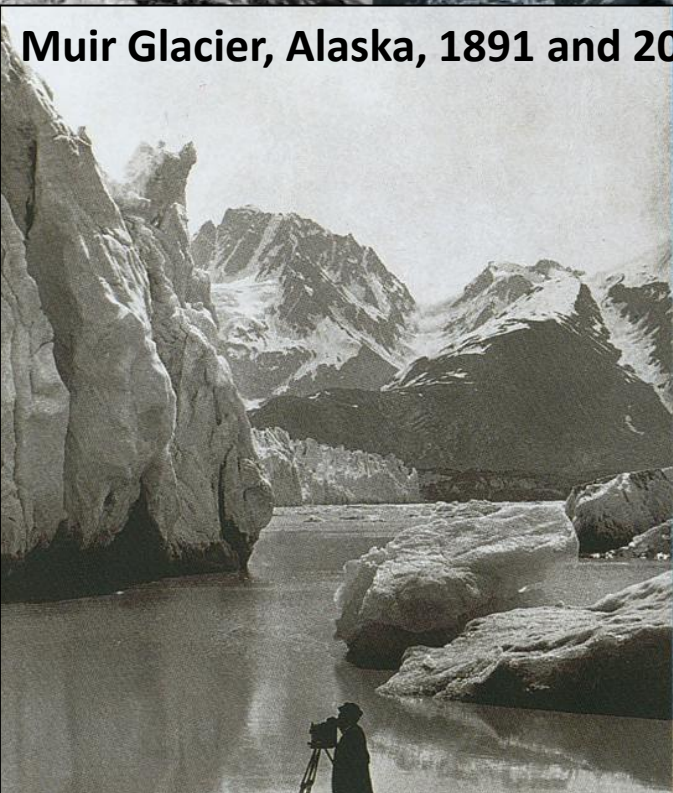


The Matterhorn in 1960 and in 2005



Muir Glacier, Alaska, 1891 and 2005

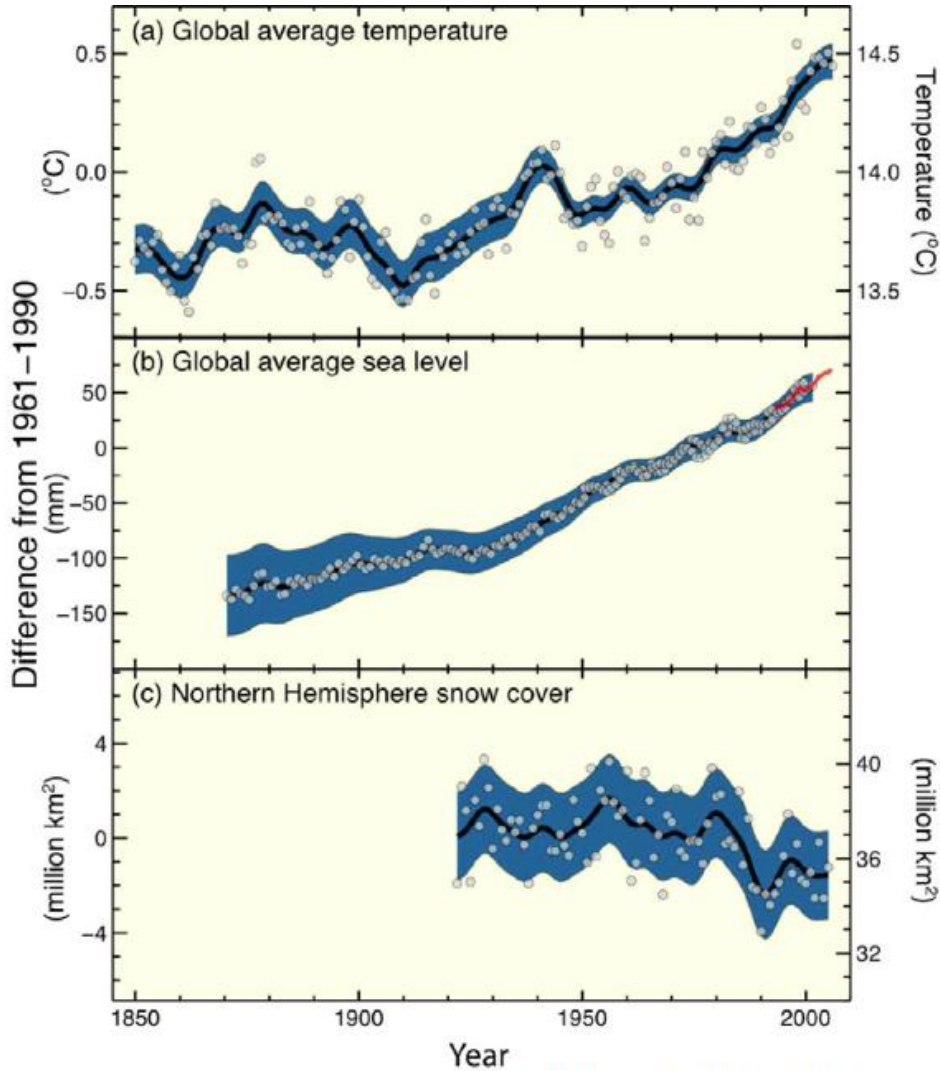


Evidence from gas particles in ice cores



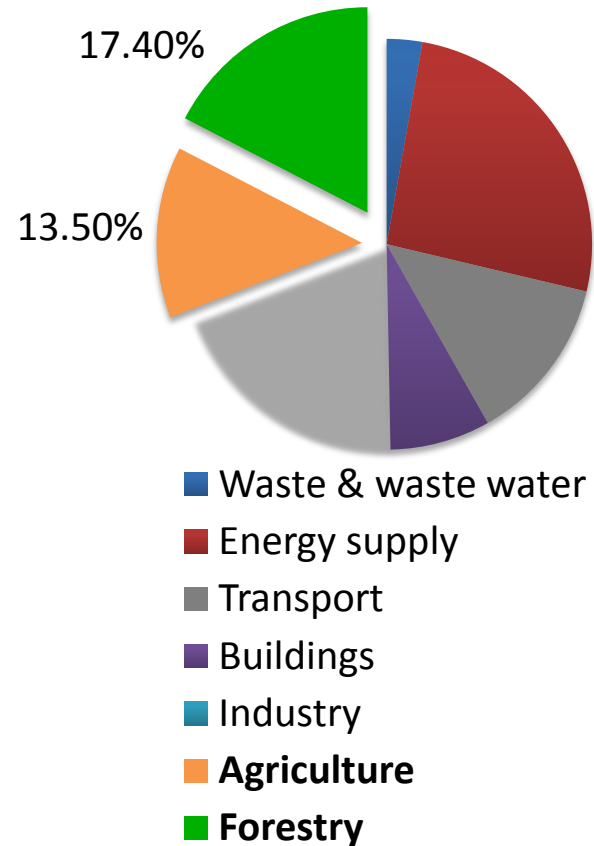
...And a market worth \$142 Bn in 2010

The Science



(IPCC, 2007, Fig. SPM-3)

Sources of emissions (p.a. estimate, IPCC 2004)

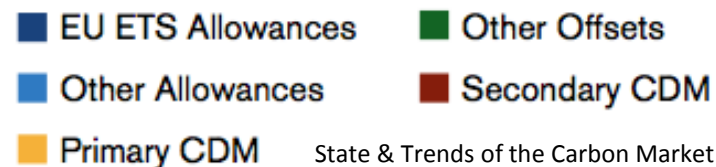
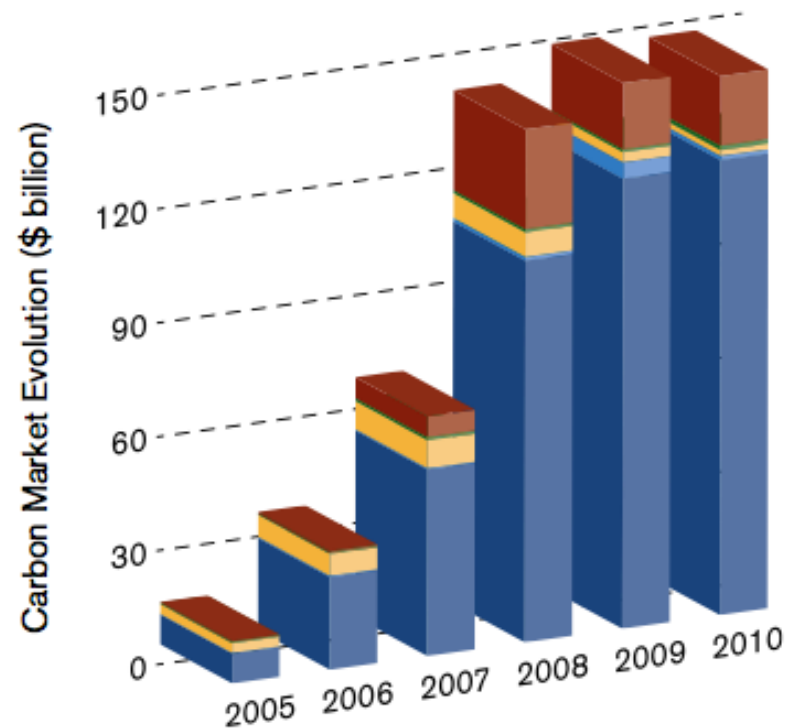


The response: A market based on CO₂e

Market based mechanisms: Trading of emission reduction allowances and reductions → Creation of new financial instruments: A liability & an opportunity.

Regulated: *Enforced emissions cap and allowance-based system*

Voluntary: *Public disclosure, corporate & personal responsibility, cost savings*



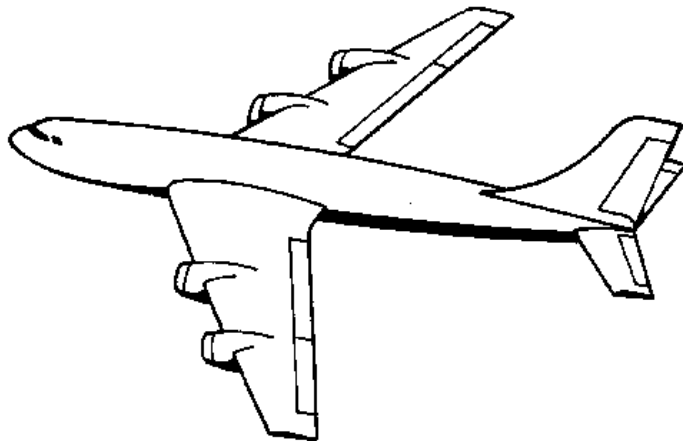
State & Trends of the Carbon Market 2011
(World Bank)

Investor impact #1: Liabilities & Opportunities in regulated markets

Opportunities from mitigation and adaptation. Huge changes expected from 2012.

Liabilities

- Countries with GHG legislation
- Covered sectors



Opportunities

- Trading of various forms of carbon credits
- VC opportunities – clean tech
- Impact of regulation on listed equities
- Private equity from plays linked to carbon values
- Subsidized project finance

Investor impact #2: Liabilities & Opportunities in voluntary markets

Voluntary market: Uncovered regions & sectors. Potential as pre-compliance. Addresses neglected sectors. Units set and approved by different standards.

Liabilities

- Corporate Social Responsibility (incl. shareholder activism)
- Pre-compliance (good will, testing of mechanisms etc.)
- Public Relations



Opportunities

- Development and sale of voluntary carbon credits: different carbon standards
- May generate additional value streams
- Betting on increased value of some standards

What about land use projects?

- Ca. 30% of global emissions from agriculture & forestry, primarily from tropical deforestation
- Largely neglected by regulated markets (except for NZ, Canada)
- New sectors covered from 2012 in some countries (Australia, NZ, EU)
- Important in voluntary carbon markets (pre-compliance and co-benefits) – good standards, risk management tools, carbon credit registries and certification agencies exist
- Robust standards exist for:
 - New planting of forests, plantation & natural
 - Protection of existing forests
 - Increasing carbon stores in existing forests

....These will now be discussed