

# Submission to the Environmental Audit Committee Inquiry into Sustainable Food

March 2011



## Summary

- Food production, processing, packaging, transport and consumption patterns have direct impacts on the environment and climate change.
- Big decisions are needed by Government and food companies to bring food production and consumption into harmony with the needs of the planet and a healthy population.
- There is no present shortage of food, and by addressing food chain waste and overconsumption there should be no shortages in 2050.
- Agriculture is a major contributor to climate change, but if managed correctly can assist greatly in pulling human consumption back into a favourable balance with the long-term needs of the planet over the next few decades.
- Agroecological methods of farming need to be adopted in order to reduce reliance on non-renewable resources and restore ecosystems and biodiversity while simultaneously producing a wholesome and balanced diet.
- A significant shift is needed in emphasis and allocation of UK agricultural research and development funding from genetics/genetic modification to agroecology and traditional plant breeding.
- Management of all organic waste and effluents should be a major priority to ensure that plant nutrients are returned to the soil without polluting.
- Fisheries policies must end over-exploitation of some species and adopt measures to ensure that other species don't follow the same pattern.
- The model of intensive aquaculture and livestock production needs to be dropped in favour of extensive grass and vegetable fed systems to end reliance on imports of soya and maize from countries where production is highly destructive and detracts from food sovereignty there.
- Farming as an occupation needs to be made attractive to young people, who require access to land and support to develop viable businesses.
- The imbalance of economic power in the food chain in favour of retail, agricultural input and commodities companies should be redressed to favour farmers and consumers.
- Government at all levels can stimulate the market for agroecological food production through procurement policies.
- There should be an immediate moratorium on the sale of county council smallholdings and the development of a strategy to open up land to young entrants through schemes such as share farming and community supported agriculture.
- Government must ensure that embryonic agroecological-based food businesses have access to capital at affordable rates to ensure the required agricultural revolution is not strangled at birth.
- Localism can play an important part in enabling development, allowing strong local agroecological food supply businesses to grow and encouraging links with all neighbouring communities including nearby those in cities.

## GM Freeze

1. GM Freeze is an alliance of 24 organisations calling for a moratorium on GM foods, the growing of GM crops for any purpose and on patents on genetic resources in agriculture, food production and forestry until the need for and safety of GM technology has been established and alternative approaches have been fully evaluated.

2. Our members include consumer groups, farming organisations, environmental groups, development agencies, religious groups, animal welfare groups and food companies.

## Introduction

3. Planning sustainable food production has to be based on the widest possible definition of

sustainability so that environmental, health, social, economic, cultural and political issues are all considered. In recent years UK Governments have placed strong emphasis on the need for “science based” decision making in the regulation of food production and food safety, no more so than in the approval of GM crops for import or cultivation.

4. However, it is hard to think of any development in food production in the last 60 years that has been based entirely on science alone, and all have involved social, economic, political and cultural factors to some degree, in addition to scientific analysis. For instance the decisions made about feeding cattle brains back to cattle in the 1980s was heavily influenced by cost cutting rather than following a purely scientific approach and application of the precautionary principle. The BSE epidemic was eventually brought under control by the application of science and political decisions influenced by public reaction.

5. Although science has and will play a vital role in developing a sustainable food chain, scientific analysis can prove to be unreliable and lead to unsafe decisions. This is often because insufficient data are available, or have been wrongly interpreted, or new information has become available but is ignored, or simply because understanding develops over time. Many once common active ingredients of pesticides have been banned because new information came to light that was often available at the time of approvals but was missed (for instance the approvals of dieldrin and other organochlorine insecticides failed to pick up the impact on top predators in the food chain, and those for organophosphates failed to detect the health impacts of low-level exposure on farm workers). In more recent times, the widespread use of glyphosate on genetically modified herbicide tolerant crops has highlighted many possible direct and indirect impacts on health, biodiversity and the soil that were not picked up by regulators relying on limited data<sup>1</sup>.

6. Science is also influenced by the outside world, in particular who is funding the research, and this can introduce bias into analysis (for instance the overstating of potential of a GM trait). There are also many different approaches to science (for instance, reductionist and holistic), and these can influence the outcomes of scientific processes (for instance, in how the precautionary principle is applied when there is scientific uncertainty).

7. We will now deal with the specific questions raised by the Committee.

***How can the environmental and climate change impacts of the food we choose to eat best be reduced? What are the land-use trade-offs that affect food production and supply and how should these be managed?***

8. The environmental and climate change impacts of food are substantial and can be influenced by a numbers of factors, including:

1. Methods of production used.
2. Degree of processing of food.
3. Distance raw materials and processed food are transported.
4. Amount packaging.
5. Length time food is stored.
6. Wastage along the supply chain.
7. Methods employed to manage wastage.
8. Impacts on biodiversity in agriculture, the agroecosystems and other neighbouring habitats.
9. Type of diet consumed.

9. To reduce the environmental and climate change impacts each area must be addressed systematically, and all together in an integrated way. The recent Green Economy Report by UNEP<sup>2</sup> showed that 4600 kcal of food is produced for every person on the planet, but only 2000 kcal per person are actually was available to people because of wastage. In addition, there is huge

<sup>1</sup> PANAP, 2009. Glyphosate [www.panap.net/sites/default/files/monograph\\_glyphosate.pdf](http://www.panap.net/sites/default/files/monograph_glyphosate.pdf)

<sup>2</sup> UNEP, 2011. Green Economy Report. Agriculture Investing in natural capital. [www.unep.org/greeneconomy/Portals/88/documents/ger/GER\\_2\\_Agriculture.pdf](http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_2_Agriculture.pdf)

difference in consumption between the rich and the poor, which currently results in 925 million undernourished people<sup>3</sup>, and 1,500 million overweight/obese<sup>4</sup> adults over 20 years needs to be addressed. It is therefore far more logical to address how to reduce losses and distribution of calories than to attempt to squeeze more production out of argoecosystems already under great stress from current bad agricultural practices.

10. The IAASTD report of 2009 concluded that “business as usual” in agriculture was “not an option”. IAASTD<sup>5</sup>, De Schutter<sup>6</sup> and UNEP<sup>7</sup> all say the way forward is to adopt agroecological methods and to place far greater importance on the involvement of farmers in R&D and extension (especially women). These reports present an extensive body of evidence that farming using local natural resources to build fertility in soils could more than double yields and buffer the soils and farming communities against climate change, as well as enhancing water resources, marine ecosystems and biodiversity.

11. Application of the proximity principle to global food production enables unavoidable waste to be efficiently returned to the land, reduces food miles and enables strong links to be forged between farmers and consumers, if it is based on providing top quality fresh food at a price that is fair to all along the supply chain.

### ***How can the Government help to deliver healthy food sustainably, whilst also delivering affordable food for all?***

12. Past Governments have repeatedly made the mistake of substituting cheap food for healthy food, and we are now seeing the consequences. Cheap food has been possible in the past by adopting methods of production that result in environmental harm, poor animal welfare standards and in poor quality, low nutrition, highly processed food. Cheap fossil fuel and a head-in-the-sand attitude by farmers’ representatives to issues such as resource depletion and the impact that will have on input prices have encouraged farmers down an unsustainable path. The IAASTD report made it clear that this has to change if we are to restore ecosystems and combat climate change in the next 40 years. It is therefore essential that Government agricultural policy supports healthy and sustainably-produced food, and that people’s ability to pay for food is also dealt with through employment and social policies rather than continuing subsidise production of unhealthy foods.

13. There are clear roles for Government at all levels to provide good quality education on nutrition, food preparation and cooking, as well as the impacts of intensive food production and distribution on the environment. They can also do much to stimulate vibrant agroecological-based food production in the UK through public procurement policies, practices and waste management strategies.

14. Finally Government has a role in developing financial institutions to enable agroecological-based enterprises to access loans. The Green Investment Bank may fill this need once the details become clearer, but there may also be a need to provide structures through which people could invest in local food businesses more directly, such as a business-orientated local credit union. This could be potentially more transparent about where money was being invested to encourage people to support local sustainable enterprises.

### ***How can consumers best be helped to make more sustainable choices about food?***

15. As we have indicated above the cheap food culture developed in the UK during the second half of the 20<sup>th</sup> Century and the marketing of food by the major retailers places great emphasis on the cost, rather than the quality, of food. “Buy one get one free”, loss leaders and promotions too often

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<sup>3</sup> Ibid

<sup>4</sup> WHO, 2011, Fact Sheet 311 Obesity and over weight. [www.who.int/mediacentre/factsheets/fs311/en/index.html](http://www.who.int/mediacentre/factsheets/fs311/en/index.html)

<sup>5</sup> International Assessment of Agricultural Knowledge, Science and Technology for Development, Agriculture at a Crossroads . Synthesis Report. A Synthesis of the Global and Sub-Global IAASTD Reports.

[www.agassessment.org/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads\\_Synthesis%20Report%20\(English\).pdf](http://www.agassessment.org/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20(English).pdf)

<sup>6</sup> De Shutter O. 2011, Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development. Report submitted by the Special Rapporteur on the right to

food, Olivier De Schutter [www.srfood.org/images/stories/pdf/officialreports/20110308\\_a-hrc-16-49\\_agroecology\\_en.pdf](http://www.srfood.org/images/stories/pdf/officialreports/20110308_a-hrc-16-49_agroecology_en.pdf)

<sup>7</sup> UNEP, 2011. Op cit.

focus on processed foods (in which the ingredients can be drawn from all over the planet) instead of whole foods or fresh produce. Very little information on origins and methods of production are provided from retailers either on pack or at the point of sale (for instance someone buying a ready-made chicken curry will be offered very little information on where and how the chicken was produced and what it was fed, so they are unable to make informed choices). Some companies do emphasise where they source food and ingredients for their own marketing purposes, but this often does not allow people to make choices based on sustainability. For instance, a consumer buying a pint of non-organic milk will have no idea whether the dairy cows which produced it were fed GM soya from Argentina, where its production is driving habitat destruction and seriously degrading the quality of life in rural areas due to excessive use of agro chemicals and the displacement of mixed family farms with soy plantations<sup>8</sup>.

16. Consumers need clearer information about the origins of their food from retailers and manufacturers to allow them the option to make decisions based on sustainability.

17. Government needs to make policy and regulatory decisions that strongly push production toward agroecology and to ensure that labels on packs provide information on where and how the product was produced.

***Which aspects of the food production and supply chain are presenting the biggest problems for the sustainability of the food industry?***

18. There are many aspects of the production of the food we consume that need to be addressed if it is not to continue to harm the very ecosystems and natural resources upon which we depend for that nourishment. To achieve such a revolution Government, farmers and industry will need to be bold and willing to invest time and money for the long-term. Consumers will need to support such changes. Fortunately the success of farmers' markets, box schemes and farm shops suggests that some members of the public and some farmers are ahead of politicians and many businesses in the food chain. There is also strong support for high-welfare standards for farm animals and firm opposition to the introduction of new technologies deemed to be unnecessary, such as GM crops<sup>9</sup> and cloning of farm animals<sup>10</sup>.

19. The following aspects of the food chain stand out as requiring urgent attention:

- Reliance on imported animal feed (principally soya and maize) produced in unsustainable monocultures heavily reliant on non-renewable resources for fertility and pest control.
- Heavy reliance on intensive production of meat, dairy and eggs with enormous environmental footprints across the world.
- Adjusting the balance in research funding, which is currently weighted towards genetics/GM research as opposed to other branches of agricultural sciences necessary to facilitate a transformation to agroecology.
- Lack of UK-based research and development for agroecological methods, including key disciplines such as basic agronomy, entomology, mycology, soil science and traditional plant breeding.
- Lack of UK-wide extension services, which could promote and train people in agroecological methods.
- Lack of clear targets for reducing industrial fertiliser and pesticide use on farms.
- Lack of training to enable people to meet industrial pesticide and fertiliser reduction objectives.
- Poor management of organic wastes on farm, resulting in losses of nitrogen to the air and in run off.
- Poor integration of organic waste management (including sewage sludge) to ensure that the nutrients and organic matter they contain are returned to the soil.

<sup>8</sup> Friends of the Earth, 2008. Hoofprints: Livestock and its environmental footprint. [www.foe.co.uk/resource/briefings/hoofprints.pdf](http://www.foe.co.uk/resource/briefings/hoofprints.pdf)

<sup>9</sup> Summary of 2009 opinion survey by GkF/NOP for Friends of the Earth [www.gmfreeze.org/page.asp?ID=436&iType=1083](http://www.gmfreeze.org/page.asp?ID=436&iType=1083)

<sup>10</sup> See *Which?* Survey 2008 [www.which.co.uk/about-which/press/press-releases/campaign-press-releases/food-and-health/2008/07/which-food-cloning-statement/](http://www.which.co.uk/about-which/press/press-releases/campaign-press-releases/food-and-health/2008/07/which-food-cloning-statement/)

- Failure to capture important plant nutrients, principally nitrogen and phosphorus, in sewage effluent and return them to the soil.
- Food waste, which occurs at every stage of the supply chain – every effort should be made to minimise it and to ensure that unavoidable waste is managed sustainably to produce animal feed, biofuel and compost.
- The continued loss of small and family farmers around the world, and with them generations of knowledge, largely due to the imbalance in market power which prevents farmers getting a fair return on their labour.
- Poor access to land for people wishing to start an agroecological-based food production enterprise due to, for instance, the sale of county council smallholdings and high prices that restrict options for entrants.
- Serious imbalance in market power in the food chain in favour of retailers and commodity suppliers, which has removed profits from many farms around the world and is a very strong disincentive to young entrants into agriculture.
- Failure to care for soil to ensure it is capable of absorbing and holding moisture, is stable, does not erode and provides a healthy environment for plant roots.
- Over-emphasis on annual arable crops as opposed to perennial food crops and agro-forestry approaches.
- Lack of long rotations, including courses when livestock can be introduced to build fertility or act as a crop break to control pests, weed and diseases.
- Over-reliance on imported fruit and vegetables to the detriment of UK producers at a time when UK-based growers should be supplying produce to help meet Government healthy eating targets.
- Over-exploitation of global fish stocks and over emphasis on intensive aquaculture based on high-protein feeds to the neglect of other extensive system using vegetarian fish such as carp.

***How might the changing powers of local authorities and the localism agenda hinder, or be used to encourage, more sustainable production and supply of food?***

20. There are a number of initiatives local authorities could undertake to make food more sustainable in their area, including:

- Procurement for schools and institutions from local agroecological producers.
- A moratorium on the sell-off of council owned small holdings.
- Support establishment of training in agroecological methods.
- Establishment of local clearing houses for landowners interested in share farming.
- Help and advice to establish farm shops, run farmers' markets and community supported agriculture schemes.
- Strategic planning with all landowners to establish wildlife corridors between farms, public land and into settlements.
- Landscaping schemes to specifically target pollinating insects by providing sources of nectar and pollen from spring through to autumn.
- Work with land owners to maximise the carbon capture and ecological potential of flood alleviate and defence schemes.
- Promote regional food and encourage people to use it.
- Promote local food businesses using locally-sourced food.
- Promote minimal packaging and maximum recycling to businesses and consumers.
- Encourage companies to re-design packaging to allow easy re-use and recycling.

The localism agenda needs to address:

- Making it easier to access land for growing and to allow rural businesses to grow by allowing appropriate development for storage and processing and affordable accommodation for owners and employees.
- Promotion of the local economy emphasising the multiplier effect of buying locally-produced food.
- Looking favourably on planning consent for renewable energy such as wind, hydro, anaerobic digestion and solar PV and water.

- Looking favourably on applications for highly energy efficient buildings, even though they may stand out at present.
- Looking favourably on applications for retail outlets and processing plants in favourable locations to maximise sales from sustainable food businesses.
- Opposing further expansion of the major retail chains.
- Developing educational and business links between rural food businesses and local city suburbs.

***How could Government procurement practices be improved to promote better practice across the food sector?***

21. There are many areas where procurement could be improved to support sustainable food production. Contracts could specify a check list including areas like:

- Proximity – buy as close to the point of consumption as possible.
- Fair trade – ensure the price paid enables farmers to be profitable.
- Prioritise agroecological producers by asking suppliers for evidence of their credential in this area or encourage them to expand in this direction.
- Encourage catering establishments in the public sector to source direct from producers.