

Seeing the forest and the trees

Addressing uncertainty in a non-traditional investment asset class

IAAust BIENNIAL CONVENTION 2003



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Contents

- Introduction;
- Plantations as an investment;
- What is wood?
- Plantation development and management;
- Risks;
- Carbon;
- Returns sensitivity;
- Summary.



Introduction

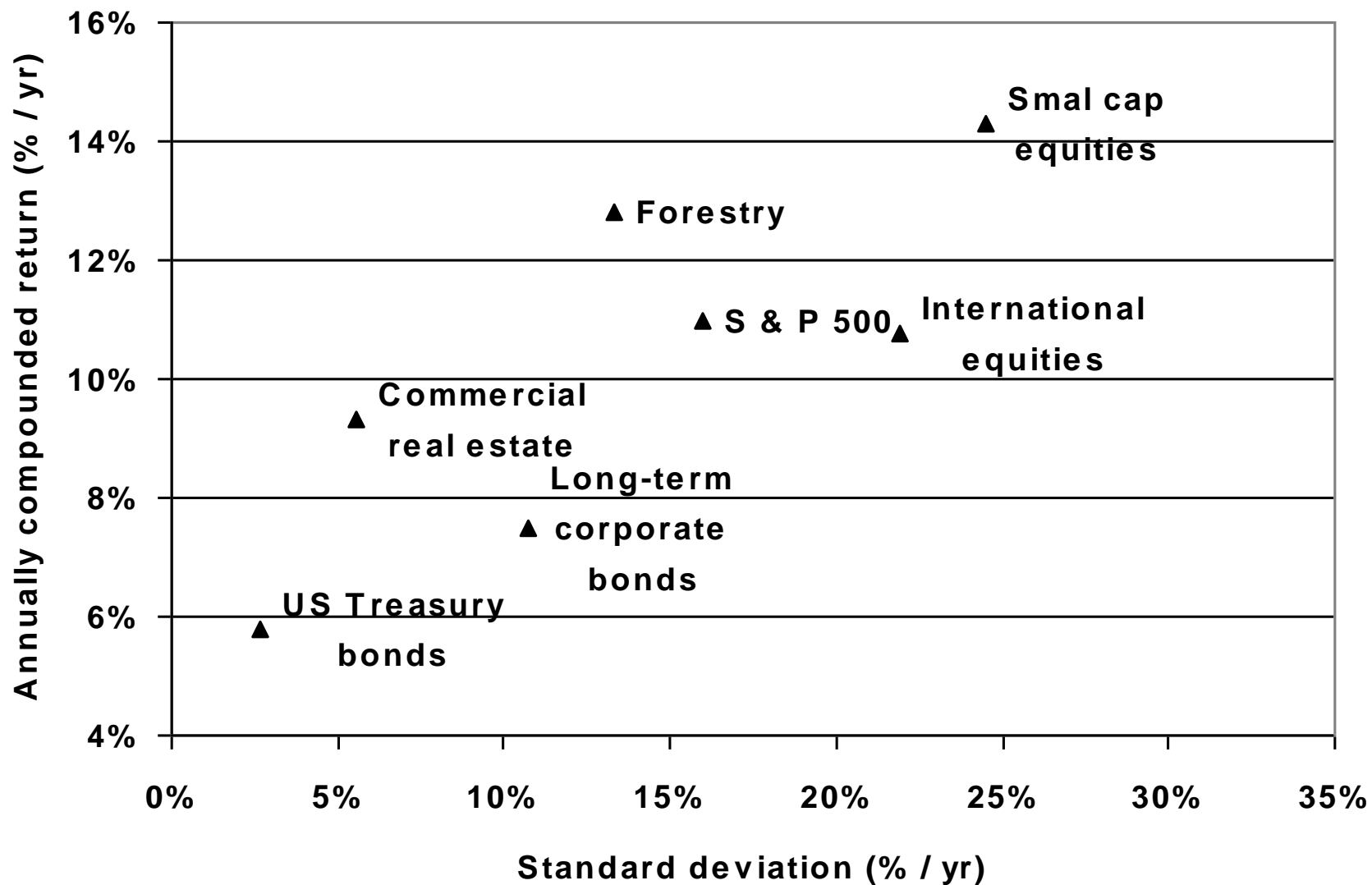
- **Variable History - Solid Fundamentals**
- **Triple Bottom Line Benefits to Australia**
- **Specific Financial Benefits arising from Carbon and Salinity Credits**
- **Biology meets Finance and Investment**
- **Alternative Asset Class/sub-class**
- **Portfolio Construction**

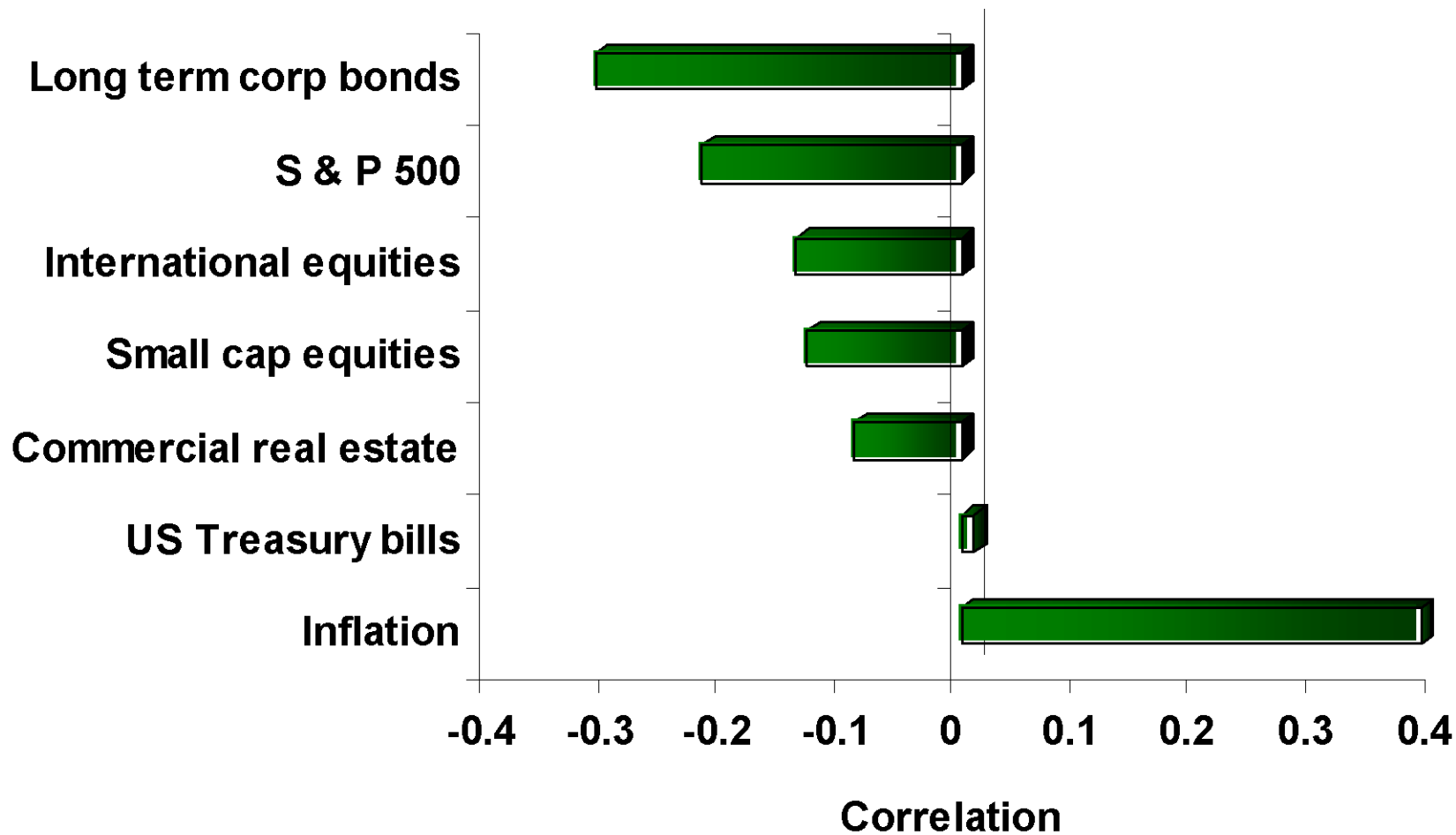


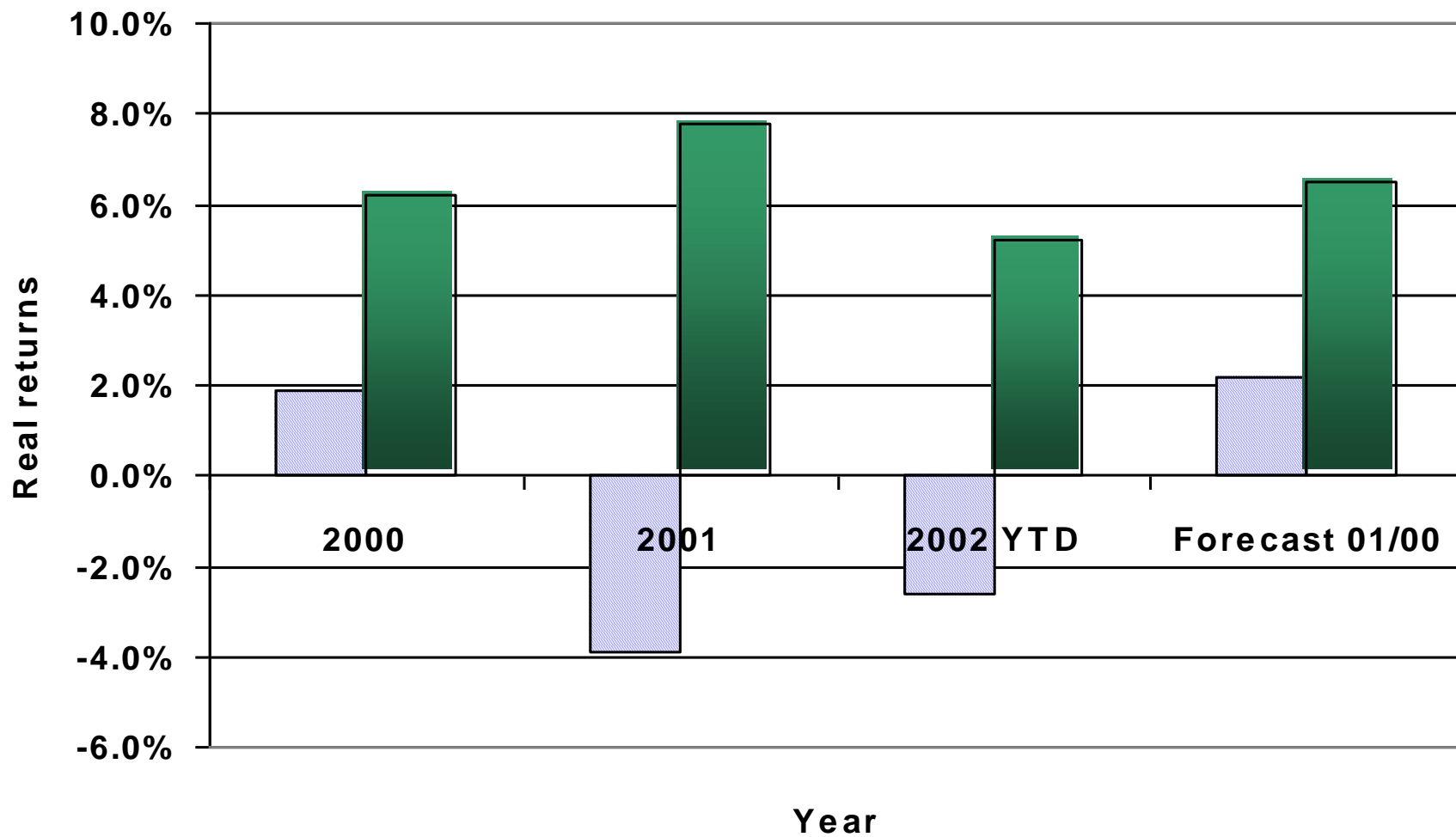
Plantations as an investment

- **Investment Horizon, Cash Flows**
- **Return for risk**
- **Counter- cyclical**
- **Wood, Carbon, Land elements**
- **Portfolio diversification**









Traditional Non-traditional



Plantation investment options

- **Direct Ownership**
- **Land leasing/forestry rights**
- **MIS**
- **Listed Companies**
- **What Next?**

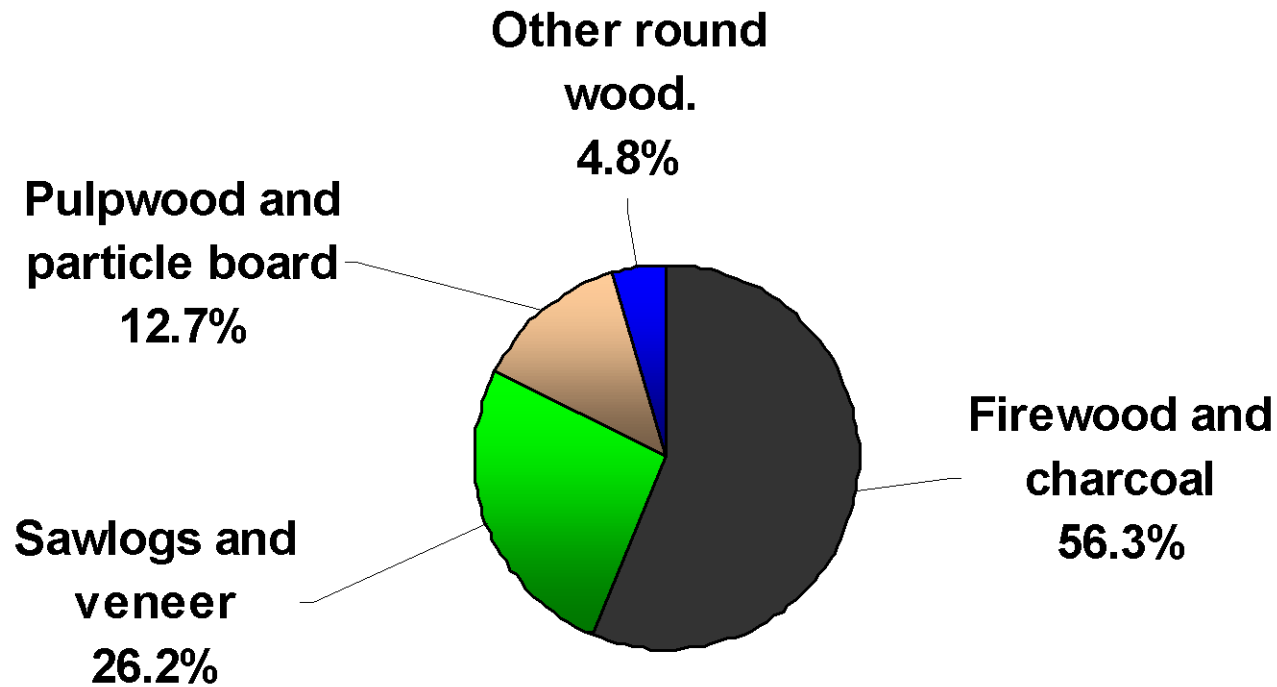


Wood markets

- **Commodity;**
- **Transport economics;**
- **Supply and demand.**



In 1995, 3.5 billion m³ used

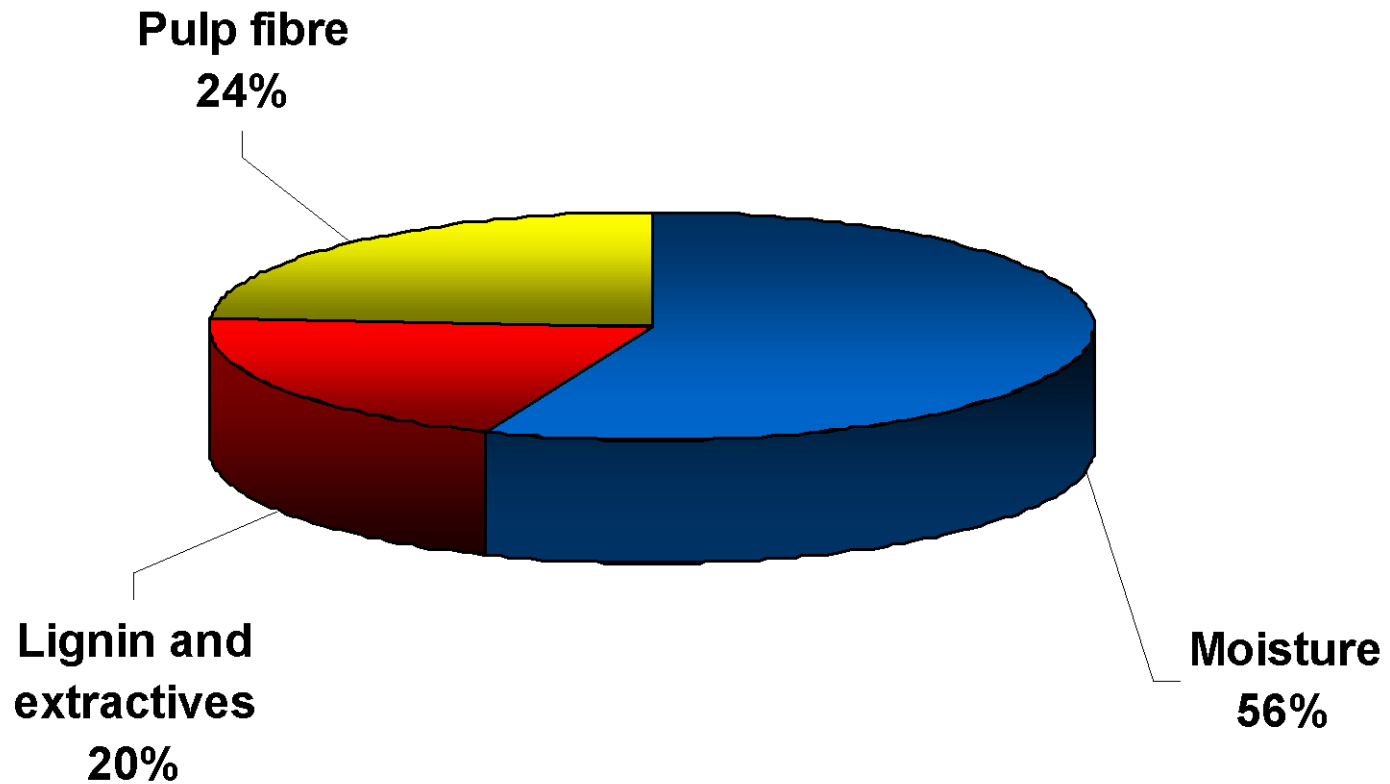


What is wood?

- **Softwoods and hardwoods;**
- **Eucalypts are hardwoods;**
 - Short fibres
 - Fine quality papers
- **Pulp and carbon.**



Composition of a 8 yr old *E.globulus* wood



Plantation development and management

- Establishment, maintenance and harvesting;
- Life cycle of attributes and risks.















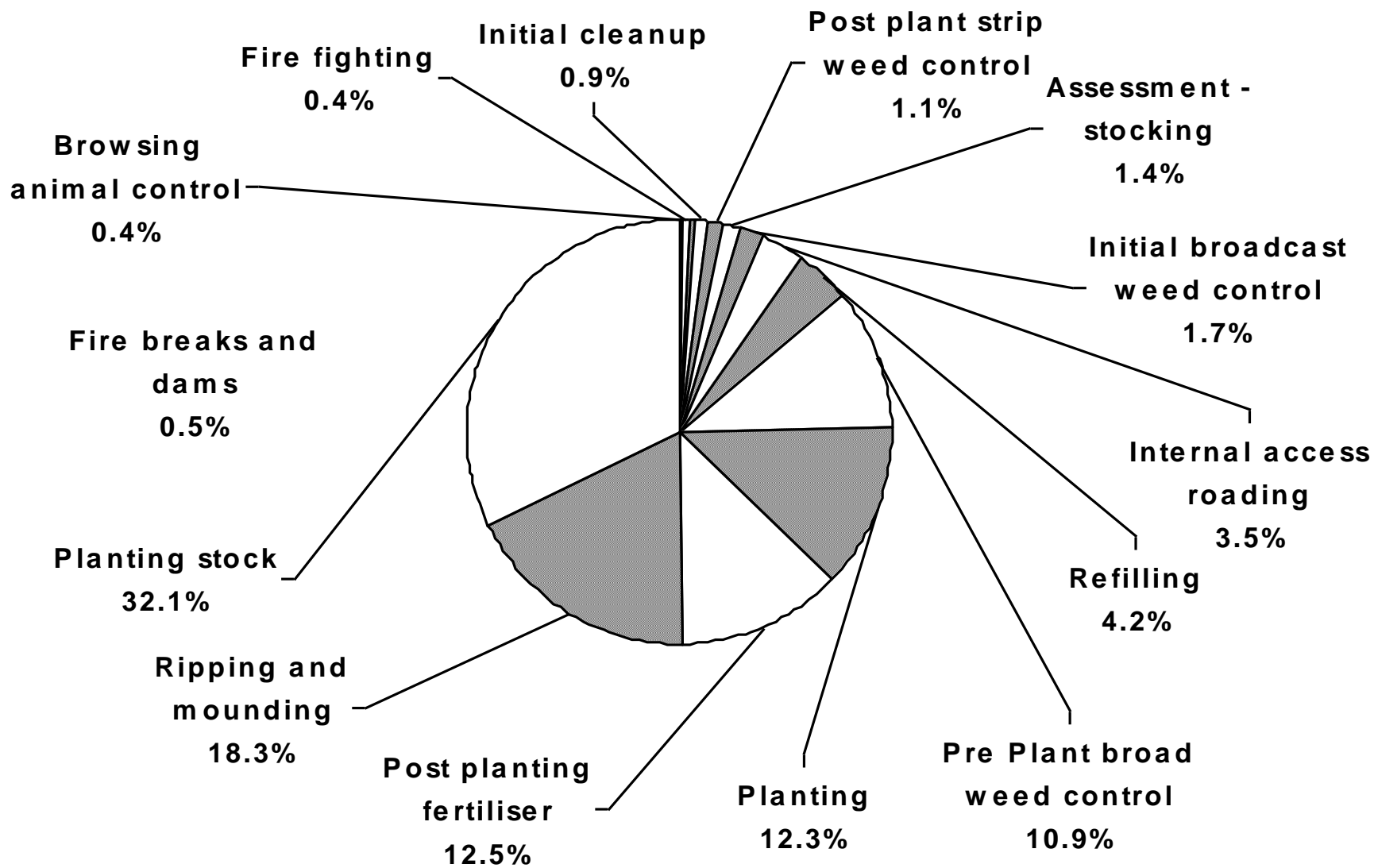


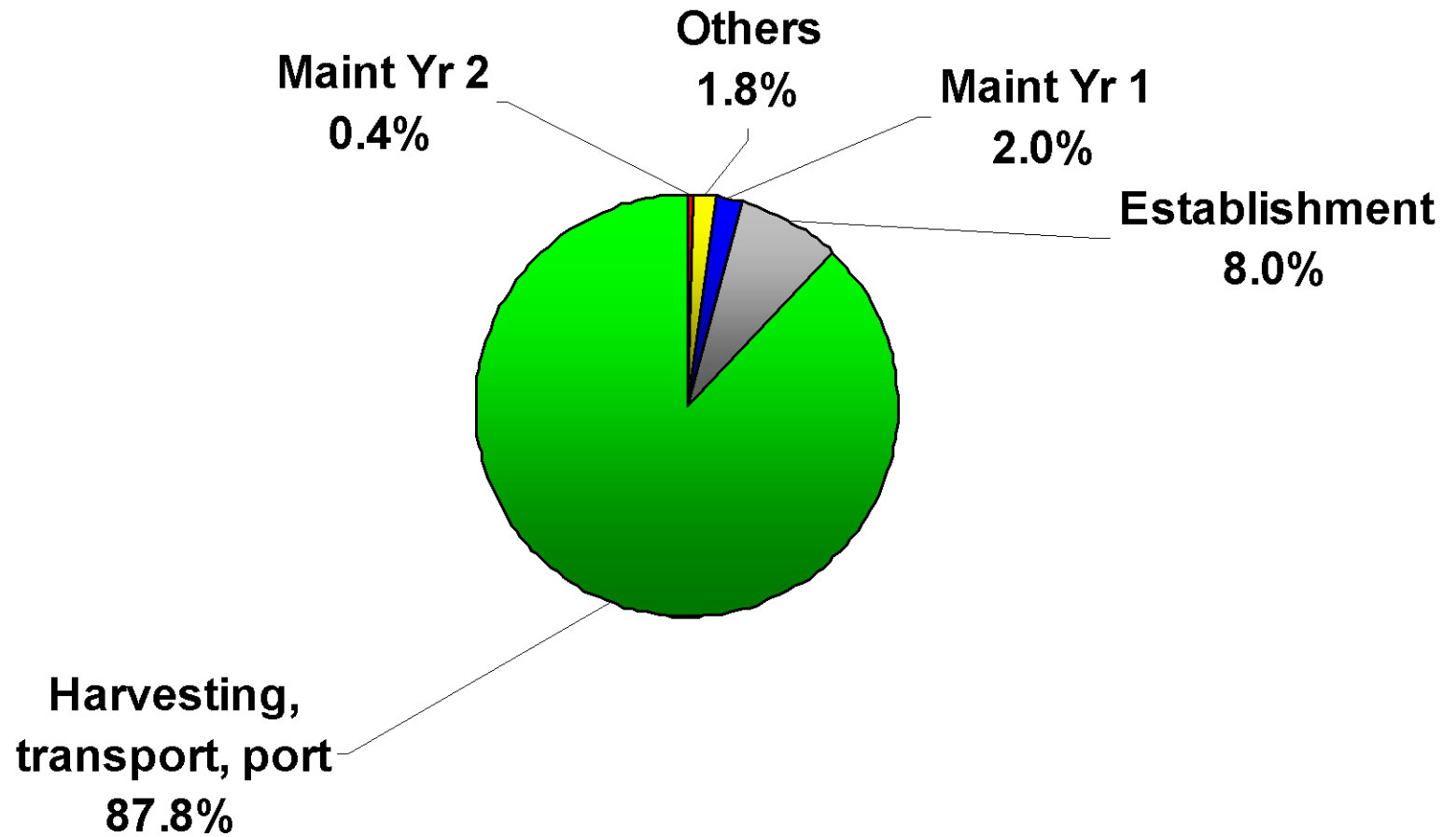












Risks

- **Wide range;**
- **Biological, macro environment & business;**
- **Understanding is key.**









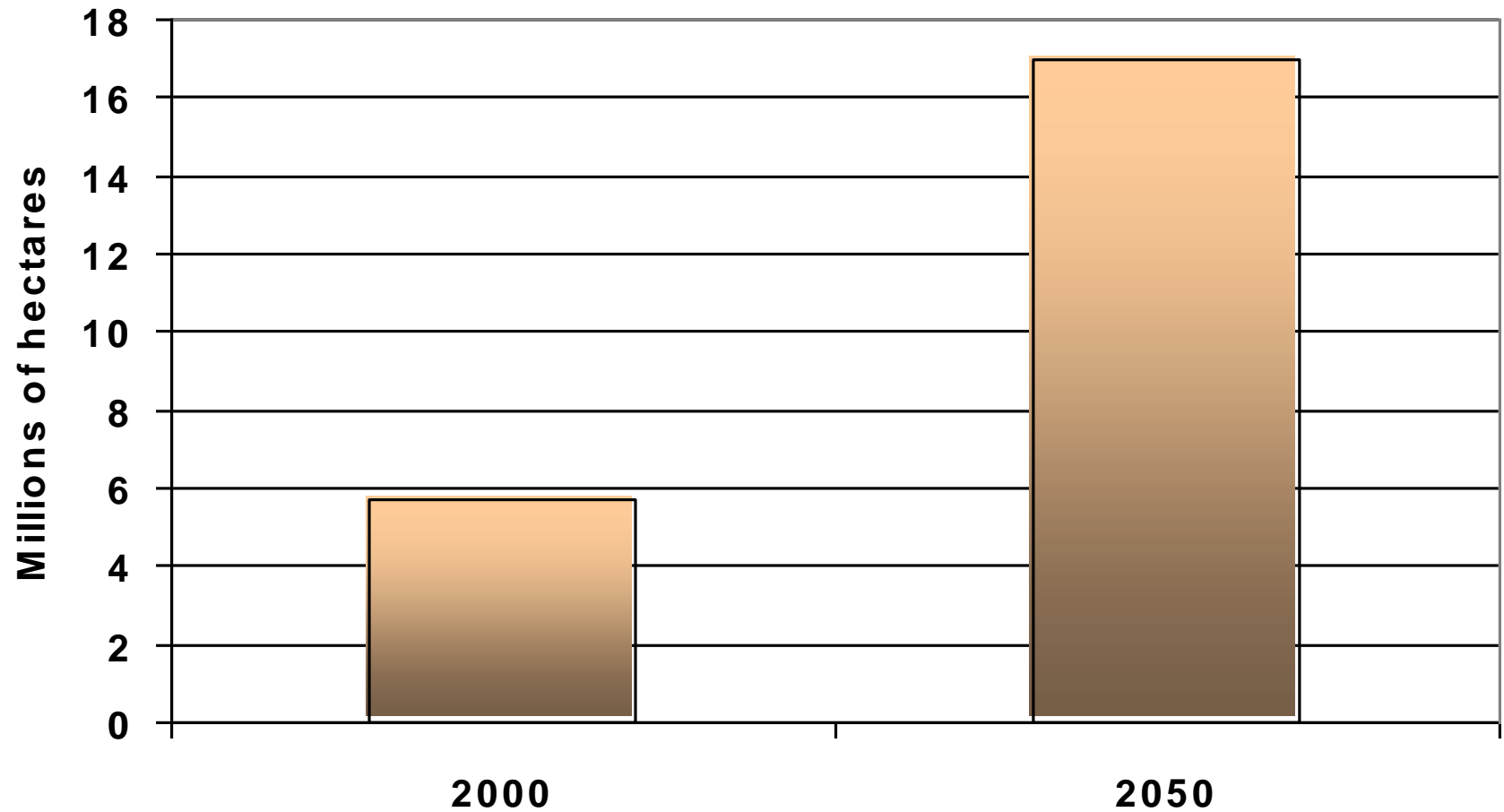




Salinity



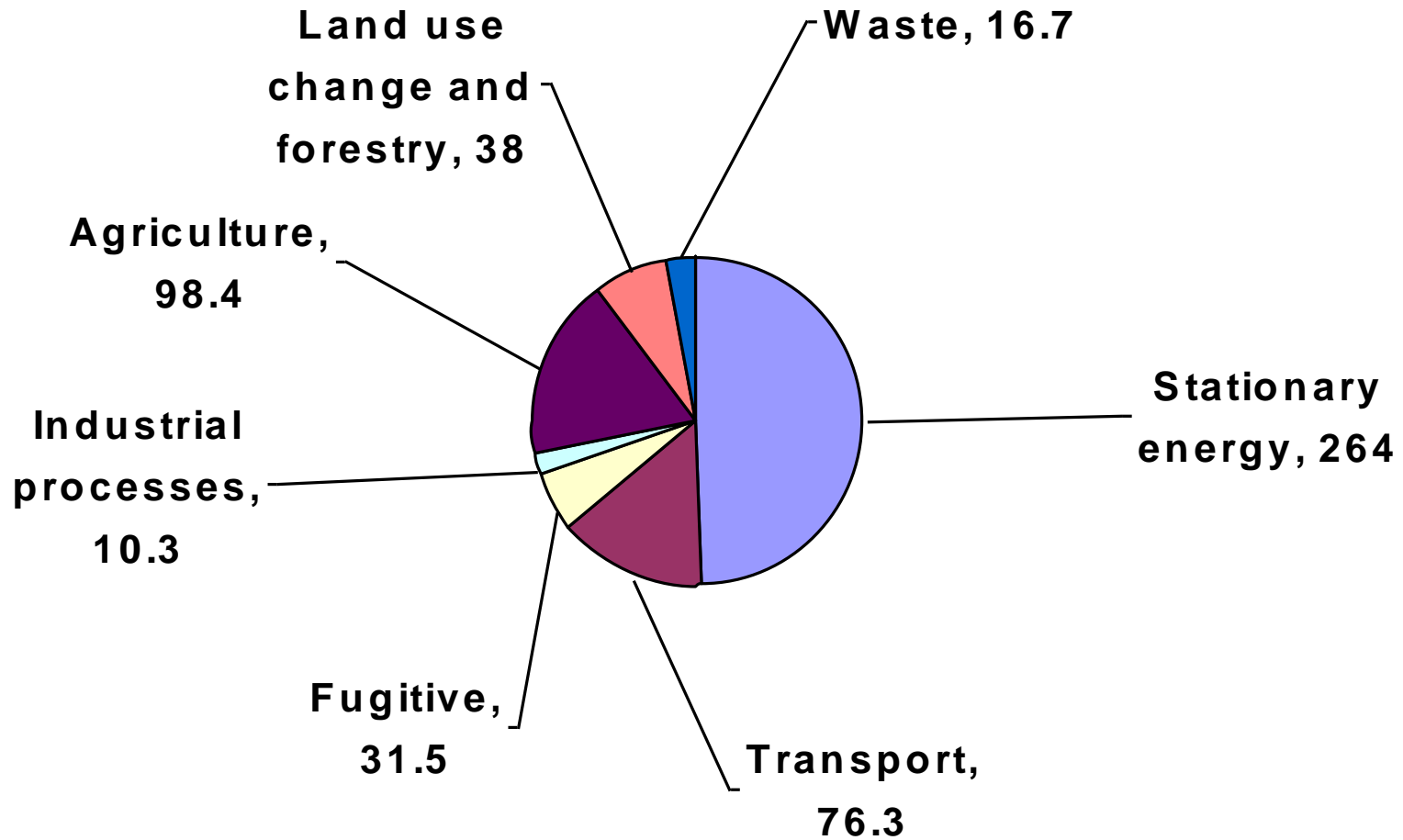
Australia's dryland salinity areas

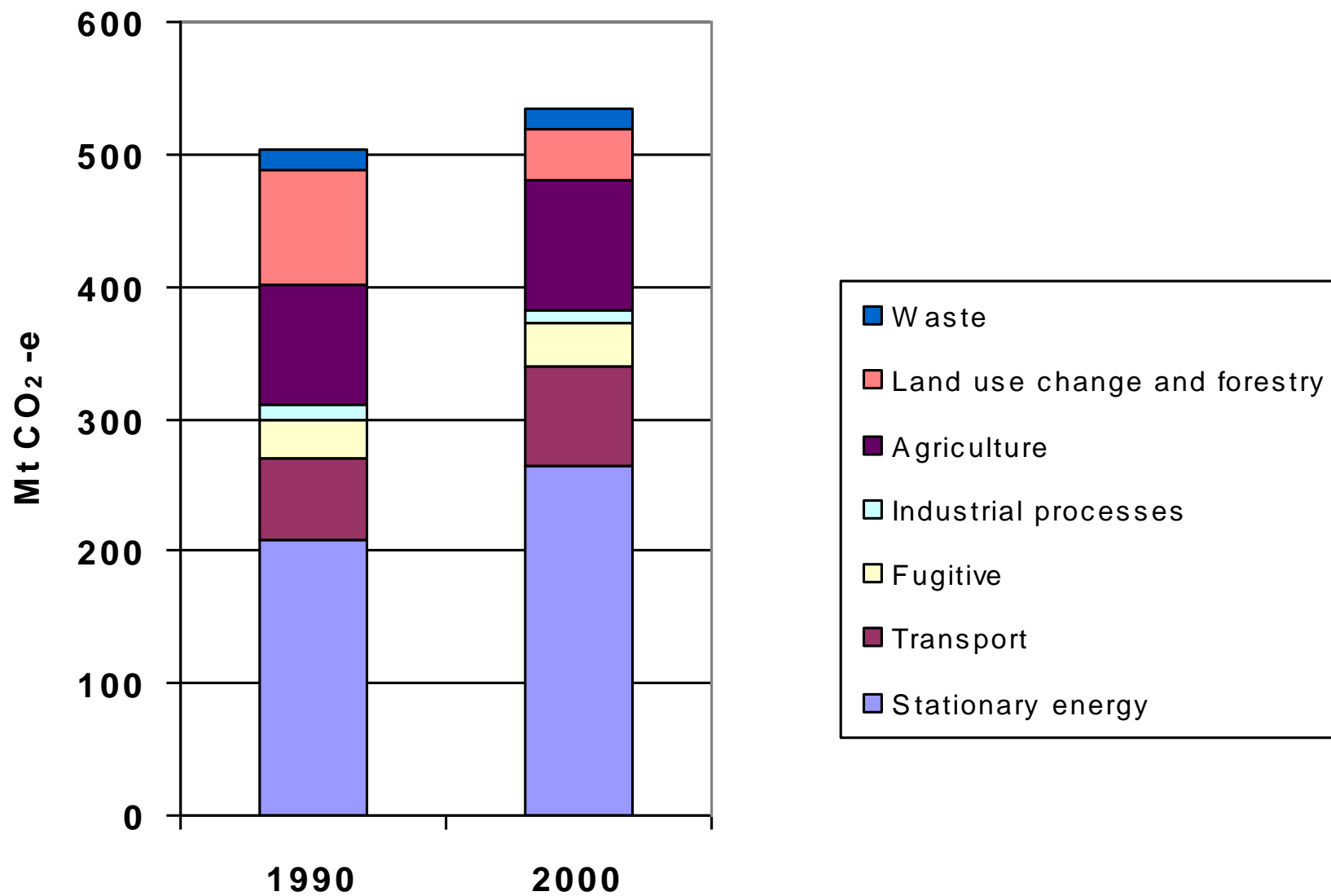


Carbon

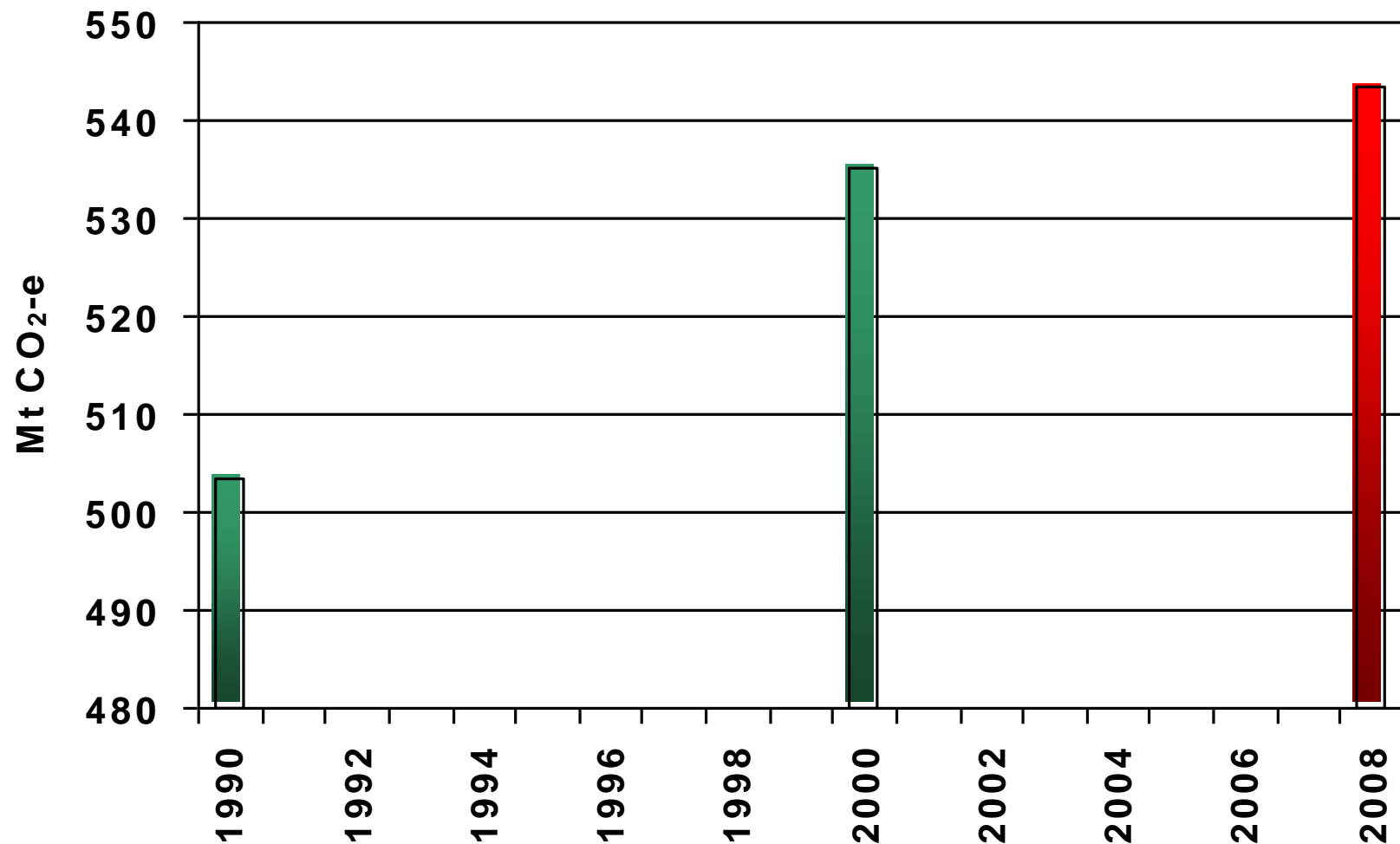


Australia's 2000 GHG inventory (Mt CO₂-e)

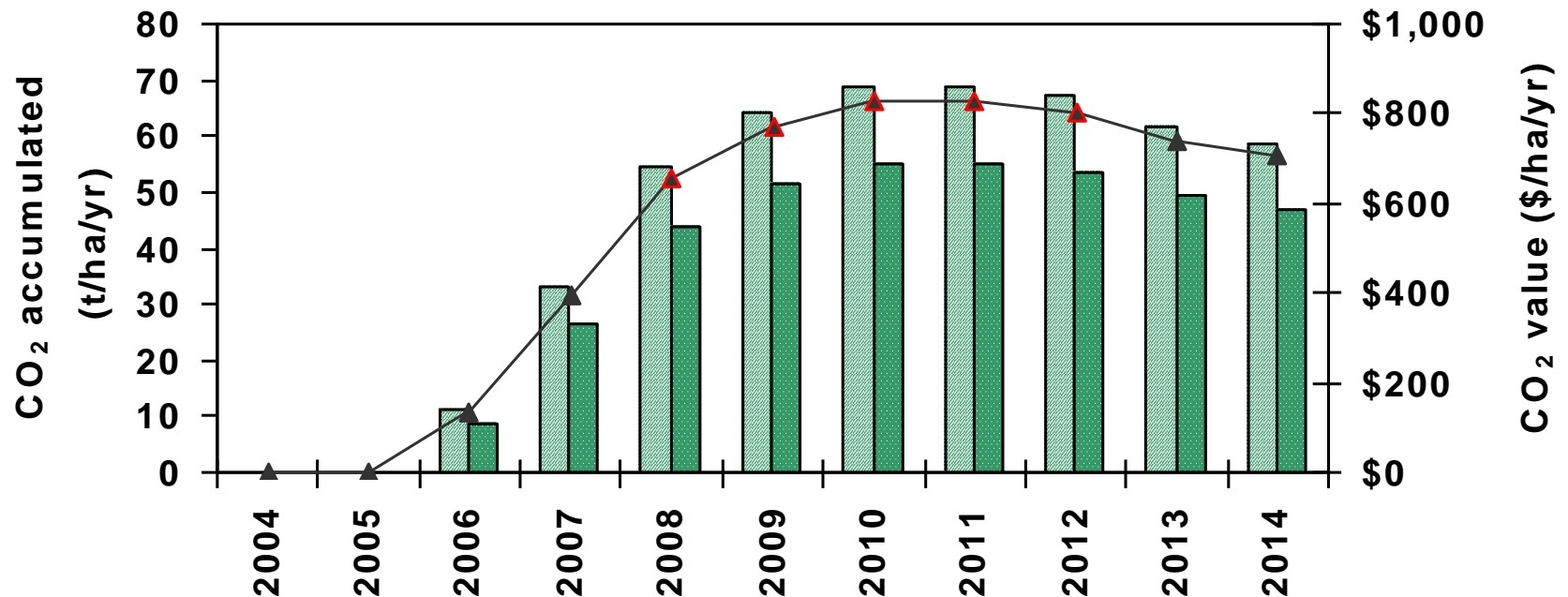




Australia's progress to COP1



CO₂ (quantity and value) @ MAI = 25m³/ha/yr and CO₂ value of \$15/t



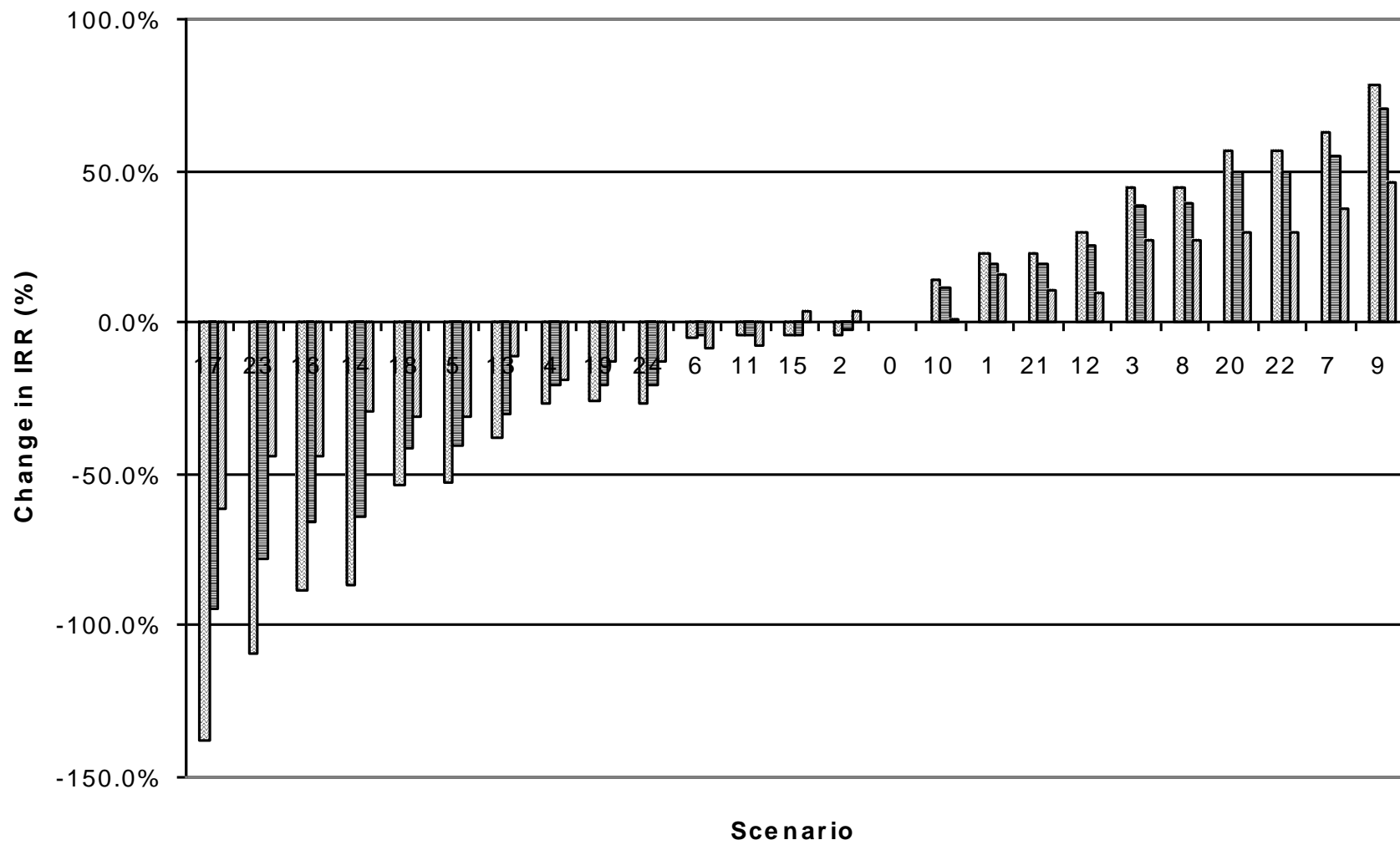
- Carbon dioxide in total biomass grown per year
- Carbon dioxide available for sale from total biomass grown per year
- Carbon dioxide value

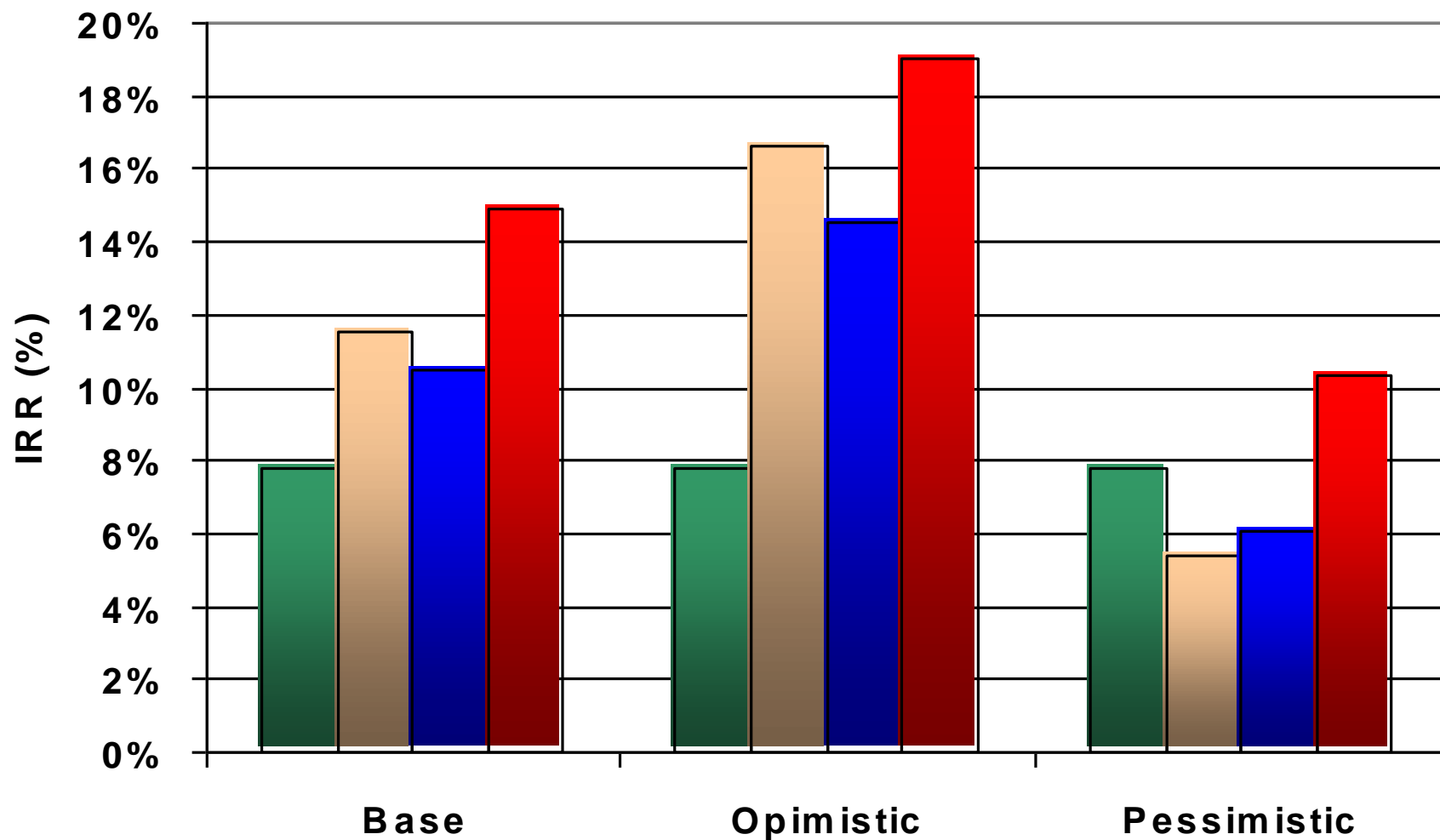


Returns sensitivity

Outcomes of a Worked Example

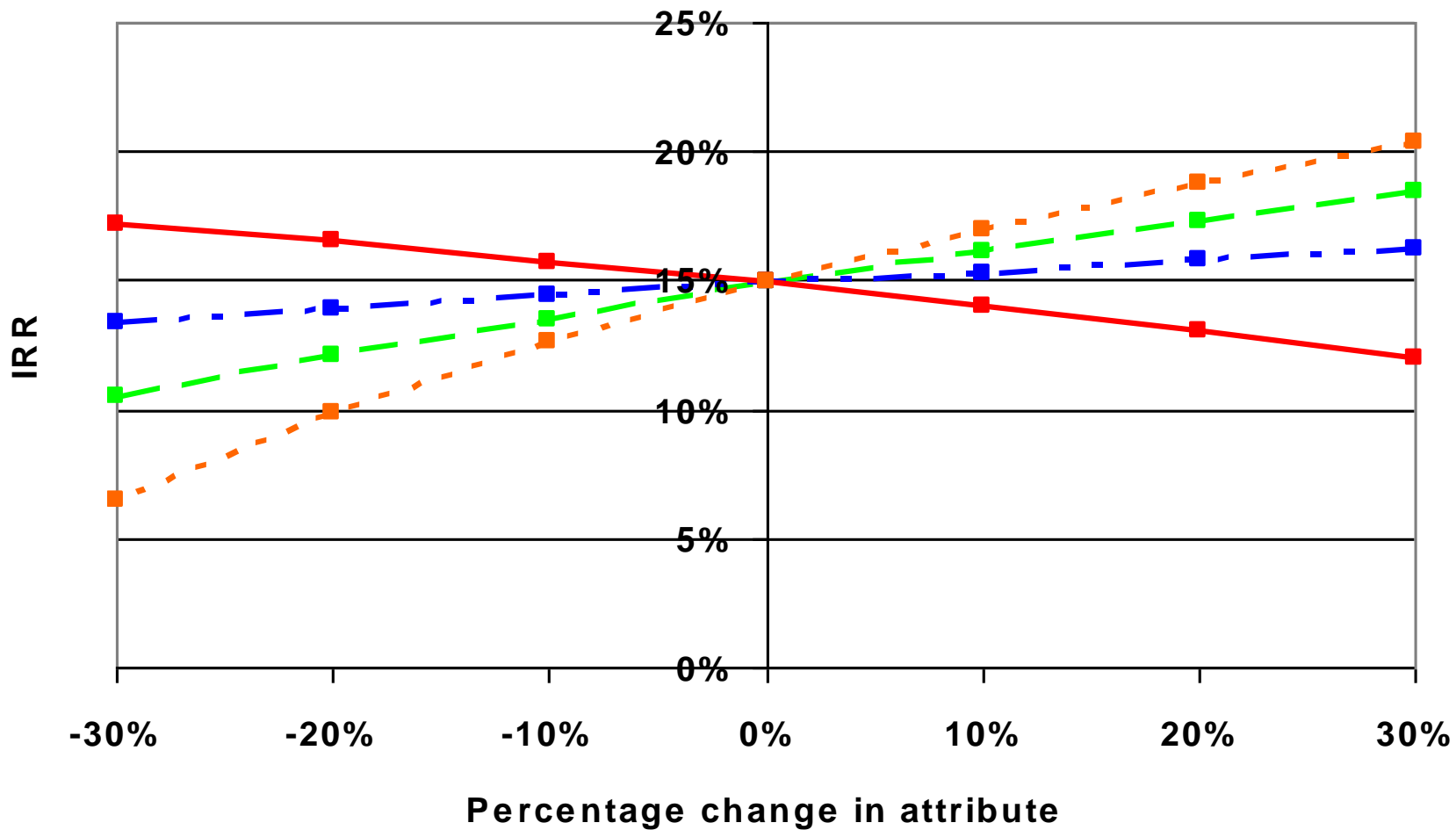






Land Wood Land and wood Land, wood and carbon





Summary

- **Risk/Return Characteristics – Composite and Segregated Components**
- **Attractive Asset Class in Certain Portfolios**
- **Expanding Triple Bottom Line Benefits**



Discussion

