

GLOBAL FOOD SWAP

Inspired by and – with permission - drawing on the 2002 report:
The Great Food Swap by Caroline Lucas and Colin Hines,

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The **Greening the North Fund** was inspired some years ago by the late Winin Pereira, founder of the [Centre for Holistic Studies Mumbai](#), who insisted that a larger proportion of funding offered to his organisation should be used to support change in Britain. He had been excited by a book called Greening the North written by members of Germany's Wuppertal Institute, one of whom - [Wolfgang Sachs](#) - had visited him some years ago. This confirmed his belief that beneficial change in the industrialised countries, which were depleting resources and polluting the world at a greater rate than the Two Thirds World, was not only urgently needed but also achievable. Mr Sachs readily agreed to the use of the title which, he pointed out, is now 'part of the commons'.

Summary

In this report the real costs of global trade in food will be highlighted.

The first section is dedicated to a survey of the international trade system. Details of the wasteful trade practice of 'food swapping' will be given, followed by three case studies on basic food products: meat, milk and fruit.

In Section 2 the effects of the global trade in food will be considered: its environmental impact, the action of pesticides on local environments and the consequences for human and animal health.

Section 3 looks at the problems faced by farming communities under the current regime: downward pressure on farmgate prices, rising input/production costs, supermarkets' unwillingness to pay fair prices and - towards the end of the 1990s - rural decline as farm amalgamations caused workers to leave rural areas.

Introduction

International trade in food has grown immensely over the past fifty years, concentrating economic and political power in the hands of agribusiness corporations and huge food retailers seeking short term economic gain.

Increased self-sufficiency within countries and less cross-border trade in livestock and food products are recommended. This will help to revitalise rural economies and reduce the carbon dioxide emissions caused by long distance transport of food and animals.

Global trade

- 2006: the global value of agricultural export was \$728 billion compared with an average of \$433 billion 1994-1996).¹
- 2002-2005: global costs of imported food and agricultural products increased by 45%.²
- 2007: world food exports were valued at \$913billion.³
- 2000-2007: agricultural production grew by 2.5% each year, but agricultural trade increased yearly by 5.5%.⁴
- 2006 export of agricultural produce played a significant role in the GDP of many low-income countries:
 - 21% for Ivory Coast,
 - 19% for Malawi,
 - 57% for Zimbabwe,
 - 7% for Ethiopia⁵);
- local demand for food is outbid by richer countries that are also, in effect, importing the scarce water resources of such countries.⁶

UK: a net importer of food - DEFRA

*"In the UK in 2008, 126 million litres of liquid milk was imported into the UK and at the same time 270 million litres of liquid milk was exported out of the UK. 65,000 tonnes of milk powder was imported into the UK from within the EU and 45,000 tonnes exported out to other EU countries, plus 52,000 tonnes exported to outside the EU"*⁷

Food retailing in Britain has become concentrated in the hands of four retailers, according to a report by the Cabinet Office.⁸ They form a powerful lobby, influencing national and international decision-makers to pass legislation which promotes a system in which:

- The UK is a net importer of food. In 1980 the UK trade gap in food, animal feed and drink was £3.5 billion, which increased to £5.9 billion in 1990, to £8.3 billion in 1999⁹ and £15.2 billion in 2008.¹⁰ Since 1995 the UK trade gap in food, feed and drink has widened by 80%.¹¹ In 2008, the UK was 60.3% self-sufficient in all food and 72.9% self-sufficient in indigenous food types.¹²
- Beef in Britain is now imported from Argentina, Brazil, Namibia, Botswana, Zimbabwe and Australia¹³; chicken is imported from Thailand and Brazil, and exported to Hong Kong, Russia and South Africa;
- Europe is both a major exporter and the world's largest importer of food¹⁴, mainly from developing countries¹⁵. The European Common Agricultural Policy (CAP) has subsidised agriculture - about €55 billion per year, 40% of the total EU budget¹⁶ - leading to:
 - food surpluses; farmers paid to set aside land; prairie-style farming¹⁷;
 - an increase in extra-EU exports of food, drinks and tobacco from €42 billion in 1999 to €68 billion in 2008;
 - an increase in extra-EU imports from €50 billion in 1999 to €80 billion¹⁸, at the expense of small and medium scale farmers – via the dumping of CAP surpluses¹⁹ – in developing countries;
 - DFID's funding of McKinsey & Co (the arch-globalisers' consultancy firm)²⁰ to preach the gospel of globalisation in the later rejected *Vision 2020*²¹ plan - offering large-scale farming, freedom from starvation through developing genetically modified crops and a place on the city pavements to displaced small-holders.²² [As over 70% of India's people live in rural areas and depend, directly or indirectly, on producing food, they were able to mount a vigorous and effective resistance] . . .

and food is 'swapped' to no good purpose . . .

- In 1998, Britain imported 61,400 tonnes of poultry meat from the Netherlands in the same year that it exported 33,100 tonnes of poultry meat to the Netherlands.
- In 2007, Britain imported 1,238,000 tonnes of unmilled wheat and 114,000 tonnes of lamb and mutton while it exported 1,911,000 tonnes of unmilled wheat* and 68,800 tonnes of lamb and mutton.^{23, 24}
- In the UK in 2008, 126 million litres of liquid milk was imported into the UK and at the same time 270 million litres of liquid milk was exported out of the UK. 65,000 tonnes of milk powder was imported into the UK from within the EU and 45,000 tonnes exported out to other EU countries, plus 52,000 tonnes exported outside the EU.^{25, 26}
- In 2007, the UK exported £1,357.5 million worth of cereals and in the same year imported £1,920.4 million worth of cereals.²⁷
- In 1996 the UK imported 434,000 tonnes of apples, 202,000 of which came from outside the EU. Over 60% of UK apple orchards have been lost since 1970²⁸ and the UK is now only 5% self-sufficient in fruit.²⁹
- In 1998, the UK cultivated 155,914 of hectares for vegetables and 29,928 hectares for fruit; for 2008, these figures were 116,995 and 28,500 respectively.³⁰

* Arable farmer: the percentages of hard & soft wheat imported & exported are relevant here: refs 23/24

1. International trade in food

The food system is now based on complicated supply chains and large volumes of international trade.³¹ The global export of food in 2007 is valued at \$913 billion (an annual average increase of 11% from 2000-2007, while in 2007 alone global export of food increased by 21%).³²

The public has now grown used to having a wide range of food items available all year round and this has been achieved by intensive agriculture; a commitment to 'free trade' [though with tariff barriers], taxpayers' subsidising of transport infrastructure; and the emergence of the supermarket chains which increasingly co-ordinate the production, processing, distribution and marketing of food products.

Tables 1 and 2 indicate significant increases in the production and trade of different food and agricultural commodities between 1967 and 2007. Over the same period there was a move to production for export, which has resulted in larger international flows of food products.

Table 1 – Global Food Production 1967-2007

Commodity	Global Food Production (000 tonnes)		% increase '67 - '07
	1967	2007	
Wheat	294,296	605,995	206
Soybeans	37,933	220,533	581
Maize	272,538	791,795	291
Apples	25,371	65,971	260
Cow milk	350,208	566,850	162
Oil palm fruit	13,146	192,607	1465
Palm Oil	1,669	38,640	2315
Coffee, green	4,333	7,793	180
Rapeseed	5,267	50,578	960
Sugar Cane	518,891	1,590,702	307
Rice Paddy	277,386	659,591	238
Tea	1,162	3,887	335
Bananas	27,414	85,856	313
Cocoa beans	1,391	4,162	299
Oranges	23,448	64,764	276
Hen Eggs	17,356	58,961	340
Cheese (all kinds)	6,947	18,794	271
Livestock (000 heads)			
Cattle	1,049,783	1,357,183	129
Pigs	547,590	918,278	168
Chickens	4,665,711	17,863,376	383

Table 2 – Global Food Trade 1967-2007

Commodity	Global Exports of Food (000 tonnes)		% increase '67 - '07
	1967	2007	
Wheat	47,801	119,261	249
Soybeans	8,276	74,410	899
Maize	27,506	107,151	390
Apples	1,983	8,535	430
Cheese-Whole Milk	662	4,383	663
Cattle Boneless (Beef & Veal)	499	5,163	1036
Palm oil	574	26,043	4540
Cake of Soybeans	3,424	61,365	1792
Pastry	194	5,573	2867
Chocolate	260	4,145	1594
Coffee, green	3,004	5,841	194
Coffee roasted	15	636	4171
Chicken meat	354	9,340	2638
Pig meat	1,484	11,132	750
Beverage Non-Alcoholic	88	14,809	16886
Sugar Refined	4,536	23,092	509
Rice Milled	7,202	27,434	381
Cattle meat	1,372	1,366	100
Tea	691	1,702	246
Bananas	4,877	17,667	362
Cocoa beans	1,096	2,747	251
Total sugar (raw equiv.)	19,840	53,799	271
Total meat	5,146	34,842	677
Hydrogenated oil	206	2,433	1181
Concentrated orange juice	59	1,813	3082
Butter Cow Milk	746	1,501	201
Oranges	3,429	5,270	154
Hen Eggs	324	1,416	437
Food wastes	947	8,213	868

Source: FAO statistics database: <http://faostat.fao.org>

Case Studies

Meat

The UK exports nearly one million sheep a year for slaughter, many being sent all the way to Italy and Greece; the animals are often in a pitiful state by the time they reach southern Europe. There is also the risk of transmitting disease across Europe: one of the first sheep farms in Devon to be affected by Foot and Mouth was exporting live sheep to the continent.³³

The EU imports large quantities of meat and live animals from South America, Eastern Europe, and Africa. In 1999, 44,000 tons of live bovine animals and meat was imported from Argentina together with 11,000 tons from Botswana, 40,000 tons from Poland and over 70 thousand tons from Brazil.³⁴ This demand could have been met by 'home' production in a region which is exporting 874,211 tons of live bovine animals and meat to the rest of the world. The UK in 2007 produced 10 million heads of cattle (similar to the 11 million in 1997).³⁵

This process presents a problem in terms of the welfare of the animals in transit, quality of care on arrival and the spread of disease.

Milk

Milk and cream, which were until relatively recently sourced on a national, if not local scale, are now transported in large quantities within Europe. In 2007, 126 million litres of liquid milk was imported into the UK and at the same time 270 million litres of milk was exported from the UK. 64,000 tonnes of milk powder was imported into the UK and 96,000 tonnes exported out.^{36, 37} In terms of 'food miles', the result has been a large increase in the distance between producer and consumer and in the environmental impacts associated with transport.

Large quantities of cattle feed now have to be imported. It is estimated that for every acre farmed in the UK, two more are farmed overseas in order to supply feed required by intensively farmed livestock, including dairy cattle. Imported feed makes up about 30% of all European animal feed. An estimated 21.3 million acres in Brazil are devoted to soya bean production (up from 5.6 million just a few years ago), as are around 16.6 million acres in Argentina (up from 1.2 million), 2.65 million acres in Paraguay, 1.2 million acres in Canada and 26 million acres in the US (up from 8 million acres just a few years ago).^{38, 39}

Fruit

The availability, range and source of fresh fruits and vegetables have been extended in recent decades, with exotics such as star fruit, mangoes and okra. Indigenous varieties which are not grown throughout the year, are imported in large quantities.

In most northern European countries self-sufficiency in fruit is extremely low. In 1996 the UK imported 434,000 tonnes of apples, 202,000 of which came from outside the EU. As was noted earlier, over 60% of UK apple orchards have been lost since 1970⁴⁰ and the UK is only 5% self-sufficient in fruit.⁴¹

The decline in UK fruit production and increases in imports is at its most extreme in the fresh apple sector since the 1960s. Imports of dessert apples, for example, doubled between the crop years of 1965/66 and 1997/98 and over the same period the UK cropped area of dessert apples fell by over 60 and UK apple production fell by two-thirds.⁴² Between 1998 and 2008, the number of hectares dedicated to dessert apples fell even further, from 8,059 to 4,935⁴³. UK apple producers have even been paid to cease production by receiving a European Union grant to 'grub-up' orchards, in order to reduce European overproduction. In Britain, imports now represent over three-quarters of the dessert apples eaten each year.

UK imports of apples gradually increased between 1952 and 1997 from 152,000 to 439,000 tons. It has been calculated that this move away from national self-sufficiency in apples has resulted in a 2.9-fold increase in consumption of the fossil fuel energy used to transport apples.⁴⁴

A choice: depend on volatile international markets or concentrate on supplying domestic consumers

UK self-sufficiency is estimated to have been 60% for all food in 2008 and 73% for indigenous food.⁴⁵ Declining further since 1995, farmers now get 10% less of the final price than ten years ago (37% in 2008 as opposed to an average of 47% in 1998 of the retail price)⁴⁶. Farming/food production is, therefore, not an enticing prospect for new entrants.

Moving away from the consumption of exotics to seasonal and a greater diversity of locally sourced fruit would considerably reduce the environmental impacts of fruit supply. Once again we would eat regional foods in season and move towards a greater degree of national self-sufficiency. This would have environmental benefits and guarantee a greater level of food security, making the country less vulnerable to fluctuations in international food prices and energy supply.

Current EU self-sufficiency in plant proteins is only about 30%. Although the EU increased its production of plant proteins by 230% between 1973 and 2003, the protein requirement for animal feed increased by 170% over the same period.⁴⁷

Most regions have the capacity to produce an abundant and diverse range of foods and should welcome limited trade with those who cannot. Several countries in the Gulf, for instance, would resume their traditional trade with countries nearby such as India. If the oil prices continue to rise, the wind-powered Arab dhow⁴⁸ would once more carry food and goods between Mumbai and Aden.

This issue requires urgent attention in particular when the UK Government states:

A narrow focus on agricultural self-sufficiency ignores the relevance of the whole food chain, and how the food chain itself might enhance or weaken food security. Using the standard food security definition, it is clear that the modern retailer-driven food supply chain has generally provided consumers with sustained 'physical and economic access to sufficient, safe and nutritious food'. Modern supply chains have vulnerabilities, but are not necessarily more risky than alternative, or historic, supply chain systems." and that "the food-security arguments for UK self-sufficiency in the modern world are weak [...due to leading to...] resource inefficiencies"⁴⁹ DEFRA

In contrast, at the international level, UN Special Human Rights Rapporteur Olivier de Schutter told WTO agriculture delegates on 2 July 2009 to put in massive investment to "relocalize local production" so that farmers depend less on volatile international markets and concentrate on supplying domestic consumers. In order to achieve this, developing countries need to be able to protect themselves against import surges, and not to open their markets prematurely.⁵⁰

2: The global and local effects of superfluous food trade

Environmental

The environmental costs of food distribution include air pollution due to air-freighting of perishable products, the loss of biodiversity and amenities resulting from road construction and the environmental impacts associated with the extraction and use of crude oil and other resources required for air, sea, rail and road transport fuel, vehicle construction and transport infrastructure.

Similarly, intensive agricultural production and food packaging systems consume resources and produce solid and liquid wastes and air pollution which can result in negative ecological and human health impacts.

Climate change, which is perhaps the greatest threat to humanity, is caused by emissions of greenhouse gases, particularly carbon dioxide from burning fossil fuels.⁵¹ Globally, temperatures are rising and are forecast to increase further. This, it is predicted, will have major adverse effects on the world's ecosystems, including increased incidence of extreme weather events (such as storms, droughts, floods), sea level rise affecting coastal and low lying areas, and loss of habitats and species.⁵² According to UNEP, up to 25% of the world's food production may become lost due to 'environmental breakdowns' by 2050 unless action is taken.⁵³ As the UK Government recognises that "changing climate will affect how food is grown, irrigated and transported all over the world"⁵⁴ it has initiated a *Foresight Food and Farming Futures Project*⁵⁵, due to report at the end of 2010.

Comparing CO₂ emissions for one product alone is revealing – the distribution of a kilogram of apples from New Zealand to the UK consumer results in 1kg of CO₂ emissions whereas the distribution of a kilogram of locally sourced apples through a home-delivery fruit and vegetable box scheme results is less than 50g CO₂ emissions.⁵⁶ In this case, the imported apple produces 20 times as much CO₂, and has 20 times the impact on climate-change.

Trade-related transport emissions

Trade-related transport is one of the fastest growing sources of greenhouse gas emissions and is therefore significant in terms of climate change.⁵⁷ Although most food is distributed by road and ship, the airfreight of foodstuffs is increasing:

- UK imports of fish products and fruit and vegetables by plane between 1980 and 1990 increased by 240% and 90%, respectively. By weight, fruit and vegetables (13%) form the largest category of UK airfreight imports.
- UK air freight (imports and exports) grew by about 7% a year in the 1990s and is expected to increase at a rate of 7.5% a year to 2010.⁵⁸

Freight transportation by sea is approximately 5 times more energy efficient than road freight and 37 times more energy efficient than international airfreight (Table 3). Apart from low energy efficiency, air freight causes very high levels of pollution; for example, a 2 minute DC10 take off produces the same quantity of nitrogen oxides as driving 21,539 cars one mile at 30 miles an hour.⁵⁹

Although the transport involved in international trade has been estimated to account for one eighth of world oil consumption, as we have seen above, there has not been decisive action to reduce international air, sea and road freight transport, and instead, the UK Government strategy is to continue to depend upon it.⁶⁰ This subject has been thoroughly explored in *The New Protectionism*, by Colin Hines and Professor Tim Lang.⁶¹

Table 3 – Energy Use and Emissions of Different Types of Transport

Transport type	Energy consumed (kj per T-km)	Emissions of CO ₂ (g/T-km)	Emissions of hydro-carbons (g/T-km)	Emissions of nitrogen oxides (g/T-km)	Emissions of carbon monoxide (g/T-km)
Rail	677	41	0.06	0.2	0.05
Boat	423	30	0.04	0.4	0.12
Road	2,890	207	0.30	3.6	2.40
Air	15,839	1,206	2.00	5.5	1.40

T-km = tonne-kilometres of goods transported - g/T-km = grams per tonne-kilometer

Traditional measures of national energy consumption and emissions are no longer accurate indicators of environmental performance, because no account has been given of the environmental impacts associated with production abroad and the transportation of the product to each EU country. National figures could show a decline in the fossil fuel energy consumption and air emissions, as well as other indicators relating to the food system such as pesticide use and nitrate levels in water supplies, simply because of increasing imports. An apparent decline in the environmental impacts of food supply could, in fact, be masking a rise due to increases in international transportation associated with food imports.

Significantly, transport-related carbon dioxide emissions associated with international trade by sea and air are not included in national inventories and targets. As yet there is, therefore, no commitment to reduce emissions from international transportation. If government moves towards meeting nutritional needs through more sustainable food production, distribution and marketing options, however, import substitution will have to be considered.

The effect of the global trade in food on animal and human health

The global trade in food has significant and direct implications for animal and human health in a number of key areas:

It can spread disease

Outbreaks of Foot and Mouth disease serve to show how transporting animals around the country can cause immense problems and prohibit all farm animal movements.

There can be little doubt that international trade in meat and livestock will continue to spread disease. Whilst some countries such as the US have managed to control and regulate imports to stay Foot and Mouth free, it has not escaped the impact of swine flu (H1N1).

Even producers acknowledge that globalisation may be causing problems: “Supermarket greed and the drive for globalisation at all costs has turned this country into a cesspit for the world’s cheapest meat and meat products”, Digby Scott, UK National Pig Association.⁶²

The volumes of animal feed and feed ingredients traded between countries have undoubtedly contributed to the global spread of the disease. The UK Government has admitted that it had no idea how much BSE contaminated feed was exported in the early 1990s, though records indicate that Britain exported 170,000 tonnes of meat and bone meal to around 70 countries between 1990 and 1996⁶³, before the ban.⁶⁴

Since the mid-1980s there have been numerous food safety crises – salmonella, E-coli, BSE, bird flu, swine flu and dioxin contamination of animal feeds. Their intensity and impact are increasingly being linked with the rise in food imports and exports and the complex food chains that have been built up.

In 1997, 1,912 human verocytotoxic E.coli (VTEC) infections were recorded. All these reported cases represented only the tip of the iceberg. In one recent example of concentration of the food chain and disease spread – 16 million pounds of poultry from a US Cargill plant were recalled from distribution in the US, Iceland and Venezuela after 28 cases of listeriosis including four deaths and three miscarriages.⁶⁵

In 2009, the WHO designated swine flu a global pandemic. There are widespread indications that this is linked to the intensive rearing of pigs.⁶⁶

Measures to prevent contamination will include regulations backed up by strong and adequately resourced enforcement; incentives to reduce food chains and long distance transport of live animals in particular; and research into the impact of structural changes on the spread of disease.

The package of measures must also include ways to reducing reliance on imported food and animal feed which is probably contributing to the problem both in terms of swapping diseases between countries, increasing livestock stress and reducing food traceability.

Other major issues for food safety include the use of antibiotics and hormones in livestock production. The EU held out against importing US hormone-fed beef despite a decision at WTO against the EU stance. Because there is a growing incidence of human resistance to antibiotics, built up through exposure via the food chain, the World Health Organisation recommended in 1997 that antibiotics used to treat humans should not also be used to promote animal growth. Yet the US Office of Trade Representatives has told the European Commission that the EU's ban on the use of human use antibiotics as growth promoters in livestock feed may be illegal under international agreements.⁶⁷ The EU has since 2006 banned six major antibiotic growth promoters, leaving four for use.

An International Food Safety Agreement (rather than Trade Agreement) is needed – and each country needs to reverse its emphasis on increasing food imports.

Global trade has failed the hungry and malnourished

Global grain production per person has increased from 249kgs in 1950 to 311kgs in 2007⁶⁸ (with a spike of 342kgs in 1984, the year of the terrible famines in Africa). However, globally, the World Health Organisation estimates that there are a billion overweight people, 300 million of them obese⁶⁹, while the World Food Programme estimates that at least 800 million are chronically hungry due to poverty and lack of access to food.⁷⁰ The solution to hunger does not lie with a technical fix or with increased production and increased (unfair) trade in food: there is enough food to feed everyone⁷¹. Action is needed to change systems of production and distribution of food and to alleviate poverty, so ensuring that everyone can buy food.⁷²

Policies that improve access to food will include measures to set a revised minimum income linked to what is required for a decent standard of living and a good diet, to control and manage retail developments and to promote local food production.⁷³

Agrochemicals harm the health of the consumer and of those who work on the land

World food production relies heavily on use of artificial pesticides, insecticides, fungicides and herbicides to maximise production. Pesticide use has increased 50-fold since 1950 and 2.3 million tonnes of industrial pesticides are now used each year. Seventy-five percent of all pesticides in the world are used in developed countries, but use in developing countries is increasing.⁷⁴ As many of these pesticides are petroleum-based, with peak oil, climate change and what is now known about their side-effects, there are compelling reasons to look for better alternatives.

A 2007 FAO study has shown that - by diversifying and optimising farm productivity, reducing the need for purchased inputs and eventually increasing households' income - organic systems can contribute to hunger and poverty alleviation. The study cited models suggesting that organic agriculture has the potential to achieve a secure global food supply with reduced environmental impacts.^{75, 76}

The study's findings should be heeded by the IMF⁷⁷ and World Bank⁷⁸, who currently promote restructuring which relies on export-led, input-intensive farming for export.

Transport of live animals causes suffering and spreads disease

The export of live animals to the European continent and beyond adds to the likelihood of increasing spread of disease and exacerbates animal welfare problems through longer journey times and increased handling.

The figures are startling: in 2008 the UK exported 118,390 live pigs whilst importing 393,330 live pigs⁷⁹ (an almost doubling on 1998). Despite considerable public outcry at the practice, the UK also exported 654,141 live sheep in 1998, though it went down to 1,089 in 2007.⁸⁰

In one case two lorry loads of lambs on their way from Britain to Greece had been left baking in the sun for 48 hours. They had been "literally cooked alive" according to the inspector who investigated. Such illegal instances must be stamped out, but it is the food system itself, which relies on such trade, that is flawed in design and must be completely reformed.⁸¹

Live exports are supported through EU export subsidies (i.e. taxpayer's money). Export refunds of around £400 per animal are given to exporters of live cattle to 'compensate' for the higher EU prices – in 1996, half a million live cattle were exported. Intensive livestock production is enhanced by headage payments⁸² and exacerbated by quotas, which reward those producing at maximum yields with minimum costs.

There should be an immediate ban on the export of live animals. Supporting farmers in the transition to more humane and sustainable forms of agriculture must be a priority.⁸³

3. Farming communities in Britain

One of the biggest issues facing farmers in the UK today is the downward pressure on farmgate prices, combined with the current rise in international commodity prices and therefore production costs.

Many UK farmers now recognise the problem of possibly diseased legal or smuggled imports and resent the supermarkets' willingness to import rather than pay what they would consider fair prices.

In the UK, agriculture's share of national gross value added is expected to be about 0.5% in 2008, similar to that in 2007; agriculture's share of national employment was unchanged at just 1.7%.⁸⁴ Farm amalgamations lead to job losses and mechanisation has reduced on-farm employment. As workers left the countryside, other support services have declined; towards the end of the 1990s rural decline was becoming acute: 42% of rural parishes had no shop, 43% had no post office, 83% had no doctor, 49% had no school and 75% had no daily bus service.⁸⁵

In other countries also, as trade in food products increases and land is commandeered for industrial projects in developing countries, small and medium sized farms are disappearing.

Farmers often find themselves locked into selling food to the supermarket, simply because the collapsing wholesale market has left them with no choice. The supermarket can gradually reduce the price it pays until the farmer's business folds, whereupon it switches to a new supplier, who is less aware of the hidden cost of the relationship.

The big supermarket chains can limit the producer's options: in some cases manufacturers have been warned that if they also supply goods to the discount clubs, they will lose their trade with the superstore.⁸⁶ Despite claims of supporting the British farmers, superstores source overseas if they do not get the produce at the price they want here. Apple production in the UK has gone down from 263 thousand tonnes in 2007, from 332 thousand tonnes in 1967.⁸⁷

Conclusions

There is increasing concentration of economic and political power in the hands of agribusiness corporations and huge food retailers who think it more important to seek short term economic gain for a few instead of longer term sustainability for the majority.

Opposition to the current system is growing in many countries as consumers increasingly prefer food produced locally in ways that maximise animal welfare, adequately protect the environment and provide safe food, whilst giving a fair deal to local farmers and smaller producers. Some are changing their methods to provide for this new market and the substantial government assistance to intensive agriculture and export should be redirected.

The 2008 Cabinet Office report *Food Matters: Towards a Strategy for the 21st Century*⁸⁸ suggests that: "The local food consumers with food producers, providing new market opportunities for farmers and small-scale food manufacturers, strengthening social capital within communities, and providing a focus for local economic development."

Those in the food industry as well as politicians assert that the public wants cheap food and hope that most will not realise that they are making additional indirect payments to cover the expensive side effects of industrialised farming to human and environmental health: climate change, air and water pollution.

We face stark choices about the sort of future we are creating. Fundamental changes in the food system are needed, worldwide.

It is time to end an agricultural system which is recklessly destroying the livelihoods of many in the rural community, often in order to maximise export earnings for a privileged few and work. All countries should henceforth grow as much of their food as their climate and available land permits and make thoughtful and informed decisions about their own need for imported food. #

Appendix 1

Recommendations

- Reduced consumption of sugar would be beneficial in dental and obesity terms as well as increasing self-sufficiency.
- Lower consumption of certain livestock products would reduce coronary heart disease and cancer, conditions which are increasing in both the developed and developing world.⁸⁹ It would also lessen the demand for imported animal feed.
- Eat food when it is in season.
- Reduce our impact on other countries by increasing production for the domestic market. Pump-priming reinvestment⁹⁰ is needed to recover this capacity and retrain growers and workers in sustainable production methods.

Appendix 2

Our impact on other countries

In Brazil large scale, highly mechanised production of soyabeans has replaced small-scale production, destroyed rainforest areas and displaced thousands of rural communities.⁹¹ In 2007, Brazil exported 57 million metric tons of soy beans (up from 26 million metric tons in 1997).⁹² 37% of India's arable land has been diverted to grow crops to feed animals (beef, veal and buffalo) for the export trade⁹³, leading to massive topsoil erosion, fuel use and animal welfare problems. India's export of all meat has grown from 51,893 metric tonnes in 1980 to 306,244 metric tonnes in 2002, which includes a growth from under 3% to over 10% of beef and buffalo production from 1980-2002.⁹⁴

Research in The Netherlands⁹⁵ found that sourcing fresh peas locally required 9 megajoules/kilogramme, whereas when imported the energy consumption is 25 megajoules/kilogramme. The energy consumed when carrots are imported from Italy to Sweden could be halved if substituted by domestic carrots.⁹⁶ Kiwi fruit transported by freight carrier plane from New Zealand to Europe results in 5kg of CO₂ emissions per kilogram of fruit carried.⁹⁷ To import 1kg of asparagus from California to Europe requires four litres of fuel. A switch to domestic produce would require 900 times less fuel.⁹⁸

Appendix 3

Moving away from dependency on increasing transport and international trade

Suggested measures include:

- the encouragement of local production for local consumption: shorter food chains, more local abattoirs and local processing, measures to promote farmers' markets and direct buying schemes; develop regional sourcing co-operatives by farmers and retailers and provide economic disincentives for long distance food haulage;

- the development of national rural and food policies to enhance more local consumption patterns, reduce reliance on trade, support the rural environment and economy, promote shorter food chains, protect animal welfare, secure safe, healthy, affordable food and enhance (rather than damage) sustainable development around the world.
- work to reduce reliance on organic imports; Robin Harper, Green Member of the Scottish Parliament, proposed a bill setting a target for 20% of Scotland's farmland to be converted to organic production in the next 10 years⁹⁹ though it did adopt an Organic Action Plan in 2003¹⁰⁰. A similar initiative was launched in 1999 in England and Wales.¹⁰¹
- regulation of the retailing sector; the loss of independent retailers and wholesalers and increase in market share of the major food retail multiples has given rise to problems: suppliers are compelled to sell at whatever price to the multiples and having to comply with unfair standards and demands¹⁰² and there is a loss of food options for low income families¹⁰³; policies could include:
 - limiting market share through competition rules
 - government action to ensure farmers get a fair deal for their produce by implementing a strong, legally binding code of practice
 - promotion of the start up and survival of small-scale community-led retailing initiatives: food-buying co-operatives, community run shops, farmers' markets, school, college and community cooking clubs, transport to shop schemes and community cafes.¹⁰⁴
- improvement of the nation's diet by ensuring all sectors of society have access to healthy foods, encouraging better eating habits and cooking skills, adopting minimum nutritional standards for school meals and hospitals
- bans on live animal exports.
- movement away from large-scale, intensive systems
- prioritising of short supply routes and regional markets by introducing green taxes to internalise some of the environmental costs of damaging and unsustainable production methods
- encouragement of rural regeneration and employment.
- opting out of trade liberalisation rules such as the WTO's Agreement on Agriculture¹⁰⁵, which undermine sustainable agricultural practices and lead to a reduced capacity to meet national and local needs for employment and food security.
- adoption of policies which promote and protect food security and sovereignty, sustainable farming, humane farming practices and local food chains.

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