Questions for consideration

Vision and objectives

1. What should the vision be for the forest products sector in the coming decades?

The Limestone Coast is in the South East corner of South Australia and is so named because of the geology and geography of the region. Together with South West Victoria, this area makes up the internationally recognised Green Triangle plantation forestry region, accounting for around 17% of Australia's plantation forest resource.

The Limestone Coast Economic Diversification Group is advancing the outcomes of a forum convened by the Premier of South Australia in 2012 where industry and business leaders articulated the priorities for economic diversification in the Limestone Coast. This event was held in the midst of the national downturn in the forest products sector which was having a significant impact on the region's economy. Although the discussion at the forum was not restricted to the forestry sector, it was a strong theme around the topics of industry hubs, collaboration and innovation, and advanced manufacturing.

http://www.pir.sa.gov.au/__data/assets/pdf_file/0005/181454/Limestone_Coast_Economic_Diversification_Report_Full_-_Final_14_11_2012.pdf

As intended, the Group has been successful in informing the projects and programs of the State Government's strategic priorities, including the co-investment by the State and Australian Government in the VTT "Future options for the cellulosic fibre value chain in the Green Triangle, South Australia: strategic technology roadmaps, business cases and policy recommendations" project.
http://www.dmitre.sa.gov.au/page/view_by_id/319

The membership of the Limestone Coast Economic Diversification Group includes representatives from the South East Local Government Association, Regional Development Australia Limestone Coast and the South East Natural Resources Management Board. It partners with business and industry through key projects, and continues to work with the State Government through Primary Industries and Regions SA and the Department of State Development, and the Australian Government through the Department for Industry.

The Limestone Coast region has further demonstrated its strong commitment to the forest industry during the recent forward sale of the State Government owned plantation forest assets. Successful lobbying resulted in significant community representation on the Forest Industry Roundtable that advised on the conditions of sale of the forestry assets.

It is therefore imperative that a Vision for the forest product sector in the coming decades not only reflect key items such as being environmentally sustainable, internationally competitive, supported by world class research and development, and maximising value adding opportunities – it needs to be strongly connected to the regional communities and economies that support this industry through employment, service provision, infrastructure, training and skills development.

2. What specific objectives should underpin this vision?

The Objectives that will underpin the Vision need to acknowledge the initiatives that different regions and parts of the forestry sector have already invested in/committed to, and build upon these.

The Objectives need to recognise that to achieve a Vision, there is a need to facilitate and support business development.

Finally, the Objectives need to recognise the roles of the three tiers of government, the forest industry and regional communities, and respect and value the contributions that each group will make to collectively achieve the Vision.

Issue 1: Market trends and pressures

3. What forest products does Australia have a local and/or international competitive advantage in producing?

Third party certified, sustainably grown plantation derived products with established domestic markets for structural timber (Pinus radiata) and international markets for woodchip for high quality paper production (Eucalyptus globulus). The quality and volume of wood production in areas such as the Green Triangle region can also facilitate investment in further value adding and advanced manufacturing leading to the development of new products and markets.

4. What is the potential demand for forest products in the coming decades?

Through appropriate government policy for procurement and building construction, there is an opportunity to further support Australia's sustainably managed and processed plantation forest industry.

5. How can Australia best position itself for this demand, both nationally and internationally?

It is well understood that for the Australian forest industry to better position itself to meet market demand in the future, capital investment is required in forest processing, value adding and advanced manufacturing technologies.

To attract this investment, forest resource availability needs to be identified along with the opportunities in the associated region that can support this investment.

For the Green Triangle region, the South Australian and Victorian Governments together with Regional Development Australia Limestone Coast and Regional Development Australia Barwon South West, worked with the forest industry to develop the 'Green Triangle Forest Industry Prospects, 2012' document.
http://www.rdalimestonecoast.org.au/uploads/Green%20Triangle%20Forest%20Industry%20Prospects.pdf

Through collaboration with all tiers of government, the forest industry and regional communities, similar documents could be developed and promoted nationally and internationally to attract a broad range of investment interests into Australia.

6. What are the other drivers or disruptions that will potentially affect supply and/or demand?

Policy frameworks supporting foreign investment – as stated above, capital investment is required if the forest products sector is to realise opportunities in value adding and advanced manufacturing technologies. It is important that foreign investment policy can facilitate this outcome and isn't adversely impacted by the policy that may result from the debate about foreign ownership of farming land.

Policy frameworks supporting forest products as part of renewable energy targets – forest processors are high energy users, but have a unique opportunity to utilise their own waste (wood residue) for energy production, servicing their own needs and potentially others (commercial or residential).

Access to a skilled labour force that adjusts as the forest industry goes through cyclical trends, but also adapts to with increasing technology. In regional communities there is an opportunity to work with other industries to recognise skill and labour requirements and transferability to ensure a core capability is maintained.

Collaboration with other countries that have forest based industries – for example the relationship the Green Triangle has established with VTT in Finland. This has facilitated access to new technologies, new markets, and potential investors.

Issue 2: Emerging uses and markets

7. Which emerging forest products have the greatest potential for Australia?

The VTT "Future options for the cellulosic fibre value chain in the Green Triangle, South Australia: strategic technology roadmaps, business cases and policy recommendations" project identified regional opportunities for engineered wood products (softwood pulpwood log - oriented strand board, hardwood pulpwood log - laminated veneer lumber, cross laminated timbers for building construction, glued laminated timber for large construction projects and potential export markets), wooden bridges, biocomposites, bio-oil by fast pyrolysis, biochar by torrefaction, and power, heat and biofuels by gasification. In the longer term – wood based plastics, bio based chemicals, and nano-cellulosic materials.

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Another opportunity is the export of skills and services associated with the forest growing and forest products sector.

8. What are some of the barriers to the development and/or uptake of these emerging forest products in Australia?

Access to capital investment for advanced manufacturing and/or new technologies in forest processing

Funding for research, development and extension in collaboration with industry and individual businesses

Access to appropriate skills and expertise, particularly in regional areas

Building codes that accommodate a broader use/application of engineered wood product

Training for builders/construction workers in the use of engineered and other wood product

Promotion of wooden buildings with architects and building developers

9. What opportunities exist to better utilise wood resources?

Value adding to traditionally low value pulpwood logs, and waste material along the value chain

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Issue 3: Forest resources

10. What is required to ensure the plantation estate is able to meet future demand for forest products?

Adequately resourced and informed (through research and development) asset protection from fire, pest and disease

Research and development to underpin forest water use policy

Investment in forest genetics to maintain productivity

Informed landscape and land use planning by Local and State Government identifying opportunities for new plantation establishment that is complimentary and supported by appropriate infrastructure

Access to capital investment to expand the plantation estate

11. What is required to ensure the native forest estate is able to meet future demand for forest products?

Nil comment

12. What opportunities are there to increase wood supply from farm forestry, private native forestry and Indigenous owned and managed lands?

In regions with a vertically integrated forest industry (growing, harvest & haulage, processing, and utilisation of wood waste) supported by a strong service sector (forestry consultants, research and development, education and training, etc) there is significant opportunity to increase wood supply from farm forestry, but support for growers/farmers is required over a time frame that is consistent with the length of rotation (planting through to harvest).

Issue 4: Innovation, research and development

13. What are the future research and development needs for Australia's forest products sector, and which of these needs are specific to strengths and opportunities in the Australian context?

Research and development needs for Australia's forest products sector need to focus on value adding to existing forest products and developing products that target new and emerging markets that operate outside the cyclical demands of traditional markets.

For the plantation forest industry, regions such as the Green Triangle have a critical mass of high quality softwood and hardwood plantations, supported by an existing processing and service sector that can work collaboratively with research providers and rapidly implement new technologies.

The VTT "Future options for the cellulosic fibre value chain in the Green Triangle, South Australia: strategic technology roadmaps, business cases and policy recommendations" project identifies the following research needs to realise the opportunities:

- *Biomass opportunities and co-location of manufacturing industries that generate and utilise the associated energy and/or heat*
- *Utilisation of softwood and hardwood pulpwood logs for engineered wood products*
- *X-ray technology to improve sawmill recovery*
- *Application of wood products in infrastructure projects such as bridges*
- *bio-oil by fast pyrolysis, biochar by torrefaction, and power, heat and biofuels by gasification*
- *(In the longer term) wood based plastics, bio based chemicals, and nano-cellulosic materials.*

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14. What are the current inhibitors to private sector investment in research, development and extension and what role, if any, does the Australian Government potentially have in addressing these?

The long term crop cycle associated with plantation forestry means return on investment in research, development and extension is hard for the private sector to manage. This is emphasised by the fluid nature of forest plantation and sawmill ownership in recent years, and their focus on running a businesses, not managing a research and development program.

Traditionally the role of the government to invest in forestry research, development and extension has addressed this market failure, and has also facilitated collaboration across the industry and ensured multiple beneficiaries from the work conducted. If the forest industry is to remain globally competitive, this traditional role of government needs to be enhanced and collaboration opportunities, including with other forest growing countries further explored.

In the Green Triangle region, history has shown the benefit of organisation such as CSIRO (research station now closed) and the Southern Tree Breeding Association being located in the region in terms of enabling partnership opportunities with private sector to achieve research and development outcomes that are available for the whole industry to benefit from. The presence of these skills and expertise in the region helped to drive innovation and identify other regional opportunities, but this is increasingly challenging with fewer research and development dollars spent in the region, CSIRO staff departing, and less application or commercialisation of research.

The VTT "Future options for the cellulosic fibre value chain in the Green Triangle, South Australia: strategic technology roadmaps, business cases and policy recommendations" report identified that to pursue the recommend technologies to transition the industry into a sustainable and competitive position will require investment and collaboration between industry players and the coordinated support of education and research institutions, together with governments of all levels. Overseas researchers, companies and investors will also need to be engaged if the regions' potential is to be fully realised and maintained.

http://www.dmitre.sa.gov.au/page/view_by_id/319

15. How can the framework for coordinating Australian forestry research and development be strengthened?

Flexibility in the framework to better reflect regional priorities

A 'value chain' approach – this is especially important in regions like the Green Triangle where the industry is vertically integrated and supported by a strong service sector.

Utilisation of enabling infrastructure – In November 2012 the University of South Australia secured $18 million in the Regional Round of the Federal Government's Education Investment Fund to contribute to the development of a $12.5 million learning facility at Mt Gambier and install $7.5 million fibre optic cables to connect both Whyalla and Mount Gambier to the existing Australian Research Education Network.

The cable is now active and the learning facility will be completed in time for the 2016 academic year. There is opportunity to access the fibre optic cable through a third party provider should a forestry hub be located in Mount Gambier.

Issue 5: Consumer and community engagement

16. How can domestic and international consumers be better engaged on the environmental, economic and social credentials of Australian forest products?

Domestic and international consumers need to be provided with more information on where their current forest derived products are sourced from, followed by information on the environmental, economic and social credentials of the companies that grow, harvest and process them.

A more informed consumer can then be engaged in terms of the value they place on credentials such as third party certification (which the Green Triangle plantation industry has already invested in significantly to meet export market requirements) and appropriate marketing material developed to increase the market share of Australian forest products.

17. How important are consumer awareness programs to the future prosperity of the sector?

There is a significant opportunities for 'customer led innovation' to drive the future of the forest products sector, and then appropriate consumer awareness programs developed to make it more mainstream.

18. Can forest certification be better leveraged to achieve stronger demand and better prices for Australian forest products and, if so, how?

Need to consider (domestic and international) consumer level of understanding, interest or value they place on forest certification first.

There is an opportunity to work with other primary industry sectors that grapple with the same issue.

Issue 6: Strengthened regional approaches

19. How could forestry hubs better utilise resources and promote greater efficiencies and innovation?

At the Limestone Coast Economic Diversification Forum convened by the Premier of South Australia in 2012, the regional business leaders identified the need to explore opportunities for industry hubs to take advantage of economies of scale and realise potential cross sector collaboration. They were also keen to establish or reinvigorate regional clusters in the forestry sector.

This is further supported in the Regional Development Australia Limestone Coast Regional Roadmap 2013 – 2016 where the development of a forestry hub in the region will help achieve the economic development and diversification priorities including:

- *Increasing advanced manufacturing particularly in the forest and forest products industry*
- *Developing industry clusters to maximise economic development within the region*
- *Increasing research and development relevant to the regions industries*
- *Providing support for small business development and sustainability*

The opportunities for a forestry hub in the region are further articulated in 'Green Triangle Forestry Prospects, 2012' document where the maturity of the industry and its supporting service sector is highlighted.

http://www.rdalimestonecoast.org.au/uploads/Green%20Triangle%20Forest%20Industry%20Prospects.pdf

The VTT "Future options for the cellulosic fibre value chain in the Green Triangle, South Australia: strategic technology roadmaps, business cases and policy recommendations" report also highlights the role of forestry hubs to support the establishment of engineered wood product plants where multiple products can be produced from waste material, including energy and heat.

http://www.dmitre.sa.gov.au/page/view_by_id/319

20. What have been the barriers to the establishment and efficient operation of forestry hubs to date, and what might be the role of the Australian Government in addressing these?

Enabling investment in infrastructure

Long term support for collaborative partnerships or clusters that typically take time to establish because of complex relationships involved, potential competition between businesses, and the combination of large corporate companies and small – medium scale enterprises

21. If additional forestry hubs are to be established, where would they best be located?

Location of a forestry hub in Mount Gambier, the regions service centre is strongly supported by the community, as per the outcome of the 2012 Limestone Coast Economic Diversification Forum. The concept has also been supported on several occasions by the Australian Forest Products Association

The Green Triangle Region (incorporating south east South Australia and south west Victoria) hosts around 350,000ha of plantation forest, roughly half Pinus radiata and half Eucalyptus globulus, and is one of the largest concentration of plantation forestry in Australia.

The plantation based forest industry has a long history and is a major economic driver in the region, underpinning about 8500 jobs and generating more than $778 million Gross Regional Product annually. It has strong representation across the value chain (growing, harvest and haulage, processing, waste product utilisation) and is well supported by the service sector.

The opportunities for a forestry hub are further articulated in 'Green Triangle Forestry Prospects, 2012' document - http://www.rdalimestonecoast.org.au/uploads/Green%20Triangle%20Forest%20Industry%20Prospects.pdf

Issue 7: Infrastructure

22. What infrastructure will be required to respond to future demand for Australian forest products?

Community and economic development in Australia's regions is supported by Regional Development Australia (RDA) – a national network of 55 bodies made up of local leaders, business and community groups. An initiative of the Australian Government, RDAs are responsible for supporting the policies, strategic plans and priorities of government to facilitate community and economic development. In addition, RDAs are a key local source of information on local needs and issues within their region.

RDAs will be a key source of local information on infrastructure requirements to respond to the future demand of the forest product sector in their region, and where appropriated the needs of other industries operating in the region. A good example of this is the development of the Green Triangle Freight Action Plan, a joint project between the South Australian and Victorian Government.

http://www.glenelg.vic.gov.au/files/Green_Triangle_Region_Freight_Action_Plan.pdf

23. What can be done to ensure better recognition and understanding of the sector's infrastructure needs?

Engage with the industry – they have the information on infrastructure needs and regulation changes required to support new transport technologies

Collaboration at a regional level with all industries, federal, state and local government – as done with the Green Triangle Freight Action Plan

http://www.glenelg.vic.gov.au/files/Green_Triangle_Region_Freight_Action_Plan.pdf

Development of business cases for priority needs

Utilising existing regional initiatives such as RDA Regional Roadmaps and ensuring adequate recognition and understanding of the forestry sectors needs

Issue 8: Industry skills and training

24. What are the skills and training needs of the sector over the coming decades, and where are the current gaps?

In the Green Triangle region, the current gap is in the harvesting and haulage sector in response to the rapid increase in domestic construction markets and export woodchip sales.

Into the future, the skills and training needs will be around:

Business & people management (frontline leadership)

Advanced manufacturing & associated service sector

Transport & logistics

Succession plan for existing silviculture skill sets

25. Are Vocational Education and Training and university training providers well-positioned to meet the future skills and training needs of the sector?

In the Green Triangle vocational education and training is well positioned to meet future needs with experienced and established registered training organisations. However, in the area where there is a current skills gap - harvest and haulage - training it very expensive and a long lag time before operators are at maximum productivity.

Southern Cross University has successfully run an undergraduate forestry program in the region, and the upgraded University of South Australia campus in Mount Gambier is very open to working with business and industry to meet regional education and training needs.

26. What improvements are required at an enterprise level to support the recruitment, development and retention of the sector's current and future workforce?

Career pathways/opportunities better understood by schools and families

Promotion of different jobs/skill sets/career opportunities now, compared with past – perception of low skill level jobs in sector within schools, families and community

Sound business management practices that include workforce planning and human resource management – industry being an 'employer of choice'

Promotion of benefits of living, working and raising a family in regional communities

A career in the forestry sector seen as exciting, sustainable, long term, and with increasing levels of technology and advanced manufacturing