



The 'food miles' fallacy

Tim Wilson

The UK has a history of imperialism. It is now exporting a new breed through anti-capitalist, anti-globalisation campaigns with a seemingly legitimate development or environmental façade; the latest is food miles.

The principle of the food miles campaign is simple—there is a significant, unnecessary CO₂ footprint associated with importing produce between economies. The food miles solution is to avoid these CO₂ emissions by encouraging consumers to purchase food closest to its origin by 'buying local' and exercising caution in purchasing imports—notably produce that can be produced locally or by not purchasing produce out-of-season.

The food miles campaign has its genesis in the mid-1990s United Kingdom. In line with the prevailing environmentalist orthodoxies of the time, the campaign was less focused on CO₂ footprints and more on the waste of importing food products that could be easily grown in the UK. But as global warming began to dominate the minds of environmentalists, the food miles campaign fitted itself comfortably into their all-encompassing crusade against modernity.

Prominent food miles' supporters include UK-based SAFE, the Soil Association, and Sustain: The Alliance for Better Food and Farming. Even the Royal Society for the Protection of Birds has lent its support. With up to 95 per cent of fruit and vegetables in the UK imported, it is little wonder that people in the UK are cautious about the passports of their food supply.

Vested interests have lent their support, particularly the UK's National Association of Farmers' Markets. Larger NGOs have also given their support, including the WWF.

But unlike so many other environmental campaigns, it has been controversial even in environmental circles. In October 2006, the Co-Party Leader of the New Zealand Greens, Russel Norman, released a press release highlighting the Greens' Opposition to food miles and argued

'Food miles is a useful starting point for discussion about greenhouse emissions, but we also need to consider the emissions released during production, not just the transport emissions'.

And this is precisely the problem with food miles.

It doesn't matter whether CO₂ is local

The food miles campaign only takes into account the CO₂ footprint of the distribution of produce. Based on a food miles analysis, local food production should always have a lower CO₂ footprint than products imported from distant countries. Export-orientated economies such as Australia and New Zealand are likely to lose out under this scenario. But despite its seemingly compelling logic, this claim doesn't hold up.

If food miles campaigners were genuine in their concern for reducing food production's CO₂ footprint, they would focus on the CO₂ footprint of the life-cycle of production. This would require a calculation of the total CO₂ emissions from the seeding of crops and the birth of livestock, to their delivery to the consumer. The inputs would not simply be limited to transportation costs, but would also consider such items as fertiliser, electricity, feed, tools and housing.

Even if a life-cycle CO₂ foot print is

Tim Wilson is a Research Fellow at the Institute of Public Affairs.

factored in, it still needn't mean that importing products will mean fewer or lower CO₂ emissions. While it seems intuitive that the further the distance a product travels the more emissions there will be, fuel efficiency for volume and the method of transport also need to be factored in.

A sustainable transport organisation, Transport 2000, investigated the potential CO₂ footprint of products depending on the distance they travelled and concluded that, in the case of New Zealand apples, the impact of transport by sea was equivalent to apples travelling by road from Southern Europe, despite the difference in distance.

Equally, a report by the UK Department for Environment, Food and Rural Affairs found that 'a single indicator based on total food kilometres is an inadequate indicator of sustainability'. The report also found in favour of transporting produce in certain circumstances—for example, importing tomatoes from Spain produced less CO₂ than growing tomatoes in greenhouses during the UK winter.

New Zealand sheep are good for you

This is precisely what a study completed by Caroline Saunders, Andrew Barber and Greg Taylor from Lincoln University in New Zealand found. Their 2006 study, *Food Miles—Comparative Energy/Emissions Performance of New Zealand's Agriculture Industry*, embarrasses the claims that transportation costs associated with CO₂ emissions make importation of goods undesirable.

The study considered the life-cycle CO₂ footprint of three key exports (apples, onions and lamb) from New Zealand to the EU and assessed them against the comparable products in the UK. The outcome was clear.

Table 1 shows the energy input required for the production of these three commodities. On all three counts, energy input per tonne of output is substantially less during pro-

duction in New Zealand. The energy input naturally increases as a result of post-harvest transportation, but in total still remains substantially less if the product is produced in New Zealand and is then subsequently imported into Europe.

Not surprisingly, the trend is comparable for each product's CO₂ footprint. Table 2 demonstrates that the CO₂ footprint of apples is less, and lamb is spectacularly less, in New Zealand than in the United Kingdom. Only onions have a comparable CO₂ footprint, but that is still after transportation is factored in.

The reduction in CO₂ emissions is based on a number of variables, including a lower dependency on energy-intensive fertilisers in crop production, the capacity for animals to graze all year round and a reduced need to consume concentrated feed.

The implications for Australia

Like New Zealand, Australia is a large agricultural exporter, and while a comparable study has not been completed for Australia, we could reasonably expect similar figures. The Australian Conservation Foundation has already lent its support to the campaign, but given that punishing imports for travelling a long distance would have a significant detrimental effect on Australian agriculture, the likelihood of a food miles

campaign gaining traction in Australia is doubtful.

The bigger risk is that a food miles campaign might gain traction through political support. The Greens have already indicated their support for a food miles labelling system. In its submission to a Tasmanian Government climate change policy review, the Tasmanian Greens proposed a labelling system 'to allow consumers to make informed decisions about the emissions impact of the food they are purchasing'.

The notion that a state government would implement such a scheme is ludicrous and it was no doubt proposed as a posturing measure to the Greens' constituency. But the federal Greens have been largely silent. It will be interesting to see what they propose as part of their climate change policy at the federal election. Hopefully, they will take note of the complaints made by their New Zealand counterparts.

Of course, food miles is a global issue, and policy changes which occur in countries which import Australian produce will materially affect our industries. If a food miles labelling system is introduced or if trade restrictions are enacted in the UK, the impact would be significant. Although our exports to the UK are predominantly non-agricultural (coal, coke and briquettes

Table 1: Energy input by megajoule per Tonne of Production

	Apples		Onions		Lamb	
Country	NZ	UK	NZ	UK	NZ	UK
Production	950	2,961	821	678	8,588	45,859
Post Harvest	2,030	2,069	2,069	3,082	2,030	NA
Total	2,980	5,030	2,890	3,760	10,618	49,859

Table 2: CO₂ Emissions per Tonne of production

	Apples		Onions		Lamb	
Country	NZ	UK	NZ	UK	NZ	UK
Production	60.1	186.0	58.9	42.3	563.2	2,849.1
Post Harvest	124.9	85.8	125.6	127.8	124.9	NA
Total	185	271.8	184.5	170.1	688.1	2,849.1

Source: Saunders, C., Barber, A. & Taylor, G., *Food Miles—Comparative Energy/Emissions Performance of New Zealand's Agriculture Industry*, n285, July 2006

Food miles is more than just re-heated protectionism. It joins a whole range of NGO-led 'voluntary' standards to regulate economic activity.

and non-monetary gold as well as services), our largest export industry is alcohol and is worth about \$1 billion.

And Australia and New Zealand would not be the only countries hurt. Many developing countries who have climates that are well-suited for growing particular fruits and vegetables would also suffer, particularly if pressure was placed to reduce consumption of out-of-season produce.

Neo-protectionism?

With little scientific evidence to support it, it seems that the food miles campaign is just another ruse to justify protectionism. Many of the supporters of food miles actively state in their commentary that food miles is a legitimate justification for limiting imports. Yet unlike other campaigns of disguised protectionism, food miles appears painfully transparent.

The food miles campaign suffers from the systemic myopia that the left has towards free markets. When a product's life-cycle CO₂ footprint is calculated, the primary determinant of that footprint is the level of inputs. Inputs add to the total production cost and hence affect the competitiveness of a product. If a producer successfully reduces these inputs, it will be able to bring its product to market at a lower price, and a smaller CO₂ footprint. So long as Australia remains a competitive producer of agriculture goods, its products will almost certainly have a smaller CO₂ footprint. Free markets are environmentally sustainable because they seek the

maximum output for the minimum input.

But food miles is more than just re-heated protectionism. It joins a whole range of NGO-led campaigns. Many argue for government sponsored regulation or taxes such as proposals to add a carbon tax to airline tickets. For instance, in May this year the Australia Institute argued for a \$30 levy, which was intended to curtail the growth of the aviation industry.

But nevertheless, there has been a rise of 'voluntary' standards to pursue the pet environmental or social causes of activist NGOs.

Just how 'voluntary' these standards are intended to remain is revealed by looking at the forestry industry. For a long time, NGOs have campaigned heavily against illegal logging in developing countries. They developed certification schemes for logging sites as well as for chains of custody to certify timber from its origin to its final destination. WWF developed the Forest Stewardship Council standards in order to directly impose its values on the forestry sector.

NGOs have since successfully campaigned for industry to adopt these certification systems; and have campaigned for governments to require timber certification through their procurement systems. Now NGOs are campaigning to have these standards included in regulatory regimes for importing timber into a country or region's jurisdiction. The EU is proving to be their test case.

The multilateral trading system says 'no'

The acid test for food miles will be to see if the NGOs can resist this temptation. Fortunately, any effort would be short-lived. Under the WTO's Sanitary and Phytosanitary (SPS) Agreement, any quarantine or import restrictions based on environmental grounds must be rooted in sound science. Putting aside the science of climate change theory, the claims of the food miles campaign are on incredibly shaky ground if they do not factor in life-cycle CO₂ emissions.

NGOs could, similarly, try to encourage the adoption of a compulsory labelling system that required products to label their CO₂ transport footprint. But this, too, would create WTO problems, under the Technical Barriers to Trade (TBT) Agreement. Under TBT, labelling systems are not allowed if they create an unnecessary barrier to trade.

Of course this needn't deter our NGO friends. But even by environmentalist standards, the food miles campaign gets half points. On the one side, it is successfully rooted in a blind ideology about man's contribution to global warming—a popular obsession. But it does not factor in the life-cycle CO₂ footprint of products, focusing only on transport. It will no doubt get good publicity, but the food miles campaign is a lemon; and it doesn't matter how far it has travelled.

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