



Food Security – UK Policy

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- Food security for the UK in peacetime has only recently been a subject of concern. Until 2008, the Labour Government justified financial support for farming as a means of obtaining environmental objectives. Even before the election in 2010, however, increasing concern over food security has encouraged renewed emphasis upon food production.
 - A related note is [Food Miles](#) (SN/SC/4984)
 - British Governments have resisted the view that food security concerns should be met by increased subsidy for domestic – or indeed European – agriculture. Instead they have argued for freer international trade.
 - However, the British Government has paid increasing attention to the role of domestic food production.
 - Several reports have argued that food security problems would return unless appropriate action was taken.
 - Food security is closely related to energy security and to the availability of fertilisers.
 - The Foresight Report, January 2011 stresses the enormous scale of the problem.

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1 Could food security be a problem for the UK?

For centuries, UK peacetime food supply has been taken for granted, mainly because of the ease of importing. Agricultural policy, both in the UK and the EU, has moved away from subsidy of food production to payment for environmental benefits. However, concerns have increased in recent years, especially in 2008, when world food prices rose sharply. They increased by nearly two thirds between January 2007 and June 2008.¹ This was related to a dramatic increase in oil prices. Brent crude oil prices more than doubled from less than \$60 per barrel in January 2007 to a peak of almost \$150 per barrel in early July 2008.

Fuel price rises increased production, transport and fertiliser costs. Some poor countries suffered severe problems in affording enough for people to eat. Even in the UK, food prices increased sharply. Some people blamed legislation in the EU and USA encouraging the growing of crops for biofuels, rather than for food. A further concern was that Eastern countries were increasing the amount of meat and dairy products in their diet, thus increasing international demand.²

The idea that the market will always operate also came under scrutiny. Some Asian rice producers suspended rice exports in 2008. The failure of the Doha Round of world trade talks increased the probability of bilateral deals and market protection.

Yet in the latter part of 2008, the problem appeared to go away again. The world oil price fell, with Brent crude oil prices below \$50 a barrel by the end of 2008. Food prices (FAO data) fell by 32% between June and December 2008. Attention concentrated upon the worsening financial crisis.

However, food policy issues concern the much longer term and the problems of 2008 might return. For a start, oil prices have increased again and are likely to increase further because of depletion of world supplies. Not only does that increase farmers' fuel costs but it also raises fertiliser prices. In addition, climate change is almost certain to make food production more difficult. Although some cold northern areas should have a longer growing season, larger food production areas will become less efficient at food production through being too hot. The exceptionally hot summer of 2003 caused a decline of around 20% in European agricultural productivity.³ There are further potential problems through uncertain water supplies – floods in some areas and drought in others.

¹ FAO, Food Price Indices, February 2009

² "Food costs set to leap as East looks West for meat and milk", *Times*, 29 August 2007

³ Ciais et al, "Europe-wide reduction in primary productivity caused by the heat and drought in 2003", *Nature*, Vol 437, 22 September 2005 pp529-533

Indeed, climate change may already be affecting some major agricultural producers like Australia, where extreme temperatures may be undermining a major world supplier of wheat. A poor Australian wheat crop in turn reduces world stocks and means that other countries cannot rely upon being able to buy large amounts of wheat at low prices.

The question of whether food security is increased by subsidising domestic agriculture is a difficult one. The French Government is happy to use food security and recent high world prices as arguments for maintaining the Common Agricultural Policy.⁴ The UK Labour Government took the opposite approach, favouring open world markets. They argued, amongst other things, that food supply from domestic sources could be interrupted, for example by disease or extreme weather. World food supplies were not normally affected by such factors. The UK was a rich country that can afford to buy on the open market. The following paragraph summed up the UK Labour Government position:

5.4. The UK believes that effectively functioning markets are fundamental to ensuring global food security. The Government is committed to continuing to liberalise markets through the Doha Development Round of trade negotiations and reform of the EU's Common Agricultural Policy.⁵

In 2010, some concerns over food prices have returned after Russia banned the export of wheat as a result of a severe drought in August. The effect on the world's wheat market soon increased the UK inflation rate.

2 Chief Government Scientist warns the world faces a perfect storm

The Chief Government Scientific Adviser Sir John Beddington has made several speeches arguing that the world faces a "perfect storm" of food shortages, scarce water and insufficient energy resources that would threaten to unleash public unrest, cross-border conflicts and mass migration as people flee from the worst-affected regions.⁶ The warning has been repeated several times, including in January 2011, where he argued strongly for the growing of GM crops:

"A number of very important factors are about to change our world," said Beddington, an expert in population biology. "Its population is rising by six million every month and will reach a total of around 9,000 million by 2050. At the same time, it is estimated that by 2030 more than 60% of the population will be living in cities and will no longer be involved in growing crops or raising domestic animals. And on top of that the world's population is getting more prosperous and able to pay for more food."

Beddington said these factors indicated that the world was going to need 40% more food, 30% more water and 50% more energy by the middle of the century – at a time when climate change was starting to have serious environmental impacts on the planet, flooding coastal plains, spreading deserts and raising temperatures. "We could cut down tropical rain forests and plant crops on the savannahs to grow more food, but that would leave us even more vulnerable to the impact of global warming and climate change. We needed these regions to help absorb carbon dioxide emissions, after all."

Beddington said humanity had to face the fact that every means to improve food production should now be employed, including widespread use of new biotechnological techniques in farming. He stressed that no harm should be inflicted on humans or the

⁴ "Sarkozy sets out vision of "new" CAP", *Agra Europe*, 14 September 2007

⁵ Defra, [Ensuring the UK's Food Security in a Changing World](#), July 2008

⁶ "World faces 'perfect storm' of problems by 2030, chief scientist to warn", *Guardian*, 18 March 2009

environment. His remarks were made in advance of publication tomorrow of a major report, "The Future of Food and Farming". (...)

Timing was crucial. "In 2008 food prices rocketed to their highest level for decades. People said it was just a one-off, but last year what happened? Wheat prices saw their fastest ever increase. The era of declining food prices is over and we have to face that," he added.

Almost a billion people now suffer serious food shortages and face starvation. "It is unimaginable that in the next 10 to 20 years that there will not be a worsening of that problem unless we take action now, and we have to include the widest possible range of solutions."⁷

3 Food Stocks and the Government, September 2010

A PQ in September 2010 showed the Coalition Government continuing a similar policy to that of the Labour Government:

Dan Byles: To ask the Secretary of State for Environment, Food and Rural Affairs what contribution her Department has made to the Strategic Defence and Security Review in respect of UK food security.

Mr Paice: I can confirm that DEFRA has contributed to work on the Strategic Defence and Security Review with regard to food supply, and other areas of departmental responsibility.

Dan Byles: To ask the Secretary of State for Environment, Food and Rural Affairs (1) what estimate she has made of the minimum number of days supply of food required for the UK to maintain an acceptable level of food security;

(2) how many days supply of food are routinely stored within the UK.

Mr Paice: We do not hold information on the total food held in the country. However in the 2008-09 marketing year (the latest actual figures available), the UK cereal closing stocks at 30 June 2009 were 4.169 million tonnes of cereals, representing around 73 days of consumption for that year. For the year ending 30 June 2010, forecast estimates equate to around 67 days. The average of cereal stocks held between 2003-04 and 2007-08 were typically equivalent to 50 to 55 days worth of consumption.

We work closely with the food industries on food supply chain resilience, and in 2009 DEFRA published a comprehensive assessment of UK Food Security (updated in January 2010) which shows that the UK enjoys a high level of food security. The assessment analyses a wide range of indicators (including on cereal stocks as mentioned above) and evidence for assessing UK food security structured around six themes:

global availability;

global resource sustainability;

UK availability and access;

UK food chain resilience;

food security at household level; and

⁷ "Genetically modified crops are the key to human survival, says UK's chief scientist", *Observer*, 23 January 2011

safety and confidence in our food supply.

It remains one of DEFRA's priorities to ensure a secure, environmentally sustainable and healthy supply of food in the face of future challenges.

4 Foresight Report, January 2011 on scale of worldwide problem

In January 2011, Foresight reported on [The Future of Food and Farming: Challenges and choices for global sustainability](#). The following page from the Executive Summary gives an idea of the seriousness of the problem:

Introduction

Project aim: to explore the pressures on the global food system between now and 2050 and identify the decisions that policy makers need to take today, and in the years ahead, to ensure that a global population rising to nine billion or more can be fed sustainably and equitably.

The global food system will experience an unprecedented confluence of pressures over the next 40 years. On the demand side, global population size will increase from nearly seven billion today to eight billion by 2030, and probably to over nine billion by 2050; many people are likely to be wealthier, creating demand for a more varied, high-quality diet requiring additional resources to produce. On the production side, competition for land, water and energy will intensify, while the effects of climate change will become increasingly apparent. The need to reduce greenhouse gas emissions and adapt to a changing climate will become imperative. Over this period globalisation will continue, exposing the food system to novel economic and political pressures. Any one of these pressures ('drivers of change') would present substantial challenges to food security; together they constitute a major threat that requires a strategic reappraisal of how the world is fed. Overall, the Project has identified and analysed five key challenges for the future. Addressing these in a pragmatic way that promotes resilience to shocks and future uncertainties will be vital if major stresses to the food system are to be anticipated and managed.

The five challenges, outlined further in Sections 4 – 8, are:

- A. Balancing future demand and supply sustainably – to ensure that food supplies are affordable.
- B. Ensuring that there is adequate stability in food supplies – and protecting the most vulnerable from the volatility that does occur.
- C. Achieving global access to food and ending hunger. This recognises that producing enough food in the world so that everyone can potentially be fed is not the same thing as ensuring food security for all.
- D. Managing the contribution of the food system to the mitigation of climate change.
- E. Maintaining biodiversity and ecosystem services while feeding the world.

These last two challenges recognise that food production already dominates much of the global land surface and water bodies, and has a major impact on all the Earth's environmental systems.

In recognising the need for urgent action to address these future challenges, policy-makers should not lose sight of major failings in the food system that exist today.

Although there has been marked volatility in food prices over the last two years, the food system continues to provide plentiful and affordable food for the majority of the world's population. Yet it is failing in two major ways which demand decisive action:

- **Hunger remains widespread.** 925 million people experience hunger: they lack access to sufficient of the major macronutrients (carbohydrates, fats and protein). Perhaps another billion are thought to suffer from 'hidden hunger', in which important micronutrients (such as vitamins and minerals) are missing from their diet, with consequent risks of physical and mental impairment. In contrast, a billion people are substantially over-consuming, spawning a new public health epidemic involving chronic conditions such as type 2 diabetes and cardiovascular disease. Much of the responsibility for these three billion people having suboptimal diets lies within the global food system.
- **Many systems of food production are unsustainable.** Without change, the global food system will continue to degrade the environment and compromise the world's capacity to produce food in the future, as well as contributing to climate change and the destruction of biodiversity. There are widespread problems with soil loss due to erosion, loss of soil fertility, salination and other forms of degradation; rates of water extraction for irrigation are exceeding rates of replenishment in many places; over-fishing is a widespread concern; and there is heavy reliance on fossil fuel-derived energy for synthesis of nitrogen fertilisers and pesticides. In addition, food production systems frequently emit significant quantities of greenhouse gases and release other pollutants that accumulate in the environment. In view of the current failings in the food system and the considerable challenges ahead, this Report argues for decisive action that needs to take place now.⁸

5 Will we be able to feed an increased population?

A PQ in 2012 stated the Government's position in relation to population growth:

Zac Goldsmith: To ask the Secretary of State for Environment, Food and Rural Affairs what long-term assessment she has made of the prospects for UK food security in 2050 arising from the upper and lower limits of the Office for National Statistics' projected population range for 2050.

Mr Paice: The Office for National Statistics produce population projections for the UK based on a set of demographic assumptions. Their principal projection for the UK in 2050 is 78.4 million. Population projections become increasingly uncertain the further they are carried forward and the long-term figures should be treated with great caution.

Our food security depends on access to the world market; and our domestic food industry needs to be able to compete on the world stage. In a world where climate instability can disrupt patterns of production, food security cannot be delivered from a narrow, self-interested, national protectionist stance, or by recommending self-sufficiency.

Earlier this year the Government's chief scientist, Sir John Beddington, published a Foresight report into the Future of Food and Farming which looked at the challenges today and in the future. It explored how we can feed a global population of 9 billion by 2050 healthily and sustainably and identified hunger and environmental degradation as

⁸ Foresight, [The Future of Food and Farming: Challenges and choices for global sustainability](#), Executive Summary, 24 January 2011

the key problems we face. The Foresight world population figures are derived from United Nations projections.

As an immediate response to the report, DEFRA have signed up to a Foresight Action Plan which will include:

championing an integrated approach to food security;

pressing for integration of agricultural GHGs into UNFCCC process;

taking forward Nagoya work on international biodiversity;

promoting the importance of sustainable intensification;

pressing for trade liberalisation and CAP/CFP reform;

showcasing what can be achieved on food waste reduction within the UK and share best practice; and

increasing the productivity and competitiveness of UK food and farming and ensure that agriculture and the food sector can contribute fully to the green economy.⁹

⁹ HC Deb 6 December 2011 cc274-5W