



**REDD:**  
**A Development Perspective**

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September 2009

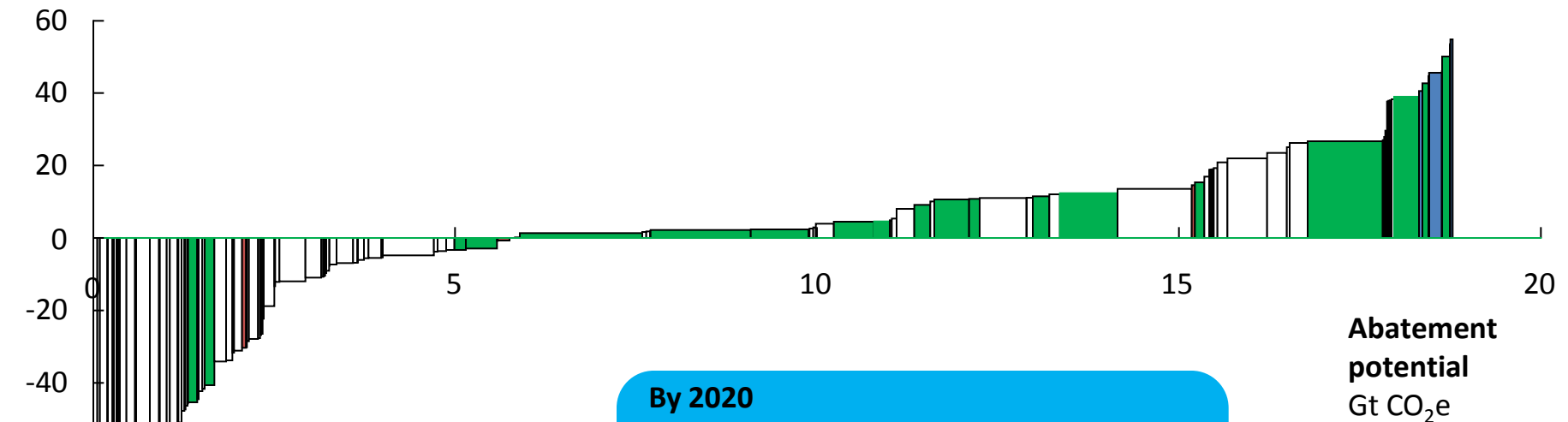
# Forestry and agriculture account for 46% of potential global abatement

## Global abatement cost curve, 2020

(up to costs of €60/t)

### Cost of abatement

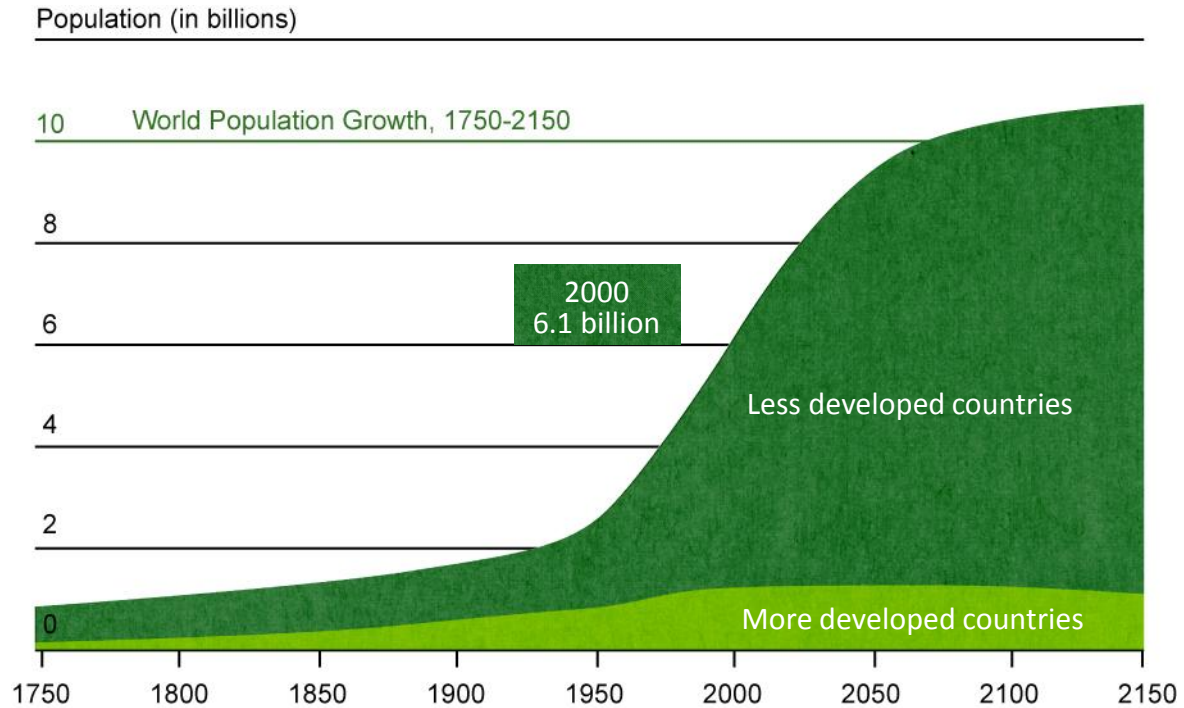
€/ ton CO<sub>2</sub>e



### By 2020

- Forestry is 31% (~5.9 Gt) of global abatement potential, and 41% (~5.5 Gt) of developing world potential
- Agriculture is 15% (~2.9 Gt) of global abatement potential and 16% (~2.2 Gt) developing world potential

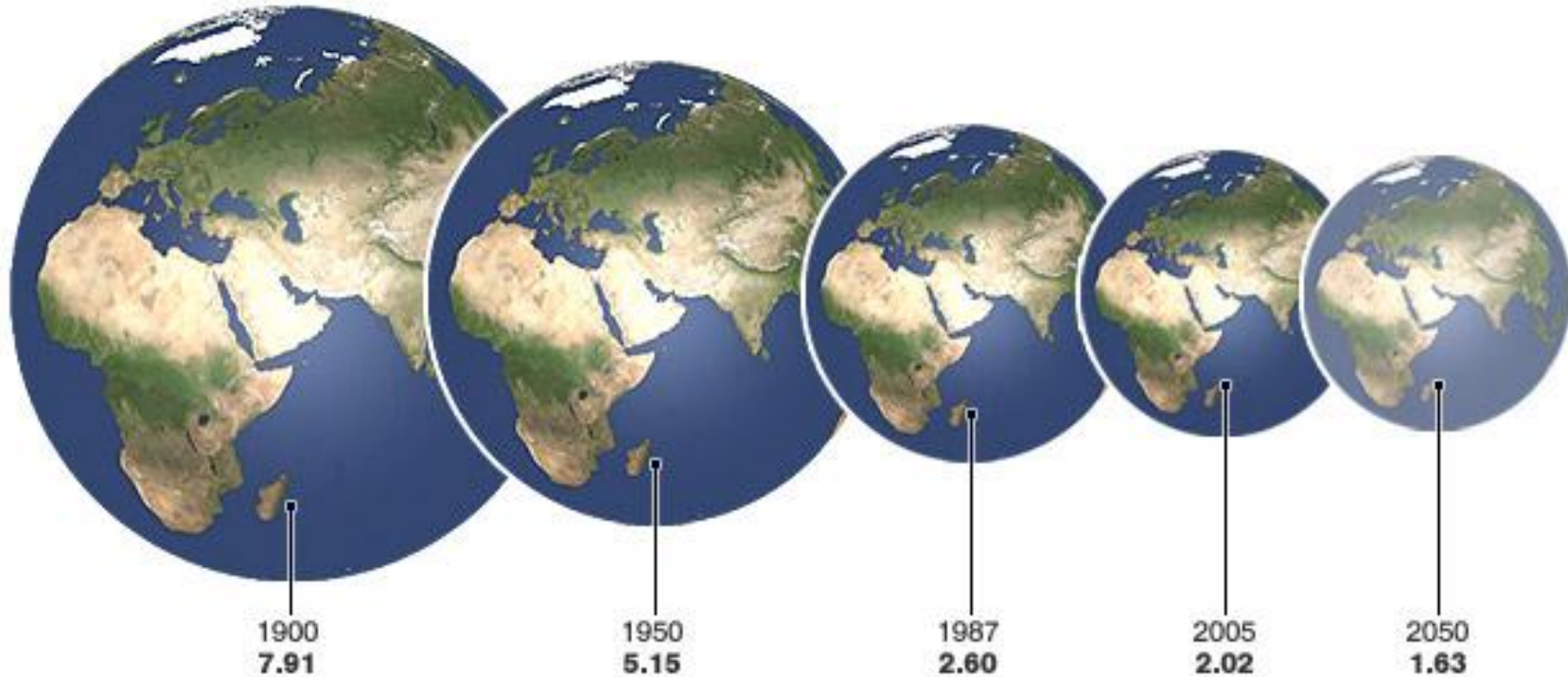
# World Population Growth





# Rising Pressure on Land-Use

**RISING POPULATION**  
Hectares of available land per person



# The Other Half of the Equation

## The World's Rural Poor

Today: 3 billion:                      Tomorrow: 5-6 billion

- India: 850 Million
- China: 750 Million
- Other Asia: 700 Million
- Africa: 600 Million
- Latin America: 125 Million

# Food Production Must Increase by 70% by Mid-Century

Food availability in the developing world must increase by 50%

Demand for Bio-Fuels will increase pressure on available land

The impacts of climate change will accelerate desertification and soil loss

3.6 billion of the world's 5.2 billion hectares of arable land are already eroded or degraded.

# The Key REDD Issue is Land Use – Not Climate Change

**80% of land-use change in the developing world is to produce food**

(48% is for subsistence farming & 32% is commercial agriculture)

**82 % of World Forest Product Demand is supplied by native forests**

(18% is supplied by plantations)

**50% of Global Forest Harvest is for Fuel**

(In sub-Saharan Africa 80% of energy is from wood)

# The Drivers of Deforestation by Region

## Fundamental Cause

Poverty



Unproductive land use

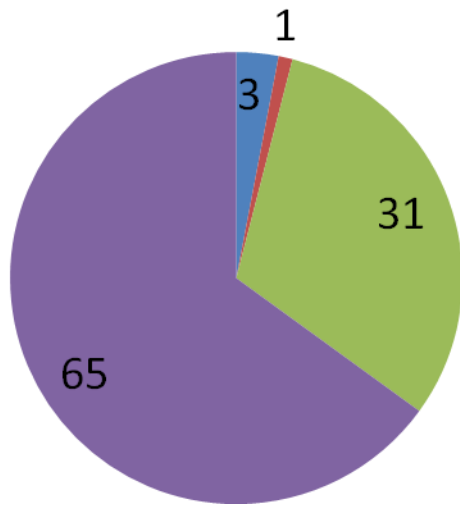


Percentage of deforestation by driver

### Latin America

■ Logging

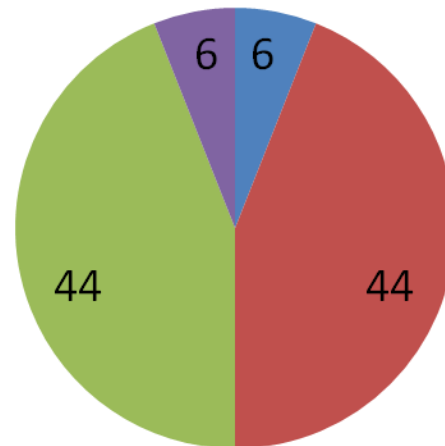
■ Subsistence Ag



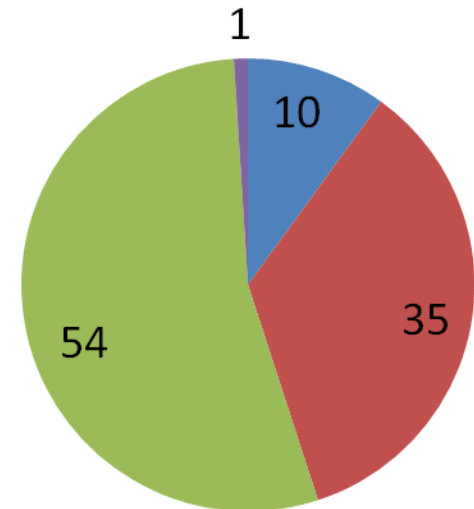
### Southeast Asia

■ Intensive Ag

■ Ranching/Pasture



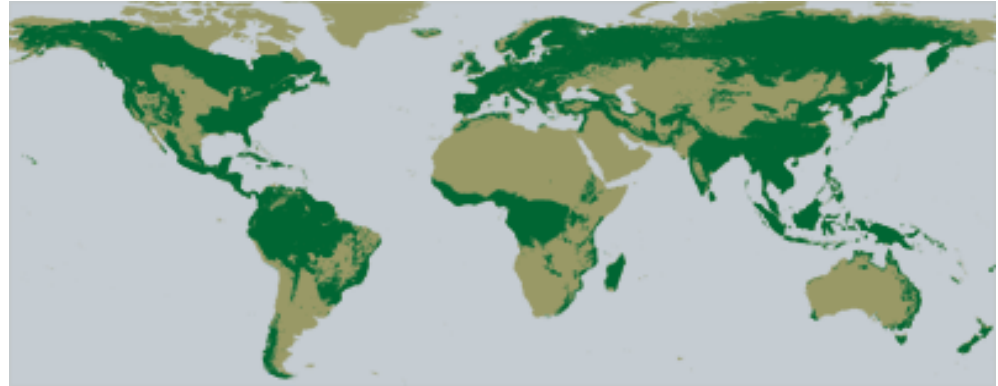
### Africa





# Tropical Forest Loss: From 1 billion to 6 billion people

Original forest



Remaining forest



Source: World Commission on Forests and Sustainable Development 1999

# REDD is Not Enough

**Increasing demand for forest and agricultural products and biomass energy must all be met.**

**Therefore:**

**Developing countries must be paid to sustainably manage their forests and**

**Increase in afforestation and reforestation and**

**Their farmers must dramatically increase productivity or**

**There will be no solution to global warming and no tropical forests.**

# The Answer is sustainable, integrated land policy, investment & management



## Agriculture

- Prices driven by strong food and energy demand
- Growing need for capital in underdeveloped markets
- Significant productivity gains available in developing world



## Forest management

- Increasing demand from rising population & living standards
- Growing recognition and demand for certified timber
- Continuing demand for fuel wood



## Biofuels & Biomass Energy

- Increasing demand due to energy security issues and the need for renewable energy
- Continuing regulatory mandates



## Carbon

- Increasing demand for forestry carbon abatement expected due to scale, availability and low cost
- Recognition of importance of reduced deforestation (REDD)

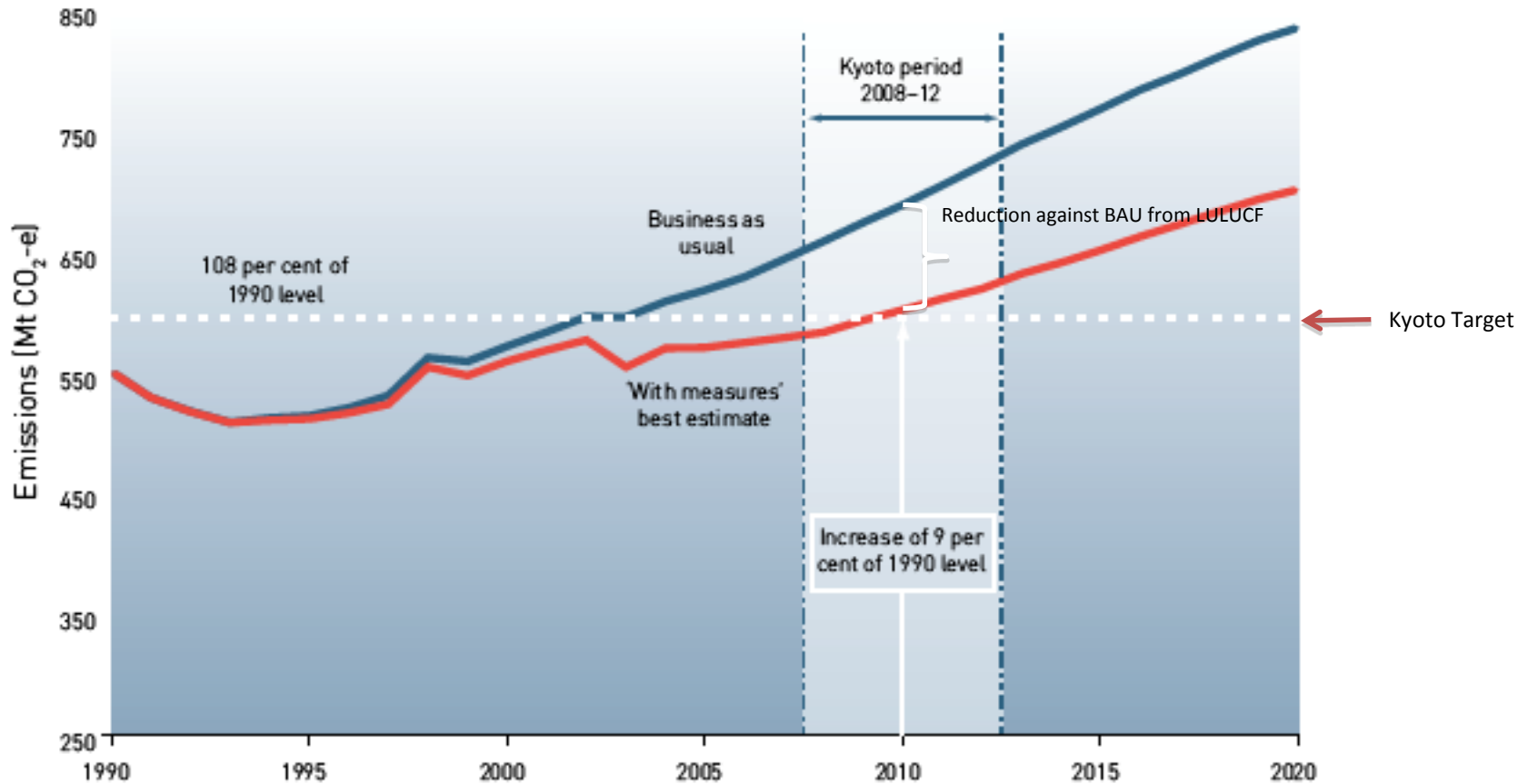


## Eco-tourism

- Increasing demand for ethical and environmentally responsible leisure activities

# And Economic Growth: Australia – The Way Forward for the Developing World

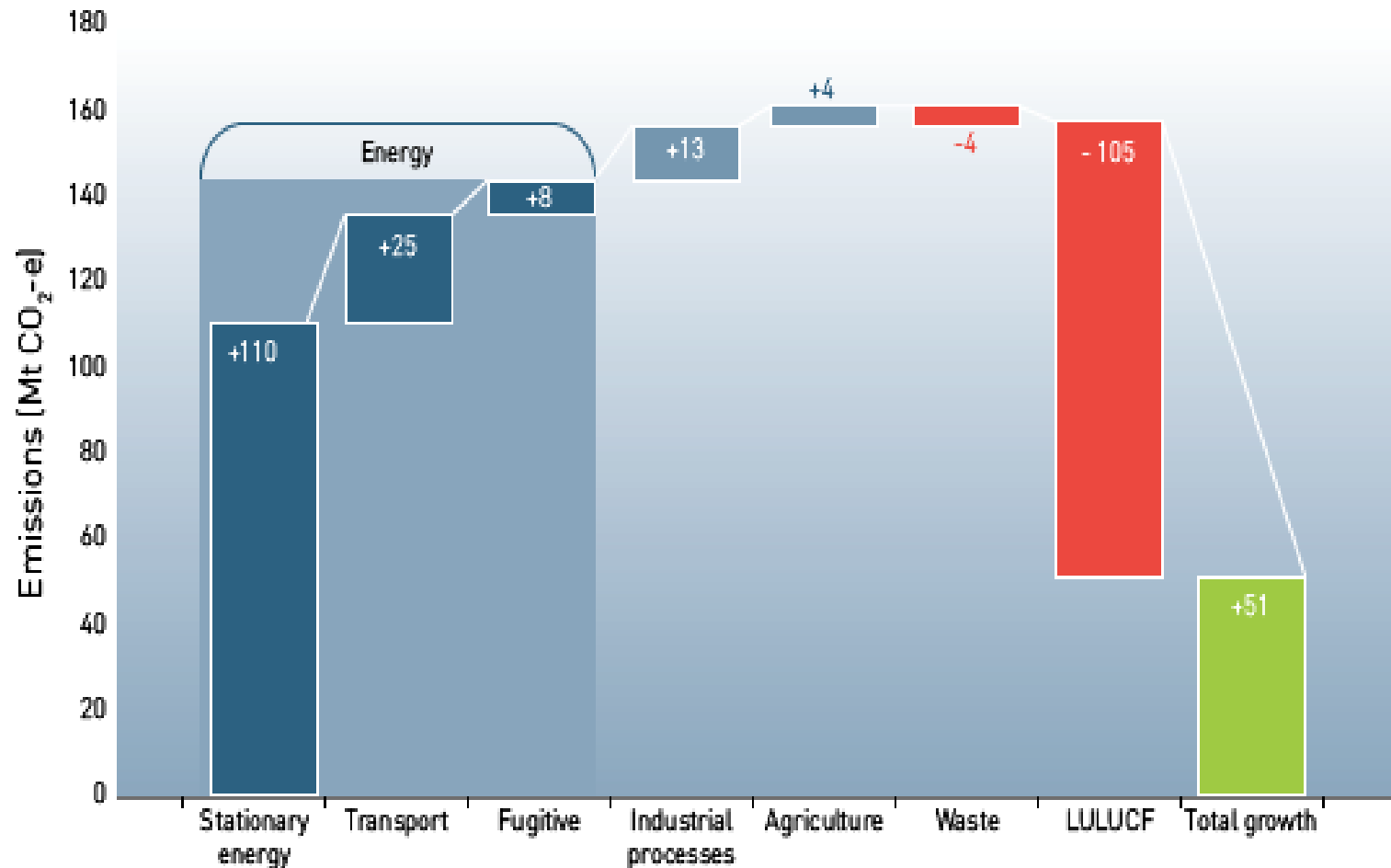
Figure 2.4 Australia's projected greenhouse gas emissions



# Australia: The Path to Low Carbon Growth

## Rising Industrial Emissions offset by Land-Based Carbon

Figure 2.5 Sectoral contribution to Australian emissions growth, 1990–2010



## Co- Benefits are Necessary, Not Optional

- Watershed protection & restoration
- Control of soil erosion
- Local climate stability
- Poverty alleviation
- Biodiversity preservation
- Increased sustainable employment
- Climate adaptation





# Methods of Rural Land Investment in the Developing World

Traditional: Single Commodity

Recent: Carbon Bet

Sustainable: Integrated Land Management:  
Forest Conservation, Agriculture, Plantations,  
Biomass, Bio-fuels and Eco-tourism

# What is Required for REDD ?

## Public Sector

- National or Regional Land Use Planning
- Full Fungibility for all Land & Forest Credits (AFLOU)
- Removal of perverse incentives/subsidies
- Land Tenure rules and administration
- Fair treatment of foreign investors
- Enforceable Contracts
- Incentives equal to those for Clean Energy

# What is Required for REDD

## Private Sector

- Lobbying
- Risk Capital
- Up-front Financing
- Structured Finance
- Transfer of Management Skills
- Commercialisation of products