

CAIE Geography Pre-U

2B - The Provision of Food

Flashcards

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What are the physical constraints on agriculture?



What are the physical constraints on agriculture?

Insolation, temperature, precipitation, water supply, wind, relief, soils, pests and diseases, and global warming and climate change.



What is carrying capacity?



What is carrying capacity?

The number of people that a region can support with its basic resources.



What is the Malthusian theory?



What is the Malthusian theory?

That famine is the inevitable result of population growth because food production increases geometrically whereas food production increases arithmetically.



What is the Club of Rome's Limit to growth model?



What is the Club of Rome's Limit to growth model?

Human population would reach a point where the level of food supply would determine the size of the population.



What was Boserup's theory?



What was Boserup's theory?

That humans will develop the means of providing themselves with enough food through new farming methods.



What did the Brundtland report do?



What did the Brundtland report do?

Promoted sustainable economic development and highlighted the lack of regard for the environment and overconsumption of the human race.



What was Brundtland's definition of sustainability?



What was Brundtland's definition of sustainability?

Development that meets the needs of the present population without compromising the needs of future generations to meet their own needs.



What is subsistence farming?



What is subsistence farming?

Where farmers grow crops and raise animals to feed themselves and their families.



What is commercial farming?



What is commercial farming?

The production of crops and animal products to be sold to gain a profit.



What are the benefits of commercial agriculture?



What are the benefits of commercial agriculture?

Able to feed the majority of people, allows industrialisation and urbanisation, money made can be used to improve yields, people can be involved in other areas of society and workers receive a constant wage.



What are the benefits of subsistence farming?



What are the benefits of subsistence farming?

People live in harmony with the environment, more sustainable, community-focused, no exploitation risk and polycultures damage the soil quality less.



What are the reasons for the location of marine fish stocks?



What are the reasons for the location of marine fish stocks?

Abundance of plankton, shallow coastal waters, marine topography, ocean currents, ocean gyres and the sublittoral zone.



What are the reasons for the locations of fish farming?



What are the reasons for the locations of fish farming?

High levels of demand, shelter and allowed by the government.



What does the modernisation of food production involve?



What does the modernisation of food production involve?

Intensification, concentration and specialisation of agriculture with a focus on the economics of food production.



The modernisation of food production is a period of time where what happened?



The modernisation of food production is a period of time where what happened?

Agribusinesses became prominent, farmers were increasing the yields to the point of overproduction, changes in land tenure and farm sizes and there were significant landscape changes.



What are the positives of agribusinesses?



What are the positives of agribusinesses?

Create a wide variety of food, allows the release of workers to non-agricultural endeavours and provide better economic growth.



What are the negatives of agribusinesses?



What are the negatives of agribusinesses?

Difficult for smaller farms to survive, decreases biodiversity, eutrophication occurs, patents increase the gap between rich and poor and causes land degradation.



Why was there overproduction?



Why was there overproduction?

Higher levels of inputs, high yield varieties, the use of fertilisers and pesticides and are often driven by government incentives.



What are the negatives of overproduction?



What are the negatives of overproduction?

Land degradation and water pollution for food that was not required, causes small farms to collapse, floods developing countries with surplus and destabilised world markets.



Between 1950 and 1960 how much did the number of farms in the US decrease by?



Between 1950 and the 1960 how much did the number of farms in the US decrease by?

Decreased by half.



Between 1950 and 1965 how much did the average farm size in the US increase by?



Between 1950 and 1965 how much did the average farm size in the US increase by?

From 205 to 400 acres.



What are the negative consequences of changes in farm sizes and land tenure?



What are the negative consequences of changes in farm sizes and land tenure?

Causes unemployment, increases the consequences experienced by agribusinesses and removes boundaries to farms which are important for biodiversity.



What does the post-productionist phase of food production involve?



What does the post-productionist phase of food production involve?

Extensification, dispersion and diversification of agriculture and an increased focus on conservation.



The post-productionist phase of food production is where what happened?



The post-productionist phase of food production is where what happened?

Farm diversification schemes,
stewardship schemes and bottom-up
approaches.



What were farm diversification schemes aimed at doing?



What were farm diversification schemes aimed at doing?

Adding different business activities to traditional farming such as alternative livestock, non-food crops or tourist accommodation.



How many of England's farms have diversified and what was their total income in 2015 and 2016?



How many of England's farms have diversified and what was their total income in 2015 and 2016?

More than half of England's 57,000 farms have diversified with a total income of £580 million between 2015 and 2016.



What are the positives of diversification schemes?



What are the positives of diversification schemes?

Allow a greater income for farmers and it protects farmers income if their crops fail.



What do Stewardship schemes include?



What do Stewardship schemes include?

Milk quotas, set aside policies and the Countryside stewardship scheme which brings together all environmental schemes.



What are the positives of Stewardship schemes?



What are the positives of Stewardship schemes?

Reduce overproduction, increase biodiversity and is better for the environment.



What are bottom-up approaches?



What are bottom-up approaches?

Organic and low-impact techniques aimed at maintaining the quality of the soil.



What are the positives of bottom-up approaches?



What are the positives of bottom-up approaches?

Higher nutrient quality food, no agrochemical inputs so better for the environment and does not release as much CO₂.



What are the negatives of the post-productionist phase of food-production?



What are the negatives of the post-productionist phase of food production?

On average organic yields are 25% lower than conventional so could lead to food insecurity, on average organic food is 47% more expensive and set aside policies might encourage more intensive farming on land that is being used.



What does the neo-productionist phase of food production involve?



What does the neo-productionist phase of food production involve?

The use of subsidies, further intensification of agriculture, the use of GM crops, and food insecurity.



Why do governments give subsidies?



Why do governments give subsidies?

To allow farmers to make a liveable wage whilst still providing consumers with cheaper produce.



What percentage of CAP goes to what percentage of farmers?



What percentage of CAP goes to what percentage of farmers?

80% of CAP goes to 20% of farmers.



What are the negatives of subsidies?



What are the negatives of overproduction?

Cause overproduction, diversion of trade away from more efficient farmers and surplus food flooding developing countries.



How much has intensive farming increased since 2011?



How much has intensive farming increased since 2011?

By a quarter.



What are the positives of further intensification?



What are the positives of further intensification?

Increased yields, lower loss of energy between crops and livestock, and it is able to feed a growing population.



What are the negatives of intensification?



What are the negatives of intensification?

Cruel to animals, diseases are more likely to spread and the large-scale use of antibiotics can cause resistance and also has health effects.



What are the positives of GM crops?



What are the positives of GM crops?

Increase yields, need fewer pesticides and fertilisers, and are better at coping with adverse yields.



What are the negatives of GM crops?



What are the negatives of GM crops?

Possible health effects and are often patented so small farmers lose out.



What is the Common Fisheries Policy?



What is the Common Fisheries Policy?

A set of rules for managing European fishing fleets and for conserving fish stocks.



What are the environmental effects of fish farming?



What are the environmental effects of fish farming?

Disease and parasites spreading to wild fish, pesticides can affect the ecosystem, seafloor damaged, loss of genetic diversity, seals and sea lions shot, loss of natural habitat, antibiotic resistance and pollution.



What are the economic impacts of fish farming?



What are the economic impacts of fish farming?

Competes with fish farming, drives down the price of fish, affects the tourism industry and smaller fisheries lose out.



What are the positives of fertilisers?



What are the positives of fertilisers?

Increase the yields and reduce the need for the conversion of wild land into farmland.



What are the negatives of fertilisers?



What are the negatives of fertilisers?

Can wash into waterways and cause eutrophication so kills aquatic life and increases the depletion of organic matter in the soil.



What are the positives of pesticides?



What are the positives of pesticides?

Prevent crop failure, controls invasive species and leads to a greater proportion of the crop being marketable.



What are the negatives of pesticides?



What are the negatives of pesticides?

Health effects to humans and are highly toxic to fish and amphibians when they wash into waterways.



What was the Green Revolution?



What was the Green Revolution?

Is a set of agricultural practices aimed at increasing agricultural yields and providing food security.



What does the Green Revolution include?



What does the Green Revolution include?

Biochemical changes, irrigation, terracing and drainage schemes, and the use of machinery.



How much did yields increase in the Philippines after the introduction of HYVs?



How much did yields increase in the Philippines after the introduction of HYVs?

Increased sixfold.



What were the benefits of biochemical changes during the Green Revolution?



What were the benefits of biochemical changes during the Green Revolution?

Allowed crops to be grown in a reduced timeframe with an increased yield, a larger population can be supported and less land needs to be converted.



What are the negatives of biochemical changes during the Green Revolution?



What are the negatives of biochemical changes during the Green Revolution?

Overproduction, soil degradation, patented varieties increase the price and so create a bigger gap between the rich and the poor.



What are the positives of irrigation, terracing and drainage schemes?



What are the positives of irrigation, terracing and drainage schemes?

Increase the area of cultivable land, allow more water intensive farming to take place and makes the land more suitable.



What are the negatives of irrigation, terracing and drainage schemes?



What are the negatives of irrigation, terracing and drainage schemes?

Increases water use which could become unsustainable, encourages of wildland into farmland, soil degradation and salination of water sources.



What are the positives of increased use of machinery?



What are the positives of increased use of machinery?

Allows for faster planting, harvesting and processing of crops and requires a smaller workforce so can increase development.



What are the negatives in the increased use of machinery?



What are the negatives in the increased use of machinery?

Increased GHG emissions which will lead to climate change, causes unemployment for farmers, and creates a bigger gap between rich and poor.



What is land reform?



What is land reform?

A purposive change in the way that agricultural land is held or owned, the methods of cultivation, or the relation of agriculture to the rest of the economy.



What are the positives of land reform?



What are the positives of land reform?

Provides land to those who wouldn't otherwise been able to own it, small farms in developing countries tend to be more productive and increased standard of living.



What are the negatives of land reform?



What are the negatives of land reform?

Corruption problems whilst redistributing the land, agriculture can only work on a subsistence level, people could be placed on land which they don't know how to farm and it might be better for farmers to work on bigger farms so they receive a steady income.



What are land grabs?



What are land grabs?

Large-scale acquisitions that involve the buying or leasing of land in developing countries by domestic companies, TNCs, governments or individuals.



How many land deals have there been since 2001?



How many land deals have there been since 2001?

80 million.



In Cambodia, land grabbing for economic gains has displaced how many people?



In Cambodia, land grabbing for economic gains has displaced how many people?

10% of the population.



What are the social implications of commercialisation?



What are the social implications of commercialisation?

Improves standard of living but farming becomes more individual and communities deteriorate.



What are the economic implications of commercialisation?



What are the economic implications of commercialisation?

Improvements to the country's GDP but there are fluctuations in the prices of cash crops and small holders could become indebted.



What are the environmental implications of commercialisation?



What are the environmental implications of commercialisation?

Monocultures can damage soil quality, not as careful about managing the environment sustainably, profits used to buy fertilisers and pesticides will damage the environment further.



What is polyculture and intercropping?



What is polyculture and intercropping?

Involves the planting of different species of plants on the same land at the same time.



What are the benefits of polyculture and intercropping?



What are the benefits of polyculture and intercropping?

Improves plant health, plants do not compete with each other, improves biodiversity, act as natural pest control, water use decreases, nitrogen is under better control, increased soil fertility and more stable income for farmers.



How much did yields in China increase by planting different varieties of rice?



How much did yields increase in China by planting different varieties of rice?

By 89%



What are the negatives of polyculture and intercropping?



What are the negatives of polyculture and intercropping?

Involves a lot of planning, lots of knowledge of the different plants needs to be known, investment is greater and it is harder to control and supervise plants.



What are the positives of addressing post-harvest losses?



What are the benefits of addressing post-harvest losses?

Makes sure that most of the food produced is sold so that resources are not going to waste.



What are the negatives of addressing post-harvest losses?



What are the negatives of addressing post-harvest losses?

Can be expensive and the materials might not be available.



What are hydroponics?



What are hydroponics?

Involves the growing of crops in water and nutrient solutions rather than in soil.



What are the positives of hydroponics?



What are the positives of hydroponics?

Does not require any soil, uses 80% less water, provides food security, uses 20% less space, allows the control of nutrients, fewer pests, diseases and weeds, and allows plants that otherwise wouldn't have been able to grow to be grown.



What are the negatives of hydroponics?



What are the negatives of hydroponics?

Requires more time and commitment, uses electricity, and the initial expenses can be high.



What was the population in 1915, the population now and the expected population in 2050?



What was the population in 1915, the population now and the expected population in 2050?

1.8 billion, 7.5 billion and 9.7 billion.



How much will the demand for food increase by 2050?



How much will the demand for food increase by 2050?

70-100%



In 2010, how much more food was the world producing than was needed?



In 2010, how much more food was the world producing than was needed?

20%



What is food security?



What is food security?

The availability of food in a given area and the ability of all individuals to access food supplies.



How many people worldwide do not have access to a sufficient supply of nutrients?



How many people worldwide do not have access to a sufficient supply of nutrients?

870 million.



What are the ethical issues of food supply in the 21st century?



What are the ethical issues of food supply in the 21st century

The exploitation of migrant labour, religious and cultural differences, the exploitation of animals, introduction of GM crops and obesity.



What are the environmental issues of food supply in the 21st century?



What are the environmental issues of food supply in the 21st century?

Deforestation, tropical prawn fisheries, global warming and food miles and water pollution.



How many square km of forest did Brazil lose between 2000 and 2007?



How many square km of forest did Brazil lose between 2000 and 2007?

150,000



What percentage of shrimp is farmed in Asia?



What percentage of shrimp is farmed in Asia?

75%



How far does HIC food travel?



How far does HIC food travel?

Between 2,500 and 4,000 km.



How much has the mean distance travelled by HIC food increased by since 1980?



How much has the mean distance travelled by HIC food increased by since 1980?

80%



What percentage of water pollution in the Philippines originated from agricultural practices?



What percentage of water pollution in the Philippines originated from agricultural practices?

37%



What are the economic issues of food supply in the 21st century?



What are the economic issues of food supply in the 21st century?

Fairtrade, commercialisation and TNCs.



What are the political issues of food supply in the 21st century?



What are the political issues of food supply in the 21st century?

Role of TNCs in relation to agricultural aid, role of NGOs in relation to agricultural aid and food aid.



How many people work in the Senegal fishing industry?



How many people work in the Senegal fishing industry?

200,000



How much fish is exported from Senegal to the EU annually?



How much food is exported from Senegal to the EU annually?

25,000 tonnes



How many kg per hour could fish be caught at in the 1960s compared with 2014.



How many kg per hour could fish be caught at in the 1960s compared with 2014?

300 kg/hr in the 1960s and 18 kg/hr in 2014.



How much did the Netherlands invest in improving farming methods?



How much did the Netherlands invest in improving farming methods?

500,000 euros



How much did the use of pesticides decrease in the Netherlands?



How much did pesticide use decrease in the Netherlands?

85%



What are the aims of CAP?



What are the aims of CAP?

Support farmers, improve agricultural productivity, tackle climate change, ensure stable supply of affordable food, maintain rural areas and keep the rural economy alive.



What are the positives of CAP?



What are the positives of CAP?

Ensures food security, protects rural communities, agri-food chain represents 46% of all EU workers, allows great consumer choice, stable food supplies at reasonable prices, and more food is sourced locally so there are less air miles.



What are the negatives of CAP?



What are the negatives of CAP?

Leads to overproduction and waste, 80% of CAP goes to 20% of farmers, puts up trading barriers to LICs, artificially inflates food prices, distorts world markets and hides inefficiencies.



What are the positives of the CFP?



What are the positives of the CFP?

Allows fish stocks to be managed as one, maintains fish stocks and stops overfishing, protects the jobs of fishermen and can negotiate advantageous agreements.



What are the negatives of the CFP?



What are the negatives of the CFP?

Over-centralised, 3 out of 4 major fish stocks are still overfished, fleet still double sustainable level, quota hopping, waste, and the bullying and bribing of developing countries.



What percentage of the catch in the North Atlantic is wasted?



What percentage of the catch in the North Atlantic is wasted?

13% of the total catch.



How much did the yields of wheat and maize increase in Mexico from HYVs?



How much did the yields of wheat and rice increase in Mexico from HYVs?

Wheat tripled and maize doubled.



In India, how much did wheat and rice yields increase as a result of HYVs?



In India, how much did wheat and rice yields increase as a result of HYVs?

They both doubled.



What are the advantages of Unilever in a host country?



What are the advantages of Univer in a host country?

Increases investment, improves wealth and employment, improves competitiveness and reduces dependence on imports.



What are the negatives of Unilever on a host country?



What are the negatives of Unilever on a host country?

Undermines national sovereignty, neo-colonialism, controls markets, outflows of capital and creates dependency and reliance.



What were the positive impacts of commercialisation in India?



What were the positive impacts of commercialisation in India?

Allowed the transformation of the Indian economy, linked India with the world economy, regional specialisation on an efficient basis, created a base for the growth of the economy and allowed the growth of high level social and economic systems.



What were the negative impacts of commercialisation in India?



What were the negative impacts of commercialisation in India?

Only rich farmers benefitted, poor farmers were forced to sell produce at whatever price they could get, decrease in food crop yields and the rural economy declined.



Between 1893 and 1946 how much did the production of commercial crops increase and food crops decrease?



Between 1893 and 1946 how much did the production of commercial crops increase and food crops decrease?

Commercial crops increased by 85% and food crops decreased by 7%.



How many hectares of land in Britain is used for producing food that will be wasted compared with crops to be used for biofuel?



How many hectares of land in Britain is used for producing food that will be wasted compared with crops to be used for biofuel?

500,000 hectares compared with 15,000 hectares.



What were the environmental factors of the Somalia famine?



What were the environmental impacts of the Somalia famine?

July 2010 to June 2011 were the driest in 60 years this increased wind erosion.



What were the economic factors for the Somalia famine?



What were the economic factors for the Somalia famine?

Rise in food prices especially in staple crops like maize but a decrease in livestock prices.



What were the political factors for the Somalia famine?



What were the political impacts for the Somalia famine?

Weak central government and Al-Shabab. Rebels refused to allow in food aid. Somalia's government failed to tackle chronic poverty.



What were the consequences of the Somalia famine?



What were the consequences of the Somalia famine?

People fled to Kenya which caused social tensions and 258,000 people died half of which were children under 5 years of age.



How many children under 5 in Ethiopia are at risk of severe acute malnutrition?



How many children under 5 in Ethiopia are at risk of severe acute malnutrition?

303,000



What percentage of children in Ethiopia are stunted?



What percentage of children in Ethiopia are stunted?

38%



What percentage of children under 5 in Ethiopia die from malnutrition?



What percentage of children under 5 in Ethiopia die from malnutrition?

28%



How many people does malnutrition affect in Ethiopia?



How many people does malnutrition affect in Ethiopia?

2.7 million



How much does child malnutrition cost the Ethiopian government each year?



How much does child malnutrition cost the Ethiopian government each year?

16.5% of their GDP



How much did the EU give to support
UNICEF in Ethiopia?



How much did the EU give to support UNICEF in Ethiopia?

3 million Euros.



In 16 years how much did malnutrition decrease by for 6 to 23 month old children?



In 16 years how much did malnutrition decrease by for 6 to 23 month old children?

By 20%



In 2000 how many white people did Mugabe forcibly remove off of land in Zimbabwe?



In 2000 how many white people did Mugabe forcibly remove off of land in Zimbabwe?

4,500



Who was most of the land transferred to
in Mugabe's land reform?



Who was most of the land transferred to in Mugabe's land reform?

Zanu-PF politicians.



How many Zimbabweans now need
regular food aid?



How many Zimbabweans now need regular food aid?

3 million.



What percentage of households in Zimbabwe are hungry?



What percentage of households in Zimbabwe are hungry?

40%

