

Local Food and Sustainable Development

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Introduction

Despite the fact that agriculture is the most extensive use of land in the country and the town and country planning system is statutorily engaged in the use and development of land, it is remarkable how little attention is being paid to the role that the planning system could play in influencing food production, processing and distribution.

Although the NPPF introduced the presumption in favour of sustainable development there is no indication that this would involve greater attention being paid to food production. Paragraph 28 *Supporting a prosperous rural economy* makes only the very brief reference to agriculture; to "promote the development and diversification of agricultural and other land-based rural businesses;". There is apparently greater concern and more advice on, 109. *Conserving and enhancing the natural environment*, including relevant advice on the use of poorer quality land and increasing biodiversity. Paragraph 55 repeats long-standing advice in respect of avoiding isolated homes in the countryside in the absence of special circumstances, one being, the "essential need for a rural worker to live permanently at or near their place of work in the countryside".

Whilst it would reasonably be expected for development plans to have policies in respect of the above matters, there does not appear to be any expectation that local or neighbourhood plans would go further, and plan positively for the development of local food systems. However, when such matters as the carbon footprint of the food supply chain, the difficulty experienced by new farmers in finding access to affordable land and suitable housing (giving rise to applications for dwellings in isolated locations) and the potential for local employment in growing, processing and the distribution of food, it would be surprising if local and neighbourhood plans remain silent on these important issues. It is relatively easy to see that support for local food systems should be an important if not essential part of the sustainable development of rural areas, contributing to significant environmental, social and economic aspects to village life. In these circumstances such policies would not only be an important part in contributing to the achievement of sustainable development (a basic condition of neighbourhood planning) but, the absence of such policies could be seen to be a failure to be adequately supporting sustainable development.

There are many different aspects to the impact of the food supply chain, many of which would not be directly influenced through policies in a development plan. However, there are also many such impacts where the way in which local food systems are developed could be seen to have important impacts on local land use, employment and housing. The very substantial proportion of food that is currently imported means that the methods of production of most of the food consumed in this country are not readily under the control of the consumers (other than accreditation systems such as Fair Trade). However, import substitution can be one of the objectives of policies aimed to support local food together with the assistance needed to enable production to have low environmental impacts. An incidental but important benefit of import substitution is increasing food security.

Environmental impact

There are widely differing estimates of the carbon emissions attributable to food and agriculture. The Committee on Climate Change estimates that British agriculture is responsible for about 10% of its carbon emissions (http://www.theccc.org.uk/wp-content/uploads/2013/12/1785b-CCC_TechRep_Singles_Chap6_1.pdf).

A report for the United Nations Conference on Trade and Development (http://unctad.org/en/docs/osgdp20111_en.pdf) has estimated the global carbon emissions from agricultural to be between 13 and 15%, but, "...this figure is confined to direct GHG emissions at production level, not including production of agricultural inputs and fixed capital equipment, processing and trade of agricultural products (in GHG inventory reports, these emissions appear under energy supply, industries and transport)". The figure also aggregates some very low carbon producing systems in developing countries with high input farming in developed countries such as Britain. There are further complications in the cost attributable to storage of certain products which increases emissions to the extent that dairy, lamb and even apples imported from New Zealand can be calculated to have lower carbon footprints than home-grown products. The UNCTAD report suggests the, "...reasons why agriculture has remained relatively marginal within the climate-change negotiations are the variation in agro-ecosystems and farming methods, the large number of farmers that would need to be involved, and the difficulties related to monitoring, reporting and verification of GHG emissions and removals (it needs to be shown that GHG emission reductions are real, additional, verifiable and permanent; for more information, see Kasterine and Vanzetti, 2010)".

Most reports, when they discuss the share of global GHGs between industries, tend to focus solely on the agricultural production process itself and the GHGs therein – the US Environmental Protection Agency, for example, puts it at 14%, the IPCC at 10-12%, the OECD at 14%, and the WRI at 14.9% (an average of 11-15%) , However there is an authoritative report which puts the figure much higher, at between 44% and 57%. Grain (2011), *Food and Climate Change: The Forgotten Link*, p.4. See: <http://www.grain.org/article/entries/4357-food-and-climate-change-the-forgotten-link>

Ulrich Hoffman, Head of Trade and Sustainable Development at the UN Conference on Trade and Development spoke at the 2013 Oxford Climate Forum and suggested that about 50% of global GHG emissions could be attributed to the food system and subsequently referred to the GRAIN report that explains that estimate. *Assuring food security in developing countries under the challenges of climate change: key trade and development issues of a fundamental transformation of agriculture*

http://unctad.org/en/Docs/osgdp20111_en.pdf

The Soil Association took up the challenge of reducing domestic GHG emissions by 11% by 2020 (<http://www.soilassociation.org/LinkClick.aspx?fileticket=n0PxE5uQnh8%3d&tabid=2076>) as an interim contribution towards the 80% reduction which will be required by 2050. Effective reductions in both the short and longer term will be more readily available to small-scale farming (variously described as agro-ecology, permaculture and agroforestry) involving many organic techniques than to large-scale high input farming.

Although there is disagreement about the total GHG footprint of the food supply chain, this arises more from the factors that are included in the various estimates than in the calculations of the emissions themselves. For the purposes of the NDP it would be sensible to identify those elements of small scale local food supply, processing and distribution that would impact on and hopefully reduce GHG emissions.

Large scale industrial farming relies on substantial manufactured products with high embedded carbon. The nitrogen fertilisers also release shorter lived GHGs into the atmosphere. There are very significant transport costs associated with both the inputs and the food products. As the food supply system in this country is one of the most efficient logistical operations (including HGVs restricted to 50 or 55mph), there are cases where the share of the carbon attributable to individual products from this large scale operation is quite small. Small scale local growers would have to have a very local market for a meaningful reduction in carbon simply from the distribution of food to be achieved. However, it is just this type of very localised distribution which characterises the growing number of Community Supported Agriculture enterprises and very small carbon footprints can be achieved. More to the point, GHG reductions from the food sector will have to be achieved in order to meet the official carbon budgets and the small scale growing on the edge of the village has the greater potential for achieving these reductions than the industrial scale farming currently operating in this area most of which will not be influenced by a local or neighbourhood plan.

Another important environmental impact is the level of bio-diversity. The countryside within the NDP area carries evidence of stewardship schemes with uncultivated land around the edges and money might have been spent on planting and hedgerow management. However, agro-forestry and agro-ecological methods can demonstrate far greater levels of bio-diversity. European Network of Scientists for Social and Environmental Responsibility (ENSSER) are aware of the global and local impacts and the potential of agro-ecology.

Social impacts

The 200 people in the village who answered the village survey by saying that they would be interested in growing food locally on a smallholding ie more land than an allotment, represents about 10% of the adult population. This would appear to be a very substantial preference that the NDP should support in any way that would be appropriate for a statutory development plan. The cost of land and the availability and affordability of suitable housing are major obstacles being faced by anybody wanting to realize this ambition. This is a problem of some national concern as the average age of farmers exceeds 60years, earnings from small scale growing would not make buying (or renting) property in this area financially viable, and the cost of agricultural land is being influenced by investment (much of it from abroad) that is tenuously if at all related to the value of potential food crops. The affordability of housing only became a material consideration following a court judgement in 1992 since when it has become a significant theme in national guidance and local development plans. The planning system is just as capable of securing affordable land and suitable housing through the use of planning obligations attached to new housing developments but would probably require the support of properly evidenced policies in local and/or neighbourhood plans to do so.

By including the 'smallholding question' in the village survey and responding to the popular demand with supportive policies in the NDP, the PC would be sending out a public signal that it is engaged in this matter. Any small scale rural enterprise would be welcome, but

one that reflects the wishes of about 10% of the adult residents could have significant impact on building community. Of course the reverse could also be true if this popular demand were to be simply ignored with no attempt to use the NDP as an opportunity to contribute in this way to the achievement of sustainable development. Community supported agriculture has followed many different models, but all seek to bring together the producers and the consumers in a variety of ways that have social as well as economic benefits. Research has shown that being able to trust the source of food has become one of the main reasons for the support of CSAs.

CSAs can also include opportunities to train young people in horticultural skills (including aspects of running a business), provide opportunities for volunteering, and formal apprenticeships. There are also CSAs providing access to the land for disabled people.

Economic impact

Clearly smallholdings or market gardens are a form of 'rural enterprise' supported by the NPPF, but of a kind that are very unlikely to materialize without positive intervention from the planning system. This support should be provided on the basis that local employment would be created in growing food, supporting operations in supplying and maintaining plant and equipment, food processing (adding value to agricultural products) and distribution (local outlets, market stalls of local food outlets).

Local food production, processing and distribution, would add variety and 'resilience' to the local food supply, a term often being substituted for 'sustainability'. There are varying estimates of how the productivity of agro-ecological means of production compares with industrial methods. It can be said that the output from any small-holding would exceed that from the many pony paddocks around the village perimeter. There are also case studies that show smallholdings (including protective cropping) can be very productive indeed and a calculation based on about 50sq m being sufficient to feed one person would make the village theoretically self-sufficient in food (obviously the need for variety would imply imports and trade) were about 30 acres converted to agro-ecological holdings. On the experience of CSAs that 1 acre could fill 25 vegetable boxes closer to 40 acres would be required. All such calculations would depend on the reliance on grains and meat but it would seem to be a reasonable objective to secure sufficient smallholding land to produce vegetables for the village even if much of this would be sold into the wider area.

It is not possible to estimate whether locally produced food would be any cheaper than that bought in shops in the village of Abingdon/Oxford. In fact it is very likely that some food products will be available at lower prices in the large supermarkets due to their economies of scale and food produced by industrial methods where not all environmental and social costs (including animal welfare) are factored in. Working on the balance of probabilities, smallholdings established around the village would be capable of producing food at affordable prices and could also reduce the unsustainable level of waste in the food supply chain that can approach 50%. This would be achieved through a combination of factors including reduced packaging and increased composting. Small scale of anaerobic digesters for managing waste and producing electricity could become more available during the 15 year plan period.

Summary

There are many elements to growing local food that are relevant to the operation of the planning system (ie material considerations) and to the achievement of sustainable

development. In producing an NDP it is essential to identify those elements which would contribute to both sustainable development and can be secured through plan-making and decision-taking (NPPF para 14). This is necessary in order to follow the golden thread in the NPPF and to meet a basic condition of the making of NDPs. Local plans must also support these matters as there is a statutory requirement to contribute to the achievement of sustainable development applies.

Growing local food has the potential (not obviously available to industrial scale agriculture) to reduce the GHGs from the food supply chain. Biodiversity could be enhanced. Local employment would be created as well as opportunities for volunteering, education and caring. The material cycle could be closed, thereby reducing the level of waste in the food system.

Whilst there might be many personal reasons why people might not be able to realize their expressed interest in smallholding (on either a full or part time basis) one of the most most important roles to be played by development plans is to ensure that the planning system does not obstruct the public interest. Due to the failure to positively plan for local food planners are often involved in resisting applications for residential holdings in the open countryside where land is more available and affordable. In fact facilitating access to affordable and suitable land and housing is a matter that could and should be addressed in development plans in such a way that they can be seen to be contributing to the public interest and to the achievement of sustainable development.