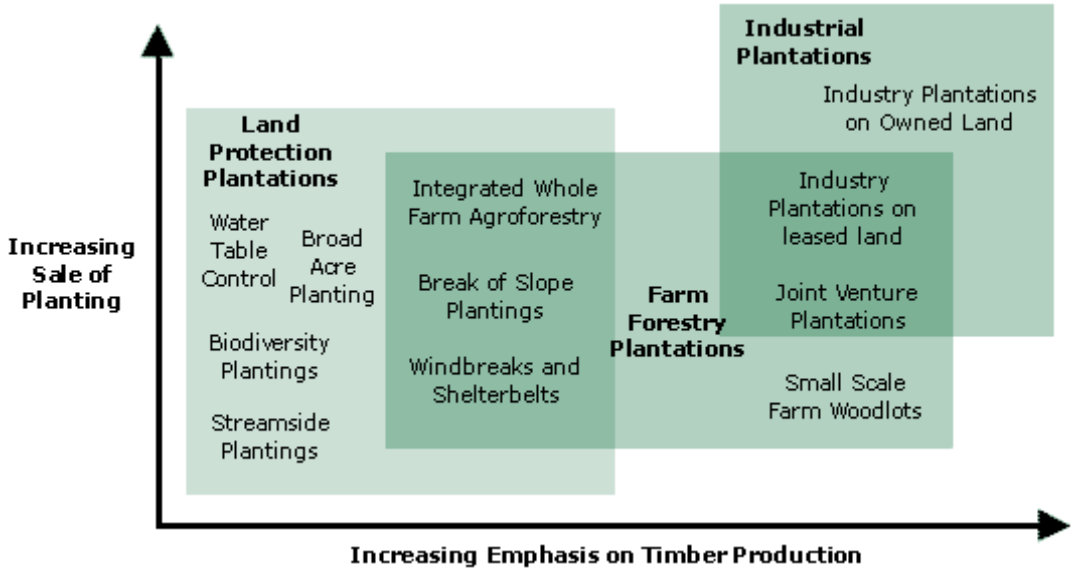

Figure 1: Continuum of farm-forestry and forestry activities

The ability to incorporate a range of tree planting and forestry activities as part of whole farm planning provides important adaptive capacity for farmers to respond to climate change. This is particularly relevant given previous tree clearing and land use practices that have resulted in land degradation at a range of national and regional scales, including dry land salinity, invasive weeds, soil erosion and water quality reduction. The direct biophysical processes by which trees used for shelter can enhance pasture and plant production are well documented and include:

- Reducing water loss, as a result of reducing wind speed and/or shading, which can also prolong pasture growth and improve water use efficiency;
- Protecting plants from frost;
- Promoting mineralisation of soil nitrogen as a result of shading pasture or soil;
- Contributing to soil organic matter (leaf and twig litter forming humus) and improved soil moisture retention; and
- Trapping or recycling nutrients over time (i.e. nutrient cycling).

Trees used strategically in the landscape also provide direct benefits for animal production through provision of shade and shelter, particularly during periods of climatic stress and calving. Trees and forestry activities used effectively may affect animals in the following ways:

- By providing additional leaf foliage or fruit as a supplement to pasture, particularly in times of drought;
- By reducing livestock maintenance requirements due to shelter, as energy expended is increased by excessive heat or cold;
- By reducing climatic stress due to shelter and improving numbers of calves and intervals between calves;

- By increasing provision of shade and survival rates of newborns, particularly in hot and humid conditions.[8]

The potential for forestry to help farmers adapt to climate change is therefore considered significant and may actually enhance agricultural productivity and food production in addition to providing greater resilience against climatic events.

Drought Implications and Assistance

NAFI acknowledges the importance of drought assistance and exceptional circumstances programs to the agricultural sector in dealing with the long term impacts of climate change. The forestry sector's role as a complementary land use can reduce the need for this assistance to some degree.

For instance, both native and plantation forestry can provide a valuable source of income at both the regional and farm level during periods when extreme climatic conditions are causing an economic downturn for other parts of the agricultural sector. This may be critical in supporting regional communities and individual landholders during these periods.

At a regional level, large scale production forestry may assist regional communities deal with droughts through the generation of economic activity and employment opportunities as part of that sector (e.g. harvesting, haulage, processing and wholesaling). At the farm level, landholders may rely on timber production from their forest resource to supplement their income during times of prolonged drought which is causing a reduction in their levels of agricultural production.

It is important that any potential evaluation of, or changes to, drought assistance and exceptional circumstances programs, recognises the value of forestry to regional communities and landholders as a less 'climate sensitive' land use.

Comparison of plantation performance with other land uses

As with any land use activity, there is the risk of natural events such as drought, pests and disease and natural variation in site productivity that impact on retail forestry investment projects' performance. The exposure of agricultural and forestry activities to natural risks differentiates these activities from other investments, such as investments in rental properties or government securities (e.g. 10-Year Treasury Bonds), which have a different and often lower risk profile.

Retail forestry project managers undertake comprehensive assessments of plantation sites, climate and other risk factors to minimise the potential effect on project performance and investor returns. This involves the project manager engaging forestry experts to undertake a range of activities, which may include:

- Site inspection, survey and assessment;
- Soil testing;

[8] Bird, P. R., Bicknell, D., Bulman, P.A., Burke, S.J.A., Leys, J.F., Parker, J.N., Van Der Sommen, F.J. and P. Voller, 1992, The role of shelter in Australia for protecting soils, plants and livestock, *Agroforestry Systems*, Vol. 20, pp. 59-86

- Implementing codes of practice;
- Plantation design and layout;
- Quality control of seedlings in the nursery;
- Site preparation including deep ripping and weed control;
- Supervision and quality control of planting and post planting activities;
- Periodic measurement and reporting of growth performance throughout the rotation; and
- Adjustments to management regimes, such as additional fertilisation application, to maintain project performance.

A key indicator used by economists and financial analysts to determine investment or project performance is the internal rate of return (IRR) (determined as the discount rate that brings the future stream of project costs and revenues to zero).

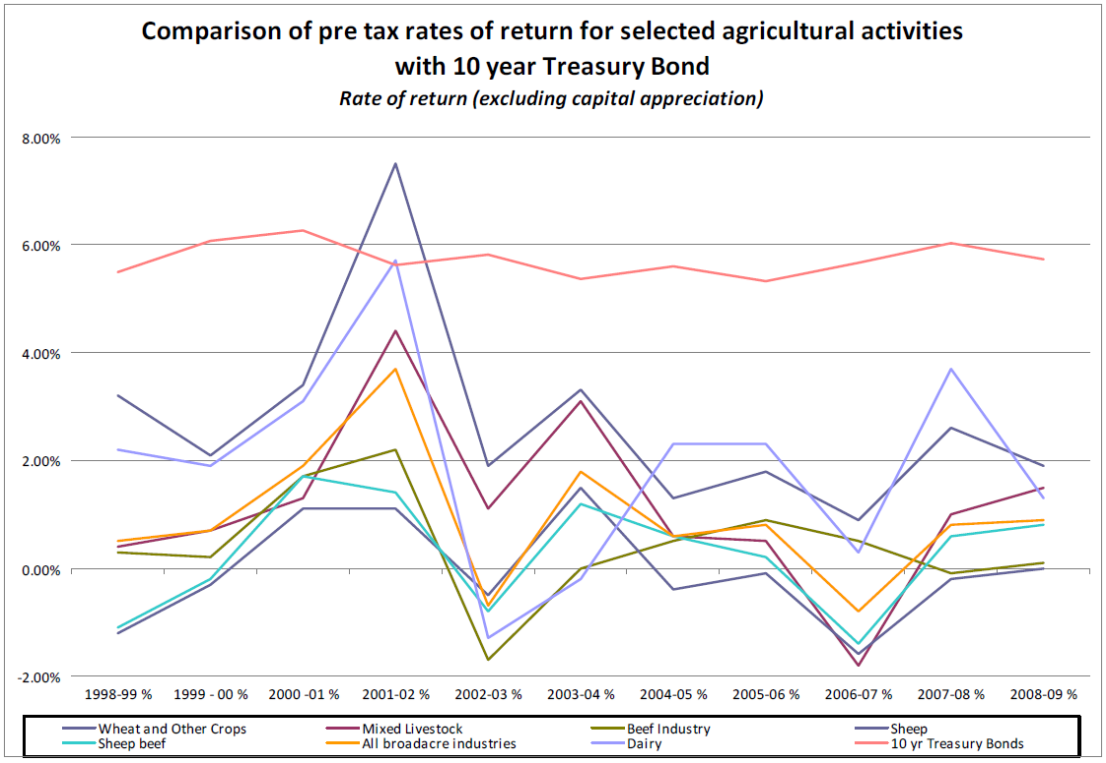

Figure 2: Average rates of return (excluding capital appreciation) for agricultural industries compared with 10 yr Treasury Bonds (Sources: ABARE Australian Farm Surveys (1998/99 – 2008/09); Treasury)

Analysts often benchmark IRRs from particular activities with activities that are subject to a similar risk profile; for this reason forestry is benchmarked with agriculture. Forestry and agriculture are subject to the same natural variability and climatic risks and exposure to international market forces.

The difficulty with a direct comparison with agricultural activities is that many retail forestry projects are yet to reach harvest stage and thus a representative sample of retail forestry projects, sufficient to create a statistically robust 'industry average', is unavailable. Although estimates of returns from retail forestry projects have been compiled by independent research houses, these are predicted and not actual returns, and hence not appropriate for comparison with actual returns from agricultural activities. While these estimates predict that, on average, retail forestry projects are

likely to provide returns between 8 and 12 percent before tax, it should be noted that some IRRs for individual projects and activities may not fall within this range.

Figure 2 graphs actual IRRs for a range of agricultural activities over the past 10 years with the average rate of return from 10-Year Treasury Bonds over the same period. On average, IRRs for agricultural activities have been less than the return on 10-Year Treasury Bonds with many activities registering negative IRRs in some years. While the drought has largely been responsible, the general trend of declining IRRs for agriculture is also a result of declines in terms of trade in the industry.[9]

Final product prices and agricultural and plantation activities

A key determinant of final returns to forestry and agricultural activities is final product price. Fluctuations in final product prices can influence the IRRs of investments over time. Figure 3 shows the indexed prices of selected major agricultural products in Australia. The fluctuating nature of these commodity prices over time has contributed to the highly fluctuating returns (IRRs) from agricultural activities over the past decade (see Figure 2 above).

In comparison, Figure 4 shows the indexed prices of selected forest products in Australia. In contrast to agricultural products, these prices have remained relatively stable over the last decade and in nominal terms have been increasing over time, reflecting the strong fundamental demand for Australia's forest products. This provides stability to the industry; attracting investment and maximising returns for investors.

[9] Productivity Commission, 2005, Trends in Australian Agriculture, Research Paper, Canberra

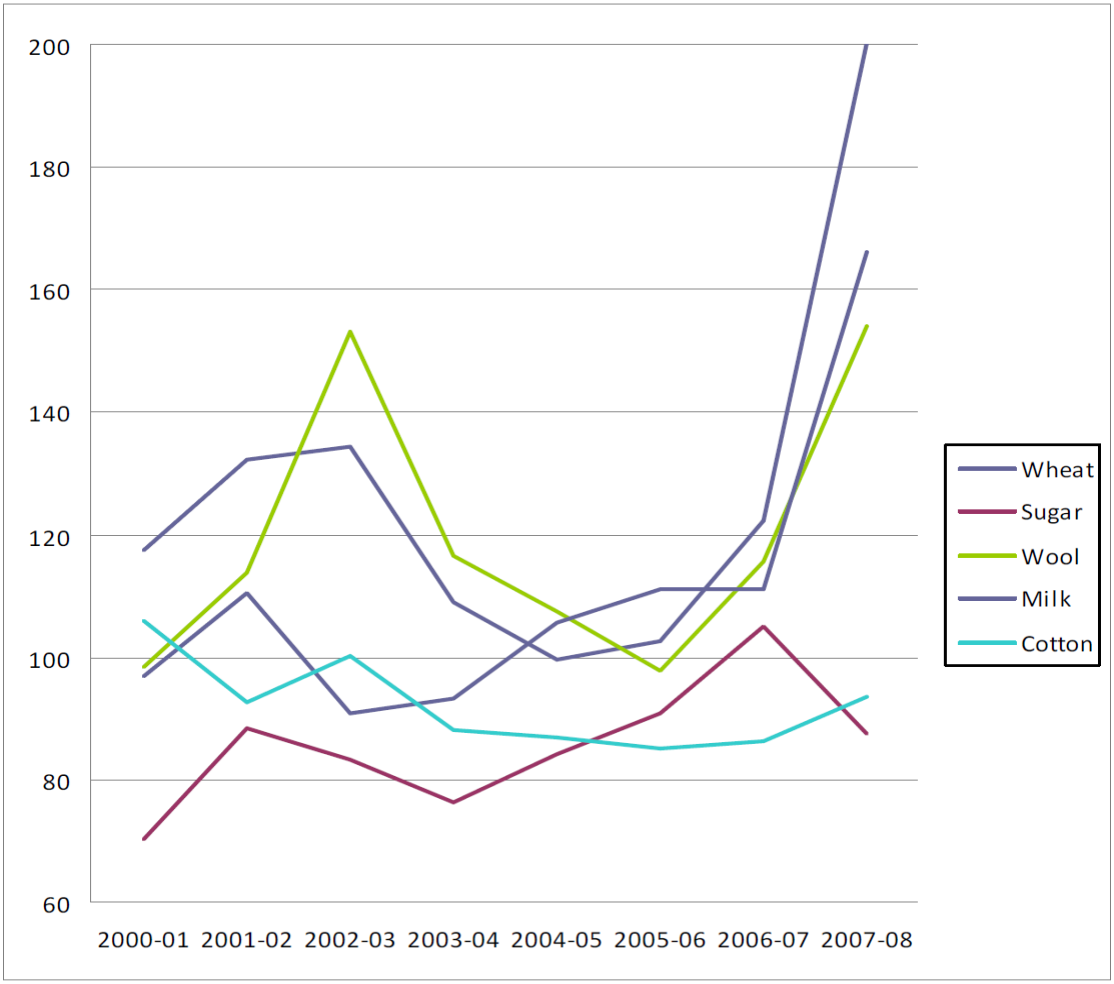

Figure 3: Indexed prices of selected Australian agricultural products (Source: ABARE 2008, Australian Commodity Statistics 2008, Canberra)

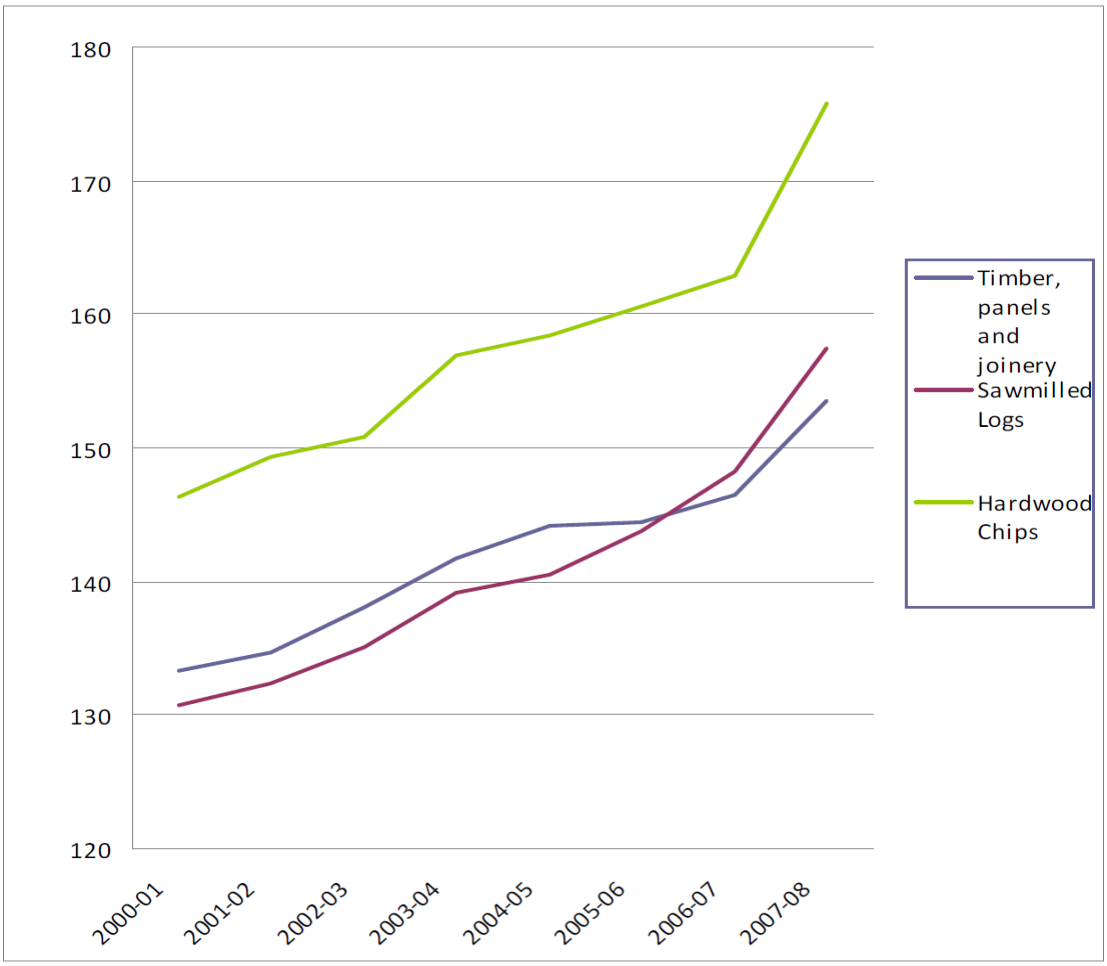

Figure 4: Indexed prices of selected Australian forest products (Source: ABARE 2008, Australian Commodity Statistics 2008, Canberra)

This stability in end-product price is further evidenced by ITC Limited's announcement of 30 June 2009, reporting the conclusion of negotiations for the second-half 2009 benchmark price for Australian plantation-grown bluegum woodchip for export to Japan. The existing price of $207.40 free on board (FOB) per bone dry metric tonne was maintained.[10]

ITC Limited's CEO, Mr Vince Erasmus, said that the maintenance of the price was an, "extremely positive outcome given global economic conditions." He went on to note that, "Australian certified plantation grown woodchip is a valued commodity in our major export markets."

This stability in end-product price provides strong foundations for the plantation investment industry. It suggests that there will be continuing strong growth in this industry, benefiting investors, shareholders, the timber industry and the greater Australian economy.

T/R 6: Opportunities for New and Emerging Agricultural Products

[10] ITC Limited, 30 June 2009, Press Release: ITC Secures Maintenance of Benchmark Price for Australian Plantation Grade Woodchip, Melbourne

Among the markets for emerging agricultural products are those related to bioenergy, biofuels and biochar. The integration of forests within the agricultural landscape provides farmers with the opportunity to grow diversified products and access these new markets. Forest biomass, when processed using an established technique such as pyrolysis, can produce significant amounts of bioenergy, biofuels and heat – these are all in demand in such markets as transport, stationary energy and co-products (such as oils, cosmetics, etc.). The by-product of this processing is biochar which can then be returned to the soil and play a major role in enhancing soil condition and, subsequently, increasing the productivity of agricultural land.

A NAFI study has shown that at existing rates of timber production, the quantity of woody biomass available is enough to produce, in aggregate, 3000 gigawatt hours (GWh) of electricity a year.[11] This represents about 7 per cent of the 45,000 GWh required to meet the expanded RET of 20 per cent of Australia's electricity production. The Clean Energy Council's Bioenergy Roadmap[12] includes pulp and paper manufacturing in its projections and puts the long term potential at more than 5000GWh.

This can make a significant contribution to energy security because the resource is inherently located in rural Australia and is necessarily distributed where the forests are. It is therefore most suited for application to small power stations feeding small enterprises and communities – that is, those most likely to feel the squeeze in any tightening of supply from base-load electricity generators.

At the same time, woody biomass has potential to contribute to the production of liquid biofuels, such as ethanol and diesel. This is seen as a secondary priority at present but, as Australian petroleum supplies dwindle and the "peak oil" scenario is realised, the current varieties of feedstock for these fuels could be extended into forest and wood wastes to add to Australian supplies as part of the energy security mix.

Summary

MIS arrangements facilitate the raising of investment capital required for the establishment of plantations across the Australian landscape. These plantations perform important ecosystem services that enhance Australia's food production capability and contribute to the ongoing sustainable management of Australia's agricultural landscape. Comparative research demonstrates that retail forestry investment projects' effects on land prices are negligible and that plantations are generally established on land that is not of highest agricultural production value (particularly in integrated agroforestry situations where plantations are established in marginal growing areas and used to improve agricultural production across the landscape).

Forests established under retail forestry investment projects do not generally require irrigation – this means that water is not lost through irrigation-related evaporation, and that the plantations do not contribute to irrigation-induced salinity. These forests do use water and prevent this water from recharging into terrestrial and/or subterranean

[11] MBAC Consulting, Wood Waste for Renewable Energy, funded by FWPRDC and the Australian Government, 2006
[12] Clean Energy Council, Australian Bioenergy Roadmap, September 2008

aquifers. More research is required to ascertain the extent and nature of this interception and how to manage forests and catchments accordingly.

Retail forestry investment project plantations generally have a positive effect on the net production of food, as the productivity of the land is improved at a landscape scale. Forest product markets are robust and require expansion of Australia's plantation estate in order to meet demand. Capital attracted into retail forestry investment projects is not diverted from other regional business opportunities, but rather is attracted from urban areas – without the existing MIS arrangements this capital would not be invested in regional industries and communities.

Retail forestry investment projects are major employers in regional Australia. The significant investment that these projects attracts contributes significantly to the ongoing viability of rural economies; facilitating secondary investment in capacity building social and physical infrastructure such as schools, hospitals, roads, etc.

When integrated with existing agricultural industries, forestry (including that facilitated by MIS arrangements) plays an important role in diversifying returns for farmers. By developing a comprehensive business plan incorporating complementary sustainable agricultural and forestry components, farmers can 'proof' their enterprises against such variable factors as drought and market fluctuations.

There are emerging opportunities and markets for plantation owners. Biochar provides farmers with an environmentally friendly, affordable and carbon-neutral soil conditioner. This in turn has a positive effect of food production and subsequent returns for farmers.

NAFI appreciates the opportunity to comment on this inquiry and would welcome the opportunity to appear before the Committee.