Preliminary analysis / proposal for a Sectoral Agreement: The case of the Chinese cement sector
Global Cement Production 1970-2050

The chart illustrates the global cement production from 1970 to 2050. The data shows a steady increase in production over time, with significant growth in recent years. The categories represented include Other, OECD, India, and China. The trend line for China is particularly notable, indicating a rapid increase in cement production compared to other regions.
Figure B7  Cement CO₂ intensities by region, 2000

Source: Humphreys and Mahasenan (2002).
Figure B5  Kiln type by region, mid 1990s

Source: Humphreys and Mahasenan (2002).
First step: Phasing out of the shaft kilns
SD PAMs

• Shaft kilns:
  • energy intensive, small plants (no scale economies),
  • low capital-intensity, unskilled workers (?)

• May we take advantage of a high level of retirement of shaft kilns in the following years. i.e. does this make sense to “push” China to close its shaft kilns now : ?

• Whatever, this is a national target (energy conservation)

• A strategy which seems to entail difficulties nowadays
  • Is international cooperation able to provide help for the achievement of this target?
Programmatic CDM, Sectoral Crediting… for new investments

Why only new investments?

- Low improvement potential for existing plants?
  - 100% coal-based and should maintain
  - Relatively good clinker ratio + very low availability of blended materials

- New investments should be considerable (consumption growth until 2015-2020 and closure of shaft kilns)

- Easier to define an ambitious benchmark (moving)

- Prevent the system from flooding EU ETS or other trading schemes…

- Learning process (reporting, monitoring…) → broader system
What about competitiveness?

So far, not treated in the short run…

Even a tradable performance standards system for the chinese cement sector (ambitious!) would not address the competitiveness issue if allowances in the EU ETS are (purely) grandfathered or auctioned.

Background:
- (Chinese) trade is marginal (transportation costs)
- Mainly due to imbalance markets (no export capacities until now)
- Significant share of trade is intra-firms (clinker)
- China does not want to be an exporter of cement (export tariff).

→ A modest issue ?
→ A Chinese export CO2 tax ? (tradeoff : Export tax vs. SD PAMs)