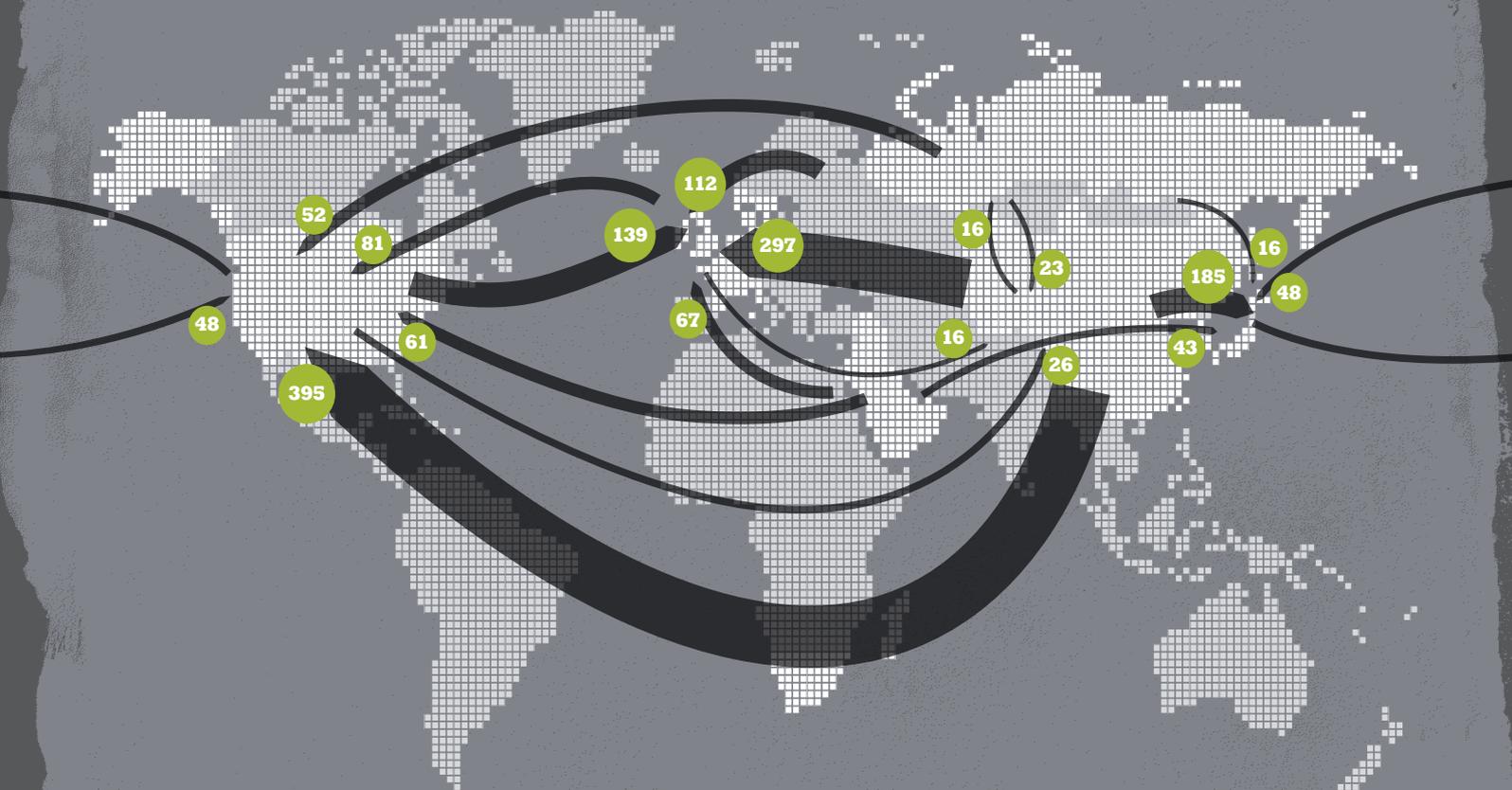


Arrows indicate direction and magnitude of flow; numbers are megatons (millions of tons) of CO₂.
PNAS. Website at www.pnas.org/content/107/12/5687



EMBEDDED CARBON

A NEW TRADE PRIORITY

WRITES
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Outsourcing emissions to the developing world

When consumers in rich countries buy imported items, who is responsible for the emissions? Is it the consuming country or the country where it was produced?

Traditionally, emissions are counted as belonging to the country of production, even though they are consumed in the developed world.

A Carnegie Institute study found that rich countries outsource around 30 per cent (4 tonnes per capita) of consumption-based CO₂ emissions. In net terms, the United States outsources around 11 per cent of total consumption-based emissions (2.5 tonnes per capita). As with Europe, emissions are outsourced primarily to China.

The study used extensive 2004 trade data and calculated the net emissions “imported” or “exported” by countries by allocating carbon emissions to particular products and sources.

The study found that developed countries are effectively outsourcing more than one-third of their greenhouse emissions.

Similarly, a study carried out by Professor Dieter Helm of Oxford University in 2007 found that when the United Kingdom’s emissions are calculated on the basis of net consumption, emissions rose by around 19 per cent between 1990 and 2003. Official figures showed a 15 per cent drop between 1990 and 2005 thereby meeting Kyoto obligations. The official figures are based on production accounting, not consumption.

Carbon “leakage” is not a zero sum game. As energy infrastructure in developing countries is less efficient, outsourcing emissions produces more CO₂ per unit of electricity generated.

While different policies are discussed, the emissions from the unregulated trade in embedded carbon continue to grow. Taking ownership of those emissions lags behind. 