

## Farm forestry

### Introduction

- 6.1 Farm forestry involves a holistic approach to integrating trees into a farming landscape. Farm forestry has a regional emphasis, with rural and regional Australia well placed to take up the opportunities it provides. In essence, farm forestry provides an opportunity for farmers to get into forestry, whilst continuing to reap benefits from their traditional farming activities.
- 6.2 The Committee took evidence on the opportunities for farm forestry, the benefits it can provide, and mechanisms for encouraging it. Some submitters were practising farm forestry and offered examples of their experiences.<sup>1</sup> The Committee also received evidence from groups that advocated expanded farm forestry.<sup>2</sup>
- 6.3 This chapter deals with the following areas of farm forestry:
- integrated land use;
  - planting, including species and finance;
  - management, including thinning;
  - benefits, for the farm, the local environment, the local economy and the local community; and

---

1 Submission 40, NUFG; Submission 42, OAN and MTG.

2 Submission 81, AFG; Submission 14, Mr Lang; Submission 50, FFORNE; Submission 13, South Coast Environment Group, p.1; Submission 107, IFA Western Australia Division, p.8; Ms Carmel Flint, NEFA, *Committee Hansard*, 1 September 2011, pp.9-10; Mr Michael Bayley, TWS, *Committee Hansard*, 1 June 2011, p.7.

- products and processes, including scaling, aggregation and the supply chain.
- 6.4 The conclusion addresses mechanisms for supporting farm forestry, including innovation, financial support for planting, extension services and the Caring for Our Country initiative.

## Harvest flexibility

- 6.5 Farm forestry provides harvest flexibility. While plantation forests and agricultural crops have strict harvest timeframes for economic or production reasons, forests on farms do not necessarily have to be harvested in any given year. Farm forestry trees are intentionally integrated into farmland and provide multiple benefits whilst growing, in addition to the potential for harvested timber and wood products. If the harvesting of trees is delayed, they continue to grow, often becoming more valuable, and continue to provide incidental benefits to the farm.

## Integrated land use

- 6.6 Integrating different land uses – particularly forestry and agriculture – is a way of maximising productivity and minimising risk. Well-planned integration of trees or forests can compliment agricultural systems.<sup>3</sup> The Committee heard evidence that integrating different land uses is an ongoing activity, not a ‘trees in, trees out’ equation.<sup>4</sup> The Committee heard evidence that these land uses should not be considered to be in competition.<sup>5</sup>
- 6.7 The Committee received evidence from Mr Andrew Lang, Director of the SMARTtimbers Cooperative, that integrated farm forestry could substantially increase the forest area in Australia:

We can develop a model of integrated farm forestry that would result in up to 10 million ha of dispersed woodlots being planted across existing farms ...<sup>6</sup>

- 6.8 In addition, Mr Lang contended that farm forestry increased land productivity:

---

<sup>3</sup> Submission 39, CSIRO, pp.15-16.

<sup>4</sup> Mr James Williams, NUFG, *Committee Hansard*, 10 August 2011, pp.27-28.

<sup>5</sup> Submission 40, NUFG, p.5; Submission 81, AFG, p.27; Submission 92, PFT, p.11.

<sup>6</sup> Submission 14, Mr Andrew Lang, p.1.

Where the planting is integrated into a farm layout as a multi-purpose planting (a wide strip woodlot possibly with some mixture of species) for shelter, habitat, aesthetics, wood, biomass, salinity mitigation, carbon sequestration, etc) the space planted should be more than offset by a lift in overall farm productivity.<sup>7</sup>

- 6.9 Mr Lang also noted that as trees are not a single-year crop, farm forestry has the potential to:

... provide an alternate income that is not [linked] to regular agricultural cycles.<sup>8</sup>

- 6.10 This element of risk management was reiterated to the Committee by Mr Andrew Stewart, Coordinator of the Otway Agroforestry Network (OAN). Mr Stewart also noted the multiple benefits of integrated land uses:

As a farmer I am probably more passionate about agroforests than at the beginning because I now see more advantages coming out of the woodwork in different ways. It is just a fantastic opportunity; if we can get the policy settings correct we can have all these wonderful advantages in a multidimensional landscape which has food security and robust and resilient landscapes in the face of climate change, and that whole risk management perspective would be catered for.<sup>9</sup>

- 6.11 The submission by Australian Forest Growers (AFG) concluded that farm forestry is:

... an elegant solution.<sup>10</sup>

- 6.12 A representative of Private Forests Tasmania (PFT) reiterated that private forestry has the potential to make a substantial contribution to the Australian forestry industry, and called farm forestry:

... 'a sleeping giant'.<sup>11</sup>

---

<sup>7</sup> Submission 14, Mr Andrew Lang, p.3.

<sup>8</sup> Submission 14, Mr Andrew Lang, p.6.

<sup>9</sup> Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.24.

<sup>10</sup> Submission 81, AFG, p.17.

<sup>11</sup> Mr Tom Fisk, PFT, *Committee Hansard*, 28 June 2011, p.22.

## Planting

- 6.13 Farm forestry demonstrates that trees can and should be planted for multiple purposes, including the harvesting of timber and wood products. The Committee heard that the key issue for farmers when considering planting trees for production farm forestry was the confidence or certainty in a market.<sup>12</sup> This will develop with time. This aspect is discussed in the scaling, aggregation and the supply chain section of this chapter. The Committee also heard evidence relating to species and finance.

## Species

- 6.14 The Committee heard evidence on species selection and breeding. Species need to be suitable for the location and conditions in which they will be grown. The Committee heard numerous examples of species selection and viability. Some examples of this came from farm forestry groups in Victoria, providing evidence on suitable species for their regions. This demonstrates that species selection is a complex and important issue for farm forestry.
- 6.15 Mr Phil Dyson, Technical and Scientific Program Leader of the Northern United Forestry Group (NUFG), indicated that *Eucalyptus occidentalis* (Flat-topped Yate or Swamp Yate) is productive in saline areas.<sup>13</sup> Mr James Williams, Member of the NUGF, also nominated *Eucalyptus cladocalyx* (Sugar Gum) as a versatile structural timber product.<sup>14</sup>
- 6.16 The submission from Farmed Forests of the North East (FFORNE) noted that farm forestry could grow the major plantation species in Victoria, *Eucalyptus globulos* (Tasmanian Blue Gum) and *Pinus radiata* (Radiata Pine), as well as *Eucalyptus cladocalyx* (Sugar Gum, particularly in low rainfall areas), *Corymbia maculata* (Spotted Gum), *Eucalyptus muellerana* (Yellow Stringybark), *Acacia melanoxylon* (Blackwood), *Eucalyptus tricarpa* (Red Ironbark, also in low rainfall areas) and *Eucalyptus camaldulensis* (River Red Gum).<sup>15</sup>
- 6.17 The Committee heard from Mr Lang that research and development into seed production has not been consistently supported.<sup>16</sup> Mr Stewart noted

---

12 Mr Andrew Lang, SMARTtimbers, *Committee Hansard*, 10 August 2011, p.36; Submission 81, AFG, p.5, p.7.

13 Mr Phil Dyson, NUGF, *Committee Hansard*, 10 August 2011, p.29.

14 Mr James Williams, NUGF, *Committee Hansard*, 10 August 2011, p.29.

15 Submission 50, FFORNE, p.3.

16 Mr Andrew Lang, SMARTtimbers, *Committee Hansard*, 10 August 2011, p.35.

that the OAN maintains a seed orchard, with some trees also being managed for sawlogs.<sup>17</sup> Mr Rankin indicated that there were seed orchards in the Bendigo area.<sup>18</sup>

- 6.18 The CSIRO provided evidence on the work on species that it has been involved with:

CSIRO and others have invested in testing and domesticating tree species suited for farm forestry beyond the traditional plantation regions over the last 15 years, especially in the temperate wheat-sheep belt. Parallel work has been carried out to develop appropriate silviculture, and to match the species under development to different site types. Improved breeds of trees now exist that are suited to a diverse and geographically large area of farmland in southern Australia (Harwood et al. 2007).<sup>19</sup>

- 6.19 The evidence that the Committee received about species selection demonstrates the need for further research and development to indicate appropriate species for different locations and to continue tree breeding to improve the characteristics of available species.

## Finance

- 6.20 The Committee heard evidence that farmers are held back by the cost of planting trees. Estimates varied depending on requirements such as fencing, but Mr Dyson and Mr Lang both indicated a cost of \$2,000 per hectare.<sup>20</sup> Mr Perry noted that small plantations, which farm forestry focuses on, have proportionally higher costs than large plantations.<sup>21</sup>

- 6.21 Representatives of the OAN noted that although there might be a large initial outlay, a narrow focus on harvest yield is not as applicable to multiple-use forests as it is to single-use forests.<sup>22</sup> Mr Reid noted that farm forestry can be envisaged as a natural capital asset:

... if you look at the trees as part of the farming infrastructure – like putting in a laneway or even building a shearing shed – the structure of the forest on the property reduces the risks of the

---

17 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.18.

18 Mr Ian Rankin, NUFG, *Committee Hansard*, 10 August 2011, p.32.

19 Submission 39, CSIRO, pp.15-16.

20 Mr Phil Dyson, NUFG, *Committee Hansard*, 10 August 2011, p.32; Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.35.

21 Mr Howard Perry, NUFG, *Committee Hansard*, 10 August 2011, p.32.

22 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, pp.20-21; Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.21.

farming system and complements the farming system. It is therefore a capital asset.<sup>23</sup>

The Committee notes that there are some areas needing further clarity about the treatment of such assets by the taxation system, including in relation to depreciation.

6.22 Mr Lang also noted that the economics of farm forestry is different to the economics of landscape forestry, as farm forestry does not displace production.<sup>24</sup> This view that farm forestry is a capital investment and not simply a crop is linked to the concept of integrated land use and the multiple benefits farm forestry can provide.

6.23 Private Forests Tasmania (PFT) advocates the use of joint ventures to make it feasible for landholders to engage in private forestry (farm forestry and other private forest developments):

Developing new forests requires considerable upfront investment and the maintenance and protection of these forests can also be expensive. Many landowners do not have the financial resources to sustain this type of development on their farms. For many years industrial forestry companies developed joint ventures with private landowners whereby proportional ownership of the forest crop was based on the relative value of inputs to the development by each party, including the value of the land. Importantly, the resulting link with a market gave the landowner some confidence to participate in this style of forestry.<sup>25</sup>

6.24 To increase farm forestry planting, Australian Forest Growers (AFG) suggests possible options such as 150% tax deductibility, infrastructure or plantation bonds, direct grant funding, concessionary taxation provision at for-harvest income.<sup>26</sup> Mrs Diana Lloyd, Director of AFG, explained why the organisation supports a greater level of tax deductibility:

AFG promotes a model whereby integration of trees into existing and ongoing farming systems would attract a greater level of tax deductibility to offset the disincentive of the establishment cost and long period until harvest.<sup>27</sup>

---

23 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.20.

24 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.36.

25 Submission 92, PFT, p.6.

26 Submission 81, AFG, p.16.

27 Mrs Diana Lloyd, AFG, *Committee Hansard*, 24 June 2011, p.14.

- 6.25 The Committee received evidence to suggest that joint ventures or leasing land to forestry companies could provide the required finance for farm forestry investments.<sup>28</sup> This would assist in the expansion of the farm forestry estate, however it may not suit all farmers. The Committee encourages multiple approaches to farm forestry finance, depending on the requirements of individual farmers.

## Management

- 6.26 The management of farm forestry plantings has two facets – management for production and management for the farm. The Committee heard that management is essential if the aim is to produce high quality sawlogs. Thinning and pruning are most important for high value products such as sawlogs, and less important for low value products such as pulp.<sup>29</sup>
- 6.27 Farm forestry has harvest flexibility when compared to industrial forestry, as trees are providing multiple benefits while growing. The Otway Agroforestry Network (OAN) particularly noted that time is not a constraint for sawlog production.<sup>30</sup>
- 6.28 The Committee also received evidence that a well-managed farm forest can be ‘worth owning’ as a forest, providing benefits to the farm while appreciating in value. The potential for production remains, but there is not a predetermined time for harvesting:
- If silvicultural management (thinning and pruning) complements other values (biodiversity, fires protection, grazing, aesthetics etc) there is little cost in maintaining the option of a future harvest of high quality logs. Indeed, if a forest is worth owning, there is less pressure for a premature harvest.<sup>31</sup>
- 6.29 The potential for production farm forestry depends on effective management techniques. These techniques can be taught through farm forestry extension services, which are often provided by local organisations. This will be discussed towards the end of the chapter.

---

28 Submission 81, AFG, p.16; Mr Phil Townsend, DAFF, *Committee Hansard*, 15 June 2011, p.12.

29 Mr Philip Dyson, NUFG, *Committee Hansard*, 10 August 2011, p.27; Mr Howard Perry, NUFG, *Committee Hansard*, 10 August 2011, p.32.

30 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.18, p.25.; Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, pp.18-19.

31 Submission 42, OAN and MTG, pp.10-11.

## Thinning

6.30 The Committee received evidence regarding thinning practices, markets and machinery. Mr Lang indicated that thinning could and should be done sustainably, to protect the surrounding environment:

... if you are going to be thinning those trees, you want to have the shelter in them. [in one example] the farmer has put two rows of biodiverse plantings that will stay there when the inner trees are thinned, so the wind is still going up and over the top.<sup>32</sup>

6.31 Mr Lang also noted that a market is developing for thinning products:

We know we have worked out a system for thinning, for marketing and for getting some money back – and there is light on the horizon for getting money back from thinning, maybe through bioenergy or through a better way of selling firewood and other material. That first and second thinning is selling into either the firewood market or the post and pole market; there is scope.<sup>33</sup>

6.32 A concern raised by other farm forestry organisations regarded the machinery required for thinning. Mr Ian Rankin, President of the Northern United Forestry Group (NUFG), explained that he had needed to adapt machinery to perform small-scale thinning:

... I ended up managing to purchase a second-hand piece of equipment and having it reengineered to make it into a small harvester so I could then mount it onto a smaller excavator, which I run as an earthmoving business. It would be great if some of these other companies that bring in the big industrial equipment started focusing on the smaller-scale harvesting and smaller-scale machinery, because it is starting to get more popular and it will become more popular for the smaller plantations.<sup>34</sup>

6.33 The relative absence of machinery for small-scale farm forestry operations, particularly for thinning, reveals a gap in the market. While the Committee encourages adaption and innovation, this machinery is available overseas. One way of purchasing machinery could be for farm foresters to form cooperatives and share the machinery as it is required.

---

32 Mr Andrew Lang, SMARTimbers Cooperative, *Committee Hansard*, 10 August 2011, p.37.

33 Mr Andrew Lang, SMARTimbers Cooperative, *Committee Hansard*, 10 August 2011, p.36.

34 Mr Ian Rankin, NUGF, *Committee Hansard*, 10 August 2011, p.32.



## Benefits of farm forestry

6.34 The Committee found that there are many, varied benefits of farm forestry. The Committee is encouraged by the opportunities that farm forestry can provide to farms, as well as the local environment, economy and community. Additionally, farm forestry provides an opportunity for farmers to improve resilience and sustainability through diversification, innovation and risk management.

6.35 Mr Andrew Stewart, Coordinator of the Otway Agroforestry Network (OAN), stated that farm forestry provided flexibility for farmers as well as benefits to multiple sectors:

So over time you get this mosaic of different activities suiting the needs of the farmers, industry gets its scale, government gets its outcome and we retain our rural communities and they are supported.<sup>35</sup>

## Farm benefits

6.36 Farm forestry has many benefits to individual farms. These fall into three categories: land and water quality, economic and aesthetic.

6.37 Land and water quality benefits include:

- improving biodiversity and ecology;
- reducing windspeed;
- preventing and mitigating wind erosion;
- protecting crops and providing shelter for stock;
- producing seed and controlling pests;
- reducing evaporation;
- preventing and mitigating water erosion;
- addressing excess groundwater and dryland salinity;
- preventing and mitigating land degradation; and
- sequestering carbon.<sup>36</sup>

---

35 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.23.

36 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.18, p.21; Submission 81, AFG, p.2; Submission 40, NUFG, p.5; Submission 39, CSIRO, pp.15-16; Submission 14, Mr Andrew Lang, p.3; Submission 42, OAN and MTG, p.5.

- 6.38 These land and water quality benefits then flow on to the local environment, as discussed below.
- 6.39 Economic benefits include an opportunity for diversification, risk management, innovation, longer rotation crops and superannuation.<sup>37</sup> Another economic benefit is the appreciating value of well-managed forests:
- We argue that, rather than just being a crop, forests are a capital asset, part of the landscape or farm infrastructure.<sup>38</sup>
- 6.40 The submission from Northern United Forestry Group (NUFG) highlights the diversification opportunities available to farmers through farm forestry:
- Farm forestry, as opposed to broad acre plantation forestry, affords landholders the opportunity to have ‘a foot in several camps’.<sup>39</sup>
- 6.41 Aesthetic benefits include making the farm a ‘nicer’ place to live and work, which can also have financial benefits, as indicated by NUGF<sup>40</sup>. This was also noted by Mr John Lord:
- Dr Jacki Schirmer and her students from the Australian National University conducted research that showed that well placed plantings of trees on farms around Canberra added 30% to the capital values of the farms investigated. They found this increase in value had nothing to do with any change in the farms’ productive capacity: it was due to the aesthetics. This (at least) 10% is available “for free” because of the non wood benefits, notably the shelter effect the trees provide. These benefits become apparent from when the trees are only a few years old. A farm with shelter belts is a much nicer environment in which to work on a bad weather day. The livestock and grass and crops behave as though they appreciate it too.”<sup>41</sup>
- 6.42 Farm forestry affords farmers the opportunity to build resilience through land and water quality, economic and aesthetic benefits. These benefits also apply more broadly to the local environment, local economy and local community.

---

37 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.21.

38 Submission no. 42, OAN and MTG, p.7.

39 Submission no. 40, NUGF, p.5.

40 Submission no. 40, NUGF, p.5.

41 Submission 36, Mr John Lord, p.12.

## Local environmental benefits

6.43 Farm forestry provides various benefits to the local environment. In addition to the benefits briefly mentioned above, the Committee heard evidence on wildlife corridors, salinity mitigation and waterway restoration.

6.44 Wildlife corridors enable animals to more easily move from one habitat to another.<sup>42</sup> As noted, this is a public benefit of farm forestry:

Enhanced protection of flora and fauna is a public benefit. All of the discussion around those public benefits at the moment is looking at corridors of vegetation that link this bunch of public land with that bunch of public land and provide the ability for flora and fauna to move across the landscape.<sup>43</sup>

6.45 Mr Lang also noted that the planting of wood lots has seen the return of resident populations of grey kangaroos to areas around Ballarat.<sup>44</sup>

6.46 The Committee heard evidence from Northern United Forestry Group (NUFG). The organisation rehabilitated land affected by dryland salinity at Kamarooka, Victoria. The saline water table had risen, degrading the landscape and preventing crops from growing. NUGF planted halophytic (salt-tolerant) vegetation on the most saline land, and mixed acacia and eucalypt plantations on the less saline land. These plantings lowered the water table, reducing the salinity of the land and restoring agricultural productivity.<sup>45</sup> NUGF emphasised the environmental and community success of the ongoing project:

The NUGF Kamarooka project demonstrates that production can be achieved through the integration of trees, halophytic vegetation and traditional agriculture. Moreover, it demonstrates what can be achieved when local communities work together to restore the land.

6.47 Waterway restoration is another environmental benefit that can be provided during thinning or at harvest. Mr Reid explained the principle of harvesting trees and leaving the top of the tree in the creek to restore degraded waterways:

---

42 Submission 92, PFT, p.8.

43 Mr Philip Dyson, NUGF, *Committee Hansard*, 10 August 2011, p.27.

44 Mr Andrew Lang, SMARTimbers Cooperative, *Committee Hansard*, 10 August 2011, p.35.

45 Submission 40, NUGF, pp.9-10.

We could probably sell the top for pulp, but it is hardly worth doing. [...] Research from CRC for Catchment and Hydrology has proven that we do not have enough deadwood [large woody debris] in our waterways to create the habitat elements and the stream dynamics traditionally there. Planting trees alone on the banks does not create that; it has to be created either through time or management. And there is no reason why management of this type cannot hasten the period it takes to get that woody debris in the waterway.<sup>46</sup>

- 6.48 As Mr Reid noted, this is a practice suited to the management of creeks that run through privately owned farmland. Improving the ecological health of waterways has wider environmental benefits. These examples show that carefully managed farm forestry can have positive impacts on the local environment.

### Local economic benefits

- 6.49 Farm forestry also provides benefits to the local economy, particularly additional income for farmers and employment for locals.<sup>47</sup> These employment opportunities are generally located in rural and regional Australia. Mr Lang indicated that the SMARTtimbers Cooperative generated extensive economic benefits for the local area:

... we have generated maybe \$1 million worth of gross income for the product, but we have spun off another half a million to the truckers, the fellers, theprofilers, the mills and so on. It shows that a very, very small production can still have a major impact. People react to seeing that genuine product flow rather than just talk about a product flow sometime in the distant future.<sup>48</sup>

- 6.50 Developing local industries and economies can provide positive local community benefits.

### Local community benefits

- 6.51 Farm forestry provides benefits to the local community, particularly in rural and regional Australia. Community engagement is a vital component of ecologically sustainable forest management. Farmed Forests of the North East (FFORNE) advocates involving the community in farm

---

46 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.18.

47 Submission 81, AFG, p.2; Submission 92, PFT, p.11.

48 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.37.

forestry, stating that farm forestry can reduce conflict over land and water.<sup>49</sup>

- 6.52 Another community-based farm forestry group, NUFG, emphasised the local scale and local initiative that was important to that community's success with farm forestry:

We are fairly passionate about community based farm forestry. What does that mean? It means groups like ourselves actually take the initiative and go out there and try to bring it all together at a local community scale, because that is the scale that we work at and we are quite good at that.<sup>50</sup>

- 6.53 FFORNE also indicated that an increase in farm forestry would improve the level of understanding of the forestry industry and its benefits, thus reducing conflict between the industry and the community. Additionally, FFORNE stated that rural communities see farm forestry as beneficial and positive.<sup>51</sup> Farm forestry not only benefits the community, but community involvement and integration has real benefits for the forestry industry. The Otway Agroforestry Network (OAN) and Master TreeGrower Program (MTG) also stated that involving the farming community would generally build community support for the forestry industry.<sup>52</sup>

## Products

- 6.54 Various harvested wood products can be produced through farm forestry, as one of the end benefits of integrated land use activities. The Tasmanian Farmers and Graziers Association's (TFGA) view on production forests was that trees provide benefits over their lifespan, but that trees must be seen as ultimately a crop to be harvested. Replanting after harvest makes forests sustainable.

Our philosophy is that, if you have to plant a tree, eventually, when it comes to the end of its life or its most optimum time, it should be able to be utilised for some income. That way it becomes a perpetual business.<sup>53</sup>

---

49 Submission 50, FFORNE, p.1.

50 Mr Philip Dyson, NUFG, *Committee Hansard*, 10 August 2011, p.29.

51 Submission 50, FFORNE, p.5.

52 Submission 42, OAN and MTG, p.2.

53 Mr Ian Dickenson, TFGA, *Committee Hansard*, 28 June 2011, p.23.

- 6.55 As Mr Dickenson, Member of the Forestry Reference Group, TFGA, added, farm forestry and private forestry cannot rely on government or philanthropic support for tree planting.<sup>54</sup> Farm forestry can produce rough-sawn and finished wood products such as firewood, decking, boardwalks, building poles, jetty poles, posts, fencing, pulpwood and veneers.<sup>55</sup> Wood waste can also be used for bioenergy, for example, local wood waste could be used to generate electricity for local towns or cities.<sup>56</sup>
- 6.56 Mr Reid notes the opportunities for farmers to provide high-value products such as sawlogs, because of the harvest flexibility:
- With regard to plantations, I have done a lot of work with various people right around Australia on growing eucalypt sawlogs. It is clearly possible but, when it comes to long rotations, we know that time improves the quality of timber and it improves the economics with regard to the viability of harvesting. Time is clearly the issue that confronts many investors in forestry: they are not prepared to do it. My view has always been that we need to find people in the community prepared to wait. We have suggested that farmers might be the ones. We also need to find people prepared to wait for durable timbers in marginal areas, which may take longer. So if they are prepared to wait, we can get a suite of values that cannot be delivered by conventional forestry in plantations.<sup>57</sup>
- 6.57 In addition to wood products, farm forestry can also produce non-wood forest products, such as seed, honey and mushrooms.<sup>58</sup>

## Scaling, aggregation and the supply chain

- 6.58 The small scale of farm forestry can mean that relative costs are higher and outputs are lower than large scale forestry. Small scale productions face increased costs along the entire production chain.<sup>59</sup> The success of farm forestry also depends on access to markets.<sup>60</sup> This is particularly difficult for small, diverse and dispersed farm forestry operations, as domestic and

---

54 Mr Ian Dickenson, TFGA, *Committee Hansard*, 28 June 2011, p.23.

55 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, pp.34-35; Mr Philip Dyson, NUFG, *Committee Hansard*, 10 August 2011, p.27; Submission 50, FFORNE, p.3.

56 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.35; Mr Philip Dyson, NUFG, *Committee Hansard*, 10 August 2011, p.27.

57 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.18.

58 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.18.

59 Submission 92, PFT, p.5.

60 Submission 81, AFG, pp.6-7; Submission 40, NUFG, p.5.

export wood processing industries seek large, ongoing resource supply and security.<sup>61</sup> Boral Timber confirmed that it does source some timber from farm forestry, but noted that this option was constrained by the fragmentation of the resource and the lower management standard compared to state forests.<sup>62</sup> Additionally, inadequate infrastructure in rural and regional areas can inhibit production.<sup>63</sup>

- 6.59 However, targeting niche markets and engaging in value-adding practices can provide farm forestry with a competitive advantage in the market.<sup>64</sup> Dr Jacki Schirmer provided a summary of the economic advantages and disadvantages of small scale farm forestry:

In general, farm forestry presents challenges for economies of scale. It can be highly successful for growing small scale high quality products sold into niche markets, or lower cost products that are easily harvestable and/or sold into local markets. It is unlikely to be able to compete in terms of large scale wood production for commodity products, due to difficulty in achieving the economies of scale required to lower production costs to a level where farm forestry wood products are competitive.<sup>65</sup>

- 6.60 Mr Lang gave the example of small scale farm forestry in Scandinavia and noted the absence of machinery required for this type of forestry in Australia. He stated that SMARTtimbers has:

... been looking at the machinery and other gear for doing thinning, lift pruning et cetera [...] I am in Scandinavia once a year at the moment. Scandinavian forestry is generally small scale, harvests of one to two hectares, using these thinning-size machines that there is only one of in Australia. It was brought out on the initiative of the owner. The sorts of machines that are available in Sweden and Finland are the sort of thing that we need to get. That has to be done preferably by a contractor. It needs to be an owner-operator. It is a bit tricky moving things from place to place."<sup>66</sup>

- 6.61 The Committee heard that cooperative approaches to localised farm forestry are gaining momentum. These approaches mean that equipment

---

61 Submission 99, A3P, p.41.

62 Mr Keith Davidson, Boral Timber, *Committee Hansard*, 21 September 2011, p.7.

63 Mr Warwick Ragg, AFG, *Committee Hansard*, 24 June 2011, p.15.

64 Submission 50, FFORNE, p.4.

65 Submission 118, Dr Jacki Schirmer, p.10.

66 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.35.

can be shared and tasks can be contracted out.<sup>67</sup> Representatives from the OAN noted that cooperative approaches have the added benefit of building a sense of community.<sup>68</sup>

### Case study—Otway Agroforestry Network

6.62 The Otway Agroforestry Network (OAN) is a community landcare organisation that promotes the integration of trees into farms through education and awareness programs. The Committee heard evidence from representatives of the OAN, farm foresters themselves, providing an overview of the organisation's aims and progress:

... we always focus on looking for opportunities to fit forestry – or multipurpose tree growing, we like to say – within the farming landscape rather than replacing the farming landscape, which has been a bit of the model to date.<sup>69</sup>

6.63 This approach focuses on improving the sustainability and resilience of farms and farmers:

Our emphasis has always been on looking at the farming issues first, such as erosion, and saying how could forestry actually deliver outcomes that the farmers want, so what you see is forests almost in the mirror image of where a plantation forester would put them and manage them for multiple outcomes through that process. The real question is: can that be commercial? In marrying these two or three benefits – agricultural, environmental and timber production – this is the point that we are currently at.<sup>70</sup>

6.64 Mr Stewart also reiterated that the organisation has demonstrated that forestry can be complimentary to agriculture, giving the example of increases in production on his farm:

We are producing the same number of livestock and the same quantity – 90 tonnes – of sheep meats and so on, but we are also producing 200 tonnes of trees for commercial benefit into the future; and there is a complementarity there.<sup>71</sup>

---

67 Mr Ian Rankin, NUFG, *Committee Hansard*, 10 August 2011, p.33.

68 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.24; Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.24.

69 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.17.

70 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.17.

71 Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, pp.18-19.



## Case study—SMARTimbers Cooperative

- 6.65 The Committee heard evidence from Mr Andrew Lang, Director of the SMARTimbers Cooperative, explaining the Cooperative's creation of a localised forestry sector. Mr Lang provided a brief history of the Cooperative:

SMARTimbers started in 2002. It had a prior process going back to about 1996 through the Colac office of the DPI, where we were looking at sugar gum. This is a very successful lower-rainfall species that was growing all around us, and no-one was using it for anything other than firewood. It proved that you could grow quality saw logs on poor country with lower rainfall without a problem, even when it was unmanaged. We began buying logs off woodcutters and we would get them milled up. We turned them, firstly, into furniture timbers and then we realised that the market was really in the decking, flooring and cladding area, where you could produce with a much larger process. Where we start the tour tomorrow looks at that side of it.

- 6.66 Mr Lang noted that it was difficult to get funding, but explained that the existence of a market led to an increase in farm forestry plantings in the local area:

The outcome was that from 2002 until about 2008 this timber – this particular species that had not been planted in farm forestry across southern Australia since 1936 – became the most planted lower-rainfall eucalypt species in WA, South Australia and Victoria to the extent that about 8,000 hectares has been planted off a base of zero. It just shows what the response is when landowners or maybe state government or the networks get a sign that there is some reason to have confidence in a timber species and an approach.<sup>72</sup>

- 6.67 The Committee conducted inspections in the Ballarat area in the company of Mr Lang. These included visits to a sugar gum seed orchard, various farm forestry operations, a mill and an electric gasifier. These inspections demonstrated that a local cooperative can plant, manage and harvest trees for farm, environmental, economic and community benefits, as well as to produce forest products and generate energy.

---

72 Mr Andrew Lang, SMARTimbers, *Committee Hansard*, 10 August 2011, p.34.

## Conclusions—supporting farm forestry

6.68 The Committee heard evidence indicating that the take up of farm forestry has been limited, despite government investment.<sup>73</sup> As noted above, the provision of and access to appropriate regional infrastructure is fundamental for commercially viable farm forestry to be widespread. This is a matter that will need a cooperative inter-governmental approach, and the Committee believes that COAG is best placed to agree a national plan for the provision of, and access to, enabling infrastructure for farm forestry.

### Recommendation 12

6.69 **The Committee recommends the Australian Government, through COAG, lead a process to agree a national plan for the provision of, and access to, enabling infrastructure for farm forestry.**

6.70 Less tangibly, the expansion of farm forestry will also rely on further innovation, and the provision of extension services to increase farmers' knowledge of farm forestry practices, and opportunities to get involved. Supporting farm forestry particularly involves engaging with local community organisations and using existing Government programs, such as the Australian Government's Caring for Our Country initiative.

## Innovation

6.71 The Committee received extensive evidence suggesting different priorities for innovation, particularly through research and development.<sup>74</sup> Much of this evidence emphasised the need for research to be practical and outcome-focused, such as species selection, harvesting practices and development of suitable machinery. Mr Reid indicated that research did not necessarily have to be expensive, original research, but needed to utilise existing resources and form practical solutions:

We need to engage the research more with the farming community, looking at what some of the issues are. For example,

73 Submission 75, Professor Peter Kanowski et al, p.3; Submission 11, Mr Peter Rutherford, pp.4-5; Submission 27, Heartwood Plantations, pp.4-5; Submission 59, DAFF, p.22; Submission 118, Dr Jacki Schirmer, p.10.

74 Mr Andrew Lang, SMARTtimbers Cooperative, *Committee Hansard*, 10 August 2011, p.35; Mr James Williams, NUGF, *Committee Hansard*, 10 August 2011, p.31; Ms Lisa Marty, VAFI, *Committee Hansard*, 10 August 2011, p.9; Submission 14, Mr Andrew Lang, p.2; Submission 81, AFG, p.29.

the harvesting of trees in sensitive land care planting is a research question about how you can do it in a way that enhances outcomes rather than threatening some of the biodiversity outcomes. These questions are still there. It should pick up from hydrology, salinity and biodiversity research [...] It is a matter of bringing information together and engaging with the farming community to explore how that might be relevant to them. That is really important.<sup>75</sup>

- 6.72 The Committee was encouraged by local organisations that had conducted research and engaged with the local community about results. Members of the Northern United Forestry Group (NUFG), for example, report on environmental data collected in the local area at the organisation's monthly meeting. Due to high levels of interest, the organisation is investing in an education centre to further connect research with the community.<sup>76</sup>

## Financial assistance for planting

- 6.73 The Committee received some evidence indicating that direct incentives are not the best way to support farm forestry; rather that government support needs to be indirect and delivered over time. One suggestion from OAN was to support 'peer group mentoring' through the Master TreeGrower Program.<sup>77</sup> This is a way of providing financial assistance to existing local organisations. However, larger organisations called for financial incentives for establishment, as farm forestry is a 'sunrise' industry.<sup>78</sup> Some evidence expressed support for joint ownership structures to encourage investment.<sup>79</sup>

## Extension services

- 6.74 The Committee heard evidence calling for improved extension services for farm forestry, utilising state agencies or organisations, and existing localised support networks.<sup>80</sup> The Committee heard evidence on the benefits of the Master TreeGrower Program. This is an initiative that:

---

75 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.20.

76 Mr Philip Dyson, NUGF, *Committee Hansard*, 10 August 2011, pp.31-32.

77 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, p.19; Mr David Curry, OAN, *Committee Hansard*, 10 August 2011, p.20.

78 Mr Warwick Ragg, AFG, *Committee Hansard*, 24 June 2011, p.16.

79 Submission 42, OAN and MTG, p.12.

80 Mr Andrew Lang, SMARTimbers Cooperative, *Committee Hansard*, 10 August 2011, p.34, p.36; Mr Ian Rankin, NUGF, *Committee Hansard*, 10 August 2011, p.30; Mr Howard Perry, NUGF,

... trains leading tree growers and pays them to support others in their community through the development and management of multipurpose forests has proved popular with farmers and appears to be delivering real on-ground impacts.<sup>81</sup>

- 6.75 The Master TreeGrower Program is aimed to 'build capacity' and aims to involve the community in developing concepts and making decisions about land management.<sup>82</sup> It also involves 'peer group mentoring', a way of enhancing knowledge and skills as well as building relationships in local communities.<sup>83</sup> Mr Peter Rutherford highlighted the importance of engaging farmers and building relationships:

A lack of the necessary understanding of how integration can be achieved is not widely held in the broader farming community. An aging farming population exacerbates this situation. Successful examples commonly involve landowners who have an enthusiasm for the diversification and integration of farming operations and who also establish alliances with likeminded farmers and with potential purchasers of the forestry outputs.<sup>84</sup>

- 6.76 The Institute of Foresters of Australia supports this program, and called for its expansion:

The Master Tree Growers programme has been successful training for farmers but limited in extent. Support of expansion and acceleration of the Master Tree Growing programme potentially in collaboration with Universities should be encouraged.<sup>85</sup>

- 6.77 Other groups, such as Private Forests Tasmania (PFT), provide one-on-one extension as well as holding open days to showcase integrated land use:

There are many farmers who are aware of the value of private forestry and the potential for that to contribute to their farming businesses and to their communities, but there are far more who are still, I believe, unaware of that opportunity. One of the objectives I have for our organisation is to operate at a higher level, where we work with progressive farmers who have adopted

---

*Committee Hansard*, 10 August 2011, p.30; Submission 90, VAFI, p.14; Submission 92, PFT, p.5; Submission 99, A3P, p.12. Submission 42, OAN and MTG, p.16;

81 Submission 42, OAN and MTG, p.16.

82 Submission 42, OAN and MTG, p.16.

83 Mr Rowan Reid, OAN, *Committee Hansard*, 10 August 2011, pp.19-20; Mr Andrew Stewart, OAN, *Committee Hansard*, 10 August 2011, p.20.

84 Submission 11, Mr Peter Rutherford, pp.4-5.

85 Submission 84, IFA, p.22.

a forestry integrated approach in their landscape and have developed extension type activities, where we can have large field days where we can invite many people to see the benefits of private forests integrated into farming and the benefits that accrue to their other activities so that we can touch the lives of as many farmers as possible.<sup>86</sup>

- 6.78 Furthermore, farm forestry requires local communities to be engaged in decision-making. The Committee received substantial evidence recommending that farm forestry be supported by partnerships between local organisations and natural resource management agencies.<sup>87</sup>
- 6.79 The Committee received evidence calling for governments to support local community organisations or cooperatives as a means of promoting farm forestry, supporting research and development, and providing extension services.<sup>88</sup>

### Caring for our Country initiative

- 6.80 DAFF's submission also indicated the broader approach to landscape-scale conservation through the Caring for our Country initiative:

Through the Caring for our Country initiative, in the Sustainable Farm Practices national priority area the Australian Government has committed to improving landscape scale conservation through farmers adopting activities that contribute to the ongoing conservation and protection of biodiversity. Farm forestry, as a land use, is recognised as contributing to this outcome and support is available to groups, including regional natural resource management bodies to assist farmers implement farm forestry.<sup>89</sup>

- 6.81 The Australian Plantation Products and Paper Industry Council's (A3P) submission to the inquiry called for these government initiatives to be promoted and delivered:

... resourcing and implementation of the Farm Forestry National Action Statement, and official recognition that commercial trees in farm forestry enterprises can contribute to achieving the objectives of Caring for Our Country ...<sup>90</sup>

---

86 Mr Tom Fisk, PFT, *Committee Hansard*, 28 June 2011, pp.22-23.

87 Submission 94, TWS, p.3.

88 Submission 42, OAN and MTG, p.18; Submission 40, NUFG, p.4, p.6, p.10.

89 Submission 59, DAFF, p.30.

90 Submission 99, A3P, pp.18-19.

6.82 Farm forestry supports at least three of the six National Priority Areas of the Caring for our Country initiative:

- sustainable farm practices (as noted above);
- biodiversity and natural icons; and
- community skills, knowledge and engagement.<sup>91</sup>

Activities to encourage and facilitate farm forestry should clearly be eligible for funding under this initiative.

6.83 The Committee believes that the Caring for our Country initiative should enable fences funded under landcare programs to be moved further away from riparian zones, enabling additional rows of trees to be planted for agroforestry purposes.

6.84 The Committee believes that the immediate and ongoing funding of extension services is one of the best ways to encourage greater uptake of farm forestry around Australia. The Master Tree Grower programme is a good model for extension, as it uses a peer-support structure, ensuring that knowledge is shared between farm foresters. By funding existing local networks and community organisations, governments can provide the kind of financial support that will enable farmers and farmers groups to drive the expansion of farm forestry across the country. Governments must make sure that the eligibility of farm forestry activities for such funding is explicit and well publicised.

6.85 In respect of the Australian Government, the Committee believes that Caring for Our Country is the best way to deliver this funding, and strongly encourages local organisations, land managers and farmers to engage with the Caring for our Country initiative.

### **Recommendation 13**

**6.86 The Committee recommends that the Australian Government, in concert with state and local governments, provide immediate and ongoing financial support to local organisations that provide extension services for farm forestry, particularly through the Caring for our Country initiative.**

---

91 Caring for our Country website <<http://www.nrm.gov.au/about/caring/index.html>> (accessed 06/10/2011)

## Recommendation 14

- 6.87 **The Committee recommends that the Australian Government explicitly state that Caring for our Country funding is available for farm forestry activities, and actively promote this fact to the broader community through an extensive information campaign.**

## Committee comment

- 6.88 Farm forestry provides an opportunity for farmers to get into forestry. Farmers who integrate forestry into their land management activities are able to access many environmental and economic benefits. Many of the opportunities for farm forestry are substantial, and currently under recognised. There are also considerable benefits that go ‘beyond the farm gate’, including to the local environment, economy and community. Forestry on farms can be seen as a ‘natural capital asset’, and the Committee believes there should be greater clarity about how the taxation system treats this kind of asset, including in relation to depreciation.
- 6.89 There are many ways to encourage the expansion of farm forestry, but the Committee has focussed on two major possibilities: the Carbon Farming Initiative, and Caring for Our Country. In both cases, the Committee believes that further work is needed to ensure that these programs can effectively support farm forestry, and looks forward to seeing this work done.
- 6.90 The scale of farm forestry means that it is not immediately able to contribute a large volume of timber and wood products to the Australian and International market. However, the Committee believes that, given the right infrastructure and coordination, farm forestry can make a substantial contribution to Australia’s timber and wood products supply. In addition, there is a promising role for farm forestry in small, niche markets, as well as providing an opportunity for farmers to diversify, build resilience and invest in long-term assets.

- 6.91 The Committee would like to thank all the farm foresters who made submissions to the inquiry, and those who gave evidence at its hearings. The Committee was impressed by the passion and entrepreneurial spirit of these individuals and groups, and commends them for their contribution to both farming and forestry. Farm forestry is a very promising part of the forestry industry, and the Committee looks forward to seeing more of it in future.



*The Committee before a public hearing in Grafton.*