WWF for a living planet

WWF-UK Policy Position Statement on *Food*

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WWF-UK policy position statement on food

PURPOSE

This paper sets out WWF-UK's position on food, focusing on the issues prioritised in our One Planet Food Strategy, with additional consideration of wider food sustainability issues. The paper focuses on the global environmental implications of food consumed in the UK, taking into account the rising proportion of food we eat that originates from other countries. We believe that our approach, alongside work on other food sustainability issues being carried out by organisations such as Sustain, Wrap and Food Matters, will be able to create a more sustainable food system for the UK.

How the agricultural system works, what we eat, where we shop, what we throw away and where our food comes from are all becoming increasingly important as we aim to move towards more sustainable lifestyles. There is a growing consciousness of the need to balance the environmental, nutritional, social and economic requirements of the food system, and in doing so we can tackle climate change, rising obesity and malnutrition, and help people living in poverty move towards sustainable livelihoods.

WWF-UK POSITION

Through our One Planet Food Strategy we aim to: reduce greenhouse gas emissions from the food economy by 70% by 2050[1]; eliminate unsustainable impacts on water; and change trading patterns and governance structures so that UK food is making a net positive contribution to WWF Priority Places, such as the Amazon.

This position is based on the following conclusions:

- The world food economy directly accounts for around a third of global greenhouse gas (GHG) emissions.[2] These emissions contribute to climate change, one of the greatest threats to global ecosystems and biodiversity;
- rising demand for agricultural land and livestock production is a major cause of habitat loss and degradation;
- worldwide food production accounts for 38% of the ice free land surface;[3]
- over 70% of freshwater abstracted for human use is for irrigation.[4] The food system is therefore a major contributor to water scarcity in certain regions, giving rise to negative consequences for the natural environment and human populations;
- the UK has 1% of the world's population but accounts for 2% of the world food system.[5]

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[1] Although WWF-UK is calling for total reductions in global greenhouse gas emissions of 80% by 2050 current trends indicate that some sectors need to decrease by more than others and some are easier to target (i.e. services) than others. Recent scientific evidence suggests that a 70% target is more realistic within the food sector although WWF will be undertaking more research to look at this.

[2] Garnett, T (2008) "Cooking up a storm – Food, greenhouse gas emissions and our changing climate" http://www.fcrn.org.uk/frcnPubs/publications/PDFs/CuaS_web.pdf

[3] Food and Agriculture Organization (June 2006). "Food and Agriculture Statistics Global Outlook." Rome: FAO Statistics Division

[4] UNESCO –WWAP 2003

[5] Based on analysis of FAO data

WWF-UK is directly working in a variety of areas connected to food. These are meat and dairy, GHG emissions, palm oil, soy, sugarcane, seafood, aquaculture, public procurement, water and diet. The key recommendations to address these issues are:

- Stakeholders in the UK food system should commit to cut GHG emissions from the food supply chain by 25% by 2020 and 70% by 2050;
- UK Government, business and industry and consumers should commit to a target of 15-20% reduction in meat and dairy consumption by 2020;
- UK companies using palm oil should make public commitments to only using Roundtable on Sustainable Palm Oil certified products by 2015 at the latest;
- UK companies using soy should join the Roundtable on Responsible Soy and commit to sourcing only RTRS soy when it is available;
- major UK companies using sugarcane should join the Better Sugarcane Initiative and commit to sourcing only sustainable sugar;
- retailers should source 100% of seafood from MSC certified fisheries and join the seafood procurement charter;
- retailers should demand that all farmed fish they sell be fed on sustainable feeds;
- all government departments should source 100% sustainable food by 2012;
- retailers in the UK should start reducing their supply chain Water Footprint impacts and their associated business risk by encouraging higher standards of water efficiency in production, by engaging with efforts to improve management of water resources in places from which they source "thirsty" products, or – as a last resort – by sourcing from regions in which pressure on water resources and freshwater ecosystems is less acute;
- UK Government should lead on defining and moving towards a sustainable diet; and
- Defra should create a road map to move the UK food system towards a more holistic, inclusive system in line with Omni-standards.[6]

BACKGROUND

Producing food to feed the ever increasing world population (forecast to reach 9 billion by 2050[7]) has consequences that include the increased pollution of water, soil and air, the loss of wildlife habitat, soil degradation and pressure on freshwater resources. To deliver our vision for a sustainable One Planet Future, reduce global greenhouse gas emissions by 80% by 2050 (based on 1990 levels) and stop the underlying causes of the escalating rate of species decline and degradation of our key priority places, we have to reduce the environmental impact of food and reduce it fast.

Food production and consumption has a strong social dimension which we must consider to ensure the developments we foster contribute to human well-being. The primary consideration is the reality of global poverty. Increasing variety in diet is the first step to improving living standards of the world's poor. If livestock product consumption in developing economies rose to half of the level of UK consumption today, the global demand for livestock products would double by 2050.[8] Given our

[6] As advocated by Professor Lang at City University, these are standards that define and assess a sustainable food system and cover quality, social justice, environment and health.
[7] UN http://www.un.org/apps/news/story.asp?NewsID=13451&Cr=population&Cr1
[8] Food and Agriculture Organisation of the United Nations (FAO), 2006

reliance on global trade in animal feedstuffs and some livestock products, for reasons of global equity alone, there is a need to address the pattern of food consumption in developed economies such as the UK.

Food accounts directly for about one third of global GHG emissions. In the case of the UK, the food chain is directly responsible for about 17% of the UK economy's GHG emissions. About half of these emissions come from production (farming and fishing) dominated by nitrous oxide from soil and methane from cattle, sheep and manure. Precious resources are used for growing crops and raising livestock, as well as for processing, packaging, and distributing food and in travelling to shops to buy the food we eat. There are also significant indirect effects particularly through land use change. Land use change, dominated by deforestation, is the cause of about 18% of global GHG emissions and is very closely connected to agriculture – almost all deforested land is used in agriculture of one form or another.[9] The UK food economy is linked to deforestation in the Amazon, Borneo, New Guinea and Choco Darien in South America. When deforestation is considered, the world food economy is linked directly or indirectly to more than a third of global man-made GHG emissions.

All these environmental challenges exist against a background of increasing global demand for food. Global meat consumption has increased by 75 per cent in 20 years and the Food and Agriculture Organisation of the United Nations (FAO) predicts that between 2001 and 2050, global meat and milk consumption will approximately double[6]. To meet this, global crop output will need to double. This can only be achieved by either increased production efficiency or expansion of the agricultural area. This would mean further loss of forest or wetland, or expansion in irrigation.

UK food commodity consumption increased by 15% between 1990 and 2005 while UK self-sufficiency in food fell from 70% to 60%. Imports increased by 51% in terms of weight. Dairy and meat products are resource intensive. Increases in pig and poultry consumption over the last 15 years have added to forces driving land-use change, particularly in the Cerrado (Brazil) and the Amazon, through the market for soy. The UK has become a significant importer of beef from Brazil where beef production is expanding driven by exports on the basis of pasture grown on deforested land. The UK market was the destination of about 7% of Brazilian beef exports in 2005 (by weight) making the UK the largest developed country importer of Brazilian beef.[10]

The UK food economy is a significant driver behind the growth of irrigated agriculture particularly in the Mediterranean region, which suffers from water shortages for much of the year. With respect to fisheries, the UK has played a major role in the depletion of fish stocks, particularly in the North-east Atlantic. UK fish consumption patterns place pressure on resources due to reliance on resource intensive aquaculture species such as salmon, and depleted wild demersal white fish stocks.

The UK food economy is sophisticated, particularly in retail. It is characterised by vertically integrated supply chains, many levels of which are owned or strongly influenced by a small number of dominant retailers. This has implications in terms of fair trade for producers but also offers opportunities for UK consumers to influence supply chains. WWF-UK seeks to exercise influence over the governance of these supply chains to promote social justice, both in the UK and in other countries.

[9] Steinfeld H, et al. (2006) "Livestock's Long Shadow" UN Food and Agriculture Organization
[10] Murphy-Bokern, D (2008) "The UK Food system and the global environment." WWF-UK

THE ISSUES

Food is a far reaching area with many stakeholders, including farmers, processors, retailers, restaurants, local, national and international governments, health professionals, teachers, NGOs and consumers. There are a wide range of issues, of which some are misunderstood and others are especially emotive. WWF-UK has prioritised a number of issues as part of the One Planet Food Programme, which was launched in January 2009. Our position and reasons for some of these are detailed below.

One Planet Food Issues

Meat and Dairy

WWF-UK advocates a reduction in meat and dairy consumption in the UK, though WWF-UK is not advocating a move to a vegetarian or vegan diet. This is in line with the UN which suggested people should have one meat-free day a week if they want to make a personal and effective contribution to tackling climate change. The IPCC believes a reduction in the size of the livestock industry through reduced consumption is the most effective way of cutting GHGs from animal production[11].

Meat and dairy are some of the main causes of GHG in the food chain and need to be addressed if national climate change targets are to be met. Currently the British eat more meat and dairy than is required or recommended by the government's Eatwell plate,[12] with over-consumption being 98% for red-meat and 44% for diary.[13] This provides evidence of an important link between a sustainable diet and a healthy diet (see section on One Planet Diet below).

The GHG emissions of the supply chain of UK meat and dairy products is dominated by the methane and nitrous oxide emissions from cattle farming, which are two direct inputs to meat manufacturing. There are clear regional hotspots in the global supply chain of meat consumed in the UK. By far biggest foreign GHG emission source outside the EU is Brazil.[14]

The UN's Food and Agriculture Organisation (FAO) has estimated that meat production accounts for nearly a fifth of global GHG[15]. These are generated during the production of animal feeds and from grazing animals, particularly cows, which emit methane, which has a warming effect 23 times that of carbon dioxide.[16] The FAO has also warned that meat consumption is set to double by the middle of the century.

Producing one kilogram of beef: leads to the emission of greenhouse gases with a warming potential equivalent to 36.4kg of CO_2; releases fertilising compounds

[11] IPCC Sept 2008
[12] http://www.eatwell.gov.uk/healthydiet/
[13] Jackson, Bridget et al March 2009 "Strategies for reducing red meat and dairy consumption in the UK" Imperial College, London
[14] Garnett, T (2008) "Cooking up a storm – Food, greenhouse gas emissions and our changing climate" http://www.fcrn.org.uk/frcnPubs/publications/PDFs/CuaS_web.pdf
[15] Steinfeld H, et al. (2006) "Livestock's Long Shadow" UN Food and Agriculture Organization
[16] Steinfeld H, et al. (2006) "Livestock's Long Shadow" UN Food and Agriculture Organization

equivalent to 340g of sulphur dioxide and 59g of phosphate; consumes 169 megajoules of energy; is responsible for an equivalent amount of CO_2 emitted by the average European car every 250 kilometres; and burns enough energy to light a 100-watt bulb for nearly 20 days.[17]

Lowering diary consumption will prove to be a challenge as it will involve reversing an upward trend. In the developed world the average annual per capita consumption of milk in rose from 195 – 202 kg, 1980 – 2002, and is predicted to rise to 209 by 2030. During the same time frame the developing world has risen from 34 – 46kg and is predicted to rise to 66kg[18].

Reducing meat and dairy consumption would also have a significant indirect benefit by reducing the demand for grains and meals for animal feed. One third of the world's cereal harvest and over 90% of soya is used for animal feed, despite inherent inefficiencies of conversion:[19] it takes around 10kg of animal feed to produce 1kg of beef, 4-5.5kg of grain to produce 1kg of pork and 2-3 kg of grain to produce 1kg of poultry meat. Animal feed production, such as soy for protein, is a significant driver of the loss of high value habitats and land use climate change emissions.[20]

Key recommendations:

- UK Government, business, industry and consumers to commit to a target of 15-20% reduction in meat and dairy consumption by 2020 from 2008 levels;
- UK Government should adopt a road map towards a reduction in meat and dairy consumption;
- FSA should provide clarity on the recommended amounts of meat and dairy to eat; and
- UK Government to lead on moving towards a sustainable diet.

Greenhouse gas emissions

One of the objectives of our One Planet Food Strategy is to reduce GHG emissions in the food supply chain. The majority of GHG emissions from agriculture arise either directly or indirectly from the nitrogen cycle and its modification. Nitrous oxide (N_2O) is a product of the nitrogen cycle, the intensity of which is raised artificially in agro-ecosystems. Atmospheric N_2O concentrations in the atmosphere have increased from a pre-industrial level of 270 parts per billion by volume (ppbv) to a current level of 319 ppbv. Emissions of GHGs from agriculture are expected to increase considerably unless action is taken.[21]

Emissions of N_2O originate mainly from high soluble nitrogen levels in the soil from synthetic and organic nitrogen sources (fertilizers). The main sources of methane emissions are enteric fermentation by ruminant livestock, anaerobic turnover in rice paddies and manure handling.

The manufacture of nitrogen fertilisers represents the major fossil energy input into agriculture accounting for 1.2% of the world's energy consumption in 1998. A

[17] IPCC Sept 2008
[18] FAO 2006 Livestock's long shadow environmental issues and options
[19] FAO 2006 Livestock's long shadow environmental issues and options
[20] FAO 2006
[21] Garnett, T (2008) "Cooking up a storm – Food, greenhouse gas emissions and our changing climate" http://www.fcrn.org.uk/frcnPubs/publications/PDFs/CuaS_web.pdf

systems approach that addresses leakage of reactive nitrogen (nitrous oxide, ammonia and nitrate) from the nitrogen cycle will be crucial. Closing nutrient cycles, particularly by reconnecting resource use in plant and animal production is key, together with efficient animal and plant production overall.[22]

Overseas carbon emissions due to land use change for commodities consumed in the UK food chain such as soya animal feed and palm oil are potentially massive.

Key recommendations

The UK government should:

- commit to cut GHG emissions from the food supply chain by 25% by 2020 and 70% by 2050;
- include farming in national GHG targets;
- should show leadership and lobby for international agreement to do the same;
- explore use of tax system to incentivise adoption of healthy and sustainable foods; and
- catalyse the reform of farming to support GHG reduction and sustainability, including acceleration/refinement of environmental stewardship under the Common Agricultural Policy and the setting of a clear direction and vision for farming of the future.

Palm oil

Palm oil is used in a wide range of consumer products, from margarine to lipstick and detergent. The global demand for palm oil is rising with the EU being the second largest market for palm oil in the world, behind China. In the UK alone, consumption doubled between 1990 and 2005, rising from 348,000 to 707,000 tonnes.[23] In countries such as Indonesia and Malaysia, millions of hectares of rainforest have been cleared to plant this crop. Forest conversion is continuing, destroying the habitat of highly endangered species such as the Asian elephant, the Sumatran tiger and the orang-utan.

Despite there being a much as 20 Million hectares of available land that has already been cleared for timber or has been degraded through the invasion of grass species the Indonesian Government and the palm oil industry persist in targeting forests for conversion – with more than half of palm oil expansion being at the expense of forests in Indonesia and Malaysia. In particular peat forests are favoured because they are flat and more easily suited to cultivation.

An intact and extensive forest habitat is essential to the survival of wildlife in the region – not only for iconic and endangered species like the orang-utan, the tiger, elephants and rhinos – but for the whole ecosystem. Research shows that in Malaysia healthy forest supports up to 80 species of mammals, whereas disturbed forest carries only 30 – but palm oil plantations allow as few as 12 to thrive.

Fragmentation of the forest by plantations not only destroys core habitats but also leads to greater conflicts between people and nature – elephants are killed because they can feed on palm fruits and orang-utan are hunted widely for meat by plantation workers.

[22] Murphy-Bokern, D (2008). *An assessment of the environmental impacts of UK food consumption*
[23] Murphy-Bokern, D, (2008) *An assessment of the environmental impacts of UK Food Consumption*

Forests and peatlands are not only key wildlife habitats but they are also massive stores of carbon. Felling and burning them releases huge volumes of carbon dioxide driving climate change – globally almost 20% of emissions are from deforestation – mostly in Indonesia and the Amazon.

Palm oil cultivation is also a major cause of pollution. Burning of land to prepare it for palm oil causes huge smog clouds in South East Asia and the use of pesticides against rats in particular damages soils and water resources. In 2001 Malaysia's production of 7 million tonnes of palm oil generated 10 million tonnes of solid oil wastes, palm fiber, and shells, and 10 million tonnes of palm oil mill effluent, a polluted mix of crushed shells, water, and fat residues that has been shown to have a negative impact on aquatic ecosystems as well as emissions of methane a powerful GHG when it decomposes.

WWF is a founder member of the Roundtable on Sustainable Palm Oil (RSPO) which aims to ensure that production and use of palm oil is carried out in a sustainable manner based on economic, social and environmental viability. Ecologically-friendly palm oil plantations must not replace forests of high conservation value or deep peat soils, should have management practices that minimize pollution, and must include measures to protect biodiversity such as wildlife and forest corridors. This helps to protect highly endangered species of animals, such as the Asian rhino, that currently faces losing habitat to palm oil plantations as well as reducing the climate impacts from converting forests and peatlands.

Key recommendation

- UK companies using palm oil should make public commitments to only using RSPO certified sustainable palm oil by 2015 at the latest.

Soy

Over 70% of all oils and fats consumed in the world are derived from vegetable crops and the largest source of vegetable oil is soy[24]. Millions of hectares of South American savannah and rainforest are cleared ever year to grow this crop, endangering wildlife such as the jaguar, the maned wolf and the toucan. In place of a unique tropical habitat for 130,000 species, vast soy fields are planted, mainly to supply the European market with soymeal for livestock feed and soy oil for foodstuffs and increasingly for biofuels. Large quantities of chemicals are used to maintain the fertility of this intensively farmed soil and these pollute freshwater supplies and affect the unique range of wildlife in the region.

As big soy producers move in to clear forests, small farmers are pushed off their land and deeper into the forest, causing further destruction and usually bankruptcy. Conversion of High Conservation Value Areas and other critical habitats for soy cultivation is unacceptable as it threatens biodiversity, endangered species and the livelihoods of local people. It hampers climate change mitigation, as forest conversion contributes to deforestation, which is responsible for 20 per cent of all human induced GHG emissions that cause climate change. The conversion of forests to soy plantations in the Amazon is particularly threatening to the climate, as the forests of the Amazon contain 90 -140 billion tons of carbon, equivalent to 9 -14 years of current global, annual, human induced carbon emissions.

[24] Vaughan, A. Sustain (2007) "Fat of the Land – The impact of the production and consumption of vegetable oils on people and the environment"

WWF is concerned that the growing global demand for soybean and soy oil will create incentives for soy plantations to further expand into natural habitats with high conservation values.

Soy cultivation, just like palm oil, provides an income for millions of people in the tropics so a boycott is not the solution. Instead, manufacturers and retailers must take responsibility for insisting on tropical oil from producers with sustainable plantations. WWF is involved in establishing global criteria for sustainable soya oil, similar to those used for palm oil. These include creating protected areas in areas of soybean expansion and using zoning to restrict expansion to degraded or abandoned agricultural areas. WWF international is a participating member of the Round Table on Responsible Soy.

Key recommendation

- UK companies using soy should join the Roundtable on Responsible Soy and commit to sourcing only RTRS soy when it is available.

Sugarcane

The full impact that conversion of land to sugar plantations has had on natural environments will never be known because it happened hundreds of years ago. In all likelihood many species of animals and plants, unique to the thousands of islands on which sugar was planted, were lost. The cultivation of sugar results in soil erosion and degradation, and uses chemicals to correct the resulting problems. As a consequence, sugar cultivation has an important impact on other ecosystems. For example, siltation from soil erosion clogs coral reefs and seagrass beds, which are important habitats for a wide range of species.

To address the impacts of sugar production, WWF is working on several scales. At the farm level, WWF is encouraging improvements to irrigation systems. Up to 50% of the water used could be saved using a technique called drip irrigation[25], which also significantly reduces the problem of polluted run-off water. WWF helped to set up the Better Sugarcane Initiative and international dialogue along the sugarcane supply chain.

Key recommendation

- Major UK companies using sugarcane should join the Better Sugarcane Initiative and commit to sourcing only sustainable sugar.

Seafood

UK fish consumption and production for export has a major impact on fisheries, particularly in one of WWF's priority biodiversity places, the North East Atlantic.

WWF was instrumental in setting up the Marine Stewardship council (MSC), alongside Unilever. The MSC standard is consistent with the 'Guidelines for the Eco-labelling for fish and fish products from marine wild capture fisheries', adopted by the FAO in 2005. When buying seafood choose MSC-certified fish products whenever you can. Several fisheries around the UK are already MSC-certified and some big North Sea fisheries are working towards certification. You can get products as

[25] POSTEL, S. Last oasis: Facing water scarcity. New York, Norton, 1997. p. 17-191

diverse as Scottish langoustine and Dover sole. Several major supermarkets have committed to sell nothing but MSC-certified fish in the future, so the choice will expand rapidly over the next few years.

Key recommendations

- Retailers to source 100% of seafood from MSC certified fisheries;
- FSA to advise consumers to use MSC as the best indicator of sustainable seafood; and
- FSA to advise consumer to keep seafood consumption to 1 to 2 portions a week, mainly oily fish.

Aquaculture

Carnivorous farmed fish require a proportion of fish meal and fish oil in their diet. About 60% of this comes from wild fisheries that are not presently certified as sustainable and the remainder is from trimmings (the waste products from processing of fish for Human consumption). The majority of fish oil produced in the world as well as relatively high quantities of fish meal are used for farmed salmon. If the main industrial fisheries are certified as sustainable and WWF is comfortable with the certification process (e.g. MSC) then the use of fish meal to feed fish would be acceptable.

The most sustainable aquaculture fish are home grown vegetarian fish such as carp and tilapia. Although they are less healthy than oily carnivorous fish they are still much healthier than beef or pork. Production of these species in the UK is small but expanding. The source of feeds for herbivorous fish is a potential issue as soy for instance, can result in rainforest damage among other things. There is also a question of food security i.e.: should plants that we could eat directly be fed to fish? However, the conversion rates of plant to animal protein are better with fish than for any other animal. There is an issue of food miles for aquaculture fish imported mainly from the tropics such as prawns, catfish and tilapia.

Organic fish are better than non-organic mainly because of more sustainable sourcing of feeds. WWF-UK is involved in setting up the Aquaculture Stewardship Council (ASC), so as soon as certified fish become available these should be recommended and supported by the FSA.

Key recommendations:

- Retailers to demand that all farmed fish they sell be fed on sustainable feeds; and
- retailers to commit to the ASC and to sourcing all farmed fish from ASC certified producers by 2012

Public Procurement

According to DEFRA the public sector spends £2 billion on food and catering services.[26] The public sector accounts for 70% of the cost-based catering sector in the UK and 30% of meals eaten outside the home. The largest 5 catering companies control 85% of the market. The Public Sector Food Procurement Initiative (PSFPI) has worked since 2003 to:

[26] DEFRA: http://www.defra.gov.uk/farm/policy/sustain/procurement/

- promote food safety;
- increase the consumption of healthy and nutritious food;
- improve the sustainability and efficiency of food procurement catering services;
- improve sustainable performance at each stage of the food chain in support of the Sustainable Farming and Food Strategy;
- mainstream good practice in food procurement and supply; and
- to improve efficiency and realise savings that can be ploughed back into improving catering services.

Other important objectives cover consumer behavior, organic food, animal welfare, fair treatment of suppliers and catering for ethnic minority, cultural and religious groups.

A promise of nutritious, more environmentally sustainable food will be delivered through a new 'Healthier Food Mark' that will show where healthier, more sustainable food is available. The standards behind the Mark will provide a lever to drive out the inefficiencies that currently hinder cost-effective public food procurement, so that the money spent yields better food. Adoption of the standards required to achieve the Healthier Food Mark will be voluntary. But the Government will look at making compliance compulsory for central government departments and their agencies, and prisons, by 2012, all public bodies in England will be encouraged to join.

The Healthier food mark should include sustainably sourced food as a key part of its strategy. In many instances, food procurement is the responsibility of local authorities and other local bodies. In other cases, food is procured through national contracts (e.g. for the Department of Work and Pensions). Higher standards for food served by public institutions, established through the procurement process across the public sector, would create a powerful demand-side driver for healthier food. The Healthier Food Mark criteria would cover the design of menus, sourcing of ingredients and the preparation and presentation of food and include messages to improve the environmental sustainability of the food supplied.

The Healthier Food Mark might be made compulsory at the next Spending Review, (the current one runs until 2008-2011) and will be looked at as part of the developing plans for primary legislation.

Key recommendations:

- All government departments to source 100% sustainable food by 2012;
- the majority of public sector bodies to start the process of sourcing sustainably by 2012; and
- healthier food mark should be made compulsory, including 100% MSC food

Water

70% of global freshwater abstracted by humans is used in agricultural irrigation[27] but this does not take into account water stored in soil from rainfall. In the UK the industries which use the most water are agriculture, food and drink. WWF is undertaking a considerable amount of work on 'virtual' water i.e. the water used in

[27] UNESCO –WWAP 2003

the production of goods, to help build up a water footprint. Water footprints have potential to be a powerful communications tool through the food supply chain including retailers etc, but perhaps more importantly, they help producers and retailers to understand where their produce is coming from, and the water related risks and impacts in these areas. The Mediterranean region is of particular interest: we know UK food consumption has a direct impact on the Mediterranean which is a water scarce area and agriculture has a major impact on this WWF Priority Place through water use. Consumption of vegetables, fruit and olives has been highlighted in particular.

The Food Industry Sustainability Strategy[28] looks at the amount of water used by companies in their operations, which is usually only a fraction of the overall use, and does not look at the much larger embedded water component of produce. There is a strong policy focus on improving water quality associated with agricultural practice. The majority comes from Europe, such as the Water Framework Directive and the Nitrates Directive. The success is reliant on implementation by Defra and the Environment Agency and the devolved administrations. To improve the sustainability of agricultural production systems need to adopt improved crop water use efficiency, reduce diffuse pollution and adopt river-basin management plans (The 2008 Water strategy – Future Water (Defra) - sets out the government's long term vision for water and water management).

Water and meat consumption are indelibly linked. The livestock water footprint shows that beef has the largest footprint, then milk, pig and poultry.[29]

The amount of water needed to produce 1 kg of various foodstuffs is as follows: maize 900 litres, rice 3,000 litres, chicken 3,900 litres, pork 4,900 litres, beef 15,500 litres.[30] Though these numbers are only global average, the virtual water content of the product (water used in the production) varies both temporally and spatially. Moreover, it is important to note that the total water footprint of the product has a completely different relevance depending on where it is sourced from. One kg of Dutch beef with a water footprint of 10,000 litres is very different to one kg of beef from Argentina with the same water footprint. Firstly, it does not explicitly say the kind of feed used and the locations where it is sourced from. Secondly, it does not differentiate the kind of impacts on water resources in these production regions. For example, feed for Dutch beef might come from regions where these crops are grown with effective use of rainfall, whereas the feed for Argentinean beef can be based on feed grown using scarce surface or ground water resources. This highlights the limitation of water footprints if they are simply given as volumetric 'impact'.

The vegetarian diets of Africa and Asia use about 2,000 litres a day, whereas the meat based diets of Europeans require around 5,000 litres of water a day to produce (for comparison, Westerners use just 100-250 litres a day in drinking and washing). Moving from a vegetarian diet to a meat-based one has important implications for water. In 1985 Chinese people ate, on average, 20kg of meat; this year, they will eat around 50kg. This difference translates into 390km^3 (1km^3 is 1 trillion litres) of water, almost as much as total water use in Europe.[31] The shift of diet will be difficult to reverse since it is a product of rising wealth and urbanisation. However, changing the

[28] Defra (2006) Food Industry Sustainability Strategy
[29] Chapagain, A, Orr, S. 2008 UK Water Footprint: the impact of the UK's food and fibre consumption on global resources
[30] Hoekstra, A., Chapagain, A. 2007 Water footprints of nations: Water use by people as a function of their consumption pattern. Water Resources Management 21: 35-48.
[31] The Economist (April 8th 2009) Better management can help solve growing water problem http://www.peopleandplanet.net/doc.php?id=3559

source of production, making products less water intensive by increasing production efficiency or working to improve water management in the wider river basin can greatly reduce the impacts. In general, water intensity in diet increases fastest as people begin to climb out of poverty. In order to achieve an equitable distribution of resources, the onus is on the rich world to reduce its water footprint impacts.

Key recommendations:

- Retailers in the UK start to identify products with a high Water Footprint impact – i.e. products requiring a lot of water and coming from water stressed/scarce regions of the world;
- by 2012, retailers in the UK should start reducing their supply chain Water Footprint impacts and their associated business risk by encouraging higher standards of water efficiency in production, by engaging with efforts to improve management of water resources in places from which they source 'thirsty' products, or – as a last resort – by sourcing from regions in which pressure on water resources and freshwater ecosystems is less acute; and
- any reduction in carbon footprint (GHG emissions) should be done in conjunction with related impacts on water footprints or vice versa.

One Planet Diet

WWF-UK is working on a programme called One Planet Diet. The western diet is typified by being high in salt, sugar and saturated fats all of which are associated with ill health: high blood pressure, strokes, diabetes, cancer and obesity. In addition there is a large amount of packaged food and meat consumed alongside inadequate amounts of fresh fruit and vegetables. This results in an unsustainable, resource intensive diet resulting in generations of people unable to prepare basic meals, disassociated from where food comes from and the natural environment and beset by ill health. Our One Planet Diet programme will look at how consumers can adopt an eating regime that will be sustainable, affordable and healthy.

Key recommendations:

- Defra to lead on creating a road map to move the UK food system towards a more holistic inclusive system in line with Omni-standards;
- the FSA to strengthen and update nutritional guidelines;
- five key priorities for retailers - viable alternatives; overarching transformation to low carbon sustainable farming through their supply chains; and sourcing 100% MSC certified fish; promoting seasonal, local and fair-trade food; and to offer and promote sustainable food products and cooking methods
- UK Government to explore the use of taxation to incentivise adoption of healthy and sustainable foods.

Other emblematic issues (on which WWF is not leading)

Food waste and packaging

Food waste is already at the top of the political agenda and that other organisations are better placed to deal with the issue. One Planet Food will endorse the work of

others who aim to drive down food waste[32]. This area is being led by WRAP who work with local authorities, businesses and individuals to reduce waste and recycle more. The main types of waste in the food change are food and packaging. Millions of tones of both are produced annually, much of which could be avoided with the rest needing to be better managed.

The four priority areas identified by WRAP are packaging, food waste, collection systems, quality of materials. While WWF-UK may not work specifically in these areas it supports WRAP in its work to meet and tackle the problem of waste. According to WRAP every ton of food wasted 4.5 tonnes of CO2 equivalent could be saved. The Courtard Commitment is a voluntary agreement between WRAP and UK retailers aimed at reducing less packaging and food going into household bins.

Household waste is being tackled in WRAP's Love Food Hate Waste Campaign, which is concentrating on behaviour change and WRAP are working with the UK grocery sector, food industry, Government and organisations such as the Food Standards Agency to develop practical solutions and improved communications to make it easier for consumers to get the most from the food they buy and waste less of it.

WRAP's next project will be to investigate the retail industry's waste and to publish the results. WWF-UK will monitor this and respond appropriately.

- WWF-UK will support WRAP in its work on consumer waste and retailer waste

Fair trade

WWF supports the aims and principles of fair trade – that international trade should be based on a more equitable, transparent and sustainable relationship[33] between small-scale producers and the buyers, processors, retailers and consumers of their produce.

WWF recognises that fair trade and the FAIRTRADE mark represent a well trusted and well recognised 'brand' amongst sections of the community that are concerned about the global implications of their patterns of consumption. Although fair trade's main focus is about poverty alleviation rather than the environmental sustainability of trade there is a very close link between the audiences identified by fair trade and those important to WWF.

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[32] At least 30% of all food produced is wasted – This waste directly impacts GHG emissions, priority places and water. There is scope for significant reductions in food waste which can send signals right through the food supply chain – it has the potential to affect production of basic inputs (fertilisers & feedstuffs) whilst reducing consumption of food commodities considerably. Our Food Impact Studies report (Donal 08) highlighted waste is a particular feature of fruit and veg with significant impacts, particularly in relation to water scarcity, within the Mediterranean.

[33] From the perspective of fair trade a 'sustainable relationship' includes paying producers a price that reflects the true costs of production and provides them with a reasonable livelihood. A fair trade relationship also aims to strengthen the capacity of producers to produce goods to high labour, health and safety, ethical and environmental standards as well as to invest in their own and their communities' development. This is achieved through the payment of a Social Premium that is invested in local development as well as through the development of long-term, equitable and more transparent business relations between producers, merchants and consumers.

WWF is keen to see what can be done to increase the proportion of certified products, such as organic and fair trade, on the market by supporting the growth of such markets by an order of magnitude in the coming 5-10 years. However we also recognize that there is a much greater volume of commodities that are not certified which as a result have a greater environmental and social impact. WWF pursues strategies to address the impacts of conventionally produced commodities for which solutions in the conventional market are required. WWF is doing such work on palm oil, soya, sugar and cotton with industry partners and other NGOs.

Since verifiable environmental data is largely missing at present WWF encourages fair trade organisations to collect the information needed to show the measurable improvements in sustainability achieved as a result of their systems.

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- WWF supports the aims and principle of fair trade
- WWF will buy and use Fairtrade goods where they are available

Trade and governance

As a result of our analysis of resource flows, we recognise trade as an important lever of change within the food supply chain. Food trade has direct environmental and social impacts and is a critical sector in terms of people's livelihoods and the environment. National and international markets have an enormous influence on countries' production patterns and resource use more generally, particularly as they move (or are moved) towards more export-oriented strategies. Market expansion has caused major shifts in the composition and location of production and consumption activities, and has reshaped the way millions of people earn their living and the way societies are organised. These have serious consequences for the environment.

- The One Planet Food team will work with WWF-UK's Government Partnerships team to explore how we can support their work with reference to the role of multilateral organisations such as the WTO.[34]

Human rights impacts of UK food consumption

WWF-UK recognises that our One Planet Food work cannot ignore human rights issues in relation to UK food consumption. We would support the work of the Human Rights Council to ensure that states to build national strategies on the right to adequate food, taking into account the need to strengthen the protection of the human rights of land-users and of women. We will also contribute to the discussions of any future global partnership on agriculture and food, ensuring it includes attention to their human rights dimensions.

One Planet Food will also need to influence governments in key producer ecoregions (like Brazil and Indonesia) to strengthen land use governance and planning. Without this the individual commodity initiatives will fail to deliver.

[34] International politics and trade make food policy a complex issue. The General Agreement on Trade and Tariffs (GATT) for the first 40 years of world trade rounds did not include agricultural Support or food trade. Food trade is one of the major sticking points for the currently stalled Doha Development round of talks, with competing demands from the US striving to be the breadbasket of the world, the EU arguing for continued producer supports (to deliver environmental and wider social and economic sustainability), and the key focus on this round – developing countries seeking to get a foothold in global market to trade out of poverty.

Intensive livestock farming

Worldwide 2 billion people live on an animal based diet and 4 billion on a plant based one. During the second half of the 20th Century the world population doubled while meat consumption quadrupled[35]. According to the FAO annually 60 billion animals are used to produce food and this number is predicted to double by 2050, with the majority coming from intensive systems[36].

Intensive livestock production is associated with many animal welfare issues including cramped conditions, illness, shorter life expectancy and injury. It is a resource intensive method of farming, using large amounts of food that are taken out of the human food chain with some feeds being responsible for deforestation in WWF priority places such as the Amazon. It places increased pressures on water resources not least from cleaning the pens, watering the animals and dealing with animal manure. There is evidence emerging of the convergence of protecting the environment, tackling climate change, conservation and animal welfare.

While WWF does not support intensive farming on grounds of welfare issues, according to the FAO, the world's extensive livestock systems – primarily cattle grazing on pasture – currently account for two-thirds of greenhouse gas emissions, while intensive systems are responsible for just one third. The report's solution is the intensification of the livestock sector[37]. There is also a case for the intensive farming of non ruminant livestock, as these have lower emissions and a switch in diets to consuming more of these and less of other livestock varieties, could ensure GHG emissions are reduced.

Intensive systems are supplied by different feeds with each having different impacts. Soy based feed plays a significant contribution towards land-use change in other parts of the world. Those not fed on Soy are usually fed with other cereals and therefore also have quite a significant impact, let alone the moral argument of whether it is ethical to feed livestock cereals, much of which could be suitable for human consumption and is a food they have not traditionally eaten and are not always capable of digesting well.

Whilst WWF UK acknowledges that some studies show that increasing intensification could be a method of reducing global emissions from livestock WWF UK prefer a different future - one where there is good animal welfare, a healthy planet and healthy people. In order to achieve this and avoid increasingly intensive farming methods WWF UK believes we need to reduce our consumption of meat and dairy.

WWF UK is advocating a move to lower meat and dairy consumption in the developed world and a move away from intensive livestock farming. This will lead to healthier diets, lower GHG emissions and will ensure that animal welfare is taken into account. In extensive and free range systems the animals live is better conditions, forage for at least a proportion of their own food, reducing demand on feed crops and release more agricultural land to grown crops for direct human consumption, and will enable farmer to produce meat and dairy in more traditional humane ways.

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[35] De Boer J, Helms M, Aiking H, (2006) Protein consumption and sustainability: Diet diversity in EU 15. Ecological Economics 59 (2006) 267-274

[36] FAO (2009) FAOSTAT online database http://faostat.fao.org/default.aspx

[37] H. Steinfeld, P. Gerber, T. Wassenaar, V. Castel, M. Rosales and C. de Haan (2006) *Livestock's Long Shadow: Environmental Issues and Options*. LEAD/FAO.

Illegal trade in wildlife for UK consumption

Some of our main issues in relation to over-exploitation for food are:

i) Illegal bush meat (most popular species listed under CITES Appendix I);
ii) other endangered wildlife species eaten as delicacies and/or because they are thought to have medicinal properties, etc, e.g. shark fin soup, tiger bone wine, turtle meat, abalone, sea cucumber, bear paws (mixed listing on CITES Appendix I and II depending on species); and
iii) caviar (listed under CITES Appendix II)

This issue only fulfils on a small part of one of our strategic goals around priority places[38].

Omni-standards

Currently food businesses are attempting to address nutritional goals as outlined by the Department of Health and the FSA. This has lead to environmental objectives being compromised. Other issues are often pushed to one side, such as the social impact of changes in demand on rural communities in the UK and the economic impact of changes in supply of some produce to developing countries. The industry views these as competing demands and works on the basis of a trade-off. Instead it is vital now to focus on all the elements of the food system as a whole. We advocate moving towards a truly holistic approach, one that looks at Econutrition, and a One Planet Diet. This could be linked to the idea of Omni-standards, as advocated by Professor Lang at City University. These are the standards by which a sustainable food system should be judged, and include:

- Quality –fresh, local, seasonal,
- Social Justice – animal welfare, fair trade, working conditions, cost, availability, affordability, acceptability,
- Environment – climate change, water, land, biodiversity, sourcing,
- Health – safety, nutrition, cultural, inequality reduction.

All of these are values for food, and unlike earlier ideas on sustainability and the environment, they are not about trade-offs but about adding value to each one.

Food security

This is a very topical issue nationally and internationally with both DEFRA and the All Party Parliamentary Group (APPG) holding inquiries on it, both of which WWF-UK responded to.

[38] Illegal Trade in wildlife for UK food consumption in the UK creates a number of problems:
i) Bush meat – A 2004 govt report cautiously estimated 4,000 - 29,000 tonnes of illegal meat enters the UK each year. Proportion of CITES listed endangered species in bush meat imports is unknown as any illegal meat is destroyed for health reasons before testing. CITES prosecutions for meat imports are rare.
ii) Caviar - has been identified as a priority within the National Wildlife Crime Unit for CITES enforcement. Can be legally sold with correct labelling, and 125g is allowed to be imported for personal use, yet 26 tonnes of caviar were seized by UK customs between Apr 2006 and Mar 2007.
iii) Future work in years to come with Operation Charm, a partnership combating illegal wildlife trade in London, will likely focus on bush meat and caviar, but nothing is being acted upon now or planned for the immediate future.

Self-sufficiency of around 70% for indigenous foodstuffs and about 58% overall suggests that in terms of global supplies the UK food system is resilient in relation to necessities to all but the most disruptive supply shocks. This however masks reliance on imported farm inputs such as animal feed, fertilisers, fuel, pesticides and animal health-care products. Moreover, there has been a decline in the production of a wide range of agricultural commodities in the UK since 1990. Production of beef, fruit, vegetables, pig, sheep and potatoes has declined, typically by 20–30%. Total self-sufficiency is declining faster than self-sufficiency in indigenous food reflecting the increase in the consumption of non-indigenous food products. The UK's fisheries and fishing capacity are in long-term decline due to the decline in fish stocks. Reflecting increased consumption and decreasing domestic production, imports of almost all food commodities rose between 1990 and 2005. This has 'exported' the consequences of our buying habits to other countries. GHG emissions, water impacts in vulnerable areas and biodiversity impacts in key ecoregions (for example from palm oil production in South East Asia, soy/sugarcane in Latin America) generate environmental burdens shifted away from the UK. We currently we rely on Brazil for 80%[39] of our soy for animal feed and WWF's research shows that up to 2006, the UK was responsible for 7 – 10% of the growth of the Brazilian beef industry, which in turn is a very significant driver behind Amazon deforestation[40].

Through our other work on One Planet Food WWF-UK will be addressing some of these issues and will be monitoring food security as it develops.

Biofuels

It is now generally accepted by the scientific community that in order to avoid dangerous climate change, global warming should stay below a 2℃ increase compared to pre-industrial temperatures. To keep our climate safe, at least 80% of greenhouse emissions will have to be cut by the middle of this century, according to the IPCC[41].

This can only be achieved through a variety of ambitious measures and policies on a global scale, including, energy efficiency; stopping and reversing loss and degradation of forests particularly in the tropics; developing flexible fuels, energy storage and new infrastructure; displacing high-carbon coal with low-carbon natural gas as a "bridging fuel"; carbon capture and storage (CCS); and developing a range of low carbon energy technologies, including biofuels.

WWF believes that bioenergy can provide diverse sustainable alternatives to fossil fuels, additional incomes for rural communities and contribute to development under the right conditions. For this to be realised, however, biofuel development must be very carefully planned, implemented, and continually monitored for its environmental and social sustainability. Depending on which, where and how crops are produced, biofuel developments can cause significant negative environmental and social impacts, including deforestation, biodiversity loss, soil erosion, excessive water use, conflicts over land rights and land use, food shortages and staple food crop price spikes. It is also acknowledged that inappropriately developed biofuel production can lead to increased poverty and loss of traditional tenure rights, etc.

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[39] Van Gelder, J.W., Kammersaat, K., Kroes, H. (2008) Soy consumption for feed and fuel in the European Union, Report for the FOE Netherlands.

[40] Murphy-Bokern, D. (2008). The UK food system and the global environment. A report for the WWF-UK. www.murphy-bokern.com

[41] IPCC 4th Assessment WGIII – Summary for Policy Makers, May 2007. Page 23

The UK has been a moderating influence of EU biofuel policies, and has highlighted the challenges for the environment. UK ICA work and the 'Gallagher' report, for example, have had international impact. The key to sustainable biofuel development lies in the gradual development of markets to avoid marginal shocks, the development of the most efficient cropping systems (particularly perennials), and public support based on public benefits to avoid the extreme distortions we have experienced.

WWF will only support biofuels that are environmentally, socially and economically sustainable and considers that effective measures are needed to address the following issues:

1. Biofuels must deliver large positive energy and GHG balances over comparable fossil fuels;

2. Biofuel feedstocks must be produced and processed sustainably without unacceptable impacts on people or nature; and

3. Biofuel policies and programmes must address displacement and indirect effects that influence GHG balance, food availability and prices, poverty and the environment.

Food miles

The food miles debate has become increasingly questioned in recent years by various organisations and academics. Food miles are about more than how food reaches a retailers shelf. There are many differing elements to be taken into account making the subject complex. It is not only how far food has travelled that needs to be taken into account. The benefits of a product being grown organically can be lost if they are transported long distances. A tomato grown in Spain and transported to England may have a lower footprint than one grown in England, out of season, in heated greenhouse.

If people decided to only buy food produced in the UK the implications on the welfare and economies of people in the developing world would be catastrophic. These countries have created agriculture tailored to grow food for the UK through our demand choices and through the policies of the Common Agricultural Policy. By stopping buying food from these places, the UK would marginally reduce its footprint while have a huge negative impact on lives and communities.

The majority of GHG from food does not come from food miles, it comes from how food is grown, what is used in the soil and to feed the livestock. There are also the impacts of how it is stored, used and what happens to the waste. How food is transported is only a small percentage of the emissions, and on average the largest amount of these come from people going to the shops to buy food.

Food miles, especially airfreight, and how food will get transported in the future is something we need to be aware of and to follow. Up to 1.5 million people depend on export horticulture in Sub Saharan Africa[42]. Policy will need to achieve maximum development for minimum GHG costs.

[42] MacGregor, J, Vorley, W, (2006) 'Fair Miles? The concept of "food miles" through a sustainable development lens', London: IIED.

That said, WWF's work shows that choosing in-season food grown as locally as possible can be a significant step to minimising the environmental impact of our diet. While WWF-UK recommends that UK consumers should try to buy local and seasonal produce where possible, we recognise that there are many foods and products, such as coffee, cocoa and bananas that do not grow in the UK but will always be part of a shopping basket. If a food can not be grown in the UK, WWF-UK advocate buying responsible sourced foods from other countries, while trying to ensure the majority of food and drink bought is seasonal and local.

Genetically modified organisms (GMOs)

Although the world's population has doubled since 1960, so far food production has kept up. But pressures are mounting on the land and water resources we need to feed the planet. The UN estimates that we will need 60% more food to meet the needs of the world's growing population in the next 30 years.

While some people think that GM technology is the answer, WWF has always believed in a strong precautionary approach to this technology. WWF believes that it is possible to feed a growing world population without GMOs by altering farming systems, food distribution and consumption habits. The solution to hunger does not lie with a GM technical fix but with changes such as:

- Reducing consumption of meat, dairy, grains and soya, which are all resource-intensive;
- creating markets for environmental services and providing farmers with financial incentives to produce in environmentally-sympathetic ways;
- establishing management of water at the catchment scale and encouraging tradable water rights and equitable decision-making over water allocation;
- encouraging equitable international trade; and
- changing diets so that people consume in-season, unprocessed foods produced as locally as possible.

We do not know the unintended side effects of some new GM modifications in crops and so WWF chooses to act with a strong precautionary approach to GM technology. There is a need to maximise the efficiency of farming in any area but efficiency can be achieved by a variety of methods other than GM, such as using land to grow edible crops rather than to raise livestock. However, if it was possible to resolve the serious concerns about the unknown impacts of GM, it could have a role to play in increasing the productivity of cultivated land, thus reducing the pressure for clearing more land for farming.

Pragmatically, WWF recognises that for some commodities, such as soy, the use of GM is widespread and established particularly in key regions like Latin America where habitat loss and pollution from agric chemicals are of huge concern. As such it is not possible to ignore companies involved in GM production. Instead WWF seeks to engage them in a process of addressing the key environmental impacts of commodity production irrespective of the technologies used.

Organic farming and food

WWF believes that good food should be available to all, not just those who can afford it. Most of our work on food is targeted at mainstream producers, so that we can influence the vast majority of food purchased by consumers. We work to address the six key environmental impacts of food production - climate change, water pollution,

water use when scarce, toxicity, biodiversity loss and soil deterioration. While there are strong arguments for believing that organic food production benefits many of these impacts, WWF does not currently invest significant resources in working on organic food production.

Organic systems recognise that our health and that of the soil is connected to the food we eat. Organic farmers aim to produce food with as few inputs as necessary, and avoid using artificial chemical fertilisers, as few pesticides as possible and do not use GM crops. One of the key tools many organic farmers use is crop rotation, which makes the soil more fertile and in order to avoid parasite problems in animals, preventative measures, such as regularly moving to new pasture, are employed which reduces the need for drugs. Organic farming minimises the environmental costs of conventional and intensive farming such as soil degradation, biodiversity loss, pollution and greenhouse gas emissions.

There are a variety of other benefits attributed to organic food including health benefits, employment opportunities from more labour-intensive production methods and better tasting produce. Although a recent study by the Food Standards Agency[43] suggests there is no conclusive evidence that organic food is more healthy, the Soil Association has pointed out weaknesses in the study including the failure to address the long-term effects of pesticides, herbicides and insecticides on human health.[44] Organic crops suffer more from extreme weather than conventional crops, as noted by the Soil Association. Organic yield in 2006 dropped 30%. The overall drop in harvests in 2006 and 2007 led to the food price spike of 2008, which led to increased hunger and civil unrest. This situation may have been exacerbated if more of the global food system had been organic. A food system needs to be resilient - something that is more likely in a diverse system in which risk is dissipated.

Agricultural systems need to be developed that are a lot less dependent on fossil fuels. At the same time we need to develop sustainable systems of production and consumption that tackle the rising demand for food, and this will entail a change in diets. Organic agriculture and utilisation of organic wastes (including human, livestock and food waste) will be needed alongside enhanced soil management and lower energy production systems and better water management.

Local food initiatives

If your aim is to reduce your food Footprint, you don't have to spend more. Choosing local food that is in-season could well be cheaper and reducing your meat intake may save money too. There's always an option to grow what food you can. Whether it's in window boxes, containers in a yard, your garden or an allotment, growing your own food is a cheap way to get healthy food to your plate.

A vibrant and sustainable food system provides employment, encourages healthier lifestyles and a cleaner environment. Local food initiatives have the potential to improve the lives of all those involved, they can provide income and employment, allow traceability and can be more sustainable due in part to the food coming from the immediate area, not trucked around the country, which reduces transport emissions. By meeting the producer or the stall holder it is possible to learn about the produce, thus providing invaluable educational opportunities.

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[43] Food Standards Agency (2009) Organic nutrient content and health effects
[44] Soil Association (2009) Response to FSA research
http://www.soilassociation.org/Whyorganic/Health/tabid/59/Default.aspx

Local food initiatives are often not organic and some of the produce is not locally sourced but used as ingredients for the locally produced finished item. Choosing local food is a vital way of supporting local businesses, reducing some of the impacts of your diet and re-engaging with agriculture and food. WWF-UK supports local food initiatives and recognizes the vital role they play in the global food chain.

EU Common Agricultural Policy

WWF believes that farmers and environmentalists must work together to safeguard a sustainable future for European agriculture. Only by taking steps to ensure the long-term, sustainable management of natural resources on which agriculture relies, can other current concerns such as food security, biodiversity conservation and pollution be addressed. Agriculture policy has a major role to play in achieving sustainable agriculture in the EU. Successive reforms of the Common Agricultural Policy (CAP) have started the process of encouraging more sustainable forms of agriculture but much remains to be done. The time is now right to consider what further, progressive changes are needed in agriculture policy over the coming decade or more.

WWF has a vision for a new Common Environment and Rural Policy (CERP) to replace the old and increasingly outdated CAP. CERP is based on the principle of 'public payments for public goods' where the tax payer is not paying for food production, the beef or wheat, but for the goods and services required by society as a whole but which are not efficiently delivered via market mechanisms. These include the regulation of water, flooding and soils or the maintenance of landscapes and wildlife and carbon sequestration and need to be achieved through targeted payments to farmers or other direct interventions. It recognises the need to financially support those land managers who produce these goods for the benefit of society as a whole. This should be linked to the polluter pays principle, and payments would be linked to the delivery of clear objectives and targets. Information on payments made to all beneficiaries should be in the public domain.

To achieve this European and national decision makers need to:

- Make full use of existing CAP measures to achieve better management of land and water resources, reverse the decline in biodiversity and adapt to, and mitigate against, climate change;
- remove worst cases of CAP payments driving environmental damage and ensure that all payments received have tough sustainability standards tied to them;
- engage in a full and open debate about the future of the EU budget and the need for substantive reform of the CAP to create a new fund focused on sustainable land management and rural development; and
- work in partnership with environmental NGOs, farmers' representatives, academics and others to develop a new Common Environment and Rural Policy for implementation in 2019 by establishing an independent Environment and Rural Taskforce to undertake the necessary research, analysis and consultation needed to develop the new policy.

WHY IS WWF CONCERNED WITH THIS ISSUE?

WWF's mission is to stop the degradation of the planet's natural environments and to build a future in which humans live in harmony with nature by: conserving

biodiversity; ensuring the sustainable use of renewable sources; and reducing pollution and wasteful consumption. As discussed in this position paper, the transition to a more sustainable food system will be central to the achievement of this mission.

We recognise there is much debate about food in the UK. While much of it is focused on issues that are important in their own context, a great deal does not address the big issues of the day. With One Planet Food we can make a valuable and high profile contribution by focussing on the relationships between the food system, the global environment and biodiversity. We will link the protection of the environment and biodiversity with the need to improve human wellbeing and health. A focus on these issues will reduce UK food-related impacts on the environment.

We recognise that these issues are important in their own right and will be part of a larger vision for a sustainable food system but what really matters is a more equitable food distribution system within environmental limits. This will require fostering sustainable consumption patterns, improving our governance and financial institutions, increasing the resource use efficiency of food production, increasing the efficiency of nutrient use in agricultural systems and reducing deforestation and other forms of land use change to agriculture.

LIST OF FURTHER INFORMATION

"Cooking up a storm: Food, greenhouse gas emissions and our changing climate," Garnett, T, 2008 http://www.fcrn.org.uk/frcnPubs/index.htm

Food Standard Agency "Eat Well" Plate: http://www.eatwell.gov.uk/healthydiet/

Living Planet Report 2008 http://assets.wwf.org.uk/downloads/lpr_2008.pdf

"Reforming the CAP: WWF Vision for Rural Europe: 2013 and beyond" Nov 2008 http://cap2020.ieep.eu/assets/2009/2/16/WWF__November_2008__Vision_CAP_2020.pdf

"UK Water Footprint: the impact of the UK's food and fibre consumption on global water resources," Chapagain, A, Orr, S. (2008) http://assets.wwf.org.uk/downloads/water_footprint_uk.pdf

FEEDBACK

We are keen to receive your views and comments in response to this Policy Position Statement which we will be updating on a regular basis. There may also be gaps within the current position which we may not be aware of and which you may wish to highlight for any future review. Please click here to email your feedback. Please ensure you state which Policy Position Statement you are referring to.