3

Future role for forestry and forest products

3.1 This inquiry's terms of reference direct the Committee to inquire into 'the current and future prospects of the Australian forestry industry'. This chapter will briefly look at some of the overarching trends that will shape the market in which the future forestry industry will operate. Two main trends will be discussed:

- Demand from paper, construction and other sectors; and
- The impacts of, and policy responses to, climate change.

Demand from paper, construction and other sectors

3.2 A number of submissions to the inquiry note the expectation that Australia's population will continue to increase over the coming decades. This is expected to heighten demand for timber and wood-products, and is often cited as proof of forestry's positive future prospects.[1] These submissions also note that environmental concerns[2] and changing social trends[3] will contribute to increased demand for the forestry industry's products in future. Demand is also expected to continue to grow in the Asia-Pacific region, providing increasing export opportunities.[4]

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1 Submission 75, Prof. Peter Kanowski et al, p.90; Submission 64, Dr Graeme Palmer, pp.2-3; Submission 74, National Association of Forest Industries, p.1.

2 Submission 74, National Association of Forest Industries, p.6.

3 Submission 75, Prof. Peter Kanowski et al, p.90.

4 Submission 44, Agriwealth Capital Limited, p.1.

Current consumption

3.3 According to the Department of Agriculture, Fisheries and Forestry, the average national consumption of wood products is 22 million cubic metres per year. By comparison, around 27 million cubic metres of logs are harvested in Australia each year.[5] However, Australia still imports a large amount of wood products, and has a trade deficit in wood products – in 2010 totalling $1.9 billion. According to *Australia's Forests at a Glance 2011* Australia imported $4.2 billion worth of wood products in 2010 and exported $2.3 billion worth in the same year.[6]

Figure 3.1 Forestry at a glance 2010

Major wood product imports (value in 2010):	
Paper and paperboard	$2 175 million
Manufactured paper products	$563 million
Sawn wood	$429 million
Panels	$250 million
Major wood product exports (value in 2010):	
Woodchips	$856 million
Paper and paperboard	$649 million
Sawn wood	$125 million
Panels	$87 million
Number of people employed in ABS categories forestry, logging and wood manufacturing (2010)	75 800
Value of turnover in forest product industries (2009)	$22.0 billion
Forestry and forest products industries contribution to GDP (2008)	0.6 per cent

Source *Australia's Forests at a Glance 2011, ABARES, p.3.*

5 Submission 59, DAFF, p.12.

6 *Australia's Forests at a Glance 2011,* ABARES, p.2.

Future demand

3.4 Whilst the Committee acknowledges that it is difficult to predict demand into the distant future, the forestry industry nevertheless needs to have an appreciation of the future opportunities both domestically and overseas. Questions about possible future demand were raised throughout the course of the inquiry. However, there was little concrete evidence on which to base predictions about the future or on which to make the long-term investment decisions necessary in the forestry industry.

3.5 Evidence suggested that the Australian forestry industry would be increasingly unable to meet the future domestic wood demand. For example, in relation to sawlogs, figures supplied by the Forest Growers CEO Forum[7] suggest that demand for sawlogs could reach 8 million cubic metres by 2040. This would be an increase of over 2 million cubic metres compared to today's demand, and well beyond projected Australian supply.[8] In relation to plantation softwood – both sawlogs and pulpwood – the Department of Agriculture, Fisheries and Forestry suggests that the potential supply 'is not expected to change significantly from now to 2050 or beyond'. This is, in part, 'likely to lead to a steadily increasing dependence on imported timber products and/or substitution for more carbon-intensive materials.'[9]

3.6 Other evidence, however, contests this view. According to the joint submission from Environment Tasmania, the Wilderness Society and the Australian Conservation Foundation:

> Plantations now produce the vast majority of Australia's processed wood products. Native forest sawmilling has been reduced to a remnant market-share. We have enough plantation wood supply to meet all our domestic timber needs and to develop a strong export oriented timber industry. Hardwood plantations can now entirely replace native forest woodchip production.[10]

3.7 However, were this contention true, it would still rely on the substitution of plantation wood for all wood currently sourced from native forests. As discussed in Chapter 4, there is considerable disagreement about whether this is in fact practical.

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7 Exhibit 11, *Forecast Sawn Timber Demand*.

8 Exhibit 11, *Forecast Sawn Timber Demand*.

9 Submission 59, DAFF, p.15.

10 Submission 109, Environment Tasmania, the Wilderness Society and the Australian Conservation Foundation, para 3.2.

3.8 There has also been a trend of the increasing reservation of forests, which has diminished the available supply of wood from native forests. This has an impact on the ability of Australia's forestry industry to meet timber and wood product demand.

3.9 In addition to the question of future supply and demand, there is a policy question of whether – or to what extent – Australia should be 'self-sufficient' in timber and wood-products. The National Forest Policy Statement does not set out self-sufficiency as a goal; rather, it speaks of an 'internationally competitive and ecologically sustainable wood production and wood products industries' which will provide 'national and regional economic benefits.'[11] Current policy does not explicitly aim for self-sufficiency, but rather emphasises the potential for growth in the industry. The website for the Department of Agriculture, Fisheries and Forestry states that one of its goals is 'to assist our forestry industry to grow, improve and capitalise on new opportunities while protecting the environment and contributing to the prosperity and quality of life in rural and regional Australia.'[12] Self sufficiency would see the timber industry make a greater contribution to the construction industry, as demand rises for building materials with low embedded energy, such as timber. It would also reduce reliance on wood sourced from foreign sources, which are often less regulated and environmentally damaging.

3.10 A number of submissions to the inquiry have supported Australia becoming self-sufficient in at least some parts of the wood supply.[13] This would obviously support additional income and jobs, particularly in regional and rural areas. Other arguments for self-sufficiency have also been made, such as removing additional carbon from the atmosphere.

Committee Comment

3.11 The Committee believes that the forestry industry needs greater certainty about possible demand and supply scenarios in the decades to come. The forestry industry has one of the longest 'lead times' in the Australian economy. It will benefit from a better picture about how the market might look in the future and the policy needed in this area.

3.12 In addition to giving the industry better information about future opportunities, more information about possible future demand and supply scenarios will encourage investment by individuals and

11 *National Forest Policy Statement* (2nd Ed., 1995), p.4.

12 http://www.daff.gov.au/forestry, accessed 24/10/11.

13 Submission 54, Dr Douglas Head, p.2; Submission 44, Agriwealth Capital Limited, p.1.

institutions, will support the expansion of farm forestry, and will give governments a sounder basis for making policy. It will also provide a sounder basis for making decisions about the plantation base, and for planning plantation expansion.

3.13 The Australian Government – along with state and territory governments – should consider whether Australia should aim for wood supply self-sufficiency.

Recommendation 1

3.14 **The Committee recommends the Australian Government, through the COAG Standing Council on Primary Industries, lead a process to assess and publicly report on likely wood demand and supply scenarios over the longer term (at least the next forty years). This should be completed within twelve months.**

Recommendation 2

3.15 **The Committee recommends the Australian Government, through the COAG Standing Council on Primary Industries, lead a process to consider and publicly report on whether Australia should aim for wood supply 'self-sufficiency'.**

Climate change

3.16 Whilst the terms of reference for this inquiry do not explicitly refer to climate change, a significant amount of evidence to the Committee focussed on how climate change will affect the forestry industry. This section will discuss how climate change will affect forestry, as well as the Carbon Farming Initiative, which has the potential to support forestry as an activity that removes carbon from the atmosphere and stores it in trees.

3.17 As frequently noted in submissions and hearings, climate change is both a potential threat to existing forests and an opportunity for the forestry industry. The Department of Climate Change and Energy Efficiency submitted that:

> Australia's forests are vulnerable to climate change, particularly the effects of increased atmospheric CO2 concentrations, rising temperatures, changed water availability and increased incidence

> of bushfires. Natural forest systems have some capacity to adapt to these changes. There is the capacity to improve the resilience of intensively managed forests and plantations through changed silvicultural practices.[14]

And

> ...forest industries are expected to benefit from carbon pricing. Over time, putting a price on carbon could be expected to increase demand for wood products by making more emission-intensive goods and technologies relatively more expensive.
>
> Carbon credits for increases in reforestation could potentially provide an extra boost for forest industries. The Government's Carbon Farming Initiative will enable crediting of eligible abatement that is not covered under the carbon price mechanism.[15]

3.18 The increasing demand for wood – as a material with lower 'embodied energy' – will need to be considered in future demand and supply scenarios, as discussed above. This represents a considerable opportunity for growth in the forestry industry.

3.19 Climate change will also drive demand for timber and wood products through recognition of the carbon stored in trees. However, there is currently insufficient consensus about the carbon that is stored in products made from harvested trees. Robust national standards in this area would need to rely on collecting and analysing national average data about the product-destination and lifetime of wood, as well as waste decomposition factors.[16] Despite this complexity, it is necessary work.

3.20 Finally, there is a major opportunity for the forestry industry to produce renewable energy from wood waste products. However, recent policy change in this area could prevent some of these opportunities being taken up. This is discussed in Chapter 7.

Carbon Farming Initiative

3.21 The CFI is an Australian Government initiative to increase carbon sequestration through various farm or land based activities, including planting trees. The CFI legislation has passed both Houses of Parliament and is expected to come into force during 2012.

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14 Submission 76, The Department of Climate Change and Energy Efficiency, p.1.

15 Submission 76, The Department of Climate Change and Energy Efficiency, p.2.

16 Dr Philip Polglase, *Committee Hansard,* 22 June 2011, p.11.

3.22 The entire CFI arrangements are not discussed in detail in this report. For a detailed discussion of the CFI legislation, please see the report of the Senate Standing Committees on Environment and Communications into the following three Bills:

> *Carbon Credits (Carbon Farming Initiative) Bill 2011 [Provisions], Carbon Credits (Consequential Amendments) Bill 2011 [Provisions], and Australian National Registry of Emissions Units Bill 2011 [Provisions],*

which was tabled in May 2011.

3.23 Whilst reforestation is a valid CFI activity, a number of submissions to the inquiry called for the CFI to be amended so that it would recognise the carbon stored in 'working forests'.[17] Evidence identified the requirements of additionality and permanence as current barriers to recognition of plantations and farm forestry under the CFI.

Additionality

3.24 For an activity to be covered by the CFI, it must pass the 'additionality test'. According to the Explanatory Memorandum for the CFI legislation:

> The purpose of the additionality test is to ensure that credits are only issued for abatement that would not normally have occurred and, therefore, provides a genuine environmental benefit.
>
> The Government's intention is that this test will enable crediting of activities that improve agricultural productivity or have environmental co-benefits, but which have not been widely adopted.[18]

3.25 As pointed out by the Department of Climate Change and Energy Efficiency:

> The additionality requirement ensures that credits represent real gains to the atmosphere. Most commercial forestry activities are common practice and occur in the absence of a carbon offsets scheme. These activities are unlikely to be eligible for crediting under the Carbon Farming Initiative. However, forestry activities that are not currently common practice, for example, longer

17 Submission 16, Forestry Tasmania, p.5; Submission 74, National Association of Forest Industries, p.19; Submission 58, Forest Growers' CEO Forum, p.9.

18 Explanatory Memorandum for the Carbon Credits (Carbon Farming Initiative) Bill 2011, paras 5.43-5.44.

> rotation or low rainfall plantations, may be eligible under the scheme.[19]

3.26 The Forest Growers' CEO Forum submission stated such a test is not 'useful or practical', because 'all plantation forestry sequesters carbon.'[20] It further suggested that:

> To provide certainty that will maximise the maintenance of existing plantation forests as well as the establishment of new plantations, plantation forests need to be treated as automatically additional in the CFI and in the future design of any carbon pricing mechanism.[21]

3.27 Other opinions of the CFI suggest that additionality 'may preclude a broad range of commercial forestry projects for joint carbon and wood production outcomes.'[22]

3.28 Some farm foresters, such as Mr Rowan Reid, were concerned about how additionality would be applied to farm forestry, arguing that establishing large, single-purpose forests would exclude farm forestry:

> Clearly through the government policy development process concerns have been raised about the idea of having these large carbon forests across the landscape—single-purpose forests—so various bodies have tried to influence issues like additionality. You are not going to allow someone who is planting for timber to get the carbon values or something. We are concerned about any sort of single-purpose forest because it denies not only the common sense model but also the opportunity for farmers to participate because they will invariably want to balance risk and uncertainty by seeking various values.[23]
>
> [...]
>
> But simple strategies to encourage forests that deny opportunities for multiple use is going to undermine the potential for many of us to be involved.[24]

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19 Submission 76, Department of Climate Change and Energy Efficiency, p.2.
20 Submission 58, Forest Growers' CEO Forum of Australia, p.8.
21 Submission 58, Forest Growers' CEO Forum of Australia, p.19.
22 Submission 74, National Association of Forest Industries, p.19.
23 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p. 21.
24 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p. 22.

3.29 It is possible that the question of additionality will be resolved in time. As described by Mr Nick Roberts, of the Australian Forest Products Association:

> I think the issue about additionality with regard to carbon is that the question would be: would you have planted the plantations with or without the carbon? That is one of the questions and the hub of the additionality question. It is certainly one which is very taxing. We are all trying to understand that a little better in the context of the carbon tax regime.[25]

Permanence

3.30 Activities must also be considered 'permanent' to qualify under the CFI. As set out by the CFI Explanatory Memorandum:

> Carbon that has been removed from the atmosphere and stored in plants and soils can be released back to the atmosphere. In order to be genuinely equivalent to emissions (and therefore suitable offsets), sequestration must be permanent.
>
> Sequestration is generally regarded as permanent if it is maintained on a net basis for around 100 years.[26]

3.31 Evidence to the inquiry questioned whether the requirement of permanence would preclude the harvesting of trees for timber or wood-products. The Institute of Foresters of Australia submitted that:

> The permanence obligation requires plantation growers to commit to three successive sawlog rotations [approaching 100 years] with the second and third rotations not generating any carbon income apart from that which may in future be recognized for the carbon stored in the harvested wood products. The permanence obligation is expected to be a major disincentive for the farming sector whose investment horizons fall well short of 100 years.[27]

This is an important question, as young trees sequester carbon more quickly than mature trees. With numerous rotations of trees and careful accounting for carbon storage after harvesting, more carbon could be sequestered than if only one rotation of trees was planted.

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25 Mr Nick Roberts, *Committee Hansard*, 10 August 2011, p.41.

26 Explanatory Memorandum for the Carbon Credits (Carbon Farming Initiative) Bill 2011, paras 6.3-6.4.

27 Submission 84, Institute of Foresters of Australia, p.13.

3.32 The Committee heard that the issue of 'permanence' was also a concern for farm foresters, as it denied them the flexibility to harvest and replant. Various farm foresters expressed dissatisfaction with the CFI policy:[28]

> It is one of the failures.[...] These things can be farmed; you can pull trees out; they can be locked up in furniture; there are a lot of other things that lock them up. What it should be saying is that these carbon sinks, whatever you want to call them, should be managed. We do not recognise that. We do not just say it is going to be there for 100 years. It is about managing them. Maybe it is a legacy of how we have managed our forests in the past, with clear-felling and things like that. [...] From a farm forestry perspective, anyone I see who plants trees on their farm, particularly in these low-rainfall areas, wants to manage it as an ongoing system. They do not want to come in and just knock it all down. They will select the logs they need and they will replant. [...] we have to develop something that is sustainable and ongoing ...[29]

> ... we would want to harvest some of those trees within [our] planting. We believe that we can harvest them on a sustainable basis in that mosaic of time and space so that we maintain the integrity of the environment and the values. If a saw log is halved and it gets locked up in tables and we plant another tree in amongst that biodiverse planting and we support that new tree we can get a sustainable system going.[30]

3.33 As noted by a witness from the Department of Climate Change and Energy Efficiency, the international rules about the carbon stored in timber and wood-products are currently being negotiated:

> As you are probably already aware, at the moment those accounting rules treat emissions from harvested trees as if all the emissions go into the atmosphere straightaway. For many years now we have been trying to negotiate a much more sensible approach to accounting for harvested wood, in particular to recognise that, as you say, significant quantities of wood wind up in long-life wood products like this table.[31]

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28 Mr Phil Dyson, NUFG, *Committee Hansard*, 10 August 2011, p. 27; Mr Howard Perry, NUFG, *Committee Hansard*, 10 August 2011, p. 27; Mr Andrew Lang, SMARTimbers Cooperative, *Committee Hansard*, 10 August 2011, p. 36.

29 Mr James Williams, NUFG, *Committee Hansard*, 10 August 2011, pp. 27-28.

30 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p. 22.

31 Ms Shayleen Thompson, *Committee Hansard*, 6 July 2011, p.2.

3.34 Whilst this is a separate issue to the definition of 'permanence' under the CFI, it is clear that there remains work to be done on the extent to which timber and wood-products continue to store carbon after harvesting, as discussed above.

Committee Comment

3.35 To fully realise the opportunity for timber and wood products to replace materials that have higher embodied energy, the Australian community must have a better understanding of how wood compares to other materials. A public information campaign would assist in ensuring that society is aware of the benefits of timber and wood products in reducing energy use.

Recommendation 3

3.36 **The Committee recommends the Australian Government run public information campaigns to promote timber and wood products as replacements for more energy-intensive materials.**

3.37 As noted above, there is an opportunity for the forestry industry to benefit from the increased recognition of the carbon stored in timber and wood products. However, there seems to be a lack of acknowledgment of the carbon that is stored in wood products after harvesting. It is important that Australia have robust national standards quantifying how much carbon is stored in these products, and for what period of time. This would involve considerable work but is important to the future of the forestry industry.

Recommendation 4

3.38 **The Committee recommends the Australian Government develop robust national standards quantifying the carbon stored in different products made from harvested trees, including the duration of storage and policy implications of those standards.**

3.39 The CFI requirements for permanence and additionality have the potential to exclude support for plantations and farm forestry. The Committee is aware that the CFI is a maturing policy, and that over time it will provide greater recognition of the diversity of the forestry industry.

3.40 The additionality requirement should be applied so that it recognises the diversity of plantations and farm forestry applications, rather than relying on generalised inclusions and exclusions. The permanence requirement

must be developed in such a way that it does not preclude the opportunity for sustainable harvesting and replanting of plantations and farm forestry.

Recommendation 5

3.41 **The Committee recommends the Australian Government, as it develops a mature Carbon Farming Initiative regime, consider:**

- **the capacity for 'additionality' to recognise the diversity of plantations and farm forestry applications, rather than relying on generalised inclusions and exclusions;**
- **the capacity for 'permanence' to include the sustainable harvesting and replanting of plantations and farm forestry; and**
- **other ways for the CFI to support the forestry industry generally.**

Committee members attending a site inspection in the Styx Valley, Tasmania