

Appendix 17

The Woodland Trust's view on food security and land use in the UK

Introduction

The United Nations Food and Agriculture Organization (UNFAO) defines food security as... "when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"¹.

World population is expected to grow from the current 6.6 billion to over 9 billion some time after 2050². The World Bank expects global food demand will double by 2030, mainly coming from increasing demand in developing economies³.

Impacts of climate change on global food production

Worryingly, the Intergovernmental Panel on Climate Change (IPCC) forecasts a decline in global food production⁴. Any rise in productivity as a result of increased carbon dioxide (CO²) levels is in most cases confounded by limiting factors, including changing rainfall patterns, loss of water supply for irrigation, increased pest and pathogen outbreaks, greater fire risk and increasing levels of ground level ozone.

Greater frequency of extreme weather events such as storms, flooding and droughts are likely to increase the uncertainty of food production, and lead to years in which there is serious global undersupply.

In addition, the switch to increasing use of biofuels, part of mitigation measures in response to climate change, is reducing the area available for agriculture. Recent increases in food prices in many parts of the world are blamed in part on biofuel production⁵.

Food security – what does it mean and what affects it?

There is a great deal of public debate about the concept of food security and the assumption that this means increasing UK food production. It is our view and that of many others, that food security should be not be thought of simply as increasing national food self sufficiency⁶ even though in recent decades the UK's self-sufficiency ratio has fallen to around 60%, as a result of the globalisation of world food trade. Food security encompasses a robust and responsive domestic food industry, as well as reliable food imports, and food distribution systems.

Modern agriculture is dependent on oil, not just a fuel source but in the production of pesticides and fertilisers, and in processing, packaging and distribution of food. Oil represents about 43% of the world's energy use, but dominates transport, with over 96% of transport fuel coming from oil⁷. Food security in the UK is strongly associated with issues around energy security, illustrated dramatically when supermarket food stocks began to run out after just one week of the fuel tanker driver strikes in 2000. In our view in the medium to long term the greatest risks to food security are likely to result from issues around oil supply and climate change.

Waste in the food chain also has a major impact on both food security and Greenhouse (GHG) emissions. The UK currently wastes a third of all food bought for home consumption⁸. Improved understanding of the impacts of waste through all parts of food production, processing, distribution and consumption, could increase food self-reliance and reduce GHG emissions.

A package of measures to address food security should consider:

- Identifying issues relating to energy supply, particularly oil
- Mitigating and adapting to the impacts of climate change
- Robust supply and distribution chains
- Reducing food waste
- Dietary change
- Where appropriate increasing self-sufficiency

Implications for UK land use of increasing agricultural production

The Woodland Trust supports the need for a thriving viable and sustainable agriculture industry in the UK which is able to support the need for national food security. Food and agricultural commodities are an important part of a trading system of which we have a long history. We believe that a steady expansion of woodland cover is entirely compatible with this objective.

Productive agriculture relies on a stable and thriving ecosystem to provide the services for planned production - clean and plentiful water, pollinating insects and a balance between crop pests and their predators, healthy soils, clean air etc - and to provide the genetic resources for future development.

Food, whilst clearly immediately critical to life, is not the only element of a liveable environment. Adapting to climate change will require resilient systems able to support a human population. This includes ensuring adequate and clean water, biodiverse systems able to support agriculture in the long term, timber and other forest commodities, cities with adequate shade, shelter and resilience against flooding, as well as cultural values associated with the natural environment, including woods and forests.

The total land area of the UK is 24,251,000 ha. Around 73% of this is agricultural land and 11.65% woodland. The average rate of woodland creation between 2002 - 2007 averaged 11,440 ha per annum of which around 9000 ha per annum was broadleaved woodland⁹. The Woodland Trust has an aspiration to create 1000 ha of new woodland each year. This compares to the 600,000 ha of land taken out of compulsory set aside this year¹⁰.

Woodland and other natural habitats and resources should not be seen as luxuries to be balanced against the needs of people, but rather as vital in securing them; they are essential and parallel.

This includes an increase in the area of new woodland in the UK:

- As part of the development of habitat networks for biodiversity conservation,
- To help mitigate and adapt to climate change, in particular in water management
- To adapt towns and cities to changing climate and weather patterns
- To provide the resources we need, including the provision of bioenergy.

Summary

It seems likely that as a result of changing climate and a growing world population there will be increased pressure on land in the UK and globally to provide necessary resources, including food, for human needs.

Food security will require the development of robust systems for production and distribution. Such systems can only develop if the natural environment is thriving and resilient. Conservation of UK

woodland and the creation of new woodland is part of a range of actions needed to ensure the natural environment can support human needs including clean water, adaptation to climate change, food production and other natural resources.

¹ <http://www.fao.org/DOCREP/005/Y4671E/y4671e06.htm>

² http://en.wikipedia.org/wiki/World_population

³ <http://news.bbc.co.uk/2/hi/science/nature/7347239.stm>

⁴ http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

⁵ Guardian online, 'Global food crisis looms as climate change and fuel shortages bite', John Vidal, downloaded at: <http://www.guardian.co.uk/environment/2007/nov/03/food.climatechange>

⁶ Defra (2006) Food security and the UK: an evidence and analysis paper.

⁷ <http://www.worldwatch.org/node/4079>

⁸ <http://www.telegraph.co.uk/money/main.jhtml?xml=/money/2008/07/08/ccfood108.xml>

⁹ Forestry Commission, Woodland Area, Planting and Restocking,
<http://www.forestry.gov.uk/website/forstats2007.nsf/LUContents/85B7930FCDF6E38180257361004E063F>

¹⁰ <http://www.naturalengland.org.uk/press/releases2007/260907.htm>