

Strategic Development Support and Business Plan for **Burnley Food Links**

The Local & Global Context

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Burnley Food Links – The Local and Global Context

Food Security Issues

Food security is a global issue, and according to the United Nations World Food Programme, almost 800 million people, or 16% of the developing world, are undernourished. (<http://www.wfp.org/english>). Hunger and malnutrition are the underlying cause of more than half of all child deaths, killing nearly 6 million children each year. This equates to around 16,000 children per day, or one child every five seconds. (State of Food Insecurity in the World 2005. Food and Agriculture Organisation of the United Nations. <http://www.fao.org/documents>)

The Food Futures strategy for Manchester states that,

“Many factors impact on food security: poverty, local availability of food, the nutritional value of the food consumed, the structure of the retail market and skill in food preparation, amongst other factors, all play a part.” (Cox, Food Futures: A Food Strategy for Manchester Draft: 23 August 2004)

Although the situation is much less extreme in the UK, than in the developing world, there are genuine food security issues which need to be dealt with on a local level. These include:

- Food deserts and lack of access to fresh foods
- Poor diets, cooking skills, and nutritional standards
- Dependence on supermarkets, and globalised food systems.

On top of this, there are a number of global drivers of change, which are creating additional strain on world food supplies, and which indicate that the cost of healthy eating may increase dramatically in the UK, over the next decade. These include:

- Climate change and greenhouse gas emissions
- Peak Oil – for the first time in history, global demand for oil is beginning to overtake the rate at which it can be supplied
- Population growth

Andy Jones, author of Eating Oil - Food Supply in a Changing Climate, writes that:

“The food system has become almost completely dependent on crude oil. This means that food supplies are vulnerable to increases in petroleum prices or any shortfall in oil supplies, as demonstrated during the fuel protests in the UK in 2000. Food distribution is also a major contributor to climate change and other forms of pollution. The environment and society cannot continue to bear the costs. We need to invest, now, in regional and local food systems combined with fair trade initiatives that will bring about a more secure, sustainable and fair food system.” (http://www.sustainweb.org/chain_fm_eat.asp)

Climate Change and Greenhouse Gas Emissions

The burning of fossil fuels, including oil, on which our food systems depend, produces greenhouse gasses, which are triggering climate change, and will impact on agriculture and food security across the globe.

The impact on crop yields and productivity will vary considerably. Added heat stress, shifting monsoons, and drier soils may reduce yields as much as a third in the tropics and subtropics, where crops are already near their maximum heat tolerance. Mid-continental areas such as the US grain belt, vast sections of mid-latitude Asia, sub-Saharan Africa and parts of Australia are all expected to experience drier and hotter conditions. (Climate Change Information Kit - Agriculture and Food Security. Published by UNEP and UNFCCC)

There have been rapid changes worldwide in food systems associated with urbanisation, and the dominance of supermarket chains. These may radically alter the relationship between food production and food security, with lifestyles and preferences driving consumption and demand with countries such as India and China, already showing trends towards a western style diet with increased consumption of meat. Adapting to climate change may be as much to do with improving infrastructures for food distribution as with changing agricultural practices. (Food crops in a changing climate: report of a Royal Society Discussion Meeting held in April 2005)

The Kyoto Protocol is an international agreement on fighting climate change. It became law on Feb 16th 2005. The UK has to keep greenhouse gas releases to 12.5% below 1990 levels between 2008 and 2012. This implies radical changes, in terms of how food is produced, and distributed in the UK.

Peak Oil

For the first time in history, global demand for oil is beginning to overtake the rate at which it can be supplied. Oil geologist Colin Campbell writes that Peak Oil,

“ ... will be characterised by a decline in the supply of oil, and all that depends upon it, including ... the end of economics as presently understood. It is to be an unprecedented discontinuity of historic proportions, as never before has a resource as critical as oil become scarce without sight of a better substitute. All countries and all communities face the consequences of this new situation.” (Permaculture Magazine No.46 Winter 2005)

The effect of Peak Oil is predicted to result in rapidly escalating prices, which will seriously affect the cost of foodstuffs, especially those that are imported, and carry high 'food miles'. On the other hand, within this changing economic climate, local, and organically grown foodstuffs will become increasingly competitive.

Diminishing oil supplies, and the subsequent demand for energy crops, will create additional competition for agriculturally productive land. The European Union wants 2% of the oil we use to be biodiesel by the end of 2006, rising to 6% by 2010 and 20% by 2020. Increasing pressures such as this will affect global food supplies, and local food security. (Monbiot. Feeding Cars, Not People. <http://www.monbiot.com/archives/2004/11/23/feeding-cars-not-people>)

Local Solutions

A recent report from the United Nations Population Division indicates that the world's population is expected to rise from the current 6.5 billion to 9.1 billion by 2050 (http://news.bbc.co.uk/2/hi/in_depth/4297169.stm).

In a world that is already struggling to feed itself, the combined effects of rising populations and increased stress on agricultural crops through climate change, can only result in increased competition for food resources. This combined with the high price rises on imported food, resulting from peaking oil supplies, will result in higher degrees of food insecurity at the local level.

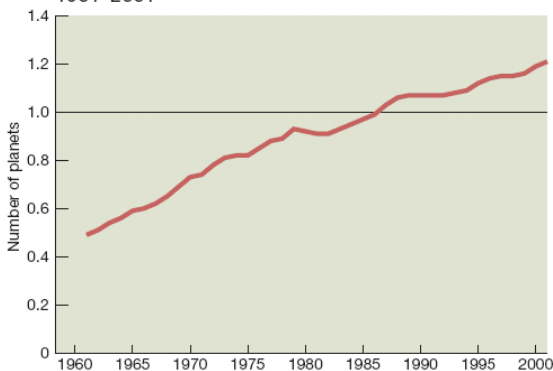
Energy expert Paul Mobbs reports that the UK can only expect to provide around 40% of its current energy needs from renewable sources, and that in order to become sustainable, we must reduce our energy demand by 60%. (Energy Beyond Oil).

Increasing local production of food will therefore improve food security, through making it more affordable, plus it will save energy and decrease climate change, through reducing food miles, and related greenhouse gas emissions.

Ecological Footprint, an indicator of sustainability

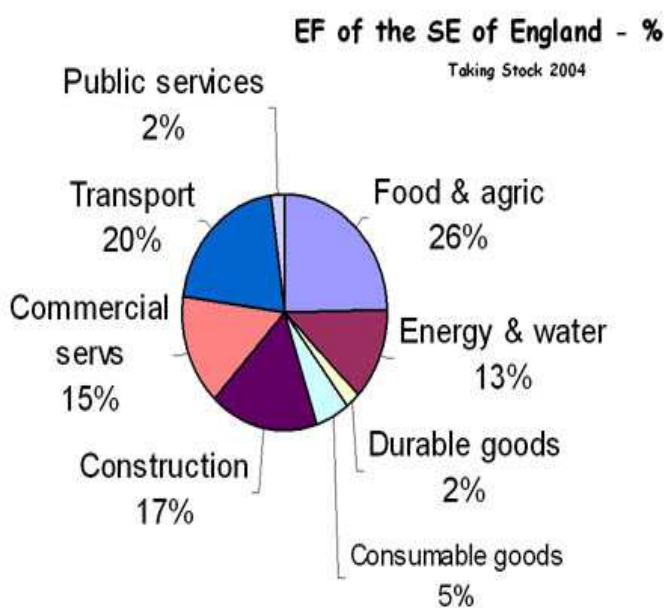
The Ecological Footprint (EF) is a measure of environmental sustainability, and weighs humanity's past and present demand on the Earth's natural resources. Between 1961 and 2001, humanity's EF grew to exceed the Earth's biological carrying capacity by 20 per cent. (Living Planet Report 2004, World Wide Fund For Nature)

Fig. 2: HUMANITY'S ECOLOGICAL FOOTPRINT, 1961-2001



The graph illustrates that 1.2 planets are required, to sustain human activity, at the current rate of consumption of natural resources. Since we obviously have only one planet, humanity is currently unsustainable. If the global EF was One Planet or less, then we would be consuming natural resources at a rate, that was within the ability of the planet to replenish. Since however, we are consuming resources more quickly than the planet can renew them, we are effectively eating into the Earth's 'natural capital'. To use a financial analogy, we are failing to make ends meet, and are living off our savings.

EF varies across regions, according to factors such as climate, lifestyles, and infrastructure. In the UK the average person has an EF of around 3 planets. In other words, if everybody in the world consumed natural resources at the same rate as the typical UK citizen, we would require three planets in order for our activities to be sustainable.



Research conducted in the South East of England indicates that approximately 26% of the EF of an individual from that region is attributable to food and agriculture. (<http://www.takingstock.org>).

It can be assumed from the pie chart, that the supply of food creates a greater EF impact than any other activity for the average person in the UK.

To reduce the overall EF in the UK to one planet, and thus make the country sustainable, food and agriculture must be a priority. The EF of food in the UK can be reduced through creating local markets for local produce. This will reduce food miles dramatically, and the impact therefore of feeding the population.