Development of a National Wood Products Model
Chris Borough & Hamish Crawford
Carbon in wood products

• IPCC Default – emission at harvest fails to recognise important pool

• Dakar conference 1998 proposed alternate accounting methodologies
  – IPCC Default
  – Production
  – Stock-Change
  – Atmospheric Flow
IPCC Default – emission at harvest

• For wood exporting countries carbon emitted in another country is debited to originating country

• For wood importing countries – carbon rules are attractive
Production Approach

- Responsibility for accounting for decay of all wood products rests with country of origin
- Need to track all products within other countries (incl non-Annex I)
- For wood importing countries – carbon rules are attractive
- We believe unworkable
Stock - Change

- Accounts for all emissions from wood products in Australia – regardless of origin of wood product
- Places responsibility on Australia for all wood; origin of wood (Annex I or non-Annex I not important)
- Australia not responsible from emissions from exports
- We consider possible to implement
Atmospheric Flow

- Similar to stock change but uses actual decay rather than assumed decay function
- Very difficult to implement - impractical
Flow of Logs

• ABARE
• State Forest Services
• Back to 1944
Identification of Carbon Pools in Products

- Sawmilling
- Preservation
- Plywood
- Panels
- Pulp & Paper
- Export Logs (incl. Woodchips)
Life Span of Wood Products

• Very Short Term (Pool 1) 3 years paper, swd pallets etc
• Short Term (Pool 2) 10 years hwd pallets, MDF etc
• Medium Term (Pool 3) 30 years treated palings, kitchens
• Long Term (Pool 4) 50 years furniture, hwd poles
• Very Long Term Pool (Pool 5) 90 years framing, furniture
Pool of Wood Products in Service

- Housing starts since 1944
- Estimated amount of timber by dwelling type
- All housing timber assumed to be Pool 5
Output from Model

- Log inputs to each sector
- Estimate of all products over time
- Split of products by expected life span
- A combined Australian figure converted to carbon equivalents
Carbon Pool in Wood Products – Stock Change

- Carbon pool (MtC)
- 3 yrs to decay
- 10 yrs to decay
- 30 yrs to decay
- 50 yrs to decay
- 90 yrs to decay
Examination of Alternate Accounting Strategies

Carbon emissions (MtC)

IPCC Default

Production

Stock-Change

3 yrs to decay
10 yrs to decay
30 yrs to decay
50 yrs to decay
90 yrs to decay
All pools
Australian Greenhouse Office
Jaakko Pöyry Consulting

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