Oxford Energy and Environment Comment

October 2007

Food Miles or Poverty Eradication?

The moral duty to eat African strawberries at Christmas

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The Concept

The concept of 'food miles' – the ecological impacts of food transport, particularly long-haul aviation – is increasingly being used by some organisations to encourage the buying of local produce as an environment-friendly gesture. A standard example of unsustainable consumption has been bottled water, as a lifestyle choice advertised as

> "Taken from a virgin aquifer shielded for centuries under ice and rock in the untouched wilderness of central Norway" or
> "Water frozen into icebergs thousands of years ago is now being harvested to make the purest bottled water, and purest vodka, in the world."

Another favourite are fresh strawberries in the midst of winter, transported by air freight from countries like Kenya. According to the BBC-managed collaborative free web encyclopaedia h2g2, "if you eat strawberries in the winter, they will have to come from a long way away, whether they are organic or not, because strawberries don't grow in the winter."[1]

This is, of course, not quite true: strawberries do grow in winter, provided they are in heated greenhouses under artificial sunlight. It is true that fresh strawberries in winter most likely have a higher carbon footprint[2] than seasonal locally grown ones. It is not necessarily true, however, is that the carbon footprint of strawberries grown in Kenya is

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higher than that of out-of-season strawberries grown in the UK, even if air freight emissions are included. Indeed, there have been a number of studies which demonstrate that this need not be the case. For climate change purposes, the concept of 'food miles' is at best simplistic and can lead to unfair trade distortions which end up penalising the very people who already bear an unfair burden of the impacts of climate change.

While to the more austere fresh strawberries in winter may appear as frivolous luxuries regardless of their provenance, there is an all-important moral difference that must not be ignored, namely the degree to which they help alleviate poverty in the producing countries. This aspect must be taken into consideration even if the local produce were indeed less carbon intensive.

The Controversy

The latest episode in the food-mile saga was triggered by a number of UK supermarkets starting to label air-freighted produce with air craft stickers. To understand the strength of the reaction from countries like Kenya,[3] it is important to get some idea of the company policies behind this sort of labelling scheme. One of the leading UK supermarket chains, for example, put up the following corporate aims regarding food miles in its quest to (be seen to) become more environmentally friendly:

1) Source as much food from Britain and Ireland as we can – for example, continuing to sell 100% British/Irish fresh poultry, eggs, milk, beef, pork and salmon.
2) Double regional food sourcing within 12 months and grow our local supply networks.
3) Work with growers over the next three years to extend British growing seasons through new varieties and growing techniques.
4) Continuing to research our food's carbon footprint with the Carbon Trust and setting targets to reduce it over the next year.
5) Setting targets to reduce the amount of food we import by air.
6) Offsetting our remaining CO_2 emissions from air-freighted food within 12 months.
7) Labelling all air-freighted foods as 'flown' within six months.

The over-all policy, in other words, is to replace food imports with locally grown produce, regardless of the relative climate change impacts: preference is given to domestic produce whether or not it is less carbon intensive than its foreign competition. Clearly this cannot be right, at least not when justified by reference to protecting the global climate. Indeed, if the government were to come out with this sort of policy it would undoubtedly fall foul of the WTO anti-protectionism rules (in particular the 'most favoured nation status').

Moreover, it is not clear how the cost for the carbon offset referred to would be passed through to the consumer, but it is likely to be added directly to the price of the imported goods themselves, and this – to add injury to injury – without the removal of the 'air freighted' label. In other words, the proposed combination of policies amounts to nothing else than misleading the customer into thinking that the air-freight emissions have not been dealt with while putting an additional price disincentive to buying the imported produce due to the additional offset cost.

According to the UK Department for International Development (DfID), 'the only fair option, which considers the livelihoods of those in developing countries as well as the need to protect the environment, is to ensure that the prices of the goods we consume cover the costs of their environmental impact, wherever they are from and however they are produced.'[4] It is certainly true that this approach is fairer than the policies just discussed, but it is by no means the only fair option, or indeed the fairest one. As has been pointed out by a number of commentators,[5] it can be cogently argued that produce of countries like Kenya, with per capita emissions of 0.1tC (155th in worldwide ranking, and 50 times less than the UK) should not be discriminated against on carbon intensity grounds, because they are within the boundaries of their 'ecological space,' i.e. the emissions that they should be allowed to emit for sustainable development.

The Facts

Food-miles are an over-simplified indicator of harming the global climate. A number of studies analysing the total carbon footprint of agrarian products, particularly those sold in the UK, have conclusively shown that the full life-cycle climate change impact of food supply in industrialised countries cannot be reduced to simple distances between consumers and producers. According to a report by the New Zealand Agribusiness and Economics Research Unit (AERU),[6] the carbon footprint of NZ milk solids, lamb and apples sold in the UK is up to four times lower than that of their locally produced equivalent, even if transport emissions are included. Of course, these produce are mainly transported by ship, and the conclusion does not necessarily apply to air freight. Having said this, research, according to DfID, shows that 'the emissions produced by growing flowers in Kenya and flying them to the UK can be less than a fifth of those grown in heated and lighted greenhouses in Holland.'[7] In short, it is plain that 'food miles' – the distance between grower/producer and consumer – are woefully inadequate as a measure of the climate change impacts of agricultural produce, indeed of any product! What is required instead is a full life-cycle carbon footprint analysis.

The emissions due to importing fresh produce from the poorest and most vulnerable countries are manageable. The transport carbon dioxide emissions associated with fresh fruit and vegetable imports to the UK from Sub-Saharan Africa (excluding South Africa) have been estimated to be between 279,000 and 686,000 tCO_2, [8] which at current prices would cost between £2.8m and £6.7m to offset through, say, the acquisition of credits (CER's) generated.

The harm to the poorest and most vulnerable countries through boycotting their fresh agricultural produce is significant. "While the climate change debate identifies air-freighted fresh produce from Sub-Saharan Africa as the epitome of unsustainable consumption, research shows over one million livelihoods are supported in part owing to the fresh produce trade with the UK alone."[9] According to the Kenyan High Commission in London,[10] the Kenyan horticultural industry supports around 135,000 Kenyans directly and many hundreds of thousands more indirectly, and the produce supplied to the UK alone generates at least £100m per year for Kenya. In other words, the benefits of trading these high value-added goods for these countries are significant.

Possible Solutions

Plan A: Create a Level Playing Field

Equitable offsetting. Use public finance to offset the international transport emissions generated for fresh fruit and vegetables imported from the poorest and most vulnerable countries, say through the acquisition and retirement of credits generated under the Kyoto Protocol Clean Development Mechanism, preferably in the producing countries, indeed in the producing sectors in question, thus providing not only a double sustainable development dividend, but also providing much needed pilot CDM projects in these countries.[11] Until 2012, when the EU Emissions Trading Scheme is going to be extended to international flights into the EU, this can be done directly by the importing member states. Afterwards, it may have to be coordinated at EU level.[12]

Fair labelling. Use proper carbon labelling – such as that currently developed by the UK Carbon Trust – ensuring that the carbon offsets are taken into account, as well emphasising the development benefits of these produce, be it indirectly as in the ‘grown

under the sun’ labels proposed by the Kenyan High Commission,[13] or directly through some sort of fair trade label, to assure the poverty eradication benefits.[14]

Support of shift towards less carbon intensive transport. In addition to offsetting the offending international transport emissions the consumer countries should also help the producers (1) by improving maritime technology to make it amenable for shipping their products, as well as (2) to help them grow produce of equal social benefit which can be transported by sea.

Plan B: Refrain from consuming non-seasonal produce?

There is obviously still ‘Plan B,’ as advocated say in the above mentioned BBC/h2g2 article:

> “Essentially, if this [i.e. food miles] is an issue that bothers you a lot, you will probably need to modify what you are buying, rather than looking for a label. You could try to eat more seasonally. …

> This issue is only really applicable to basic food products and perhaps to some construction products. Trying to buy a 'local' computer or car is completely ridiculous in a globalised world".[15]

The message is not at all new, but what is interesting is the view that the concept of 'carbon miles' can only sensibly be applied to (basic) food products. Why should this be so? Why should I not contend myself with locally produced computers or cars and simply forego them if they are not 'in season' (i.e. if there are none)? Could it be that of all the globally traded goods, non-seasonal fruit and vegetables are the only ones still seen to be sinful, or as MacGregor and Groom call it, a 'guilty pleasure.'[16] If this is so, then it is high time to exorcise this last remaining vestige of a Puritan 'no pain no gain' ethics!

Given that the boycott of fresh produce from the poorest and most vulnerable countries will have a significant negative impact on their efforts to eradicate their poverty, and inasmuch as we have a duty to help and not hinder them in this effort, Plan A has to be chosen over Plan B. Indeed, one can argue that in the context of Plan A, one has a moral duty to consume non-seasonal fresh fruit and vegetables, provided they originate in those countries which are dependent on these exports in their efforts to alleviate poverty and at the same time are most vulnerable to the adverse impacts of climate change. Eating Kenyan strawberries at Christmas, in other words, is not a guilty pleasure, it is (part of) a moral obligation!

Notes

[1] BBC - h2g2 – "Making sense of environmental and ethical labels" http://www.bbc.co.uk/dna/h2g2/A2960606

[2] The carbon emitted in the course of growing and transporting the strawberries to the table of the consumer. Note that this should also include carbon emitted in producing the fertilizer used to grow them, et cetera.

[3] See, for example, "Halt restrictions on horticultural produce from Kenya, VP tells UK", http://www.freshplaza.com/news_detail.asp?id=6293

[4] http://www.dfid.gov.uk/news/files/foodmiles.asp

[5] See, for example, James MacGregor , "Ecological space and a low-carbon future: crafting space for equitable economic development in Africa", Series: *Fresh Insights*, Number 8, London: IIED, October 2006, www.agrifoodstandards.net

[6] Caroline Saunders, Andrew Barber, and Greg Taylor, *Food Miles – Comparative Energy/Emissions Performance of New Zealand's Agriculture Industry*, Research Report No. 285, July 2006.

[7] http://www.dfid.gov.uk/news/files/foodmiles.asp

[8] James MacGregor and Bill Vorley (eds), *Fair Miles? Weighing environmental and social impacts of fresh produce exports from Sub-Saharan Africa to the UK*, Series: *Fresh Insights* No. 9, October 2006 www.agrifoodstandards.net/

[9] James MacGregor and Ben Groom, "Air Freighted fresh food: guilty pleasure or sustainable development champion?", Series: *Fresh Perspectives*, Issue 5, September 2007.

[10] The Kenya High Commission in the UK, *Newsletter*, Issue 6 August 2007.

[11] The CDM has thus far largely passed these countries by in favour of the large developing country emitters like Brazil, China and India, and most of the poorest countries have not even had a single demonstration project on the ground.

[12] The European Commission, as issuing entity of the EU-ETS caps to airlines would have to carry out CDM projects in the target developing countries (poorest and most vulnerable) to generate sufficiently many CERs to cover the emissions associated with importing the produce from these countries (= CDM

dividend). It would then give these CERs to the carriers who carry these goods (to cover these emissions), with the precondition that they apply a special 'carbon neutral' freight tariff to these CER offset goods (= clean export dividend).

[13] The Kenya High Commission in the UK, *Newsletter*, Issue 6 August 2007.

[14] Indeed, it has been argued that the basic moral assumption of this piece – namely that the revenue derived from these exports contributes to the eradication of poverty in the producing countries – is largely wrong in that most of the money was said to go to wealth land-owners and not to the labourers. I am not in a position to judge this, but even if it is true, the proposed double dividend scheme could easily be restricted to fair trade practices.

[15] BBC - h2g2 – "Making sense of environmental and ethical labels" http://www.bbc.co.uk/dna/h2g2/A2960606

[16] James MacGregor and Ben Groom, "Air Freighted fresh food: guilty pleasure or sustainable development champion?" Series: *Fresh Perspectives*, Issue 5 September 2007.