

BOX 1: KEYWORDS PART 1	
inequalities	when something is unequal (and usually unfair)
population density	compares the number of people living in places of the same size
significance	the importance of something
social wellbeing	enough resources → good quality of life → economic development
economic wellbeing	enough jobs → people have money for good quality of life
consumption	to consume resources → food, water, energy being used
supply	the movement of resources to where they are used

BOX 2: GLOBAL RESOURCE MANAGEMENT	
resources and wellbeing	3 most important resources → food, water, energy → important for social and economic wellbeing → quality of life and development
inequalities → food resources	over 1 billion people do not have enough food → drought and lack of infrastructure (difficult to transport food) in many African countries
inequalities → water resources	some places less water than others → physical reasons e.g. climate → human reasons e.g. not enough infrastructure (water pipes)
inequalities → energy resources	energy resources → energy needed for economic and social development e.g. electricity needed to power factories and hospitals

BOX 3: KEYWORDS PART 2	
agribusiness	turning small farms (agriculture) into large profitable businesses
carbon footprint	amount of greenhouse gases we individually produce
crops	plants grown on farms
demand	the amount of a resource that is wanted/needed
exports	a country selling goods (e.g. computers, bananas) to another country
food miles	distance food travels from farms to customers
imports	when a country buys goods from abroad
local food sourcing	reduces food miles → reduces carbon footprint
organic produce	food produced without artificial fertilisers and pesticides
seasonal food	food that only grows at certain times of year in certain seasons
yield	the amount produced → lots of crops grown → high yield of plants

BOX 4: FOOD RESOURCES IN THE UK	
high-value food exports to UK	increasing incomes in UK → people want/can afford to eat exotic foods → from LICs/NEEs → e.g. Vanilla from Madagascar → expensive
all-year demand for seasonal food in UK	people in UK like eating favourite fruits all year → most fruits only grow in certain seasons → so fruits imported from warmer countries
demand for organic produce in the UK	people in UK choosing organic food → difficult to grow → grown without pesticides/artificial fertilisers → more expensive to buy
larger carbon footprints in UK	food miles increasing → often food is imported by airplane → releases greenhouse gases → large carbon footprint
local sourcing of food in the UK	local food becoming more popular in UK → people buy food from local farms → smaller food miles → reduces the carbon footprint

trend towards agribusiness in UK	small farms bought by large companies → to maximise profits → field sizes increased → more machines and fewer workers → increase yields
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BOX 5: KEYWORDS PART 3	
deficit	not enough of something (also called resource insecurity)
irrigation	to water crops artificially e.g. by using large sprinklers
leached	e.g. rain washes fertilisers out of soil and into rivers
surplus	having too much of something (also called resource security)
water pollution	when harmful substances have entered water e.g. rivers and the sea
water transfer	water moved from area of water surplus to area of water deficit

BOX 6: WATER RESOURCES IN THE UK	
changing demand for water in the UK	amount of water used by UK homes risen 70% since 1985 → more appliances e.g. dishwashers → due to more frequent showering
improving water quality in the UK	water pollution → pesticides, fertilisers, oil, sewage → pollution management improves water quality → illegal to pollute rivers
water deficit and surplus in UK	areas with highest population in UK are however areas with least rainfall → 1/3 UK population lives in south east → driest part of UK
water transfer to maintain supplies	water transferred from one place to another in the UK → e.g. from area of water surplus (Wales) to area of water deficit (Liverpool)

BOX 7: KEYWORDS PART 4	
domestic	about the home → can mean ‘about the country you live in’
energy mix	the different energy sources used by a place
exploitation	resource exploitation → using too many resources → damages planet
fossil fuel	natural fuel → coal, oil gas → formed from remains of living organisms
fracking	forcing high pressure liquid into ground → extract oil/gas from rocks
renewable	energy sources that do not run out e.g. solar, wind, tidal etc.
non-renewable	energy sources that will run out e.g. coal, oil, gas, nuclear

BOX 8: ENERGY RESOURCES IN THE UK	
changing energy mix in the UK	<ul style="list-style-type: none"> the energy mix in the UK is changing → UK decreasing reliance on fossil fuels → using less fossil fuels UK → growing significance of renewable energy → using more
issues of energy exploitation in UK	<ul style="list-style-type: none"> fossil fuels release greenhouse gases into atmosphere → cause climate change → coal mines → destroy habitats for animals nuclear power stations → very expensive → Hinkley Point → estimated over \$22 billion to build → radioactive nuclear waste renewable energy can be expensive and not completely reliable → wind turbines → noisy → can reduce tourism (visual impact)

BOX 1: KEYWORDS		BOX 6: RENEWABLE STRATEGIES TO INCREASE ENERGY SUPPLY	
energy surplus	more than enough energy (energy security) → uninterrupted/affordable	biomass	wood, crops → burned for electricity or made into biofuels → but this releases greenhouse gases e.g. carbon dioxide
energy deficit	not enough energy (energy insecurity) → interrupted/unaffordable	wind	electrical energy generated from the wind e.g. wind turbines
energy demand	the amount of energy that is needed	hydroelectric power	HEP → river dammed → water flows through dam to spin turbines
energy supply	the movement of energy to where it is being used	tidal	water level changes between high tide and low tide → spins turbines
energy consumption	using energy	geothermal	energy generated by heat stored deep in the Earth e.g. in volcanic areas
energy exploration	searching for/discovering energy resources e.g. areas with oil and gas	wave	waves used to generate energy → but wave strength varies day to day
energy exploitation	using energy resources to maximum , for profit → environmental damage	solar	solar energy converted into heat or electricity e.g. by solar panels
energy conservation	reducing energy consumption → using less energy	BOX 7: NON-RENEWABLE STRATEGIES TO INCREASE ENERGY SUPPLY	
sustainable energy	energy that can be used long into future without harming future generations → does not release greenhouse gases	fossil fuels	coal, oil, gas → formed from remains of living organisms → releases greenhouse gases when burnt → e.g. CO₂ → climate change
renewable energy	energy sources which cannot be exhausted/ run out e.g. wind power	nuclear power	nuclear reaction (uranium) → heats water → steam rises → turns turbines → electricity → no greenhouse gases → but nuclear waste
non-renewable energy	energy sources which will run out e.g. fossil fuels	BOX 8: THE EXTRACTION OF NATURAL GAS → ADVANTAGES AND DISADVANTAGES	
fossil fuel extraction	removing fossil fuels from the ground e.g. mining or drilling	advantages of gas ☺	<ul style="list-style-type: none"> • produces less carbon dioxide than coal and oil • gas leaks are less environmentally damaging than oil leaks • easily transported by pipelines • can be used for both heating and cooking
BOX 2: GLOBAL DISTRIBUTION OF ENERGY CONSUMPTION AND SUPPLY		disadvantages of gas ☹	<ul style="list-style-type: none"> • gas is a fossil fuel → releases carbon dioxide → climate change • 'fracking' can be used to release gas → causes water pollution • gas leaks can cause explosions or fires and gas is toxic to humans • needs expensive pipeline infrastructure to transport gas • political issues can disrupt transportation of gas e.g. Russia
global demand	global demand for energy is rising → global consumption rising	BOX 9: MOVING TOWARDS A SUSTAINABLE RESOURCE FUTURE	
global consumption	HICs → consume more energy (e.g. transport, industry, technology)	reducing carbon footprints	e.g. reducing individual energy use , using more sustainable energy , reducing global energy consumption , reducing waste , insulating homes
global supply	places with more energy resources → high supply → energy security	energy conservation	<ol style="list-style-type: none"> 1. <u>sustainable homes/workplaces by</u> → home insulation and double glazing to reduce heat loss, new boilers, solar panels, LED lighting 2. <u>sustainable transport by</u> → sharing transport, cycling, electric cars
BOX 3: REASONS FOR INCREASING ENERGY CONSUMPTION		demand reduction	<ul style="list-style-type: none"> • public given incentives to use less energy e.g. money for insulation • new laws to ensure new houses and new cars are energy efficient
1. economic development	economic development → energy demand increases → high demand in HICs and NEEs e.g. agriculture, industry, transport, domestic energy	technology	new technology is used to increase efficiency of fossil fuels → reduces carbon emissions e.g. efficient car engines , 'carbon capture and storage'
2. rising population	more people → more energy needed e.g. population rising fast in Africa	BOX 10: LOCAL RENEWABLE ENERGY SCHEME IN LIC/NEE → SUSTAINABLE ENERGY	
3. technology	<ul style="list-style-type: none"> • today more devices to use energy, especially in the home • technology has made it easier for fossil fuels to be extracted 	case study example	Darbang community, Nepal, Asia (LIC) → Micro Hydro Scheme
BOX 4: FACTORS AFFECTING ENERGY SUPPLY		features of the micro hydro scheme	<ul style="list-style-type: none"> • HEP → sustainable, renewable → no greenhouse gases • uses powerful Himalayan rivers to generate electricity • cheap/easy to construct and maintain in remote rural areas • energy for 700 homes → powers small factories e.g. noodle factory
1. physical factors	geology for coal? climate for solar energy? coastline for tidal power?		
2. cost of exploitation	when cost of extracting energy is low → cheap energy → more demand		
3. technology	e.g. new fracking technology (to extract gas), new renewable technology		
4. political factors	political factors can reduce energy supply e.g. war in Ukraine → reduced oil and gas imports from Russia		
BOX 5: IMPACTS OF ENERGY INSECURITY			
1. more exploration of environmentally sensitive areas	e.g. increased searching for energy resources → harm environment → oil drilling in Alaska threatens tundra, flooding of land for HEP reduces biodiversity, rainforest destruction for biofuel causes climate change		
2. economic costs	more energy insecurity → energy prices rise		
3. food production	energy insecurity → less energy for food production → food insecurity		
4. industrial output	unreliable energy → power cuts → less manufacturing and job cuts		
5. conflict	when demands exceeds supply → energy insecurity can cause conflict : - e.g. River Nile HEP dam to increase energy for Ethiopia → but possible conflict between Sudan, Egypt, Ethiopia due to reduced water supplies		

