

Submission on the draft Forestry and Wood Processing Industry Transformation Plan

Key information on submitter

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This submission is from the Bioenergy Association at large and is written to complement individual submissions from members. Where details are provided in a member's submission these are not repeated, although supported.

Submission

Overall feedback on draft Plan

The draft Plan is fully supported, and once adopted, will provide a sound foundation of achieving more value, (economic wealth and community wellbeing) from New Zealand's immense capability of sustainably producing woody biomass.

The Plan is a good start but is only an introduction to the full potential of economic wealth and community wellbeing achievable from an expanded forestry and wood processing sector producing a wide range of bio-based products, including energy.

There are four areas where the Association believes the Plan falls short and should be extended to include:

1. Greater emphasis on the opportunities for expanding biomass supply by integrating forestry and agriculture;
2. Changing the approach of the Plan from 'what additional value can be achieved from the biomass we produce' to 'a focus on maximising the amount of biomass which can be sustainably produced so that we maximise the value from land use via forestry from the production of bio-based products';
3. Encouraging a Key Change by adoption of a 'why cant we' attitude to over-come perceptions of current barriers;
4. Recognition that transitioning to production and use of gaseous and liquid biofuels will each require similar levels of financial start up assistance from Government as is being given to hydrogen, stationary heat, electric vehicles and electricity dry year firming.



Energy products, along with existing engineering wood products, lumber and log export have created a platform for investment into manufacturing a wider range of bioproducts. The Plan could benefit from being more explicit in stating that it is building on the existing sector businesses to expand by producing new high value products. The outputs of the sector are already impressive but could be even more impressive. For example, 9% of New Zealand's consumer energy already comes from biomass, but this could easily be tripled by 2050 so that 27% of consumer energy could be derived from biomass. To do that we need a will to make it happen. That requires strengthening of the draft Plan.

Much of the barriers to implementation of the Plan arise from historical attitudes, lack of information on the potentials, and a lack of belief and expression of a vision by many of the sectors participants. This results in a lack of support of land use for forestry in sections of the public. The Plan starts building a vision for the sector but in places is constrained by continuing the historical perception of barriers, rather than focusing on the opportunities and how to achieve them. Many of the opportunities appear constrained by perceptions of biomass availability, rather than exploring the opportunity and then setting out actions to ensure that there is adequate biomass to achieve the opportunities. For example, for replacing fossil fuels for stationary heat use of biomass fuel is generally financially a better option than electricity, and biofuel supply risk options are more manageable by the facility owner, so a focus in every region should be to ensure that there is adequate solid biofuel available to support transition from fossil fuels. Currently the Plan focuses only on data collection and there are no regional initiatives to ensure that there is adequate solid biofuels available at the least cost within that region.

The Plan needs more urgency in it if the goals are to be achieved by 2050. The foundations for bioenergy are already established and progressing. Greater urgency in the Plan would assist speed up greater implementation. The lack of urgency often appears because the Plan assumes that many initiatives are yet to start, when the reality is that the initiative may already be underway. An example is in the domestic production of liquid biofuels where the Plan fails to recognise that there is already technical capability for manufacturing biocrude already available in New Zealand. It just doesn't fit the narrow selection criteria of the Wood Fibre Futures project, or the previous Stump to Pump project.

The Plan fails to adequately explore the untapped opportunities for growing and recovering greater quantities of biomass. The scope of the Plan is generally limited to historical views on commercial planting of woody biomass, which is essentially plantation forestry. The Plan starts to broaden the definition of forestry but gets drawn back into only considering large plantation forestry. The concept of land use being either agriculture, cropping or forestry no longer fits a more modern definition of forestry which involves integrated land use so that all land is used for its best commercial and sustainable use. This also requires a modernising of how and where trees are planted on farms and how farm forestry can improve revenue streams to land owners, and thus improve land based business resilience.

Currently significant quantities of woody biomass residues are not recovered because there is not a perceived economic use for them, or the cost of recovery are believed to be too high. The Plan fails to use the knowledge of where residues are not being recovered to suggest incentives and assistance to encourage new bio-based businesses to locate

where these unused resources can be sourced. For example there is modular equipment (eg Solray) for producing liquid biofuels which could be located near these sources of biomass which would concentrate the energy content into a liquid which is much cheaper to transport than moving truckloads of low density chip. The Plan needs to put more emphasis on assisting areas where un-used residues are left to waste, to attract biofuel and other manufacturing investors. An example where this has been successful is with regard to the landowners in South Canterbury who, with government assistance, have formed a cluster to recover biomass from wilding pine and find a biofuel buyer.

In summary the Plan is a significant step forward and will provide a good platform for transformation of the sector but it misses some areas where greater attention is required. These gaps can be addressed in the Transformation Plan Roadmap. Bioenergy Association would be pleased to contribute to the development of extension of the Priority Areas and development of the Roadmap.

Feedback on vision in the Plan

The Vision set out in the Plan is supported but is not very aspirational.

The Vision as written is more a vision for the mechanics of the sector rather than what the sector could achieve. The five goals are aspirational and this should be reflected in the Vision statement.

Feedback on key change proposed by the Plan

The suggested Key Change is an outcome rather than a required change for transformation and should be altered to reflect the actual changes which will be necessary to implement the Plan. The Key Change should be more about the participants becoming aspirational rather than just continuing to do the same things they have done for the last 3 decades. The Key Change will be in attitudes and how the participants think with regard to maximising the value from every piece of wood fibre. A Key Change will be from looking for opportunities for maximising value from wood, and not accepting the status quo.

A Key Change would be from adopting a “why cant I” approach to looking for opportunities. Currently discussion on the availability of biomass residues is constrained by perceptions of current biomass availability. (eg page 28) Turning this around to focus on how much biomass is required to meet demand would result in additional plantings so that there is adequate quantities of biomass available, in the right place, of the right type and at the right price.

Feedback on challenges identified in the Plan

The Plan provides a good overview of the challenges and the proposed suite of actions takes these into account.

Feedback on opportunities identified in the Plan

The summary of opportunities is high level and adequately covers the range of opportunities at that level but has gaps in identification of the detailed actions which are required. For example the opportunities arising from integrated land use with agriculture are missing. This is a significant failure of the Plan and results in many opportunities being missed. The Plan tends to focus on plantation forestry and limits coverage of other people who plant trees such as in agriculture, yet these have a commercial value. To transition to a bioeconomy will require greater integration of communities, land use and markets for bio-based products.

Feedback on goals in the Plan

The goals are supported.

Feedback on Priority Area 1: Growing sustainable forests for our future

Priority one fails to address what should be the most important objective of the Plan. The Priority should be to grow the sources of biomass to meet that extensive demand for biomass in order to maximise value generating opportunities. Focusing only on what has already been planted is backward looking.

The plan identifies a wide range of bio-based products, including energy products, yet there is an inferred assumption that the range of opportunities for new and existing products will be constrained because the available amount of biomass is finite. That perception of there possibly not being enough biomass available is already resulting in some consultants advising their stationary heat clients to use electricity rather than biomass as the option for transitioning from fossil fuels. Similarly, domestic manufacture of liquid biofuels is not being encouraged by Government because of the perception that there may not be enough biomass available as a feedstock.

To meet the Goals set out in the Plan will require a change in thinking with regard to forestry planning. Rather than responding to how much forestry is already planted the planning should be focusing on how much forest planting do we need to achieve these goals, and where.

Similar if the bio-product such as a drop-in transport fuel is desired as set out in the Goals, then the planning and research should be looking at what species would be more beneficial for fuel production.

Action 3.3 touches on biomass supply but it needs to be reversed so that planting is a response to what the energy and bioproducts require.

Action 2 fails to include the farm forestry/small woodlots opportunities for sourcing biomass. The plan suggests that harvest volumes from small woodlot owners will double to 40% in the next decade yet there are no actions in this section for speeding that up and even extending it. The Plan fails to address this section of the sector yet it is the area which needs the most assistance.

Feedback on Priority Area 2: Modernising and expanding the wood processing sector

The actions in this priority are supported as it will result in more residues being available for energy.

The Plan tends to assume that “big is best” yet in some emerging technologies for energy and other bioproducts the equipment can be small and modular. With spread out biomass supply there can be significant advantages of partial processing being undertaken near the biomass source. For example hydrothermal liquefaction production of liquid biofuels, as offered by Licella and Solray of Christchurch, the equipment can be included within transportable containers. Similarly regional pyrolysis plant can concentrate the energy component from the biomass, which can then be transported to a larger facility for processing into end products.

Currently in the gaseous and liquid biofuels sector there is not the Government assistance which is required to kick start these areas, in the manner as has been provided for solid biofuel heating, electric vehicles, hydrogen and electricity dry year supply. If the goals set out in the Plan are to be achieved then financial assistance programmes similar to these will need to be available. A neoliberal hands-off approach by Government will result in failure of a number of the Goals in the Plan. .

Feedback on Priority Area 3: Growing and diversifying domestic and export markets

The assumption that harvest volumes will fall should not be accepted as a suitable position to be in. This should be a signal that additional planting is required to ensure that there is always adequate biomass supply to meet demand. While there will be a decline in the mid 2030’s this should be a focus for action with short rotation species and specific planting regimes.

The actions in this priority area are under-whelming. For example there is a high demand for biocoal (torrefied wood products) from Asia for steel making and electricity generation and NZ has a potential to grow enough biomass to meet this demand. At present the Plan fails to ignite enthusiasm for such investment as the actions are mainly based on the current availability of biomass, not on the potential availability of biomass. Biocoal would also be a drop-in renewable fuel for replacing coal in many existing coal boilers. This would avoid extensive unnecessary capital expenditure by the plant owners.

Te Uru Rakau undertook the Wood Fibre Futures study to look at opportunities but the study tended to address the opportunities along the lines of being Think Big II. The study failed to consult with many existing sector participants and focused on attracting international investors, rather than investigating the opportunities and then looking for the investors from within New Zealand.

If the ITP is to achieve the Goals then a different approach is required. The priority area should be encouraging of new investment from existing sector participants, many of whom already have relationships with significant international investors.

Feedback on Priority Area 4: Improving system settings for a thriving sector

A key aspect of Priority 4 must be the encouragement of collaboration and partnerships. The sector is too small to have everyone competing with each other. Relationships through the value chain are important as this allows a spreading of costs and management of risks. In the solid biofuels sector the wood fuel suppliers as aggregators of residues are developing relationships with the forest owners so that recovery of residues is optimised and costs kept minimal. This model of partnership is one of a number that could arise if given suitable assistance and incentive.

The farm foresters and small woodlot owners will establish economies of scale if they can form clusters such as has happened with regard to the recovery of biomass from wilding pines, and the subsequent sale of the biomass as a biofuel.

Actions to assist this should be included within this priority area.

Feedback on Partnership and Implementation of the ITP

The Association agrees that the implementation of the ITP must be done in partnership between Government and the sector, and the active involvement of key stakeholders.

However because many in the sector are small businesses and often already financially stretched the level of financial assistance from Government will be critical. An “infant industry” approach needs to be taken by Government. In other Government programmes where there is adequate funding from Government the sector participants have been very willing to volunteer their time and expertise. This situation applies to this ITP where funding assistance from Government will unleash significant in-kind effort, and real money, from the sector participants.

It is recommended that the agreed actions be arranged in a hierarchy according to – immediate/short horizon, medium horizon and long horizon. This would enable early achievement of “runs on the board” and thus early assistance to benefit the industry and individual businesses instead of having to wait for later or more complicated actions that would require greater time to implement. The early wins will also be achieved if support is given to the many initiatives already being pursued by the private sector, but often floundering because of a lack of financial and motivational support.

Immediate actions that can be implemented without delay

- a. These would provide early assistance to the sector
 - i. Taxation measures to incentivise investment, for example accelerated depreciation for capital equipment
 - ii. Government initiatives to promote New Zealand’s forest sector as a vibrant, internationally competitive one with exciting potential to the international financial community permitting industry businesses to access investment on an internationally competitive basis
 - iii. Government assistance that helps the industry to identify and contact credible international financial institutions and which allows it to access internationally competitive investment finance and insurance cover



- iv. Review the criteria and methodology for inclusion of small woodlots/shelterbelts within the NZETS.
 - v. Include harvested wood products within the NZETS.
 - vi. Undertake research on small woodlots and shelter belts as an agricultural crop.
 - vii. Provide guidance to landowners on creation of clusters for the recovery and sale of residues from farm forestry.
 - viii. Assist regional economic development entities to facilitate the establishment and management of regional biomass demand and supply plans.
- b. It is our view that these measures and actions can be taken in a relatively quick time frame resulting in the investments needed to enhance the capacity and ability of sawmillers and wood processors to achieve the goals of the ITP. None of these measures would require significant government expenditure. An example of one of the tools that can be used to promote the sector, both to the financial community and also to the consuming public and to building professionals is this YouTube video prepared for the wool industry;
<https://m.youtube.com/watch?v=GAnfzSKFbLQ&t=3s&pp=2AEDkAIB>

Medium horizon actions

- a. Market support measures
Export market developments – greater depth in existing markets and development of new markets. Government support through agencies such as NZTE in funding assistance and in-market support to achieve greater penetration of existing markets and development of new markets. This to include assessments of market potential for timber produced from low grade logs, wood pellets and biocoal.
- b. Domestic market support via govt procurement policies, standards development that permit innovation and use of timber and wood products including timber produced from low grade logs. This includes taking steps that remove or streamline compliance and consenting requirements.
- c. CCA – funding of a programme to research elimination of CCA in the waste stream or to demonstrate that CCA treated timber in the waste stream has no negative impacts (preservative treatment is a major advantage for Radiata Pine so investment in this market segment is essential)
- d. Log market transparency leading to stability and certainty of supply and pricing
- e. Biomass production will increase as a result of investment in and expansion of sawmilling and wood processing. The immediate channel for greater availability of residues such as wood chip, sawdust and shavings is as biofuel. Alternative uses such as plastic substitutes are longer term considerations. Progress with developments in this area are important for sawmillers and wood processors to be aware of so they are in a position to assess their own options and forward planning in these potential income streams.

- f. Establish a sector Task Group to progress the domestic production of transport biofuels. (This could be an extension of the current Air NZ proposals for SAF.)

Long term horizon actions

- a. The draft consultation report refers to “Emissions pricing plays an important role in incentivising production”, p68. We support further work to review the existing emissions settings and in particular to explore options to recognise the delayed emissions from carbon stored in wood, HWP.
- b. Industry clusters are discussed in the draft consultation document. It is our view that clusters must include the concept of regional, smaller scale clusters that harness synergies at a local level.

The ITP needs to be a “living” document and there should be a review/revise revision mechanism that permits regular (say annual) reviews to be conducted and revisions to actions taken where aspects of the plan are found to be inadequate or unsuitable. The review mechanism should include for consultation with key stakeholders.