## 'Ecological space' and the fairer food miles debate

- What is ecological space? Concept of individualised rights to a sustainable carbon footprint based on current and historical and projected future emissions
- Global emissions in 2005, 23.8 billion tonnes, an average of 3.6 tonnes per capita per annum.
- Currently, the world's sinks can absorb **15%** of today's emissions about 0.5 kg per person (c.f. current per capita emissions of Angola, Dijbouti or Ghana).

## Per capita emissions by country, African countries, 2005, CO2 emissions, tonnes



- African countries: Growing population. Estimated at 725 million in 1995; anticipated to double by 2025.
- 'Significant ecological space' [currently] held in reserve by African countries for the global good. Historically/ cumulatively since 1950, African countries account for less than 5% of global emissions.
- Agriculture is key. Available data from 26 countries indicates agriculture contributes at least 21% to GDP. Deforestation at the agricultural frontier accounts for est 20% of CO2 emissions.
- Trade-offs: social welfare value versus global environmental value
- Some potential "killer facts":

Scenarios: CO2 emissions per capita in 2025	Total African emissions by 2025 per annum	Current comparison
1.04 [Held at 2000 levels]	520m tonnes	UK
2.90 [Middle-income country average in 2000]	1450m tonnes	Russian Federation
3.60 [global average in 2000]	1800m tonnes	50% USA

## What we don't know?

- Accounting for growth: Can we design mechanisms (technological, economic, etc) that can ensure less carbon intensive economies in developing countries do not retard future economic growth?
- Catalyst, multiplier or niche fortress: What evidence is there for genuine trickledown from export flori- and horti-culture to the rest of society/ economy?
- Catalyst or efficiency gain: How solid is the available evidence that air freight into the UK would be reduced through falling consumer demand for FFV?
- Allocation of Food Miles: How does embedded carbon inherent in trade across borders get allocated among countries? Is it production or consumption based?

## **Our objectives**

- 1. Products: green beans, tomatoes and flowers?
- 2. What "killer facts" can we develop?
- 3. What further research is needed/ feasible?

For instance, developing better data/ info on carbon utilised in production.