

Capturing carbon for Kyoto

Any progress on reducing industrial greenhouse gas emissions is likely to depend on the expansion of the Clean Development Mechanism (CDM) – increasing the ways in which the carbon emissions of industrialised nations can be offset by emissions-reducing projects

CDM: Has so far reduced emissions by **28.2m tonnes CO₂ equivalent each year**. Industrialised country buys “emission credits” by investing in clean projects in developing world

DEFORESTATION: Responsible for over **7bn tonnes CO₂ emissions/year**. Forests convert atmospheric CO₂ for growth. Farmers in developing world could be paid to “set aside” forestry or plant new trees

CARBON CAPTURE: Could remove up to **2bn tonnes of CO₂ each year**

Solid carbonate: CO₂ captured in stable, inorganic mineral carbonates

Enhanced Oil Recovery

CO₂ injected into near-depleted oil field. Norway currently stores 1m tonnes per year under North Sea

Deep ocean
CO₂ pumped to bottom of sea

Dense CO₂ “lake” forms beneath sea water

3km

Danger to marine ecosystems

Impermeable layer, e.g. shale, stops leakage to surface

Gas trapped in rock pores or dissolved in deep saline formations

Geological
Injected into permeable rock layer for storage

Carbon-capture best applied at power stations or industrial plants

