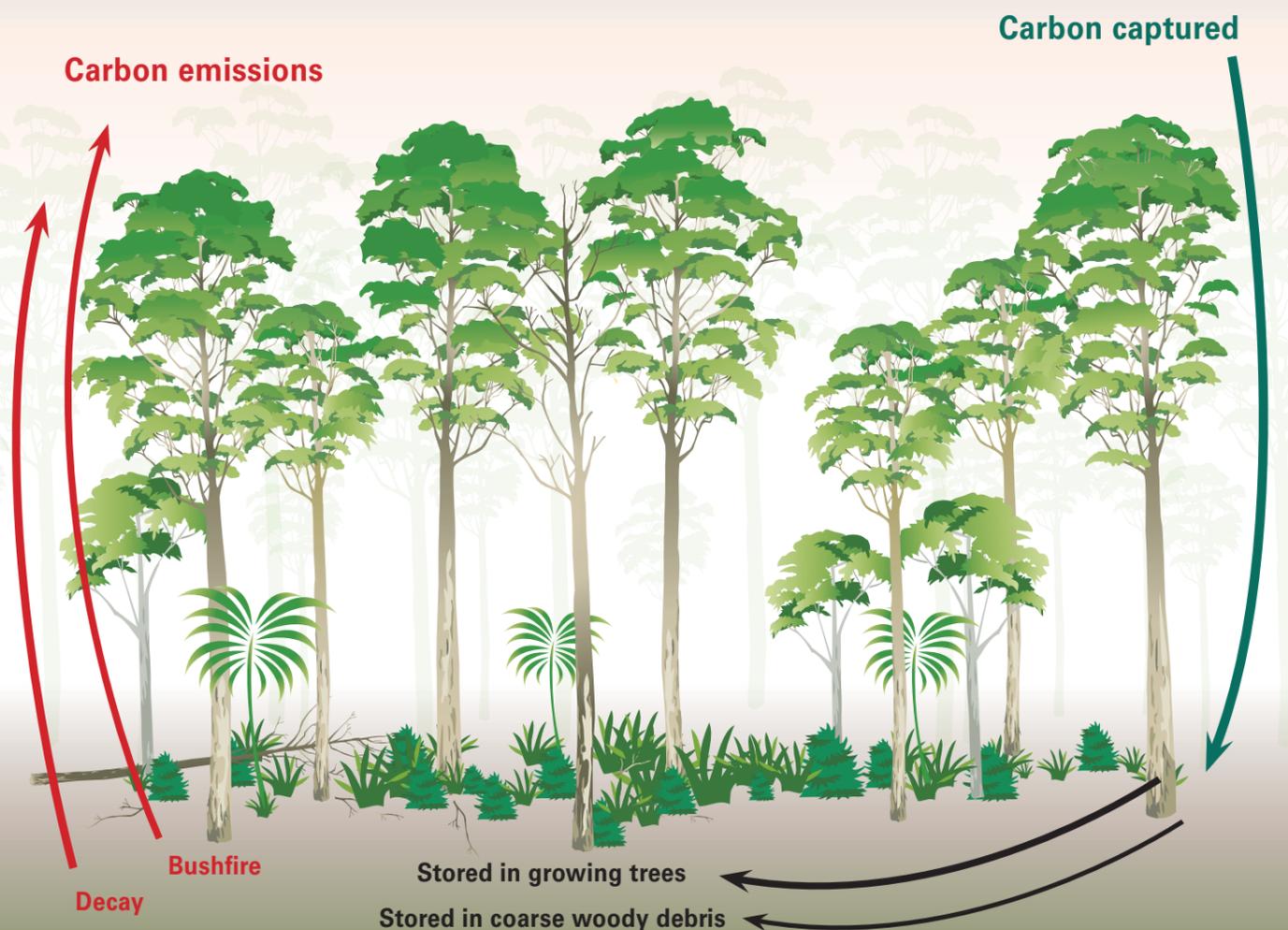


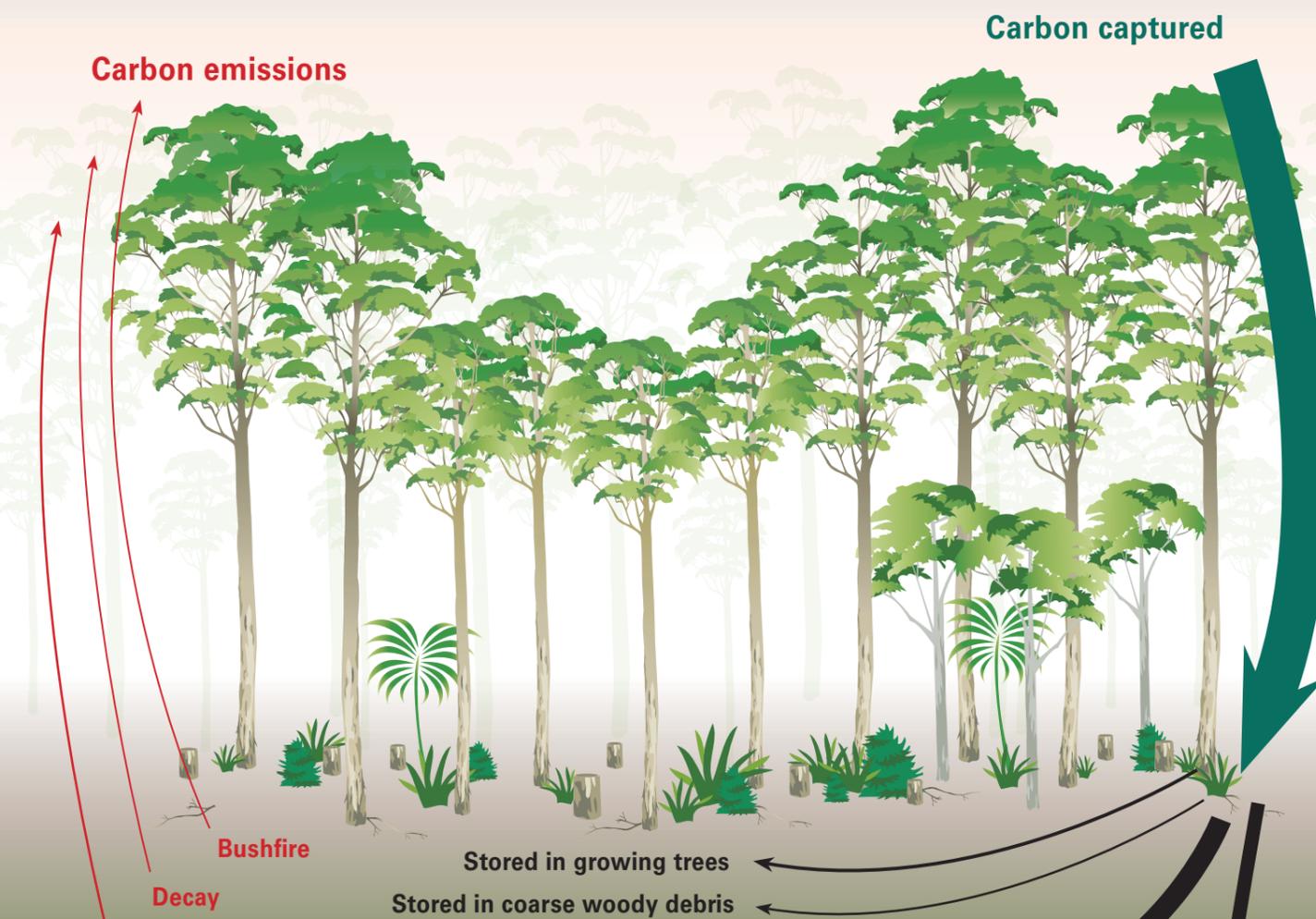
Carbon: Looking beyond the trees

An example from the Mid North Coast over 200 year life-cycle assessment

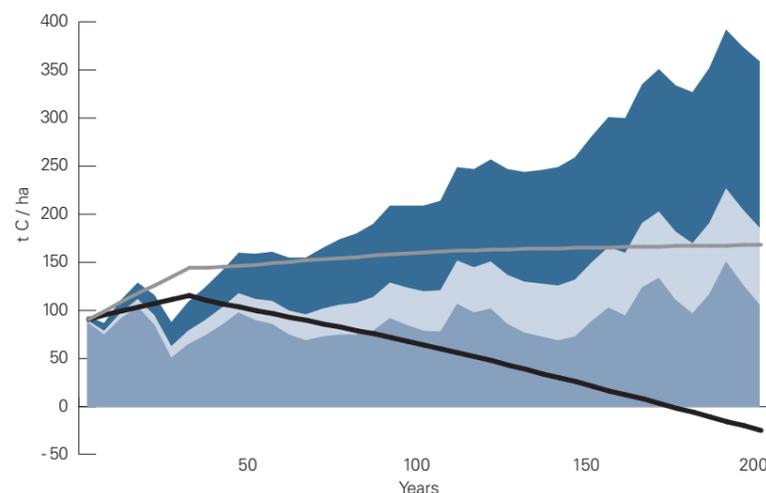
Unharvested reserve



Sustainably harvested forest



Carbon under the current harvesting regime in a representative North Coast native forest



Cut forest

- Product substitution effect: Net carbon emissions avoided through using timber products compared to more emissions-intensive alternatives. If logging residue was efficiently utilised for biochar or energy, the net product substitution effect would be much greater.
- Carbon stored in products
- Carbon stored in retained trees and from all parts of harvested trees left in the forest.

No cut forest

- Carbon stored if the forests are not harvested.
- Net carbon stored: Net impact of not harvesting forests on carbon stocks, including the effect of substituting the sawlog products with more emissions-intensive alternatives.

This model excludes potential emissions due from wildfire. If included the carbon storage of the protected forests is much lower.

Harvesting and timber processing

Key points:

- Carbon makes up 50 per cent of the tree dry weight.
- Young forests grow faster than old forests, so regular harvesting and regrowing can sequester more carbon in the long-term than not harvesting.
- Forest products store carbon and have lower emissions than alternative products such as concrete and steel, so using wood products from managed forests lowers emissions.
- A no-cut forest has higher fuel loads and greater burn intensity resulting in greater emissions (>3 times) compared to a managed cut forest (Based on *National Inventory Report 2009*).
- Most native forest sawlogs are manufactured locally into high-value, long-term products such as flooring, decking and structural timber.
- Managing the forests so they grow productively is important for sustained mitigation benefit, as is ensuring they are utilised in long-life products and can be utilised to reduce fossil-fuel emissions at the end of their lifespan.