

Resources in the UK

Food, water and energy are essential resources

| Food | Water | Energy |
|---|---|--|
| People must be able to access the right nutrition to avoid becoming malnourished. Without enough food there will be famine. | People need clean safe water with sanitation to avoid pollution. Without this people will become ill from water borne diseases. | This is needed for industry and transport to allow the economy to function and people earn a living. |

HICs have a high consumption of resources due to their higher standards of living and ability to afford resources.

Resource consumption in **NEEs is rapidly growing** as they develop. Resource consumption in **LICs is low** as they cannot afford resources.

| Food in the UK | Water in the UK | Energy in the UK |
|---|---|---|
| <p>Our demand for food is growing. In the UK we want out of season food all year. We also want exotic foods such as fruits and spices. We are importing more food from overseas.</p> | <p>Demand for water across the UK We are demanding more water in the UK due to increase in population and time saving devices such as washing machines. The north and west have high rainfall and low population leading to a surplus. However, the south east has low rainfall and high population leading to a deficit.</p> | <p>Our energy mix is changing We are moving from a high reliance on fossil fuels, particularly coal and oil to more use of renewables and nuclear.</p> |
| <p>More popular foods Seasonal produce is becoming more popular and people will now try to buy local to reduce their carbon footprint. Organic food is also becoming more popular as people don't want chemicals and pesticides getting into rivers and food chains damaging wildlife and ecosystems.</p> | <p>Causes of water pollution Water can be polluted by chemicals from farming, vehicles, run off from factories and oil spills from boats and traffic.</p> | <p>Our fossil fuels are running out We are using up north sea oil and gas reserves and due to the recent war in Ukraine are looking to reduce our reliance on fossil fuels. People are also increasingly worried about climate change and the impact on the environment. The government is considering increasing fracking for shale gas</p> |
| <p>The carbon footprint of food. Food is releasing more and more CO2 due to increased food miles (as it is transported further), more processing in factories and increased packaging and waste. As people become more concerned about this they are more likely to buy food locally to reduce the CO2.</p> | <p>Managing water pollution We can manage pollution through water treatment and improved drainage. We can also introduce laws and education campaigns to keep rivers clean.</p> | <p>Economic issues with energy Extracting fossil fuels is expensive and the cost is increasing as they are used up. Costs of nuclear and renewable are high for the consumer. Money is needed for research and investment in alternative energy. We need to pay to import energy.</p> |
| <p>Industrialised – agribusiness This is large scale farming to make lots of profit. Hedges are cut down to increase field size and many chemicals and fertilisers used to produce as many crops as possible. There is also lots of machinery used reducing the need for farm workers. This helps to give us large quantities of cheap food.</p> | <p>Water transfer Water is transferred from areas of surplus to areas of deficit. However, this can be expensive, impact wildlife and lead to political issues.</p> | <p>Environmental issues with energy Burning fossil fuels releases CO2. Fracking can pollute groundwater and cause earthquakes. Accidents such as oil spills can release chemicals into the environment. Windfarms and tidal projects can damage wildlife. Power stations and wind farms can be an eyesore.</p> |

Global Demand for Food

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| Global food supply is uneven | We are consuming more food globally |
| <p>North America and East Asia produce lots of food. Central America and Africa only produce small amounts of food.</p> <p>Calorie intake is high in HICs as people can afford to buy more food. They have food security. It is increasing in NEEs as people become wealthier. It is low in LICs as people cannot afford much food. They are food insecure.</p> | <p>The global population is increasing.</p> <p>As countries become wealthier they have more money to spend on food and so buy more. Wealthy countries eat more meat which consumes more resources.</p> <p>Countries can also afford to import more seasonal food.</p> <p>Industrialisation makes food cheaper to produce.</p> |
| Issues affecting food supply | Impacts of food insecurity |
| <p>Climate – it can be too hot or dry to produce food. Extreme weather affects food supply.</p> <p>Water stress – Areas with little rain struggle to produce food.</p> <p>Pests and diseases – locust swarms will eat crops and disease can also wipe out crops.</p> <p>Poverty – means people can't afford fertilizer or pesticides. They can't import food.</p> <p>Conflict – damages land and causes farmers to flee.</p> <p>Technology – mechanization makes farming more efficient and technology can produce better plants so we can generate more food.</p> | <p>Famine – serious lack of food over a wide area which can lead to starvation and death.</p> <p>Undernourishment – this means people are unable to stay healthy due to poor diet.</p> <p>Soil erosion – soil is over cultivated and over grazed leaving it exposed to wind and rain and it's worn away.</p> <p>Rising Prices – if there isn't enough food available the price will go up, meaning people can't afford it.</p> <p>Social Unrest – If people can't access food this can lead to riots, protest and looting. It can even contribute to civil war.</p> |
| Increasing food production globally | |
| <p>Irrigation – This is when the land is watered artificially using pipes and sprinklers from rivers and canals to help more crops grow in the area. Channels can be dug to store water.</p> <p>Hydroponics and Aeroponics – This is an intensive form of high technology agriculture where plants are grown in test tubes of nutrient rich water or sprayed with nutrient rich mist to grow in the air. It is very expensive but increases food production.</p> <p>Biotechnology – This is when crops are genetically modified so that they can survive more harsh conditions or grow faster or produce more fruit which helps to increase yields of crops.</p> <p>The New Green Revolution – This is the increased use of mechanisation and better farming methods such as seeds and fertilisers in African countries which helps them to produce more food.</p> <p>Appropriate Technology – This is when farmers in poorer countries are given cheap easy to use technology which helps them to produce more food, such as simple hand ploughs or a bicycle wheel to remove coffee bean husks.</p> | |
| Sustainable food | |
| <p>Organic Farming – This is farming without the use of chemicals or pesticides which means that rivers do not become polluted of ecosystems damaged and disrupted.</p> <p>Permaculture – This is producing food in a natural way as natural ecosystems so that soil, water and other wildlife doesn't become damaged. It includes mixed cropping and using natural predators.</p> <p>Urban Farming Initiatives – This is farming in urban areas on disused land or on rooftops, this makes food accessible and affordable for some of the poorest in the city.</p> <p>Fish and Meat from sustainable sources – This is making sure that we don't over fish the oceans we can use farmed fish instead and that animals are raised in a way that is environmentally friendly such as eating grass and not putting too many on the land so it can't cope.</p> <p>Seasonal food consumption – This means only eating food when it can be grown locally. This means that we are not importing as much food and so we reduce our food miles and the amount of CO2 released.</p> <p>Reducing waste and losses. – This means making sure we don't buy too much, that supermarkets don't order too much. That we consume vegetables that are odd shapes so they are not wasted and that businesses think about how much they produce and then waste.</p> | |
| Agribusiness in Almeria will increase food production: see case study card. | Rice Fish farming in Bangladesh is more sustainable: see case study card. |

