



“Fair miles”: the concept of “food miles” through a sustainable development lens

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The concept of “food miles” is currently at the vanguard of the climate change debate in the UK. It presents an argument for buying goods which have travelled the shortest distance from farm to table, and to discriminate against long-haul transportation, especially air-freighted goods. The long-distance transportation of food is associated with additional carbon emissions due to increased transportation and greater packaging, as well as a disconnection between consumers and local farming. In light of growing international concern over the speed and scale of climate change, the concept of “food miles” has captured public attention and apparently is changing some consumers’ behaviour.

The implications of the “food miles” debate are considerable. Much high-value produce from Africa, especially flowers and horticulture, is air-freighted, and is being singled out as the epitome of unsustainable consumption. But from a development and poverty reduction angle, the inclusion of sub-Saharan Africa in these high-value markets has been a success story. “Food miles” as a concept is blind to the social and economic benefits associated with trade in food, especially from developing countries.

UK consuming African fresh produce

Nowhere are UK consumers more persistently engaged with rural Africa than through food consumption choices. A wide range of fresh fruit and vegetables (FFV) are imported to the UK from sub-Saharan African countries (SSA – excluding South Africa). Kenya is a good example of how local economic development follows export horticulture development. Kenya was the first SSA country to develop systems in which high-value horticulture is exported to the UK. Seventy per cent of green beans (of exportable quality) produced in Kenya come to the UK. UK consumers spend over £1 million at retail every day on FFV from this

region, and this figure is growing. This business is perceived as a success, and a number of other countries have followed. Yet this trade is dependent on air freight, bringing its climate change impacts squarely into the development equation. In total, 40 per cent of air-freighted FFV imports to the UK are from SSA.

How much ‘ecological space’ do African nations have?

‘Ecological space’ is the individualised (per capita) right to natural resources, such as energy, food, land and water, for utilisation. The concept of equitable ecological space translates well into “per capita carbon dioxide emissions” and the “per capita right to emit carbon dioxide”. Currently, carbon dioxide emissions per person are very unequal and the gap is widening: global - 3.6 tonnes; UK - 9.2 tonnes; Kenya - 0.2 tonnes; Uganda - 0.1 tonne. Hence, SSA countries have considerable reserves of “ecological space” compared with industrialised countries. There is also inequality of impact and adaptive capacities of climate change. Many African countries are feeling the force of climate change impacts, the root cause of which was produced **continued >>**

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Working with the whole supply chain to explore opportunities for securing, upgrading and expanding pro-poor procurement in international horticultural supply chains from developing countries

key messages

- Nowhere are UK consumers more persistently engaged with rural Africa than through food consumption choices
- Over one million livelihoods in Africa are supported by UK consumption of imported fresh fruit and vegetables African nations have considerable “carbon credit”
- Unallocated aviation emissions could accrue to African countries in a bid to stimulate trade
- Not buying fresh produce air-freighted from Africa will reduce UK total emissions by less than 0.1%
- Economic development for the poorest in a low carbon future necessarily means expanding emissions for some

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>> **continued** in developed countries. Poorer countries have fewer disposable financial resources to commit to adapting to these impacts. The Kyoto Protocol recognises the need for equity and economic development for developing countries in the transition to a low-carbon future. Current calculations of a sustainable carbon future estimate equitable ecological space per capita as 1.8 tonnes.

What are the trade-offs between global environmental goods and local poverty?

What is clear is that decisions – of consumers, of policy makers, and of the food chain businesses – should be based on good information. If environmental harm is to be weighed against developmental gains, it is essential that (1) the degree of harm is quantified and put into the context of other food choices, (2) the degree of harm is put into the context of Africa's current use of 'ecological space', and (3) the degree of development gain is quantified, to demonstrate whether this trade really benefits those living in poverty.

Are food imports from Africa driving climate change?

The UK's carbon footprint is largely domestically generated. Indeed, to reach targets under the Kyoto Protocol the UK needs to prioritise the reduction of domestic road transport and energy use, then aviation. Estimates of doubling of air travel in the next twenty years coupled with high carbon emissions, and the exacerbating effect of "radiative forcing", make aviation cuts a necessary part of the solution. Yet the main share of increased flights appears to be passenger traffic. In the UK, passenger flights account for 90 per cent of emissions from air transport, and international freight accounts for 5 per cent. But, air freight is a significant contributor to total food transport emissions in the UK. Only 1.5 per cent of imported FFV arrive in air transportation but that portion produces 50 per cent of all emissions from fruit and vegetable transportation. It is clear that for most products that can be grown outside greenhouses and without heating, air-freighted produce usually scores poorly in terms of emissions compared with locally-grown produce. For example, goods air freighted from Kenya are responsible for 200 times more emissions or 12 times more energy than goods that are shipped from Kenya.

There is no firm evidence that if UK consumers did not eat imported FFV, fewer planes would fly today or in the future. Indeed, 2006 saw an expansion of 6 per cent in air traffic in all sectors (FFV imports, passenger volumes, and dedicated freight). In the big picture, the environmental cost of international food transport is trivial compared with UK domestic "food miles". Air-freight of FFV from SSA accounts for less than 0.1 per cent of total UK carbon emissions. Moreover, air freight is the only possible mode of transport for some highly perishable produce where no other infrastructure exists. FFV imports highlight one of the key reasons for not including aviation emissions under the Kyoto Protocol - the difficulty of allocating carbon between trading nations. In addition, for FFV the large majority of imports to the UK are carried opportunistically in the belly-hold of passenger aircraft.

Are there other environmental criteria that should be considered?

Carbon emissions are not the only factor when weighing environmental costs and development gains associated with the FFV export trade. Food imports to the UK have other environmental implications for producer countries. It is estimated that annually, the UK "imports" 189 million m³ of African water as a result of the import of green beans – enough to provide 10 million Kenyans with drinking water. Given that Kenya is categorised as a water-stressed country, and this is forecast to worsen, the implications for an expansion of the green bean trade need to be investigated. But this does not necessarily help improve water resources management in Kenya, where the chief cause of water stress is poor water infrastructure, not agriculture diverting water from the population.

Are food imports from Africa driving African poverty reduction?

Air-freighted produce from SSA to the UK makes a considerable contribution to poor rural economies. Over one million people in rural Africa are supported by the FFV exports to the UK. An estimated 50-60,000 small-scale producers and 50-60,000 employees on larger farms grow produce that is consumed in the UK. When dependents and service providers are factored in, an estimated 1-1.5 million people's livelihoods depend in part on the supply chain linking production on African soil and consumption in the UK. An estimated £200 million is injected into rural economies in Africa through FFV trade with the UK alone. From a development perspective, the less than 0.1 per cent of carbon emissions used to air freight FFV from SSA is a relatively efficient "investment" by the UK in allocating its emissions to support over a million African livelihoods. One might ask what the development benefits of the other 99.9 per cent of emissions are.

Opportunities

Economic development for the poorest in a low-carbon future will mean expanding emissions for some. For those countries with excess "ecological space", there is potential to use some of this space to reduce poverty, move to low-carbon economic growth and foster development. Export horticulture is one of the few genuine opportunities for developing countries that have direct and indirect benefits that reach into poor rural areas. Furthermore, there is projected future growth in export horticulture from existing and emerging producer countries in Africa, owing to tourism, economic development and more socially-conscious procurement patterns in all industries. The "food miles" concept needs reformulating to include social and economic development aspects. Singular comparisons do not necessarily help us to generate good policy. All environmental and social aspects need to be analysed, and trade-offs assessed. Over one million livelihoods in Africa are supported by UK consumption of imported fresh fruit and vegetables. Not buying fresh produce air freighted from Africa will reduce UK total emissions by less than 0.1 per cent. It is time to look to the huge impacts of the food system at home, rather than pull up the ladder on Africa. ■



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