Environmental Markets

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Environmental Markets

- **Objective:** To achieve a better environment at least cost

- Examples of environmental problems
  - Climate change
  - Acid rain
  - Soil and river salinity
  - Over fishing
Environmental Markets

• Why do environmental problems exist?
  - Environment is a public good
  - Externalities exist
  - A market failure exists

• Government intervention justified
Environmental Markets

Public Goods

“A good that, even if it is being consumed by one person, is still available for consumption by others”

- Atmosphere/Clean Air
- Rivers
- National Parks
Externalities

“Actions by one person or firm that affect the welfare of others without any action on the part of those affected”

- Loud music
- Air pollution
- Water pollution
Environmental Markets

Market Failure

Failure of the free market to price certain goods or outputs

- Sub-optimal resource allocation results
- e.g. Clean air
- *Answer*: Government intervention
Government intervention

*To achieve a socially optimal level of public good (where MSC=MSB)*

- Internalise externalities
- Policy approaches
  - Command & Control (Regulations, Standards)
  - Market Based (Taxes, Emissions trading)
Environmental Markets

Market mechanisms

- Taxes
- Baseline & Credit
- Cap & Trade
  - US Sulfur Dioxide market
  - Kyoto Protocol
- SFE Carbon trading market
Carbon Trading Market

- The Kyoto Protocol
- Greenhouse targets set
- Emissions trading to meet targets
  - Articles 3.3, 3.4, 6, 12 & 17
- What are potential implications
  - Costs, trade impacts, competitiveness, investment decisions, lending risk, equity valuations etc.
Carbon Trading Market

- A market for carbon exists
  - examples
- Kyoto risk management wanted
- SFE to launch carbon market
  - in carbon sink credits
- There are risks & benefits
Figure A: Sequestered carbon dioxide allowable under the Kyoto Protocol
**Carbon Trading Market**

**INDEPENDENT VERIFICATION**
- Accredited verifier
- Random pre / post sale Verification

**CARBON POOL**
- Australia
- New Zealand
- Annex B Countries

**Large single Carbon Pool**

**Carbon supply**
- Kyoto consistent
- Carbon accounting & certification
- Forest management
- Liability to maintain
- Must meet minimum Carbon Pool/supplier requirements

**Verification**
- Independent
- Provides confidence to the market
- Must meet minimum criteria to be accredited

**Registration, Trading, Clearing & Settlement**
- Centralised price discovery
- Market liquidity
- Market Anonymity
- Reduced transaction costs
- DVP settlement (cleared funds lodged pre-trade)

**Distribution & Market Access via internet**

**SFE Clearing House (SFCH)**

**SFE Electronic Carbon Credit Market**

**Sellers**

** Buyers**

**SFE REGISTRY**
1. Verified Certificate lodged
2. Ownership changes tracked

- Seller’s Certificates must be registered with SFE Registry

**Credits**

**$ Cash**

**INDEPENDENT VERIFICATION**
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**SFE Registry**
- 1. Verified Certificate lodged
- 2. Ownership changes tracked
Benefits & Risks

- There are risks
- Reduce cost of meeting Kyoto
  - sinks are only part of the answer
- Other environmental benefits
- Price discovery
- Risk management
Related web sites

www.sfe.com.au
www.aetf.net.au
www.carbontrading.com.au