

International trade and climate

To the editor: China's CO₂ emissions are growing rapidly and it is likely that China is now the biggest emitter of CO₂ in absolute terms¹. In the June 2008 issue of *Nature Geoscience*, the article "Globalized Carbon Emissions"² correctly implies that a share of China's emissions growth is due to consumption in developed countries, in particular the US. This complex issue deserves considerably more attention in global climate dialogue.

Several recent studies have quantified how consumption in developed countries is increasingly met by production in developing countries. A detailed US study found that the CO₂ from the production of imports for the US has grown from 0.5–0.8 Gt CO₂ in 1997 to 0.8–1.8 Gt CO₂ in 2004, representing between 9–14% and 13–30% of US domestic CO₂ emissions in 1997 and 2004, respectively³. A large portion, 20–40%, came from China in later years.

A global study covering 87 countries and regions found that 5.3 Gt of CO₂ is emitted in the production of internationally traded products and that Annex B countries (those with emission commitments in the Kyoto Protocol) are net importers of CO₂

emissions⁴. Depending on country characteristics — such as size variables and geographic location — there were large variations in the embodied emissions across countries. For some countries, up to half of their domestic emissions were from the production of exported products — 25% for China. Considered as a country, the emissions from the production of China's exports would be the third biggest emitter of CO₂ after the US and China itself and closely followed by Russia, Japan and India! In some cases, the emissions embodied in imported products exceeded domestic CO₂ emissions. Overall, developed countries were generally net importers of CO₂ and developing countries net exporters.

Dealing with the emissions from the production of traded products is an immense challenge. The political debate has usually focused on trade in energy-intensive products and competitiveness concerns but has largely ignored the large flows of manufactured products from countries such as China. Allocating the emissions from the production of traded products to the consuming countries, rather than the producers, is one option but would

be difficult to implement. A more promising approach is to seek synergies between trade and climate policies, such as reducing or redirecting subsidies, encouraging trade in environmental products through product standards and reduced tariffs, and expanding the Clean Development Mechanism into sectoral approaches for energy-intensive industry and electricity. Many developing countries can produce environmental products at a low price but it is essential that clean production technologies are implemented in these countries.

References

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