

Australia needs a fundamental forest policy overhaul

The Australian Government's 40 year legacy of financial assistance for plantation establishment and market pressures is creating unprecedented forestry industry opportunities with comprehensive benefits. Fully realising these opportunities requires tackling the blockages, including within the native forest sector. The Australian Government needs to make major choices now.

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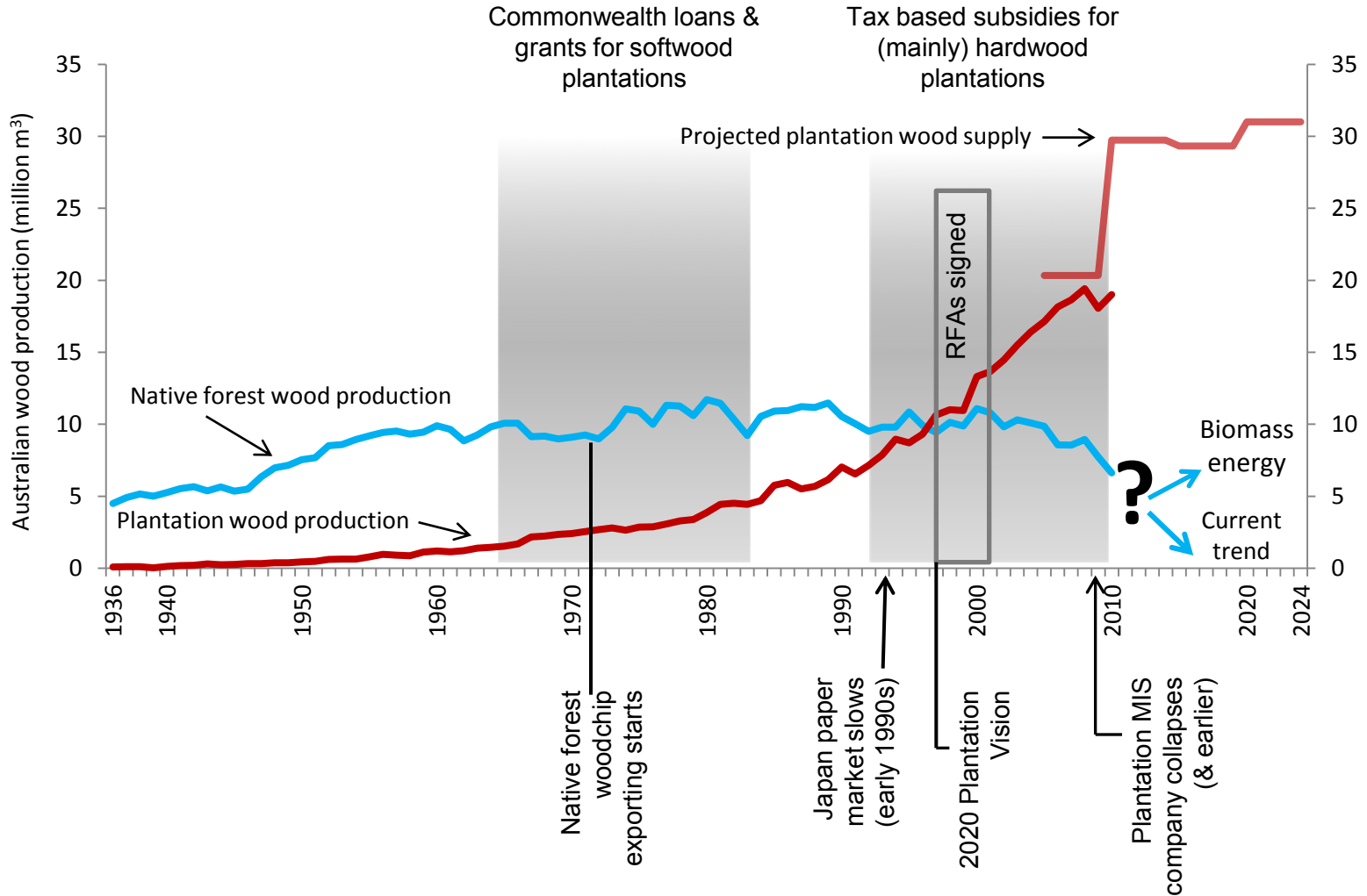
Today, more than 85% of Australia's sawn timber and wood panels is produced by a prosperous plantation manufacturing industry generating substantial jobs, mostly in rural Australia. The plantation industry is also rapidly displacing native forest chip exports. In total, over the decade ending June 2010, Australia's plantation wood production increased by 43% whilst native forest wood production declined by 41%. During this period, the area of native forests allocated to conservation was minor. In 2010, Australia's 19 million m³ plantation log cut accounted for three quarters of the nation's total wood production and more than 85% of Australia's sawn timber and wood panels production. Government projections show strongly growing hardwood plantation chiplog supply and continuing high levels of softwood plantation supply. Such volumes supplied into sluggish markets is expected to result in a near complete cessation of native forest wood in commodity markets including the high volume chip export market. This structural change is expected to be largely complete within a few years.

These industry developments mean Australia can secure comprehensive social, environmental and economic benefits: an end to decades of forest conflict; a more prosperous plantation processing industry relieved of the subsidised native forest competition; greater employment stability; native forests free to do the job they do best – biodiversity conservation and carbon storage; and the end of forestry subsidies that erode public funding for other activities.

State native forestry corporations, however, are working to rebuild native forest wood markets by entering the high volume energy market. A trial pellet plant is already operating in south east NSW with the company seeking further expansion to its pellet production and integration with a proposed native forest electricity station. Large scale native forest bioenergy investments are also being sought or proposed in Victoria, Tasmania and WA. The Government's policy that excludes native forest biomass as a renewable energy fuel source is an important foil. Whilst it doesn't stop mills using residues in on-site co-generation, it does prevent native forest based energy accessing the RECs market and using RECs revenue (a subsidy) to boost the commercial viability of native forest fuel in the domestic energy market.

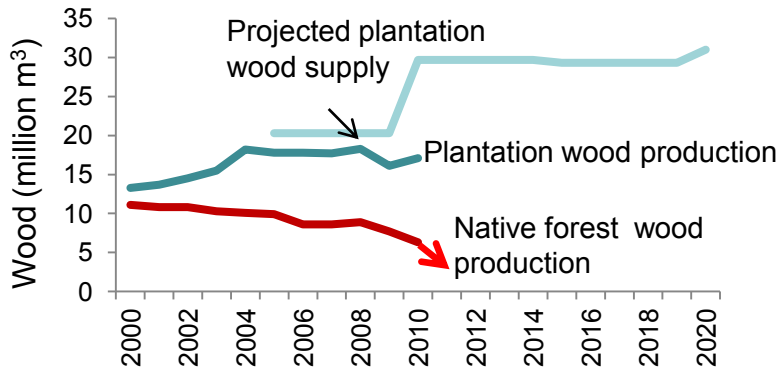
On forests, the Australian Government effectively has only two choices. One is to facilitate the proposals mainly by the State forestry corporations of NSW, Victoria, Tasmania and WA and open native forests to the energy market. The other is to capitalise on its plantation legacy and let native forest wood production continue to decline: the forestry industry is already past the three quarters mark. Such engagement can mean a plantation processing industry policy, adjustment assistance for native forest based workers, native forest restoration for biodiversity and climate change benefits and an end to the bitter conflict.

Government plantation legacy & market pressures driving unprecedented forestry industry opportunities with comprehensive benefits

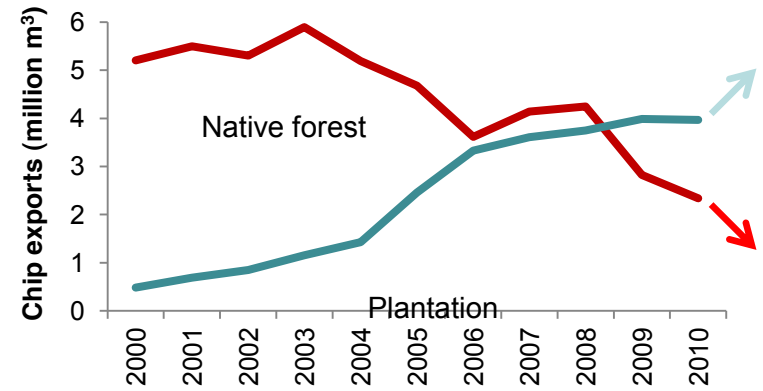


Australian native forestry industry situation & outlook

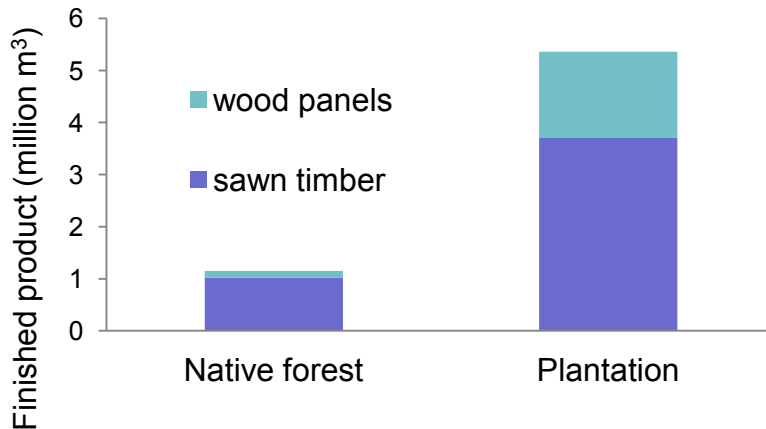
Wood production



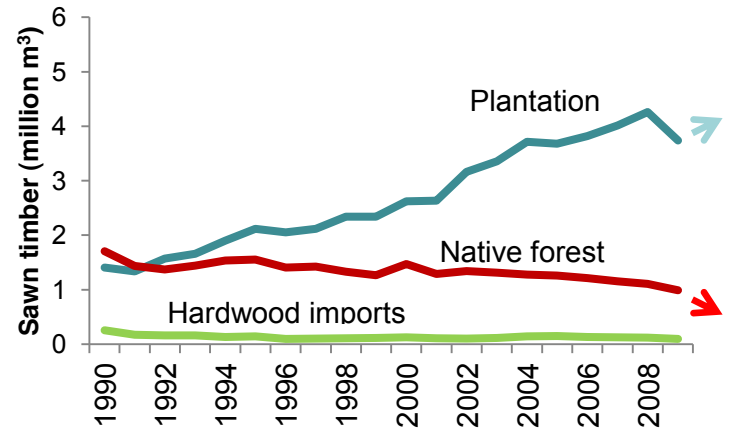
Hardwood chip exports



Sawn timber & wood panels production



Sawn timber production & hardwood imports



Data sources: ABARES *Australian Forest and Wood Product Statistics*; BRS *Australia's Plantation Log Supply 2005-2049*.

Native forest bioenergy is poised to accelerate logging Australia-wide

NSW

South East Fibre Exports (JV Nippon Paper & Itochu) have constructed a trial wood pellet plant to supply domestic space heaters and commercial boilers (in Australia and export).

South East Fibre Exports proposal for wood fired power plant currently under review by NSW Department of Planning.

Victoria

Victorian's Timber Industry Strategy 2009, Government support for native forest wood to be used for energy production, subject to regulatory environment.

Vic Forests - 837 000 t pa of residual logs for 20 years including for energy production (some resource close to coal fired electricity stations, suitable for pellets and other energy products). Supply to commence July 2012.

VicForests & private company – 300 000 t pa in a bioenergy scoping agreement.

Marysville – energy supply proposal using native forest wood.

Orbost - long running corporate interest in energy production.

WA

Forest Products Commission seeking interest in 800 000 t pa of logs including small diameter jarrah, marri & karri suitable for energy production. WA native forest log cut = 437 000 m³ in 2009/10.

Tasmania

Forestry Tasmania seeing investors for a 30 to 50 MW wood-fired power station at Southwood using 300 000 m³ of wood.

In addition, co-generation plants at native forest sawmills (for example, Big River Timbers at Grafton) could be scaled up to supply electricity into the domestic grid and capture the RECs revenue, if Government changes the regulations. This strategy is similar to the industry's move into chip exporting in the 1970s and 1980s.

Current regulation concerning native forests

Biomass from native forests is excluded as a renewable energy fuel source.

Oakeshott motion

Bioenergy sourced from native forest biomass to qualify as renewable energy where:

1. it is a true waste product, and
2. it does not become a driver for native forest logging.

Attempts to develop the regulatory framework are unsatisfactory

- A. HoR Standing Committee on Agriculture, Resources, Fisheries and Forestry 2011 Inquiry into the *Future of the Australian Forestry Industry*

Recommendation 17. To ensure that the biomass used is a true waste product, have reporting on biomass volumes used, energy used and income generated.

- B. Renewable Energy (Electricity) Regulations 2001

For RECs eligibility, native forest wood must be waste, defined as:

biomass from a native forest harvested primarily for a purpose other than biomass for energy production

and

- a by product of harvesting primarily for a high value process,
- or**
- a by product of harvesting under ecologically sustainable forest management principles,

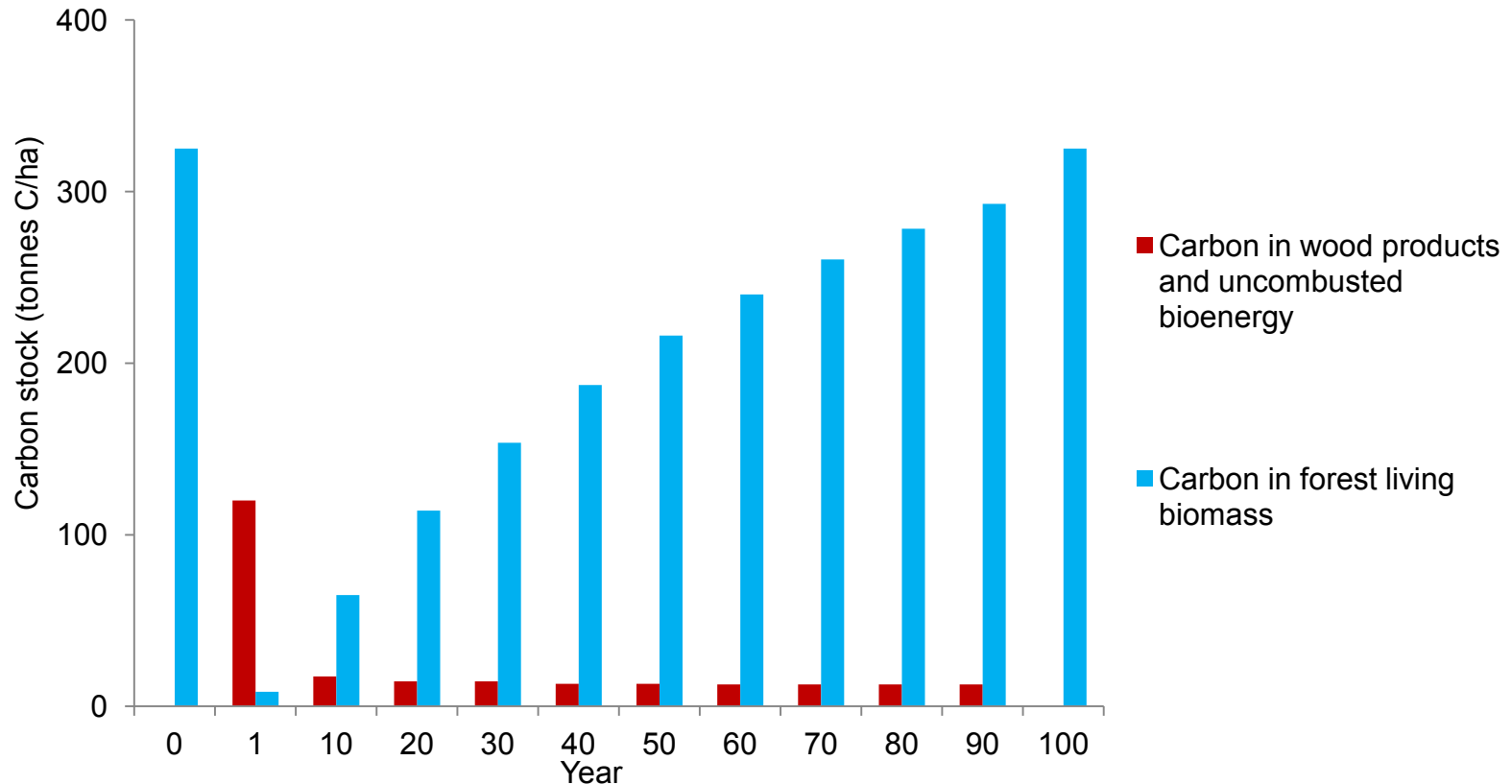
and

- from an RFA area,
- or**
- from a non RFA area but Minister is satisfied harvesting is consistent with those required in an RFA area.

Native forests for commodity wood production cannot be climate change friendly

Carbon stocks with:

- native forest sawn timber production at current levels and all assumed to be long-lived products, and
- with all chip logs and sawmill residues used for bioenergy



Native forest bioenergy capacity to displace Australian coal-based electricity is minute

How much energy could be generated if all the native forest log production in 2009 was used for energy?

	Raw material 2009 (million tonnes)	Energy content factor (Gj/tonne)	Energy* (million Gj)
Black coal	56 (est)	27.0	1,512
Brown coal	68	10.2	694
Total coal	124		2,206
Green & air dried wood	6	10.4	62

$$62/2206 = 2.8\%$$

* Energy content before transport and production losses. Energy content factors: Department of Climate Change and Energy Efficiency National Greenhouse Accounts Factors.

Offsetting fossil fuel emissions against land sector carbon uptake is fundamentally flawed policy

Avoiding emissions by not logging native forests and drawing down atmospheric carbon through forests regrowing should not be offset against fossil fuel emissions nor be eligible for carbon credits.

1. The role of the land sector in climate change mitigation is fundamentally about limits.
2. Houghton (2008) estimates that human activities on the land since the industrial revolution account for 25 per cent of atmospheric CO₂: accounting for 28 ppm.
3. If fossil fuel emissions continue at 2000s rates and ocean sinks remove 30 to 40 per cent of all CO₂ emitted by human activity (Houghton 2007; Global Carbon Project), a world-wide return of all land to pre industrial revolution carbon stock levels, might 'offset' around 20 years of fossil fuel emissions at current rates.
4. The land sector, however, cannot return to its full carbon carrying capacity because of competing food and shelter claims on land and because, in other cleared areas, soil resources have been permanently degraded and reforestation is unlikely to result in carbon stocks returning to their earlier levels.
5. Good policy requires separate carbon targets and funding arrangements for the land sector and fossil fuel emissions. *The Carbon Farming Initiative* is a good starting point with scope to set funding priorities for land-based activities determined by ecological/science criteria.

State Governments do not respond to systemic loss signals in their native forestry businesses

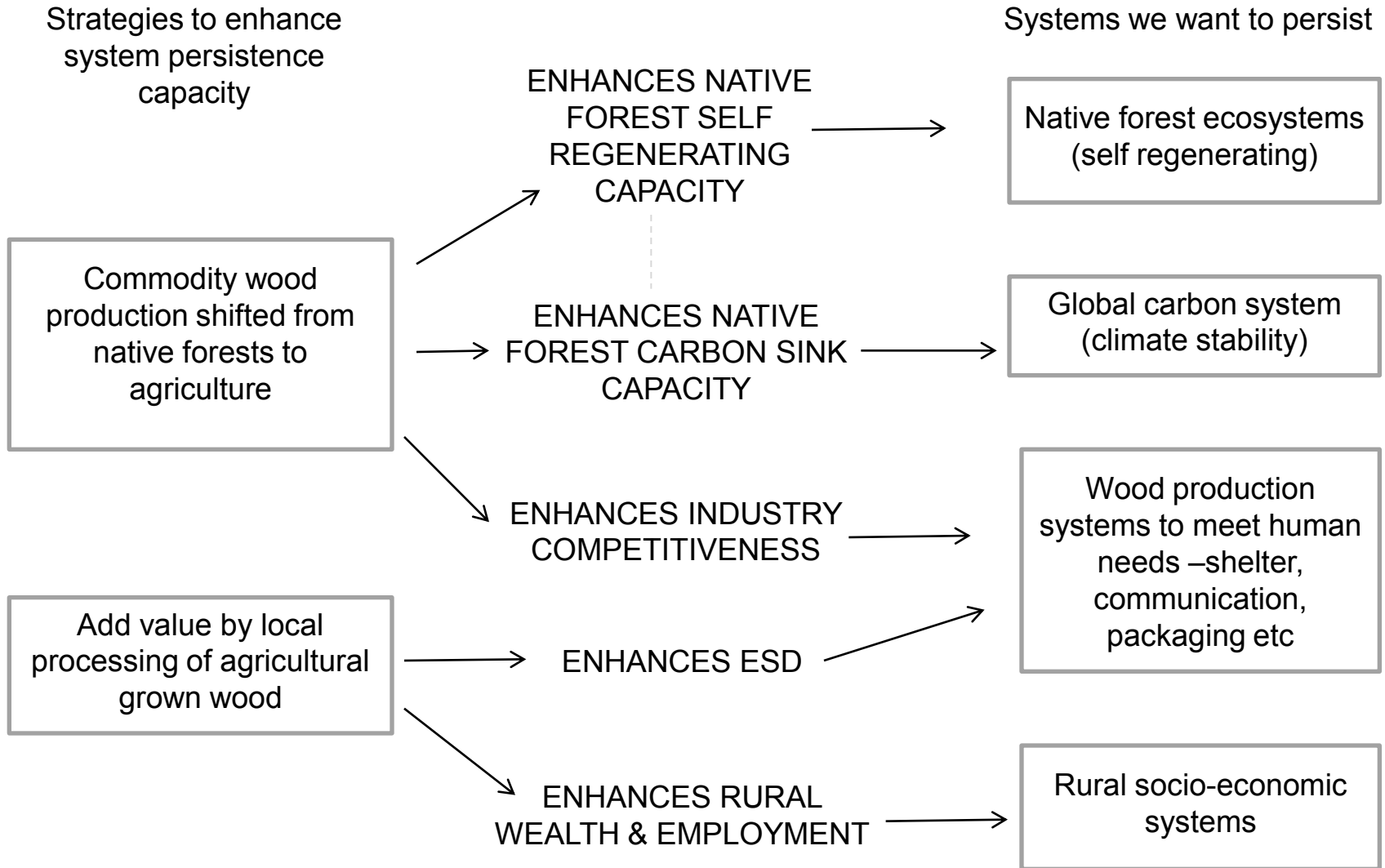
Not retiring native forests from commodity wood production is to the detriment of the plantation growing and processing industry; long-term employment; native forest ecological integrity; climate system stability; competing uses for public funds and national well being.

	Forests NSW plantations	Forests NSW native forests	Forests NSW total (includes 'other' segment) ¹	Forestry Tasmania	Vic Forests	WA FPC	Forestry SA plantations
Net profit/(loss) before tax 2011 \$ millions	61.9	8.3 ²	33.7	(17.7)	2.1	(14.2)	48.2
Net profit/(loss) before tax 2010 \$ millions	44.3	(14.3)	19.7	(16.3)	1.8	(23.0)	46.2
Net profit/(loss) before tax 2009 \$ millions	32.1	(13.3)	(16.4)	9.3	(5.8)	0.5	30.2

¹ Does not add to the previous two columns due to the very high unallocated expenses.

² Forests NSW achieved a \$14.6 million 'cash loss' in 2010/11 (Answer to Mr David Shoebridge MLC Budget Estimates question on notice No 33 24 October 2011) but reported a \$8.3 million profit in their 2010/11 Annual Report. Note: Between 2011 and 2010 some \$14 million of 'other expenses' have been reallocated in the segment reporting out of 'Native forests' and into 'Other' which has significantly affected the reported native forest result.

Forest and wood products industry policy frame



Strategies enhancing > one system's capacity to persist increases policy coherence

Carbon stock effects of native forest logging for sawn timber & bioenergy

SCENARIO

Native forest management regime

- 100 year rotation
- MAI = 2 m³/ha/yr (Resource Assessment Commission)
- 35% sawlogs
- 2% poles, posts, sleepers
- All chiplogs and sawmill residues to bioenergy

Forest biomass and regrowth

- Grierson *et al.* 1992 (amended to 100 years) for native forest regrowth profile
- Root to shoot ratio: 0.25:1
 - ⇒ merchantable wood = 37% above and below ground living biomass at logging time
- Soil carbon and dead biomass excluded

Wood product life

- Products and pools from Jaakko Poyry 1999, NCAS report No 8
- 85% of sawn timber goes to framing, boards, flooring and furniture and has 90 year life