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Introduction

The Green Food Project online forum was set up to gather views from members of the public and interested parties on the future of food production and the environment in England, to feed into the development of the conclusions of the Green Food Project.

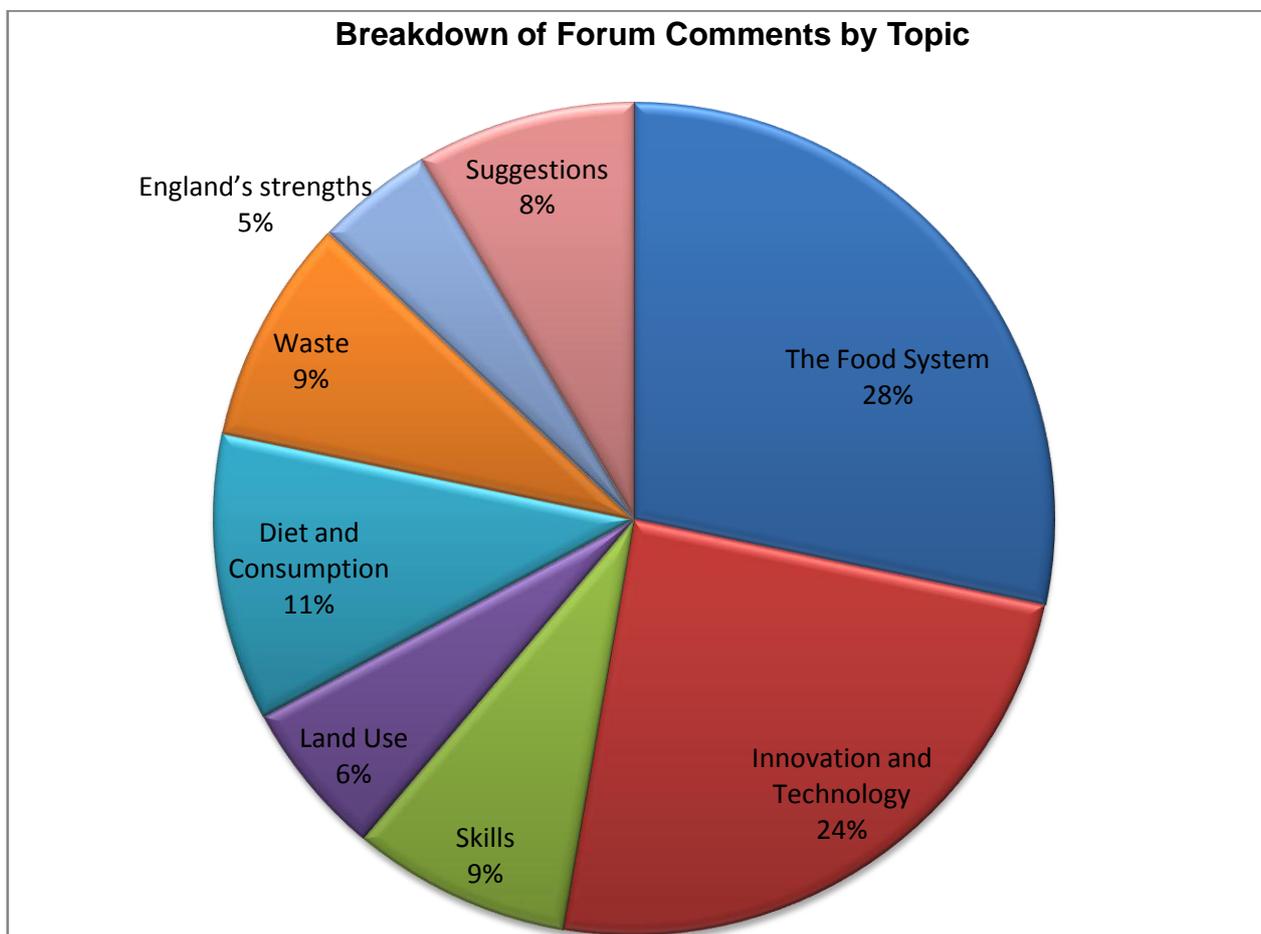
The online forum was designed as an accessible way for people to share their views and get involved at an early stage of the project.

The forum ran from the 21st February 2012 to 31st May 2012, hosted on the Defra website at <http://engage.defra.gov.uk/green-food/>.

The forum was advertised through stakeholder organisations and partners of the Green Food Project and on the Defra website and twitter account.

The forum received over 8000 visits, 332 approved comments and 2 longer responses provided to the project team separately.

This report provides a synthesis of some of the issues raised on each of the forum pages and does not reflect the views of Green Food Project Steering Group members.



1. The Food System

1.1 The question we asked was ‘*Can the existing UK food system meet the challenge of increasing food production and improving the environment over the next 30 to 40 years? If not, what changes would need to be made?*’

1.2 The broad consensus was that the existing UK food system would not be able to meet the challenge of increasing food production and improving the environment over the next 30 to 40 years in its current form, and that changes were needed to UK consumption patterns, production practices and supply structures, as well as needing to address waste and education. A number of respondents were supportive of UK farmers and the role they play in producing food and caring for the environment.

1.3 There was some considerable support for a view expressed by an early responder, that the challenge can be met but “*only if the general populace shift their expectations as food would need to be more local, more seasonal and with less emphasis on meat*”.

1.4 Meat and dairy production and consumption was debated; specifically discussions on the difference between livestock predominately fed on grass, versus livestock fed on grain or by products; the benefits of different types of farming working together (e.g. crops and livestock) to make the best use of resources and land; and the price of food and the influence this has on peoples diets both now and in the future with particular emphasis on the amount of meat, dairy and fresh vegetables people consume.

1.5 Some of the comments supported a greater emphasis on organic production as a way to improve the environment whilst producing food. These comments focussed on the importance of healthy soil as well as the sustainable? use of other resources.

1.6 Other comments suggested that a more holistic approach to food production and supply chains should be taken, tackling a variety of problems in different ways. This should involve consideration of the whole lifecycle of a product, including where it is produced, the resources required to produce, transport, store, consume and dispose of it, as well as its nutritional content.

1.7 Increasing production of fruit and vegetables was raised as a way to provide environmental and health benefits.

1.8 The loss of land from agriculture was raised as a risk over longer timescales, and aquaculture was suggested as one way to produce food efficiently without using more land. Other risks raised included the decline of bee populations and the importance of their role as pollinators, and the impact of climate change and water scarcity.

1.9 Other responses suggested there needed to be a greater diversity of models for food production such as community agriculture, care farming and greater support for new entrants.

1.10 Ownership of land was raised as an issue, as well as the need for support for different scales of production (large/ small farms). Better education about food production and the need for greater food literacy were also raised as important.

1.11 Many comments noted the need to reduce food waste throughout the system.

2. Innovation and Technology

2.1 The question we asked was *'Producing more, from less is likely to require smarter science, new technologies and creative approaches. What are some good examples of this in action, and how can investment help to make progress in the future?'*

2.2 The opportunities presented by urban and peri-urban agriculture were explored, citing examples such as community supported agriculture, planting fruit and nut trees in public spaces, green roofs, permaculture and hydroponics. Barriers identified to these kind of approaches included planning, lack of financial support and lack of recognition by institutions that might provide support.

2.3 Aquaculture in conjunction with renewable energy schemes were raised as potential means of providing food efficiently, and the potential of insects as a source of protein was raised.

2.4 The role of genetically modified organisms was debated at length. Themes raised included;

- Resistance of target pests and diseases
- The risk of unintended consequences
- Potential yield increases
- Resilience to climatic changes and extreme weather conditions
- Rapid development of new varieties compared to conventional breeding
- Intellectual property and ownership of technology
- The approvals system for new products

2.5 Tracking environmental performance (water use, energy etc) across buildings used by Government and other public sector organisations, and linking this to incentives, was suggested as a good idea.

2.6 Other technological solutions suggested included developing in vitro meat, microprotein, better resource use through GPS, precision farming and Biochar (charcoal used as a soil amendment).

2.7 The importance of knowledge and skills to make the best use of existing technology was noted as crucial to raising performance in the farming industry, though it was noted that performance and needs are influenced by the type of land being farmed.

2.8 Methods of distributing and exchanging knowledge, innovation and technology were also discussed, with friends, peers, community food enterprises and farmer cooperatives identified as the trusted messengers most likely to inspire behaviour change.

2.9 Support was expressed for the Technology Strategy Board, Defra Link projects, and for partnership working between industry, government and non-governmental organisations.

2.10 The importance of soils was also discussed, with specific mention of the need to;

- Raise soil organic matter
- Maximise soil quality
- Increase understanding and uptake of rotation and minimum tillage systems
- Minimise soil erosion

2.11 Areas for investment included research and development for the fresh produce industry and experimental husbandry farms.

2.12 Conservation and use of crop wild relatives, and development of alternative crops such as Lupins was also recognised as important.

2.13 A greater focus on total utilisation of products in agri-food industries was suggested, for example directing the by-products of agriculture to feed livestock, or create energy.

3. Skills

3.1 The question we asked was *'how do we make sure we have a steady supply of skilled and entrepreneurial people entering careers in the agricultural, food manufacturing and environmental fields to make sure we are equipped for the future?'*

3.2 The most common messages within the comments received were that there needs to be;

- a greater focus on food and agriculture at all levels of the educational system
- clearer routes for people from non-farming backgrounds, at all stages in their career, to be able to enter the agricultural industry
- better promotion of the career opportunities available in the agri-food sector and financial rewards in these careers that provide incentives to the best students

3.3 Suggested changes to the educational system included more options for vocational training, a review of the biology A-level curriculum, academic courses focusing on land related issues and courses for specific practical skills such as stockmanship. Other suggestions included integrating food production into different aspects of the curriculum in primary and secondary schools, and supporting the development of agricultural and environmental departments in top universities.

3.4 Creating opportunities for people to enter the agriculture sector were noted as important given the rising average age of farmers in the UK. Barriers to entry into the agricultural industry raised included difficulties with access to land, a lack of affordable housing, a lack of clarity on the opportunities for training, and a shortage of institutions that specialise in agricultural education and training.

3.5 Changes to visa restrictions for overseas students were noted as a barrier to foreign students studying at agricultural colleges in the UK, resulting in reduced opportunities for the sharing of knowledge and experience between individuals and agricultural communities from around the world.

3.6 The proposed abolition of the Agricultural Wages Board was also raised as an issue because of its role in rewarding skills development in agricultural workers and the link to pay.

4. Land Use

4.1 We asked the following question. *‘A number of important results – food production, climate change mitigation, renewable energy, biodiversity, natural resource protection and so on – depends on decisions we make about land. How should we manage and use land so we can achieve all these results? What are good ways of achieving consensus on land management and use?’*

4.2 Encouraging land use to have multiple benefits was recognised as increasingly important as resources come under pressure. Further pressure from increasing population in the future was also raised.

4.3 Several responses noted the need to agree long term strategic priorities for different areas of land, either through a single body or better communication between bodies.

4.4 The variety of services that land needs to provide was raised, with recognition that land managers should be rewarded for the maintenance and improvement of the ecosystem services they provide, as well as the food they produce.

4.5 Analysis of the ecosystem services provided by land and agriculture was identified as a way to create a framework for decision making to help with planning, development, and policy making.

4.6 Many of the comments received discussed planning and land ownership, and ways that local decisions and community structures could help to support food production. The “Transition” movement was given as an example of a model that is considering possible future economies at a local level.

5. Diet and Consumption

5.1 The question we asked was, *'the food we eat affects both our health and the environment. How can we encourage people to eat a diet that is balanced and sustainable?'*

5.2 As with the first question, there was discussion over the amount of meat and vegetables that people eat and how changing consumption patterns in this area could have benefits for health and the environment.

5.3 The role of Government and retailers in encouraging behaviour change and facilitating consumer choice was discussed. Comments noted that consumers would like to enter a shop and know that the options on offer are ethically produced. This can be achieved by higher minimum standards.

5.4 Education on how to grow, cook and eat food was identified as a tool to reduce food waste and increase understanding of how to eat a healthy and sustainable diet.

5.5 Fish, shellfish and algae were identified as efficient and nutritious sources of food that use minimal amounts of land, freshwater and energy. Meat substitutes were also suggested as an area of opportunity.

5.6 The amount of sugar and salt consumed was raised as an issue for health and transparency in food manufacturing.

5.7 Supporting local food networks was identified as a way to decrease the transportation costs of food. Reconnecting people and food, both physically and through people's knowledge and awareness of food production, was seen as a major issue that is yet to be resolved.

5.8 The cost of food was discussed, with several responses suggesting that there should be a way to alter the pricing of food so that unprocessed and sustainably produced food is cheaper than alternative products. Tax and subsidy systems and legislation restricting promotion of 'fast food' were also considered, with examples of initiatives in California and Denmark given.

6. Waste

6.1 The question we asked was *'We waste 15 million tonnes of food, worth £17bn, in the UK every year. How can we tackle this across the whole food chain?'*

6.2 Many of the responses to this question covered three areas:

- Education, for example uses for leftovers, conserving food and food labels such as 'use by' and 'best before' dates, so that consumers separate concepts of food quality and food safety.

- Perception of waste as a resource and the benefits of viewing the agri-food system as a closed loop; a food cycle rather than a food chain
- Innovation that reduces packaging, extends the life of products or allows better monitoring of the food in the fridge and therefore helps people to buy what they need (for example by linking barcodes, checkout receipts and refrigerators to smart phone technology)

6.3 Redistribution of unsold food from shops and restaurants was identified as a way to tackle waste, as well as support for waste utilisation through community composting schemes and anaerobic digestion.

6.4 Feeding food waste to livestock was debated, focussing on food safety issues.

7. England's Strengths

7.1 The question we asked was *'Where are England's key strengths in food production and where do we lead the way on environmental protection? Where might we have untapped potential that we could develop over the next 30 to 40 years?'*

7.2 Many of the comments suggested that agriculture was a key strength for the UK, and that British food was of high quality and produced with good animal welfare and concern for the environment. Responses highlighted the skill of farmers and food producers, the varied climate, landscape and ecosystems of the UK and the knowledge of older generations on how to grow and use food efficiently.

7.3 Aquaculture was also identified as a strength for the UK, with opportunities for growth and improvement of the sector.

7.4 Local specialities, produce and markets were recognised as areas the UK can take pride in, and where there may be opportunities to develop local and regional food economies further. 'Making Local Food Work' was given as an example of a successful initiative, having supported over 1,300 community food enterprises across England, securing employment for around 5,000 people and increasing awareness of local food for over 3 million people.

7.5 It was noted that the UK was the birth place of the international cooperative movement and has a tradition of consumer and farmer co-operatives; both were seen as strengths that could have growing importance in the future.

7.6 Production of fresh fruit and vegetables was raised as being both important for the UK and a sector where there could be further growth.

7.7 Finally, the National Ecosystem Assessment was identified as a ground-breaking study of ecosystem value and trends. Building on this foundation, and drawing on the underlying strengths of long-term environmental data collection in the UK was seen as a major opportunity to support the development of exemplar practices and policies.

8. Suggestions

8.1 Finally, we asked *'What have we not covered here that you would like the Green Food Project to consider?'*

8.2 The majority of comments in this section covered subjects raised elsewhere in the forum, either providing more context or detail on previous comments.

8.3 In addition, 'Fair trade' for UK farmers to ensure they earn a living wage was identified as important, and a 'Fairer British' mark suggested that could indicate to consumers that farmers had received a fair price for their produce.

8.4 The complexity and interaction between food production and climate change was noted as important.

8.5 The role of the Common Agricultural Policy and how it may be reformed was also discussed.

8.5 Food security was raised, with a call for investment into basic research to ensure the UK is able to respond effectively to the food and economic security threat posed by livestock disease.

8.6 The energy required to produce nitrogen through the Haber process, and the resource requirements of agriculture were discussed, as well as how prices might change in the future.

8.7 Finally, support was expressed for the Farming and Wildlife Advisory Group.

The Green Food Project Steering Group would like to thank those that participated in the Green Food Project online forum. The comments have been used to help shape the conclusions of the Green Food Project, and have also been fed back to the Steering Group organisations.