

Consumption based carbon accounting:

Will countries include imports in their national carbon accounting?

Background note: W Barsley, FAO, Feb 2013

The issue

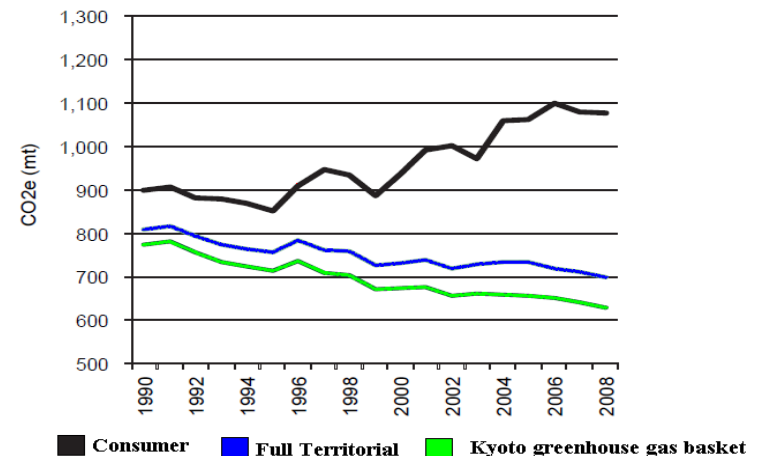
- Under the United Nations Kyoto protocol adopted in 2005, countries account for greenhouse gas emissions on a production basis (territorial based accounting), measuring and thus accounting for the GHG emitted only within each country.
- However, the exclusion of GHG emissions embodied within imports in many cases understates the level of GHG associated with national consumption, and hence to a degree the national responsibility within the global context.
- The consequence however is that major consumer countries could be shown to need a much greater commitment to GHG reduction, though having little direct influence over the means of production in exporting countries.
- The conflict between these fundamental methodologies has stimulated considerable debate over the last decade (Lutz and Wiebe, 2012; Peters et al, 2011), and it is yet unclear how nations and the international community will resolve the critical issues underlying these differences.

GHG accounting

- The primary logic suggests that GHG emissions require to be measured at the point of output – relatively simple for manufactured goods (UNEP-DTIE, 2003), though sometimes less so for transport and distribution functions.
- This normally invests accounting responsibility in the producer countries, commonly together with national sector bodies and individual enterprises.
- It also defines responsibility within national governance systems for regulating emissions or incentivizing their reductions.
- However, particularly where outputs are substantially traded, it can be argued that purchasers of products have a key responsibility for the GHGs associated with their use or consumption, and that these should at least be partially included in importers' national GHG accounts.
- Similarly, systems of incentivizing GHG reductions might derive more widely from the main consumer markets, allowing for shared benefits of producing and consuming traded products. In sectors such as fisheries, which are substantially traded, this could have significant implications.

Some realities

- Assessments of major importers and exporters; for China, in 2005 the carbon they exported to Annex 1 countries accounted for up to one third of their total carbon emissions.
- This highlights political complexities embedded within carbon accounting and subsequently within the development of global agreements for climate change management and mitigation. Potential negative impacts on trade, eg if taxes related to GHG s are applied.
- UK case: department for Energy and Climate Change (DECC) estimate that between 1990-2008 UK-derived GHG emissions reduced by 28% . However, these figures do not take into account emissions from goods imported into the UK.
- when consumption based accounting is applied, there had been an increase of 20% in GHG outputs (Fig 1), with a much more significant discrepancy between the two measures. This suggested in effect that the UK was 'exporting' its GHG emissions by increasing the GHGs associated with imports, while reducing domestic GHG output.
- However, at public policy level, clear decision not to move towards revised protocols due to the legal requirements to follow the production based accounting method set under the Kyoto protocol. It also noted that it *'could be highly damaging to the international trade system and wider trade relations and could have large unintended costs'*



Tentative conclusions

- The issue won't go away, and some means may be needed to address and share responsibilities; national consumption bodies, CSR issues and other drivers are all likely to keep consumption-based accounting in the picture.
- Shared responsibilities between producers and consumers? Trade connections with agreed GHG reduction targets?
- If an established and credible accounting system were to be adopted into the global market and a sufficient number of countries were to incorporate the procedure, there may be greater acceptance between countries and thus in their trade relations.
- A further option would be the development of parallel accounting systems, using both consumption and territorial models, applying each in selected contexts, within an overall aim of reducing all GHG emission levels and incrementally developing mechanisms for more equitable sharing of responsibility.
- The fishery sector is likely to be an important target area for developing performance and trade interactions.