



FAIRTRADE



Food Miles and Fairtrade:

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'Food miles' refers to the distance that food travels from producer to consumer, from 'farm to fork'. The original coinage of the term 'food miles' by the SAFE Alliance (now Sustain) in 1994 encapsulated both social and environmental issues.¹ The alliance emphasized connectivity between consumers, their food and the people who produce it. It saw no contradiction between buying local food, when appropriate, and buying out-of-season or tropical Fairtrade products. In fact it encouraged consumers to buy fairly traded products for items that could not be bought locally.

But today the food miles concept has become narrowed to mean a measure of the climate change footprint of food and focuses typically on just one aspect of this: transport. Using simple consumer messaging, the concept of food miles is now being used to present local food as climate-friendly and to argue against imported food and long-distance trade. This inaccurate simplification could have negative consequences for the livelihoods of developing country producers.

This position paper explains why Fairtrade believes that the concept of food miles as currently used is an unreliable guide for consumers wanting to make food choices that contribute to sustainable development. While the distance food has travelled is one aspect of the sustainability story, choosing to buy food based on this factor alone could undermine wider sustainable development principles – principles that

Fairtrade seeks to uphold with its emphasis on sustainable livelihoods, producer empowerment and making trade fair.

Fairtrade believes that basing food choices exclusively on food miles can disconnect consumers from disadvantaged producers, thus negatively affecting producers' livelihoods while failing to address the overall environmental footprint of consumers' food choices.

Understanding food miles and the real climate footprint of food

Food miles are now used as an indicator of the distance food has travelled from the farm where it was produced to the shop where consumers buy it. As an indicator of the carbon footprint of food choices, the concept of food miles assumes that food that has travelled long distances is likely to have a bigger climate footprint than locally produced food, because of the energy used in its transportation. For this reason, many people regard regional or local food as a more climate-friendly alternative to buying imported food.

But for consumers who want to make sustainable consumption choices – that is, who want to buy food that contributes more broadly to sustainable development – and who take a more holistic approach to environmental issues, food miles present a very incomplete picture.



Fairtrade products in a supermarket, Germany, © Miriam Ersch 2011

For consumers who want to make sustainable consumption choices, food miles present a very incomplete picture.

First, food miles, as the term is currently used, capture only one part of a product's so-called 'life cycle' – that of transport from farm to place of purchase. Second, 'local' does not always mean local, since many 'local' products actually use energy-intensive inputs (such as fertilizers, pesticides, diesel fuels and animal feed) that are imported from far afield. Third, food miles can, by encouraging people to buy local food over imported food, which often comes from developing countries, have a negative impact on the livelihoods of the world's poor. Below we explain each of these shortcomings in more detail.

The distance food has travelled is only one part of the picture

Focusing on transport alone – as the current use of the food miles concept does – misses many

parts of a product's 'life cycle' that can contribute significantly to the product's overall climate footprint. Life cycle analysis (LCA) measures the greenhouse gases emitted throughout the 'life' of a product – from its production all the way through to its consumption and disposal. Some studies comparing the life cycles of short- and long-distance products have shown interesting results.

Focusing on transport alone misses many parts of a product's 'life cycle' that can contribute significantly to its climate footprint.

A 2008 study found that even though there are high food miles in the average food product consumed in the United States – 1640 kilometres on average from producer to retailer – transport accounts for only 4 percent of the overall carbon footprint of the food system.² The farming end of the food chain, on the other hand, is responsible for 83 percent of the carbon footprint of the average food product in the

US. And certain foodstuffs, especially meat and dairy and red meat in particular, have very high carbon footprints due to production processes and inputs (such as animal feed) associated with the release of large amounts of carbon dioxide or the other powerful greenhouse gases methane and nitrous oxide. It is true, however, that when products are transported by air, the contribution of the transport stage of the supply chain to the overall footprint of a product is likely to be much higher than 4 percent. For the UK food system as a whole, transport is calculated to be responsible for approximately 10 percent of overall emissions, with the remaining 90 percent caused by other parts of a product's lifecycle such as primary production, processing and consumption.³

Cafédirect, a Fairtrade hot drinks company, carried out lifecycle analysis for their bestselling tea and coffee products. They found that, on average, 72 percent of emissions were created at the consumption stage. The processing stage was also found to be a significant contributor to the carbon footprints of their tea and coffee. Transport, on the other hand, was far less significant – relative to other parts of the supply chain – than expected.⁴ A European drinks company found unexpected results when they measured the carbon footprints of their smoothies. They assumed that transporting tropical fruits from around the world would weigh heavily in their products' carbon footprints. But they found that transport was only a minor contributor, with agriculture, packaging and manufacturing accounting for 60 to 80 percent (depending on the portion size and packaging type) of the overall footprint of their smoothies.⁵

The importance of the consumption end of a product's life cycle when assessing greenhouse gas emissions is borne out in a recent study that found that choosing to heat a pie using a microwave instead of an oven reduced the carbon footprint of this stage of the product's lifecycle from 9 percent to 2 percent of its total carbon footprint.⁶ Another study shows that baking potatoes rather than boiling them uses five times as much energy.⁷ How we dispose of our food is a significant factor too. WRAP (Waste & Resources Action Programme) estimates that in the UK, households waste 8.3 million tonnes of food and drink per year; reducing this wastage can contribute to emissions reductions. One tonne of avoided food and drink waste is equivalent to saving 3.8 tonnes of CO₂ equivalent (CO₂e).^{8,9} Food shopping accounts for 5 percent of all car mileage in the UK, which translates into 0.72 percent of the UK's total greenhouse gas emissions.¹⁰ Shifting meat consumption to lower quantity and higher quality, changing cooking methods, cutting down on food waste and avoiding driving to the supermarket could be more effective in reducing consumers' impacts on climate change than deciding not to buy imported food products.

To summarize, evidence suggests that as an indicator of a product's impact on the climate, the food miles concept as it is currently used is likely to be a weak proxy, because it is based on only one part of a product's lifecycle. Other factors can be equally, if not more, significant. Information on the impacts of consumer behaviour on a product's carbon footprint could be useful in driving behaviour change, but the food miles concept does not take those factors into account.



Vanilla, India, © Kennet Hørvgaard 2007

Carbon footprints: local doesn't necessarily mean lower

Even if transport makes up only a small proportion of the overall carbon footprint of food, food miles are still used to argue that local food offers a lower carbon option than imported food. It is undoubtedly true that efforts need to be made to reduce the impacts of food transport on the climate. But developed country production can be more carbon intensive than developing country production to the extent that the higher carbon emissions associated with transport can sometimes be outweighed by more carbon efficient production.¹¹

A commonly cited example is the comparison between Dutch- and Kenyan-grown flowers for

sale in the UK.¹² Even though Kenyan flowers are air-freighted to the UK, they have been calculated to have a smaller carbon footprint than Dutch equivalents because of the energy used by Dutch greenhouses. By contrast the Kenyan climate naturally lends itself to flower production. This suggests that (relatively) locally grown products do not necessarily have lower carbon footprints. However, this is just one example that compared one Dutch and one Kenyan farm and may not be representative of the sector as a whole.¹³

In 2008 DEFRA – the UK Government department tasked with addressing environment, food and agriculture-related issues – commissioned a number of studies to investigate the comparative carbon footprints of products in the UK food system. In the case of tomatoes, the study found that a tonne of loose tomatoes produced in the UK had a global warming potential three times higher than that of its Spanish equivalent. The difference was mainly due to the energy use associated with glasshouse production in the UK compared to semi-protected systems in Spain. This study provides further evidence that closer doesn't always mean lower carbon footprints.

A more recent study shows that sugar produced in Zambia and Mauritius and consumed in Europe can have a lower carbon footprint than locally produced alternatives.¹⁴ The study calculated that refined sugar delivered to Europe from Zambia and Mauritius has an average carbon footprint of 0.4 kg CO₂e/kg. This is in comparison to 0.6kg CO₂e/kg for sugar produced in the UK and 1.46kg CO₂e/kg for sugar produced in Germany.

Food miles – really capturing the local?

As already stated, the food miles concept is often used to justify buying local foods. However, what exactly 'local' means is not always clear, given that 'local' products are often produced using inputs from geographically distant places.

A 2008 report studied the geographical locations of greenhouse gas emissions along the supply chain of two dairy farms in the UK.¹⁵ The study found that the inputs used to produce the dairy products on this farm, and the greenhouse gas emissions associated with them, were mostly (95 percent) produced outside a 50-kilometre radius of the farm. This means that a large part of the emissions associated with the 'local' farm products actually occur in other regions or countries. The study found that a significant proportion of the farm's carbon footprint is related to inputs such as cattle feed, produced largely from soya. Soya grows in the tropics and is often linked to deforestation – trees are cut down to make way for soya production, which can be more profitable than leaving the forests standing. And deforestation is a major contributor to climate change because trees release carbon dioxide once cut down. If you bought a product on this farm believing it to be 'local', you'd only be seeing part of the complex picture. Many local goods are highly reliant on imported inputs, making any definition of local problematic.

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Food miles can disconnect us from disadvantaged producers

Making sustainable consumption choices isn't only about reducing our negative impact on the environment. It's also about ensuring that the choices we make have positive impacts for society and sustainable development in a broader sense.

Fairness and equity are key principles of sustainable development and should be key factors in helping consumers make positive food choices. When the food miles term is narrowed down to indicate only the transportation element of food's carbon footprint, the term ignores the social and economic dimensions of sustainable development. It can disconnect us from those producers who rely on our trade to support their livelihoods.

For many developing countries, exporting goods offers important livelihood and income-earning opportunities. For example, in Kenya, export horticulture earned the country US \$906 million in 2009.¹⁶ The export of fresh fruit and vegetables from sub-Saharan Africa to the UK is estimated to support between 1 and 1.5 million livelihoods.¹⁷ Trade of this kind can help reduce countries' long-term dependency on aid and support their development.

Many developing countries rely on the export of agricultural products to build livelihoods and their economies. More than 70 percent of the world's poor live in rural areas and depend (directly or indirectly) on agriculture.¹⁸ The loss of lucrative export markets could have a significant impact on the livelihoods and food security of many poor producers and workers



Kuapa Kokoo, Ghana, © Kenneth Havgaard 2006

as well as having a major impact on national economies.

Why Fairtrade is an ethical option: supporting people and the environment

The Fairtrade movement is a supporter of both sustainable production and sustainable consumption and places people at the heart of what it does. Fairtrade is an alternative approach to conventional trade and is based on a partnership between producers and consumers. In line with the original use of the term food miles, Fairtrade aims to create connections between producers and consumers, giving food a

'human face'. Fairtrade aims to offer its producers a better deal and improved terms of trade through fair prices and the Fairtrade Premium, which farmers can invest in social and/or business development projects of their choice. It seeks to empower small-scale farmers by supporting them when they organize into cooperatives, which strengthens their bargaining positions. Fairtrade supports farmers and workers in improving their livelihoods and offers consumers a way to address poverty through their everyday shopping.

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Fairness: a guiding principle for climate change mitigation

The concept of 'ecological space' can be useful when thinking about climate change and fairness and in guiding consumers' buying decisions.¹⁹

Any discussion of climate change should be framed in terms of fairness and equity. The principle of 'common yet differentiated responsibilities' agreed on by almost all countries of the world as part of the Kyoto Protocol – the current international agreement for industrialized countries to take action on climate change – recognizes that while developing countries are likely to be hit hardest by climate change, they are the least responsible for causing it. Developing country producers will be affected by climate change, for example through changing weather patterns and reduced agricultural yields, but themselves have low carbon footprints. As such the burden of emissions

reductions should lie firmly with those who are historically responsible – the developed and industrialized countries.

At present population levels, sustainable carbon emissions would annually need to be approximately 2 tonnes CO₂ equivalent (CO₂e) per person. The actual global average is currently 3.6 tonnes. Though it is clear that we need, at a global level, to reduce greenhouse gas emissions, the current spread of per capita emissions is very uneven. In Africa average per capita emissions are one tonne while in the UK per capita emissions are 9.2 tonnes. India has low per capita emissions at 1.4 tonnes, and in Latin America we see comparatively low levels too – Colombia with 1.4 and Nicaragua with 0.8 tonnes CO₂ per capita.²⁰ Bearing in mind the sustainable per capita emissions level of 2 tonnes, Africa and many other developing countries have ‘ecological space’ and should be allowed to develop and even increase their emissions up to a sustainable level, while developed countries should reduce their per capita emissions dramatically.

The burden of emissions reductions should lie firmly with those historically responsible – the developed and industrialized countries.

African country emissions are mostly ‘productive carbon’ – that is, they generate most of their emissions while trying to meet basic needs.²¹ This is in stark contrast to developed country emissions, which often result from what could be considered luxury consumption and leisure. It is not fair that countries with a high carbon footprint, and which have contributed most to the problem of climate change, discriminate against imports from countries with much lower

emissions and which depend on international trade for their livelihoods.

The Fairtrade movement is not standing still on the environment and climate change

Though Fairtrade’s emphasis is always on people, it recognizes the importance of the environment and the climate as a way to build sustainable livelihoods. Rather than focusing very narrowly on just one sustainability dimension, Fairtrade International takes a holistic approach, as set out in the new generic producer standards.

Fairtrade requires producers to implement good agricultural practices: to protect the health of producers, workers and the environment by banning dangerous pesticides and ensuring that farmers are trained in the disposal of hazardous waste. Fairtrade farmers are also trained in water protection, soil conservation and ways to minimize their use of pesticides. Producers are asked to protect existing natural resources, and the system encourages producers to convert to organic practices over time.

Fairtrade recognizes the global significance of climate change. It ensures that producers are well placed to adapt to the effects of climate change and can also reduce the impact of their farms on climate change. The good agricultural practices that farmers implement as part of Fairtrade can help reduce greenhouse gas emissions. By applying proper amounts of fertilizers, by avoiding the destruction of protected areas and areas of high natural value and by restoring buffer zones, farmers can reduce their impact on the climate and can enhance the



Fatoumata Moussa, Dougourakoroni Cotton Producers Cooperative, Mali.
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potential of their land to absorb carbon, thereby helping to be part of the solution to climate change rather than the problem. By employing sustainable agricultural practices farmers are likely to be better placed to adapt to climate-related changes in weather, such as changes in rainfall. However, it is clear that far more support will be needed for all vulnerable farmers, including those in the Fairtrade system.

Fairtrade Standards encourage producers to reduce their energy consumption over time. Producers are asked to keep records on energy consumption in their processing facilities and report on the practices they carry out to reduce their greenhouse gas emissions and practices to increase carbon sequestration. FLO-CERT,

Fairtrade's certification body, is also beginning to help producers work towards carbon foot-printing so that they can identify carbon 'hot-spots' – areas where they might best be able to reduce their energy use and their impact on the climate.

By receiving a fair price for their products and a Fairtrade Premium, producers are better placed to invest in adaptation techniques and technologies. Fairtrade's own research suggests that some producers are using their Premium to invest in technologies that help them adapt to climate change.²²

Conclusion: food miles and fairness

Fairtrade promotes fairness and social justice, underpinned by environmental sustainability. Local food has a rightful place in a basket of sustainable foods, and both local food and Fairtrade food can be part of an ethical basket of foods. Steering consumption away from high-emissions products (such as intensively reared meat) and behaviours (such as waste of food in the household) is far more important than discriminating between products based exclusively on miles from farm to shop.

Both local food and Fairtrade food can be part of an ethical basket of foods.

'Food miles' as the term is currently used focuses narrowly on one aspect of environmental sustainability: the impacts (especially greenhouse gas emissions) associated with transportation of food from farm to shop. Knowing how far food has travelled does not provide

consumers with enough information to make complete ethical food choices.

Farmers and workers from developing countries have contributed the least to climate change and have carbon footprints a fraction of the size of consumers in Europe and North America. Developing countries have a legitimate claim to use their 'ecological space' to build their livelihoods and economies, including through exports of food and fibre.

Fairtrade believes that conscious consumers should continue to select Fairtrade products in solidarity with populations from developing countries and in support of sustainable development – development that takes into account social justice, environmental factors and climate change mitigation and adaptation.



Fairtrade products in supermarket, Wetzern, Germany, © Miriam Ersch 2011

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