

# Ocean Iron Fertilization and International Law

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# Today's Presentation

- General Introduction – role of International Law
- Brief examination of applicable regimes
  - Law of the Sea Convention
  - Regional regimes
    - Convention on the Conservation of Antarctic Marine Living Resources – CCAMLR
    - Madrid Protocol to Antarctic Treaty
    - Regional Seas Conventions
  - London [Dumping] Convention and 1996 Protocol
  - General customary International Law
  - UNFCCC and Kyoto Protocol
- Key International Legal Issues with ocean iron fertilisation:
  - Is it Pollution ?
  - Is it Dumping ?
  - Whose responsibility is this under Int. Law?
  - Position under the UNFCCC and the Kyoto Protocol

# Role of International Law

- Decentralized system
- Relies on compliance and enforcement by states
  - Either bilaterally or
  - through multilateral organs where applicable or
  - through International institutions
- State have jurisdiction over activities
  - of their nationals
    - natural or legal
  - Within their territory

# 1982 Law of the Sea Convention

Defines maritime zones

- Internal Waters – behind coastal baseline
- Territorial Sea
  - up to 12 nm from coastal baseline
  - sovereignty of coastal states
- Exclusive Economic Zone
  - Up to 200 nm from coastal baseline
  - Sovereign rights over resources
- High Seas areas beyond national jurisdiction

# 1982 Law of the Sea Convention

- LOSC largely represents customary international law (US still not a party)
- Prohibits states from polluting marine environment – including by dumping
- Requires states cooperate to prevent pollution and to
  - Legislate to prevent it
  - take enforcement action to prevent it

# Regional regimes of importance

Three regions of particular interest:

- Eastern Equatorial Pacific
  - South Pacific and SE Pacific regional seas
- Sub arctic Pacific
- Parts of the Southern Ocean
  - Covered by provisions of:
    - Convention on the Conservation of Antarctic Marine Living Resources – CCAMLR
    - Madrid Protocol to Antarctic Treaty
    - Require prior environment impact assessment

# 1972 London [Dumping] Convention and its 1996 Protocol

- Parties agree to “promote the effective control of all sources of pollution of the marine environment”
- Regulates disposal of land-based wastes at sea
- 1996 Protocol now incorporates a precautionary approach
  - anything not listed in Annex 1 cannot be dumped at sea
- 2006 Amendment to Protocol permits storage of CO<sub>2</sub> under the seabed.

# 1972 Convention: Article 1

- Contracting States shall individually and collectively promote the effective control of all sources of pollution of the marine environment and
- pledge themselves especially to take all practical steps to prevent the pollution of the sea by the dumping of wastes and other matter....



# 1996 Protocol

- Contracting Parties shall individually and collectively protect and preserve the marine environment from all sources of pollution and
- take effective measures, according to their scientific, technical and economic capabilities, to prevent, reduce and where practicable eliminate pollution caused by dumping or incineration at sea of wastes or other matter.

# Customary International Law

States shall:

- Fulfil in good faith [their] obligations under general principles and rules of international Law
- Not allow activities under national control to damage territory of other states or areas beyond national jurisdiction
- Use a Precautionary Approach
  - Prior assessment ?

# Precautionary Principle

- 1992 Rio Declaration: Principle 15
  - “In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measure to prevent environmental degradation”

# 1992 UN Framework Convention on Climate Change

## General obligations

- address stabilization of climate by sources and use of sinks (art 4.1.d)
- “should take precautionary measures ... lack of scientific certainty should not be used as a reason for postponing such measures ... which [should] ... cover all relevant sources, sinks and reservoirs of GHGs...” (art 3.2)
- “...use appropriate methods, e.g. impact assessments..., with a view to minimising adverse effects on... the quality of the environment”  
(art 4.1.f)

# UNFCCC/Kyoto Protocol CONTEXT

**UN Framework Convention on Climate Change**

**Kyoto Protocol**

**Non Annex I  
Countries**

**Annex I  
Countries**

**Domestic  
Policy Actions**

**Emissions Trading**

**Joint Implementation**

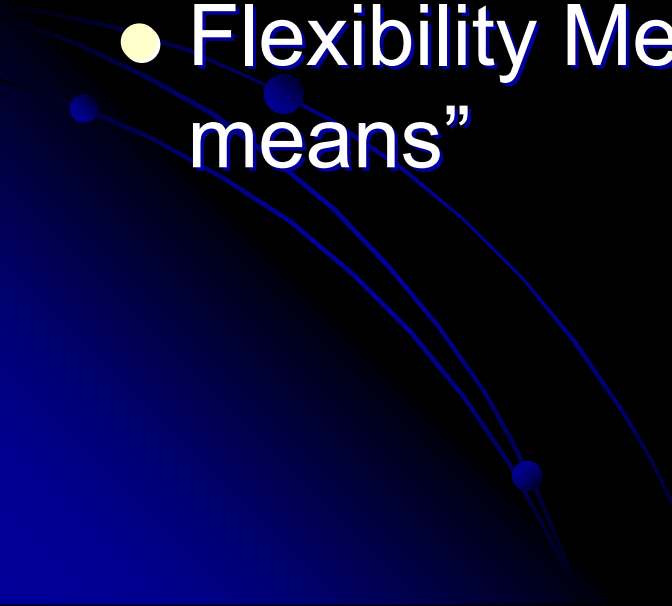
**CDM**

**Binding Emission Targets**

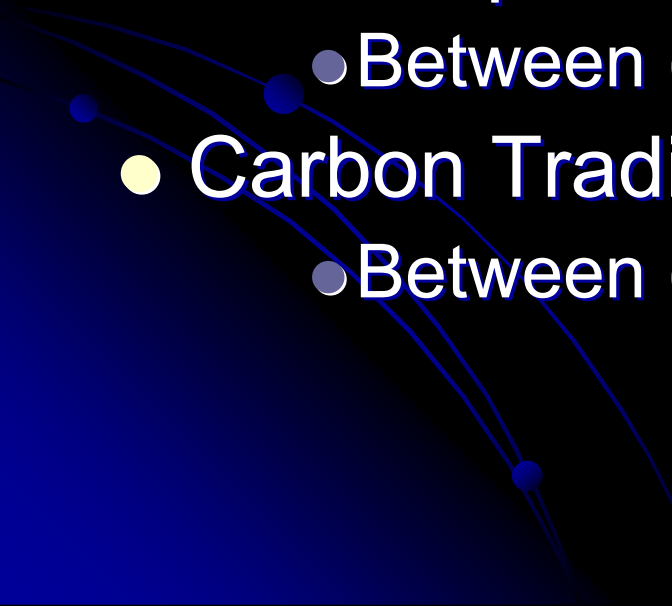
# Kyoto Protocol 1997

- Developed Countries (Annex I of UNFCCC) agreed GHG emissions reductions from 1990 levels by an average of 5.2%
- Commitment period is 2008-2012
- Specific targets (or assigned amounts) were set out in Annex B of the Protocol,
  - Iceland 10%+
  - Australia 8%+
  - European Union 8% reduction
  - Japan 7%
  - US 6%

# Kyoto Protocol Targets

- Annex I Countries have obligations to meet Kyoto Protocol Targets
  - By two means:
  - “Domestic Policies and Measures”
  - Flexibility Mechanisms as “supplementary means”
- 

# Kyoto Protocol has three “Flexible Mechanisms”

- Clean Development Mechanism –
    - Developed (Annex I) countries finance emission reductions in developing countries (non- Annex I).
  - Joint Implementation
    - Between (Annex I) developed countries
  - Carbon Trading
    - Between (Annex I) developed countries
- 



# 1997 Kyoto Protocol's Clean Development Mechanism

- Designed to assist:
  - “Non-Annex I Parties achieve sustainable development and
  - Annex I Parties achieve compliance with their commitments
- Protocol envisages a supervisory structure and certification system.
  - CDM Executive Board approves project designs and projects
  - Advice of methodology Panel (Meth Panel)
  - certified by “operational entities” designated by the Parties at the CoP/MoP.
  - Results are Certified Emission Reductions CER

# Conditions for Participation in CDM

- Must be voluntary;
- Between Parties to Kyoto
- projects must manifest real measurable and long-term benefits relating to mitigation of climate change; and a
- project activity must be “additional” to that which would have occurred in its absence.
- Participation in the CDM is also open to the involvement of private and/or public entities, subject to the guidance of the Executive Board.
- “sink projects in principle eligible” – pending decisions of CoP/MoP

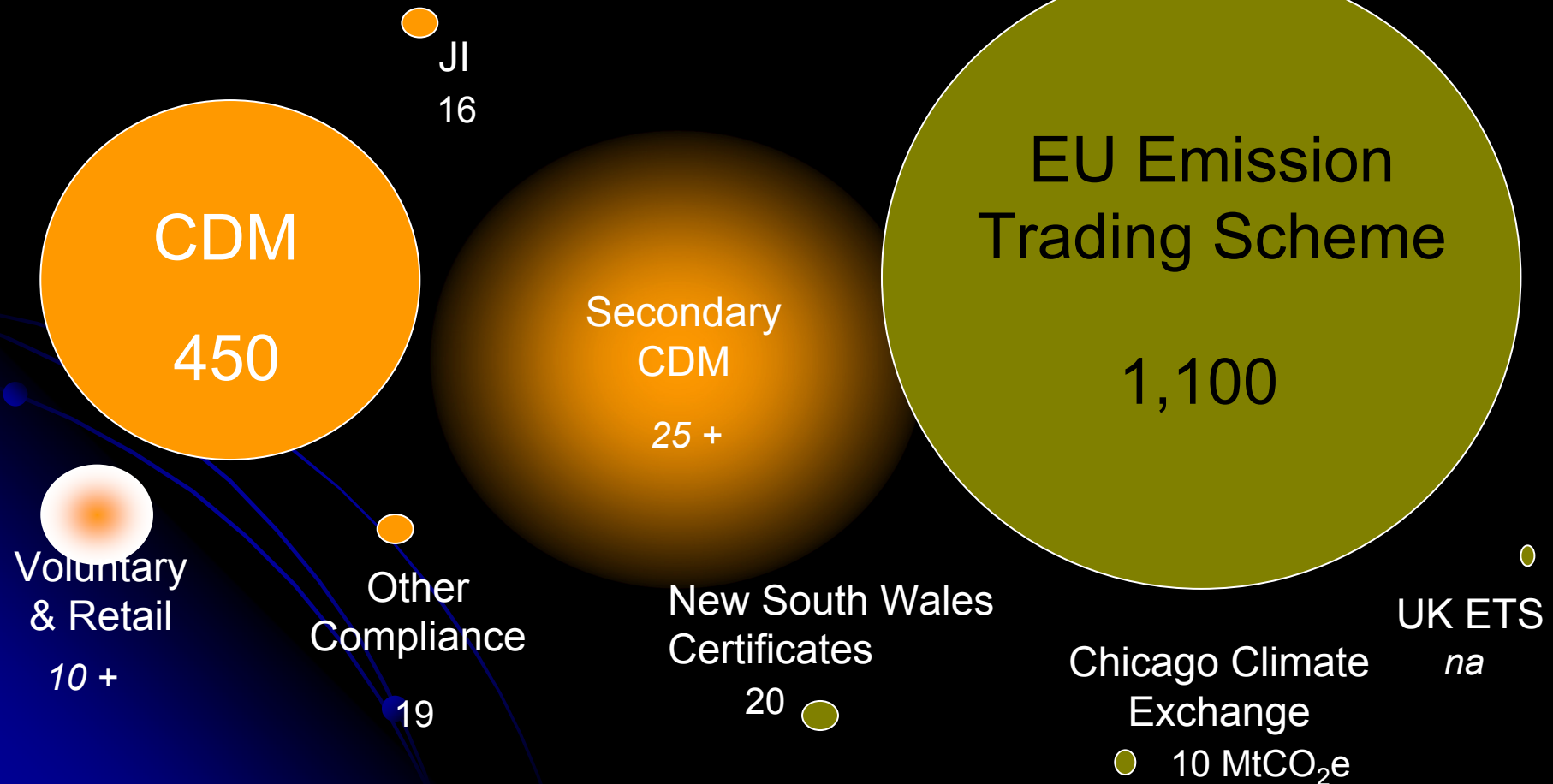
# State and Trends of the Carbon Market -2007

Volumes transacted in 2006 (*World Bank*)

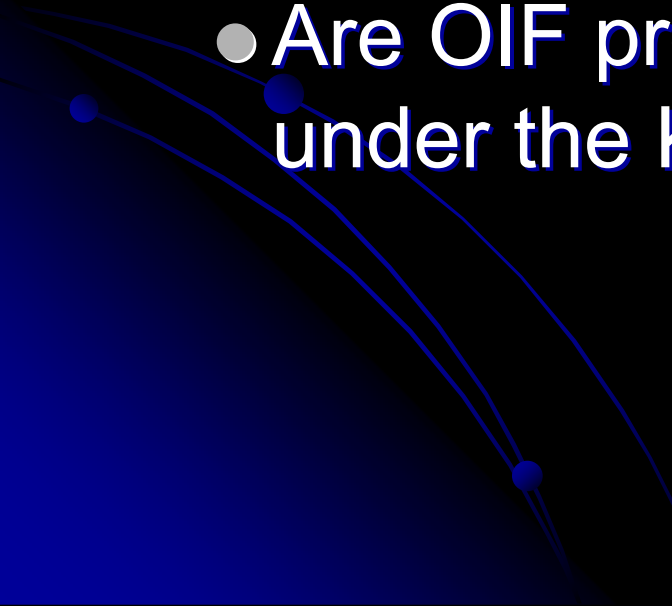
(in MtCO<sub>2</sub>e)

## Project-Based Transactions

## Allowance Markets



# Key Legal Issues

- Key International Legal Issues to be determined in relation to OIF
    - Can OIF be regarded as pollution ?
    - Can it be regarded as dumping ?
    - Are OIF projects eligible for certification under the Kyoto Protocol
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# 1982 Law of the Sea Convention

## Art 1 (1)(4)

- ‘Pollution of the marine environment’ means the introduction by man, directly or indirectly, of substances or energy into the marine environment ... which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of seawater and reduction of amenities;

- General Obligations

- “to protect and preserve the marine environment” (art 192)
- Take all measures “consistent with this Convention to prevent, reduce and control pollution” from all sources

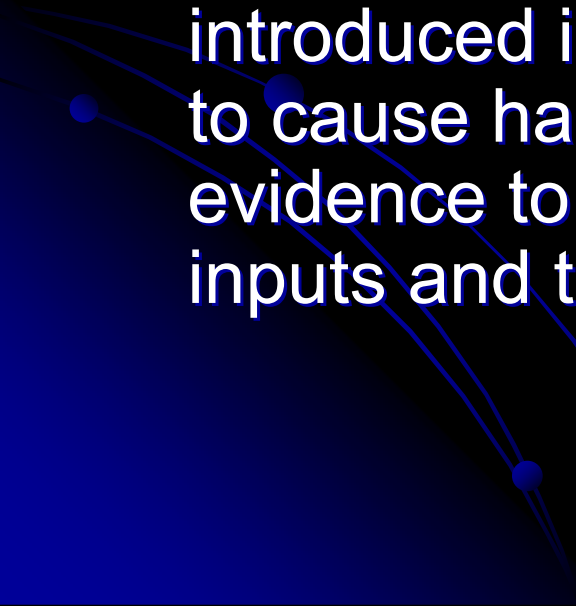
# Dumping 1982 Law of the Sea Convention

- Article 1(1)(5) 'dumping' means
  - Any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man made structures at sea;
- Article (1)(5) (b) 'dumping' does not include:
  - (ii) placement of matters for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the purposes of this Convention
- BUT : is this Dumping of Carbon ?
  - From vessels etc

# 1972 London Convention

- Art 1 'dumping' does not include
  - Placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of the Convention
- 1996 Protocol
- One of the most important innovations is to introduce (in Article 3) what is known as the "precautionary approach". This requires that "appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects."

# 1996 London Protocol

- In implementing this Protocol, Contracting Parties shall apply a precautionary approach to environmental protection from dumping of wastes or other matter whereby appropriate preventative measures are taken when there is reason to believe that wastes or other matter introduced into the marine environment are likely to cause harm even when there is no conclusive evidence to prove a causal relation between inputs and their effects.
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# Can OIF projects be brought within the Kyoto regime

- Kyoto is a state to state System:
  - Must be clear state ownership,
  - Must be a host country,
  - Must be an acquiring country.
- No category under CDM or JI under which the projects could be classified
- No general accounting for GHG stored in Oceans, it will be difficult to create such category as it falls outside the IPCC reporting guidelines
- Permanence and project specificity is a problem.
- Project boundaries: can periodic monitoring and verification be ensured ?

# Conclusions

- If an activity is likely to “result in such deleterious effects as harm to living resources and marine life” then it is “pollution”
- States have an obligation to prevent, reduce and control pollution
- Deliberate dispersal of iron is probably not dumping (ie not disposal) but may come within the general mandate of the London Convention and its 1996 Protocol

# Conclusions 2

- OIF may in principle be justifiable by States – or under their direct authority - under general obligations of UNFCCC
- but there is an obligation to use “appropriate methods:” (ie impact assessment) to minimize adverse effects
- OIF does not meet the current criteria for project registration under Kyoto Protocol
- Responsibility of national governments to police the informal private market for emission credits