Climate change and socio-economic drivers for native forest management: a perspective from New South Wales, Australia

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Australia’s forest cover – native forestry

Total area: 147 Mha
Available for harvest: 9.4 Mha

For more information about Australia’s forests visit: www.bras.gov.au/nfl
Climate change drivers - conservation

- Carbon emissions
- Carbon captured

- Bushfire
- Decay
- Stored in growing trees
- Stored in coarse woody debris

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Climate change drivers - production

- Carbon emissions
- Bushfire
- Decay
- Stored in growing trees
- Stored in coarse woody debris
- Harvesting and timber processing
- Timber products:
  - store carbon
  - product displacement
- Energy from biomass:
  - carbon neutral
  - fuel displacement

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Socio-economic drivers

- Net costs of managing forests for conservation only: 6-7 times more than production forests
- Drivers for regional employment
- Demand for native forest products – unique characteristics
A glimpse of the GHG outcomes

- Net product substitution
- Fossil fuel emissions offset by bioenergy (30% of available forest residues)
- Carbon storage in products
- Forest carbon (remaining in harvested forest)
- "Conservation" forest
Conclusions

• From both socio-economic and GHG perspectives it makes sense to continue sustainable harvest of native forests

• Exception where initial forest C stocks are very high (e.g. carbon-rich old-growth stands)

• Need to maximise physical permanence of carbon in HWPs; and optimise bioenergy generation for lower value co-products
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