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**AQA GCSE
Geography**





Revision Guide

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Revision Guide

Contents

The aim of Geography is to have the confidence to explore and question the world around us, recognising the great differences in cultures, political systems, economies, landscapes and environments across the world.



Think

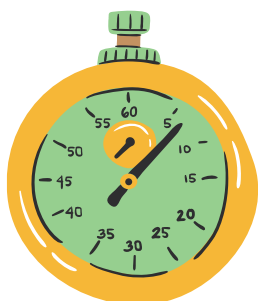
Geography is about finding patterns in the complexity of natural and human places, and so thinking outside of the box is vital. Ask yourself questions like;

- How does this link to other things I've already learned?
- How has this part of Geography changed over time, and how will it change in the future?



Find

Geography is endless – it's always been here and it always will be and what that means for you is that the subject is one you can never 'complete'. The best Geographers are the ones fully embrace the fact that the subject has and will continue to influence your life. Leaning into that, by reading around the subject, engaging with the Super Curriculum and taking your learning beyond the classroom, will increase your chances of success.



Build

This handbook is full of the following helpful information that you can refer back to when needed to help build the strong foundation needed for success.

Revision tips: To help you not just at exam time, but throughout the year

Pupil Learning Checklist: Everything you need to know for the topic
Case studies: All of the case studies that you must know – you could get a 2 marker on it, or a 9 marker!



Topics Of GCSE Geography

The geography course you are studying is with AQA and the qualification is made up of three different units. All of these are exam based, the first two of which are based on physical and human geography respectively. The third exam is partly based on the fieldwork that you have done over the course of the two years and an issues investigation that will be introduced in a resources booklet that is released just before your exam. You will sit the exams at the end of Year 11, and details of the units you will study are below:

Paper 1: Physical

1h30, 88 marks



Challenge of Natural Hazards



The Living World



UK Physical Landscapes: Coasts and Rivers

Paper 2: Human

1h30, 88 marks



Urban Issues and Challenges



Changing Economic World



Challenge of Resource Management

Paper 3: Issue Evaluation, 1h30, 76 marks



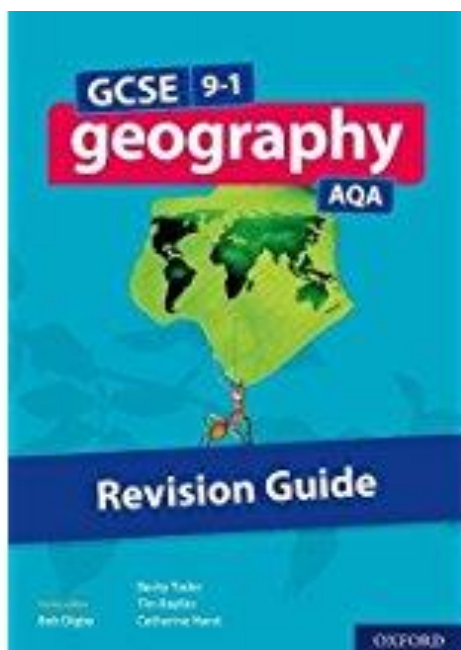
Pre-Release Issue Evaluation
(document released in March of Y11)



Fieldwork
(based on your trips to Birmingham and Carding Mill Valley)



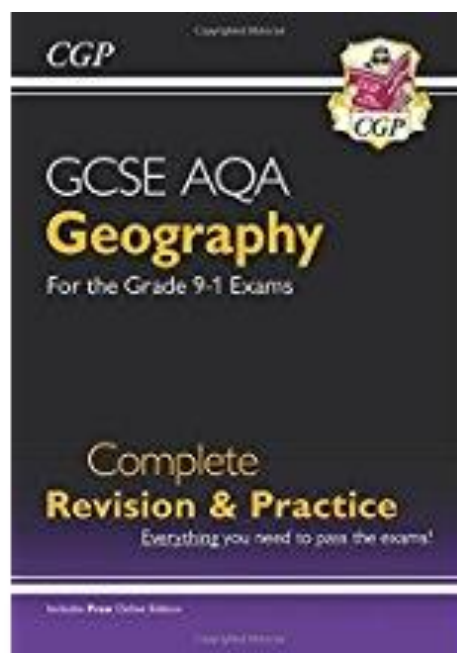
Revision books In Geography



GCSE 9-1 Geography AQA Revision Guide

ISBN: 0198423462

Well-structured revision guide that covers the key content and combines with exam style tasks and practical tips for your revision.



Grade 9-1 GCSE Geography AQA Complete Revision & Practice (CGP)

ISBN: 1782946136

Most students will be familiar with CGP revision guides and this one is a good outline of the course and can be used to help you with your revision. It also includes practice questions which many students find useful.



Other Revision Resources



Seneca Learning

Seneca has been designed by cognitive scientists to help students remember topics better and reduce their stress levels. You can access revision notes on each of your topics and then take quick tests to check your learning. It has been proven to make learning 2 x faster than traditional methods.

<https://www.senecalearning.com/>

Cool Geography

Created by teachers for students studying GCSE geography, this website has content, diagrams, animations and videos that will help you through your revision.

<http://www.coolgeography.co.uk/>

Internet Geography

A dedicated geography website with high quality revision notes covering all aspects of the AQA course.

<https://www.internetgeography.net/aqa-gcse-geography/>

Quizlet

Quizlet enables you to create their own revision flashcards, as well as to use sets created by others. When you access a set, there are four different modes in which you can use them: cards, learn, match and test.

<https://quizlet.com>

Get Revising

Whatever apps or tools students use (or don't use), being organised about their revision is key. So why not create revision timetables using Get Revising's Study Planner tool?

<http://getrevising.co.uk>

Other online revision tools

Flashcards++ <https://itunes.apple.com/gb/app/flashcards++/id378786877?mt=8>

Examtime <https://www.examtime.com/en-GB/>

Flashcards to go <http://www.flashcardstogo.com>

Memrise – helping to learn vocab <https://www.memrise.com>

Challenge of Natural Hazards

Pupil Learning Checklist



Natural hazards	
I can define a natural hazard and give some examples of the different types.	
I can explain the different factors that affect risk .	
Tectonic hazards	
I can describe the distribution of earthquakes and volcanoes .	
I explain the differences between destructive , constructive and conservative plate margins.	
I know the main features of an earthquake and two different ways of measuring earthquakes.	
Using <u>named examples</u> of a tectonic hazard in both rich and poor countries. I can: (1) Explain why the tectonic hazard happened there, (2) Describe the effects that resulted from the earthquakes both primary and secondary. (3) Describe what was done after the earthquake (responses), both in the long and short term.	CHRISTCHURCH and NEPAL
I can explain why earthquakes cause more loss of life in poor than in rich countries.	
I can explain why people continue to live in areas at risk of tectonic hazards .	
I can explain how monitoring, planning and prediction of tectonic hazards can reduce their effects.	
Weather hazard	
I can describe the global atmospheric circulation model .	
I can explain how the global atmospheric circulation model affects weather around the world.	
I can describe the distribution of tropical storms .	
I can explain the causes of a tropical storm .	
Using a <u>named example</u> I can describe and explain the primary and secondary impacts of tropical storms .	
I can assess and evaluate methods of responses tropical storms in both the long and the short term <u>using a named example</u> .	TYPHOON HAIYAN
I can explain how tropical storms might be affected by global warming .	
I can explain how monitoring, planning and prediction of tropical storms can reduce their effects.	
I can explain the cause of an extreme weather event <u>using an example</u> .	BEAST FROM THE EAST
I can describe and explain the social, economic and environmental <u>using an example</u> .	
I can identify evidence of the weather becoming more extreme <u>using an example</u> .	
I can explain how extreme events can be managed to reduce the impacts.	
I can assess and evaluate the impact that weather conditions have upon people homes, lives, agriculture, health and transport.	
Climate change	
I can explain the evidence both for and against climate change .	
I can explain both the natural and human causes of climate change.	
I can assess and evaluate the economic, social, environmental and political impacts of climate change both on the world and the UK.	
I can describe and evaluate the mitigation strategies used to reduce the impact of global climate change on a local, national and international level.	
I can describe and evaluate the adaption strategies used to reduce the impact of global climate change on a local, national and international level.	

The Living World

Pupil Learning Checklist



Using an <u>example</u> from the UK, I can explain the interrelationship within the natural system.	GHELUVELT PARK
I can define and give UK <u>examples</u> of producers consumers, decomposer, food chain, food web and nutrient cycle	
I can explain their interdependence of each of the above and explain how changes might affect each other.	
I can describe the distribution and characteristics of global ecosystems around the world.	
Tropical rainforests (core content)	AMAZON
I can describe the physical characteristics of the tropical rainforests	
I can explain the interdependence of the climate, water, soils, plants, animals and people in a tropical rainforest	
I can explain how plants and animals have adapted to the physical conditions of tropical rainforests.	
I can describe and explain the problems and issues with changing biodiversity within the tropical rainforest.	
I can describe and explain the changing rates of deforestation .	
I can <u>use a case study</u> to explain the causes of deforestation subsistence and commercial farming, 1.Logging, 2.Road Building 3.Mineral Extraction 4.Energy Development, 5.Settlement 6.Population Growth	
I can <u>use a case study</u> to explain the impacts of deforestation 1.Economic development 2.Soil erosion, 3.Contribution to climate change.	
I can explain the importance and value of the tropical rainforest on a local, national and international scale.	
I can explain why it is important the tropical rainforest should be managed sustainably .	
I can explain how the tropical rainforest can be managed sustainably using a range of methods 1.Selective logging and replanting 2.Conservation and education 3.Ecotourism 4.International agreements about the use of tropical hardwoods, 5.Debt reduction.	
Hot deserts	THAR
I can describe the physical characteristics of the hot desert	
I can explain the interdependence of the climate, water, soils, plants, animals and people in a hot desert	
I can explain how plants and animals have adapted to the physical conditions of hot deserts	
I can describe and explain the problems and issues with changing biodiversity within the hot desert.	
I can <u>use a case study</u> to explain the causes of desertification subsistence and commercial farming, 1.Mineral Extraction 2.Energy Development 3.Farming 4.Tourism	
I can <u>use a case study</u> to explain the challenges of desertification 1.Extreme temperature 2.Water supply 3.Inaccessibility	
I can define and describe desertification	
I can explain the causes of desertification both human and natural	
I can explain a how desertification can be managed using: 1.Water and soil management 2.Tree planting 3.Using appropriate technology	

UK Physical Landscapes

Pupil Learning Checklist



I can describe the location of the major upland and lowland areas within the UK	
I can describe the location of the major river systems within the UK	
Coastal landscapes of the UK	HOLDERNESS
I can define what the coast is	
I can describe and explain the different types of waves	
I can name and explain the four processes of erosion	
I can name and explain the processes of weathering	
I can name and explain the processes of mass movement	
I can describe erosional landforms and the sequence of (arch, caves, stacks, stump, wave cut platforms, wave cut notch) are formed.	
I can describe and explain the process of mass movement and slumping	
I can explain, <u>using an example</u> , how erosion and deposition will impact on the people and the environment at the coast.	
I can describe the processes of transportation in the coastal zone. (Longshore drift and traction, saltation, suspension and solution)	
I can explain the reasons why sediment is deposited on the coast.	
I can explain how depositional landforms (beaches, spit and bars) are formed.	
I can describe and explain methods of hard and soft engineering <u>using an example</u> .	
I can evaluate the cost and benefits of hard and soft engineering <u>using an example</u> .	
I can explain why people have different views about the way the coast is managed and the conflicts this may cause <u>using an example</u> .	
I can identify on an OS map all of the coastal landforms and use 4 & 6 fig grid references to locate them on a map	
River landscapes of the UK	RIVER SEVERN
I can describe how a river's long profile and cross profile varies over its course	
I can explain how vertical and lateral erosion changes the cross profile of a river	
I can explain the four processes of erosion	
I can describe the four processes of transportation in a river	
I can explain the reasons why a river deposits its eroded material	
I can explain how interlocking spurs , waterfalls & gorges are formed	
I can explain that meanders are formed by erosion & deposition	
I can describe an Ox Bow lake and explain how they form from meanders	
I can explain how a flood plain , levee and estuaries are formed	
I can <u>use an example</u> of a river valley to demonstrate my understanding of the erosional and depositional landforms	
I can explain how physical and human factors affect the risk of flooding including precipitation, geology, relief and land use.	
I can explain what river discharge means & how it is shown on a hydrograph	
I can explain at least 4 factors (things!) that will either increase or decrease river discharge	
I can explain how hard engineering can reduce the risk of flooding or the effects of flooding	
I can explain how soft engineering can reduce the risk of flooding or the effects of flooding	
<u>Using an example</u> I can explain 1. Why the scheme was required 2. How the area was managed 3. The social, environmental and economic issues.	
I can identify on an OS map all of the river landforms and use 4 & 6 fig grid references to locate them on a map.	

Urban Issues and Challenges

Pupil Learning Checklist



I can explain how urbanisation has happened at different rates and at different times in different parts of the world making reference to LICs and HICs.	
I can explain some of the causes of urbanisation in different parts of the world making reference to LICs and HICs.	
Case study of the LIC or NEE	RIO DE JANEIRO
I can explain why the <u>case study</u> is important nationally and internationally	
I can explain why and how the <u>case study</u> has grown	
I can explain, analyse and evaluate the opportunities in the <u>case study</u> including: 1.Access to services – health 2.Access to services – education 3.Access to resources – water supply 4.Access to resources – energy 5.How urban industrial areas can promote economic development	
I can explain, analyse and evaluate the challenges in the <u>case study</u> including: 1.Managing urban growth – slums, squatter settlements 2.Clean water, sanitation systems and energy 3.Access to services – health and education 4.Unemployment and crime 5.Managing environmental issues – waste disposal, air and water pollution, traffic congestion.	
I can explain and evaluation the how the <u>case study</u> can plan to improve the quality of lives for the urban poor .	
Case study of a HIC	BIRMINGHAM
I can explain why the <u>case study</u> is important nationally and internationally	
I can explain why and how the <u>case study</u> has grown	
I can explain the impact of national and international migration on the growth and character of the the <u>case study</u> .	
I can explain, analyse and evaluation the opportunities in the <u>case study</u> including 1.Cultural mix 2.Recreation 3.Entertainment 4.Employment 5.Integrated transport systems 6.Urban greening	
I can explain, analyse and evaluation the challenges in the <u>case study</u> including 1.Inequalities in housing, education and employment. 2.Urban deprivation 3.Dereliction of buildings 4.Building on brown and greenfield sites. 5.Water disposal 6.Urban sprawl on the rural – urban fringe and of commuter towns	
I can explain, analyse and evaluation the how the <u>case study</u> has undergone regeneration .	
Urban sustainability	FREIBURG
I can describe how people can live more sustainably	
I can explain how sustainable urban living can conserve water and energy, recycle waster and create more green space.	
I can explain how urban transport strategies are used to reduce traffic congestion .	

Changing Economic World

Pupil Learning Checklist



I can describe the methods of classifying countries and use different development indicators .	
I can evaluate the use of different developmental indicators .	
I can use the Demographic Transition Model to explain the link between changing population structure and level of development.	
I can explain the causes of uneven development : 1.Physical 2.Economic 3.Historical	
I can explain the impacts of uneven development on people	
I can explain how the development gap can be reduced looking at: 1.Investment 2.Industrial development and tourism 3.Aid 4.Using intermediate technology 5.Fairtrade 6.Debt relief 7.Microfinance loans.	
I can <u>use an example</u> to show how tourism in an LIC can help to reduce the development gap	JAMAICA
Case study of the LIC or NEE	NIGERIA
I can explain why the <u>case study</u> is important within Africa and internationally	
I can describe the political, social and culture contact of the <u>case study</u> within a world context .	
I can describe the changing industrial structure within in the <u>case study</u> .	
I can explain how manufacturing can stimulate economic growth in within the <u>case study</u> .	
I can define a Transnational Corporation (TNC) <u>using a case study</u> .	SHELL
I can explain the advantaged and disadvantages of TNCS to the <u>case study</u>	
I can describe how <u>Nigeria's politics</u> and trading relationship have changed over time.	
I can described what aid is where is comes from <u>using a case study</u> .	
I can explain what aid Nigeria has received and how it has impacted upon the country <u>using a case study</u> .	
I can explain and evaluation the environmental impacts of economic development .	
I can explain and evaluation impacts of economic development on the population of Nigeria	
Economy of the UK	UK
I can explain why deindustrialisation has occurred in the UK	
I can explain the advantages and disadvantages of the UK move in the tertiary sector (post-industrial economy	
I can explain, <u>using an example</u> , how modern industry can reduce its impact upon the environment and become more sustainable	NISSAN, SUNDERLAND
I can explain, <u>using an example</u> , the social and economic impacts of population growth on a rural landscape .	SOUTH CAMBRIDGESHIRE
I can explain, <u>using an example</u> , the social and economic impacts of population decline on a rural landscape .	OUTERHEBRIDES
I can describe and explain the impact or transport developments in road, rail, port and airports.	M6 TOLL, HS2, LIVERPOOL 1, HEATHROW
I can describe the North – South divide in the UK.	
I can evaluate and explain the strategies use to solve regional differences within the UK.	
I can examine the global links made with the wider world through trade, culture, increased communication, economics and political groupings such as the commonwealth and the European Union.	
I can analyse the growing interdependence and globalisation of the UK in relation to its economy and politics.	

Challenge of Resource Management

Pupil Learning Checklist



I can describe the importance of food, water and energy to the economic and social wellbeing.	
I can describe the distribution of resources around world.	
I can explain why resources are unevenly distributed around the world.	
Resource management core content	
I can describe the distribution of resources around the UK.	
I can explain the changing demand for different foods in the UK.	
I can explain why food miles are increasing in the UK.	
I can explain how food miles can be reduced in the UK.	
I can describe the different industries involved in agriculture (agribusiness) and explain how they are changing in the UK.	
I can explain the changing demand for water in the UK.	
I can describe the problems with water quality and pollution in the UK and how they can be managed.	
I can explain how the UK is trying to manage water to meet supply and demand .	
I can describe the UKs energy mix and how it has changed over time.	
I can explain how the UK can reduce its reliance on fossil fuels .	
I can describe and explain the economic and environmental issues with exploitation of energy sources.	
Resource management option: Food	
I can describe the global distribution of calorie intake and food supply including areas of surplus and deficit	
I can explain the reasons why food consumption is increasing including: •Economic development •Rising population	
I can explain and evaluate the different factors which affect food availability including: •Climate •Technology •Pests and disease •Water stress •Conflict •Poverty.	
I can analyse the impacts of food insecurity including: •Famine •Undernutrition •Soil erosion •Rising prices •Social unrest	
I can explain and evaluate how food supplies can be managed to increase supply in certain areas including: •Irrigation •Aeroponics and hydroponics •Green revolution and biotechnology •Appropriate technology	
I can use an example to show how a large scale agricultural development to show how it has both advantages and disadvantages.	IRRIGATION IN BURKINA FASO
I can explain how food resources can be managed sustainably through: •Organic farming •Permaculture •Urban farming initiatives •Fish and meat from sustainable sources •Seasonal food consumption •Reduced waste and losses	
I can <u>use an example</u> of a local scheme which has managed food sustainably to increase food supplies.	AGROFORESTRY IN KOUTIALA, MALI

Paper 3 Pre-release Skills

Pupil Learning Checklist



Cartographic Skills

Atlas Maps:

- I can use and understand coordinates – latitude and longitude
- I can recognise and describe distributions and patterns of both human and physical features
- I can use maps to identify and describe significant features of the physical and human landscape eg population distribution, population movements, transport networks, settlement layout, relief and drainage.
- I can analyse the inter-relationships between physical and human factors on maps and establish associations between observed patterns on thematic maps.

Ordnance Survey Maps:

- I can use and interpret OS maps at a range of scales (and other maps appropriate to the topic)
- I can use and understand coordinates – four and six-figure grid references.
- I can use and understand scale, distance and direction – measure straight and curved line distances using a variety of scales.
- I can use and understand gradient, contour and spot height.
- I can use numerical and statistical information.
- I can identify basic landscape features and describe their characteristics from map evidence.
- I can identify major relief features on maps and relate cross-sectional drawings to relief features.
- I can draw inferences about the physical and human landscape by interpretation of map evidence, including patterns of relief, drainage, settlement, communication and land-use.
- I can interpret cross sections and transects of physical and human landscapes.
- I can describe the physical features as they are shown on large scale maps of coastal and fluvial landscapes.
- I can infer human activity from map evidence, including tourism.

Maps in association with photographs:

- I can compare maps
- **sketch maps:** I can draw, label, understand and interpret them.
- **Photographs:** I can use and interpret ground, aerial and satellite photographs.
- I can describe human and physical landscapes (landforms, natural vegetation, land-use and settlement.)
- I can draw sketches from photographs.
- I can label and annotate diagrams, maps, graphs, sketches and photographs.

Graphical skills

- I can select and construct appropriate graphs and charts to present data, using appropriate scales – line charts, bar charts, pie charts, pictograms, histograms with equal class intervals, divided bar, scattergraphs, and population pyramids.
- I can suggest an appropriate form of graphical representation for the data provided.
- I can complete a variety of graphs and maps – choropleth, isoline, dot maps, dot density maps, proportional symbols and flow lines.
- I can use and understand gradient, contour and value on isoline maps.
- I can plot information on graphs when axes and scales are provided.
- I can interpret and extract information from different types of maps, graphs and charts, including population pyramids, choropleth maps, flow-line maps, dispersion graphs.

Numerical skills

- I can demonstrate an understanding of number, area and scales and the quantitative relationships between units.
- I can design fieldwork data collection sheets and collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability.
- I understand and correctly use proportion and ratio, magnitude and frequency.
- I can draw informed conclusions from numerical data.

Statistical skills

- I can use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class.)
- I can calculate percentage increase or decrease and understand the use of percentiles.
- I can describe relationships in bivariate data: sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends.
- I can be able to identify weaknesses in selective statistical presentation of data.

Paper 3 Pre-release Skills (continued)

Pupil Learning Checklist



Use of qualitative and quantitative data

- I can use qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.
- Data types: Maps, fieldwork data, geospatial data (GIS), satellite imagery, written and digital sources, visual and graphical sources, numerical and statistical information

Formulate enquiry and argument

I demonstrate the ability to:

- Identify questions and sequences of enquiry
- Write descriptively, analytically and critically
- Communicate their ideas effectively
- Develop an extended written argument
- Draw well-evidenced and informed conclusions about geographical questions and issues

Literacy

- I can communicate information in ways suitable for a range of target audiences.
- I have good literacy skills [SPaG].

Paper 3 Fieldwork

Pupil Learning Checklist



Suitable Enquiry Question

- I know the factors that need to be considered when selecting suitable questions.
- I understand the geographical theory/concept underpinning the enquiry
- I know the different sources of primary and secondary evidence including locations
- I know the potential risks of both human and physical fieldwork and how reduced

Selecting, measuring and recording appropriate data

- I can explain the difference between primary and secondary data
- I can identify and select appropriate human and physical data
- I can explain the measuring and recording of data using different sampling methods

Select appropriate ways of processing and presenting fieldwork data

- I appreciate that there are a range of visual graphic and cartographic methods
- I can select and use accurately appropriate presentation methods
- I can describe, explain and adapt presentation methods
- I can explain the causes of a tropical storm.

Describing, analysing and explaining fieldwork data

- I can describe, analyse and explain the results of fieldwork data.
- I can establish links between data sets.
- I can use appropriate statistical techniques
- I can identify anomalies in fieldwork data

Reaching conclusions

- I can draw evidenced conclusions in relation to original aims of the enquiry

Evaluation of geographical enquiry

- I can identify the problems of data collection methods
- I can identify the limitations of data collected
- I can suggest other data that might be useful
- I can explain the extent to which conclusions were reliable

Case Studies For Paper 1



Paper 1		
Section	You need to know...	My example is...
Hazards	An earthquake in a HIC	Christchurch
	An earthquake in an LIC	Nepal
	A tropical storm	Typhoon Haiyan
	An extreme weather event in the UK	Beast from the East
Living World	A small-scale ecosystem	Gheluvelt Park
	A tropical rainforest	Amazon
	A hot desert	Thar
UK Physical Landscapes	A section of coastline showing landforms	Holderness
	How that coastline that is being managed	Holderness
	A river valley showing landforms	Severn
	How that river that is being managed	Severn

Case Study Factsheet

Christchurch 2011



10km west of the city centre of Christchurch, New Zealand



22nd February 2011, at 12:51pm



Magnitude 6.3 on the Richter scale

Primary



181 dead



3,000 injured



2,200 people
needing temporary
accommodation



100,000 homes
damaged

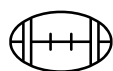
Secondary



Water
contaminated



1/5 of the population
migrated out



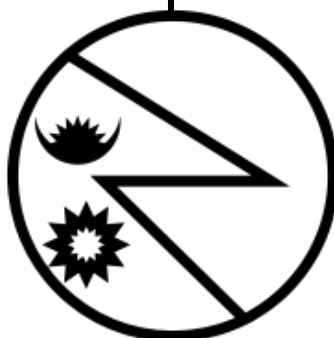
5 Rugby World Cup
games cancelled



Schools closed for
two weeks



Impacts



Responses



Short-term

Rescue crews came
from the UK, USA,
Taiwan and Australia



\$6-7 million raised in
international aid



300 Australian police
officers flew into
Christchurch



The Red Cross and
other charities
supplied aid workers



Long-term

Canterbury
Earthquake Recovery
Authority was created
to organise rebuilding



10,000 affordable
homes built



NGOs provided
support, including
Save the Children



Water and sewage
were restored by
August 2011



Thick muddy slush spreads everywhere, causing buildings and other structures to sink into the ground, meaning many roads, footpaths, schools and houses were flooded with silt



The earthquake happened during the day, when people were out and about – as a result, people were injured by large falling buildings, instead of being safe at home in their smaller houses



The earthquake occurred along a conservative margin between the Pacific Plate and the Australasian Plate

Case Study Factsheet

Nepal 2015



Nepal, Asia – epicentre 50km from the capital of Kathmandu



Struck at midday



Magnitude 7.9 on the Richter scale

Primary



9,000 dead



20,000 injured



3 million homeless



7,000 schools destroyed

Secondary



Kathmandu evacuated due to flooding risk



\$5 billion in damage



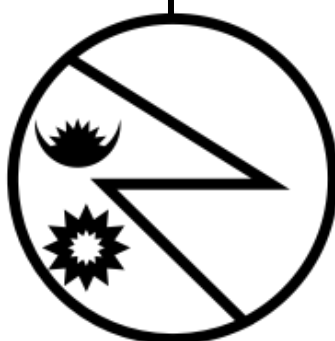
1.4 million people placed in aid camps



Avalanche blocked roads.
19 dead, 250 missing



Impacts



Responses



Short-term

Medical aid provided by China, India, UK & NZ



\$126 million raised in international aid



500,000 tents set up as temporary housing in capital



3 Chinook helicopters provided by UK to deliver aid



Long-term

New buildings follow strict codes



Asian Development Bank gave \$200 million for rebuilding



Everest base camp rebuilt – climbing tourism significant



Government task force set up to deal with future quakes



1.4 million people and proximity to the capital would have contributed to the 9,000 deaths and 20,000 injuries



Nepal is an LIC which means they were unprepared, with poor building quality and a lack of response resources, and depended on aid from other countries, which takes time to arrive



The mountains will have caused significant damage with a 7.9 magnitude quake and made it difficult to get emergency aid to people

Case Study Factsheet

Typhoon Haiyan 2013



Philippines, Asia – 2,000 inhabited islands (+ 5,500 uninhabited)



Category 5 on the Saffir-Simpson scale



Winds of 170 mph and waves 15m high

Primary



6,300 dead



600,000 people displaced, 40,000 homes damaged



Tacloban airport badly damaged



30,000 fishing boats destroyed

Secondary



Flooding caused landslides, cutting off access



Power supplies cut off for a month



Shortages of food and water led to disease outbreaks



Looting and violence broke out in Tacloban

Impacts

Responses

Short-term

International aid arrived quickly



US aircraft carrier & helicopters for search & rescue



1,200 evacuation centres set up



France, Israel & Belgium set up field hospitals



Long-term

Rebuilding of roads, bridges and airport



'Cash for Work' programme to help clear and rebuild



Fishing and rice farming quickly re-established



Cyclone shelters built to protect coastal communities



This was one of the strongest storms ever recorded - most of the destruction in Tacloban was caused by a storm surge, which swept away anything in its path



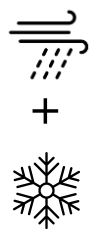
The Philippines is a NEE and the high levels of destruction meant that help came from all corners of the globe, through the United Nations and individual nations



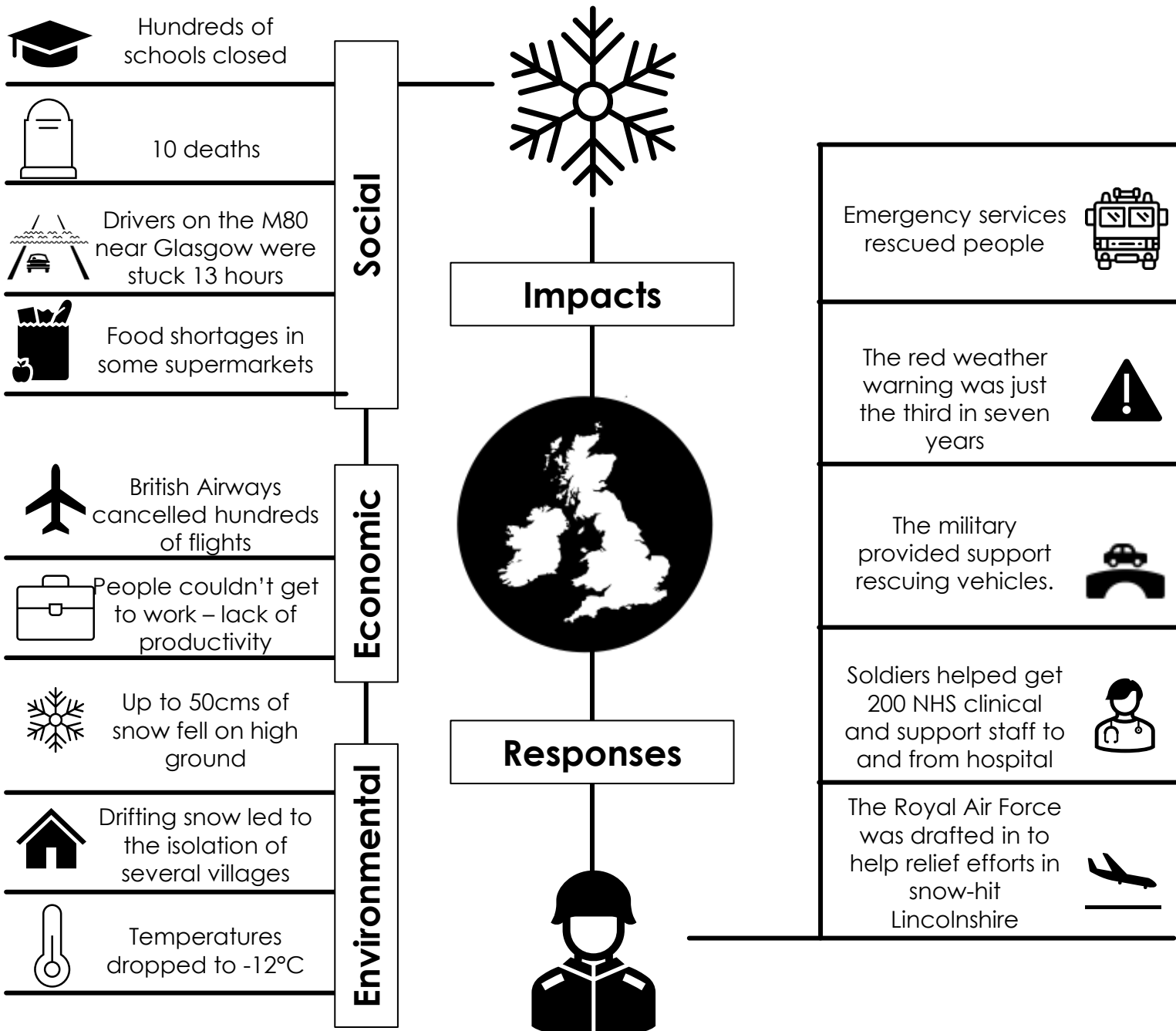
The cost of rebuilding was estimated at around \$5.8bn - a year after the storm, thousands of people were still living in temporary shelters

Case Study Factsheet

Beast from the East 2018



Storm Emma was a weather system that originated from the Azores and travelled north to the UK. On 1st March 2018, the weather front brought blizzards, gales and sleet as it hit the cold air brought down by the Beast from the East



HIC – the response was well organised and rapid



The Environment Agency advised people to prepare for significant disruption



the Met Office issued a series of red warnings for southern England

Case Study Factsheet

Gheluvelt Park Pond



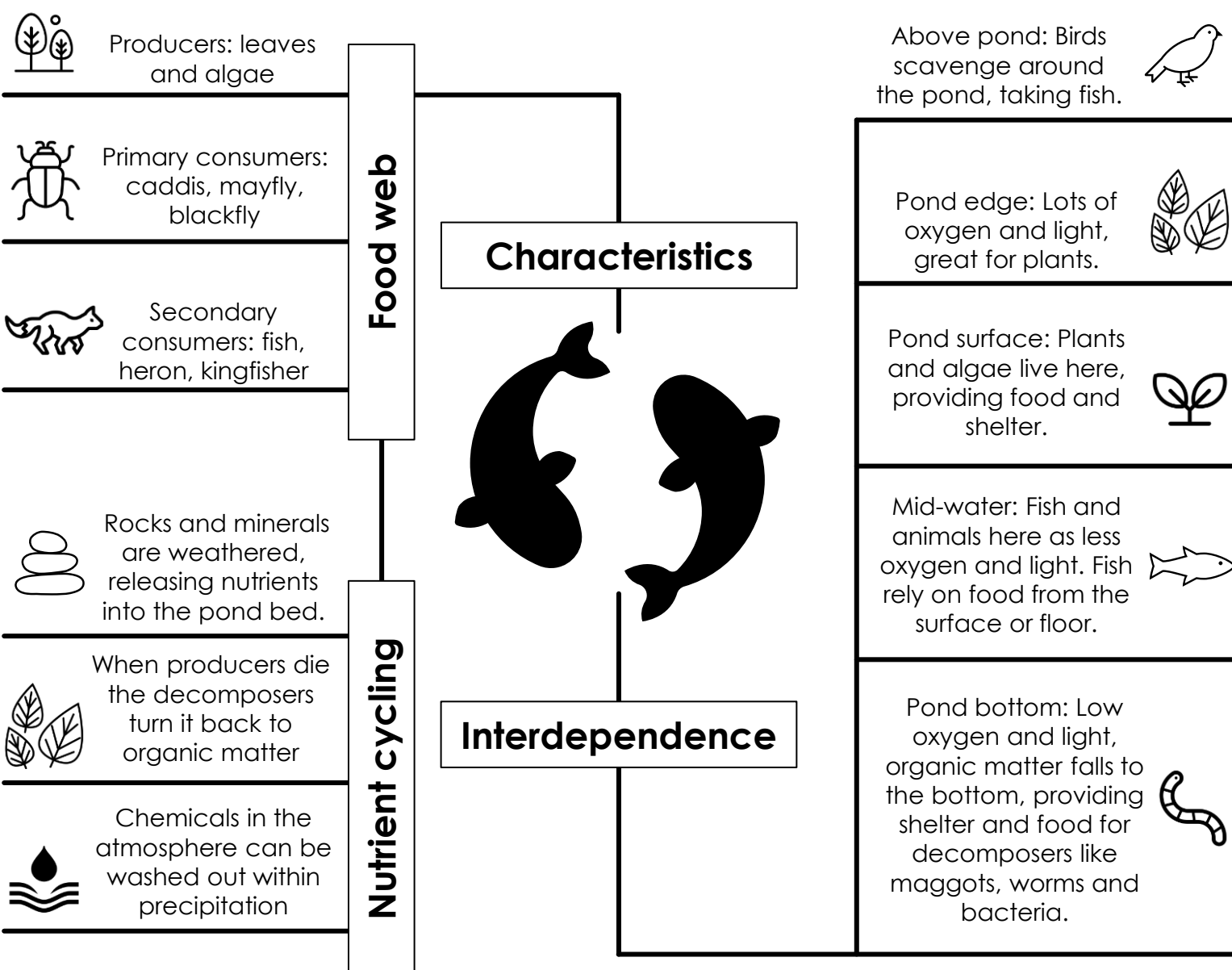
Worcester, North of the town centre



Notable wildlife includes the mute swan, mallard and kingfisher



The weir takes water out of the pond and into the Barbourne Brook, which flows to the Severn half a mile away



Nutrient cycling demonstrates clearly the interdependence of plants, animals and soil



Gheluvelt Park is a memorial park built in honour of those lost in the First World War. It straddles Barbourne Brook and has two distinct areas - a formal park to the east, and an informal area managed for wildlife conservation to the west, next to the River Severn

Case Study Factsheet

Amazon Deforestation



The Amazon rainforest, covering much of northwestern Brazil and extending into Colombia, Peru and other South American countries, is the world's largest tropical rainforest.



The Amazon is thought to be home to 10% of known species on earth



An estimated 150-200 billion tons of carbon are stored in the Amazon's forests and soils.



Energy:

HEP is popular, with large areas flooded for reservoirs



Farming: commercial (palm oil) and subsistence (slash & burn)



Logging: selective logging (fully grown) has slightly reduced impact



Minerals: The mining of iron ore, bauxite, gold, oil and other minerals can be very profitable



The Transamazon Highway has allowed increased access to the Amazon Rainforest



Settlement: people encouraged by govt to move to rural areas from cities

Erosion:

no roots mean soil is washed/blown away easily



Biodiversity: habitat destruction has huge impact on ecosystem



Climate change: loss of transpiration leads to drier climate



Climate change: loss of evaporation leads to warmer climate



Employment: development provides job opportunities and new skills



Investment: tax incomes invested in healthcare & education



Causes



Impacts



Timber is a highly valued export and deforestation opens the land up for other economic activity



The Amazon has seen economic growth as a result of new industries, improving the quality of life for its population



Balancing the economic gains with environmental losses continues to be an issue

Case Study Factsheet

Development in the Thar



The Thar Desert is located in northwest India



It is one of the major hot deserts of the world with the highest population density

Due to population pressures this environment is increasingly under threat

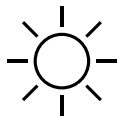
Minerals:

These are used to produce a range of things from cement to fertilisers and are therefore valuable.



Energy:

Solar panels are used, as well as wind turbines.



Farming:

Irrigation in the Thar Desert has made commercial arable farming viable.

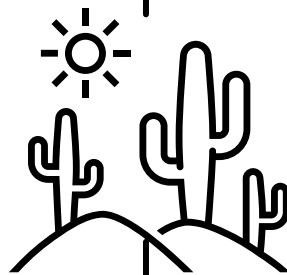


Tourism:

Landscape & the 120 species that live in the desert attract people - tours are very popular



Opportunities



Challenges

Temperature: +50°C in the summer months. It is hard for people to farm, work in mines or as tourist guides in this heat, slowing development



Water supply: Only 120-240 mm of rain falls per year so water must be used sensibly and sustainably



Accessibility: The desert is 200,000 sq km. Beyond the city of Jaisalmer, development is limited. Honeypot site for tourists in Jaisalmer but not beyond.



Rich resources mean a range of economic activities are possible



Climate creates challenges that people are trying their best to overcome



Fragile environment that needs to be protected as economic development increases

Case Study Factsheet

Holderness landforms



The Holderness Coast is located on the east coast of England. It extends 61km from Flamborough in the north to Spurn Point in the south



It is one of Europe's fastest eroding at an average annual rate of around 2 metres per year



Longshore drift moves south towards Spurn Point



Flamborough Head
a resistant chalk
headland with
classic cave, arch,
stack and wave-cut
platform features



Lost Towns
The Holderness coast
has villages that
have long
disappeared into the
sea



The Holderness Cliffs
Made from boulder
clay formed from
material left by ice
sheets. They are
retreating at an
average rate of 2
metres per year

Erosion



Deposition

Hornsea, Mablethorpe
and Withernsea
beaches were
formed by the
deposition of sand
and shingle



Sand dunes have
formed near to Spurn
Point



Spurn Point is a large
curved spit formed
at the entrance to
the Humber estuary.
3% of eroded
material from along
the coast ends up
here



The underlying soft boulder clay is being rapidly eroded



Strong prevailing winds creating longshore drift that moves material south along the coastline

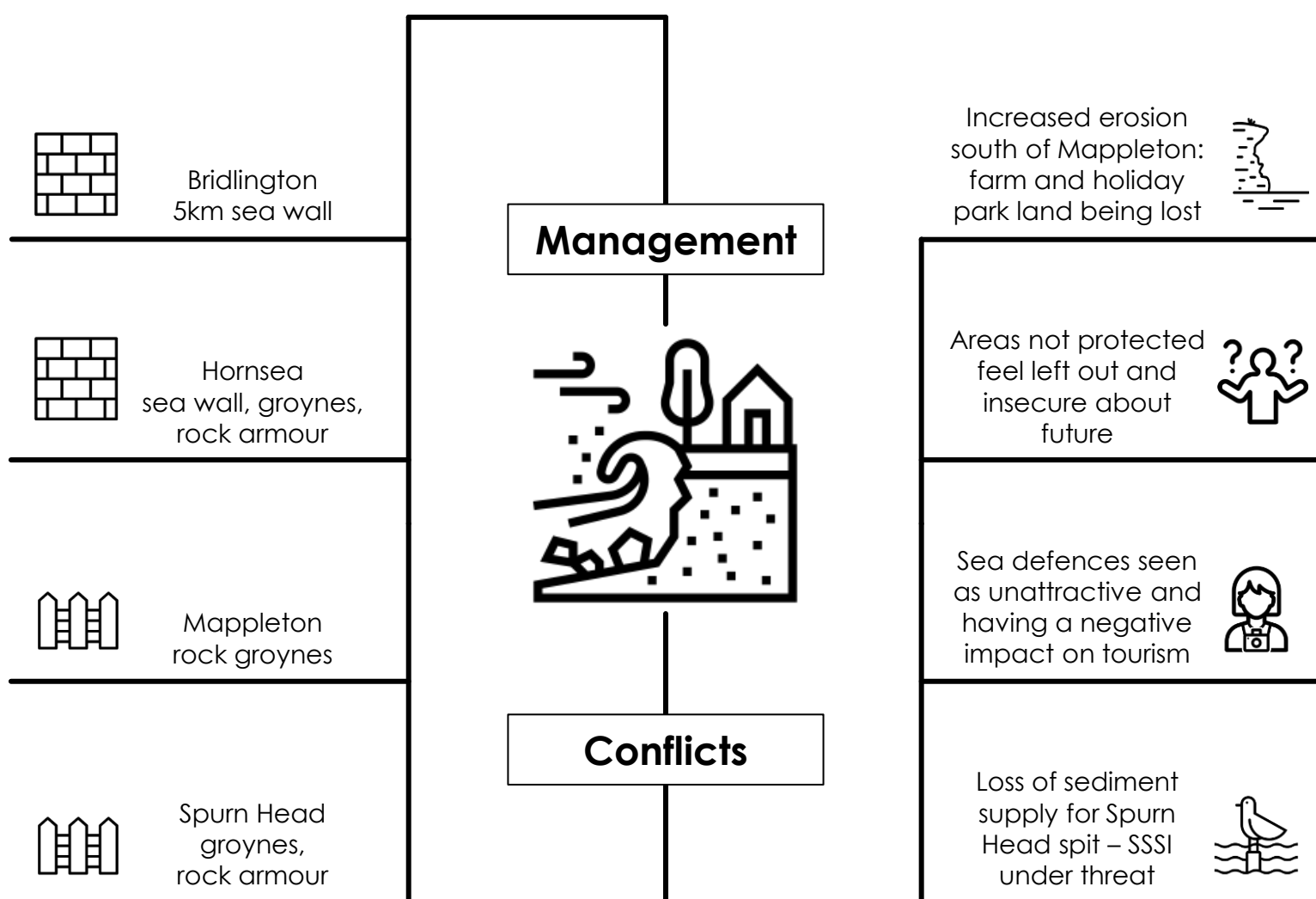


Erosion, transportation and deposition are all active processes in this area

Case Study Factsheet

Holderness management

-  North England – Flamborough Head in the north to the Humber Estuary in the south
-  Destructive waves move eroded material rapidly, meaning there is little protection
-  Erosion is rapid – around 2 m per year – soft boulder clay is very vulnerable to wave attack



Holderness is a coastline under threat from the sea



Hard engineering is used effectively in many locations, but it has a negative impact on other sections of coast



Businesses and residents are unsure of what their future holds

Case Study Factsheet

River Severn landforms



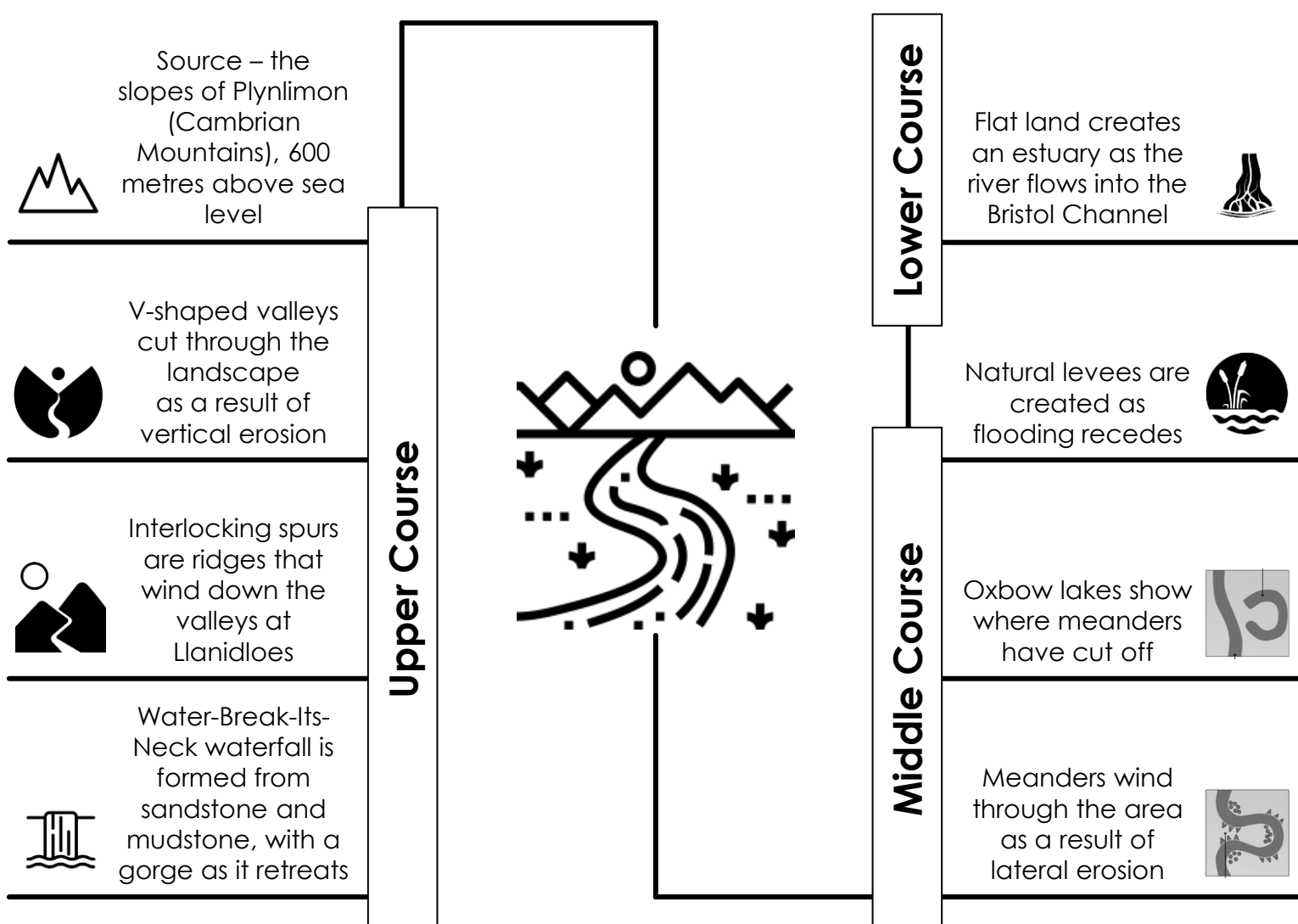
The River Severn (Afon Hafren) is 354 km (220 miles) long, making it the UK's longest river



The hills in this part of Wales receive about 2,650 mm of rainfall each year, this is a lot!



Further downstream, the land is flatter and floodplains are wide



The upper course of the river provides impressive landforms



Human activity increases as you move downstream and the land becomes more favourable for development



Erosion, transportation and deposition are all active processes in this area

Case Study Factsheet

River Severn management



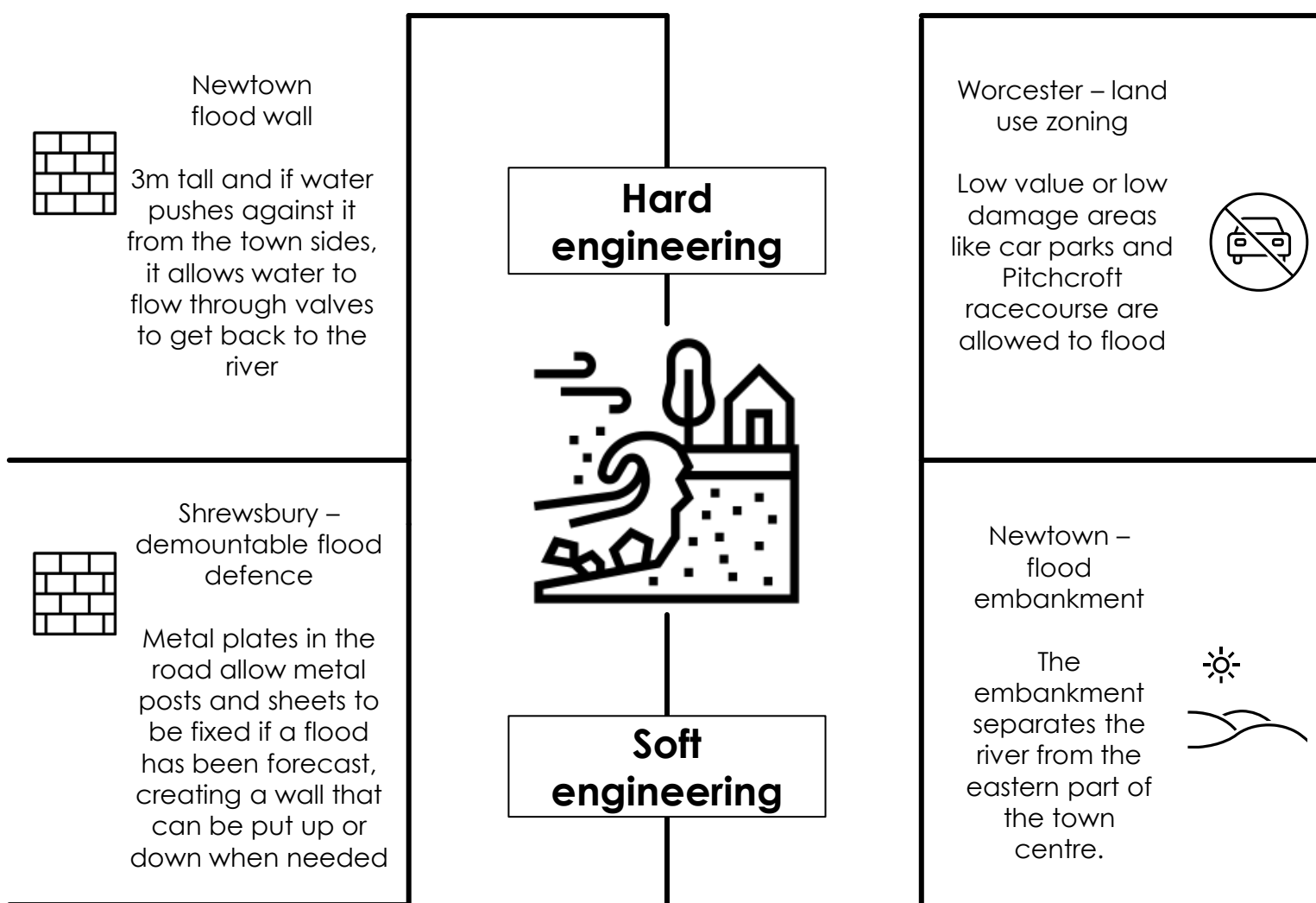
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An unintended consequence of hard engineering is that flood water arrives at places further downstream sooner after the rain event and in larger quantities



If these places have no flood protection, or the flood protection is inadequate, this could lead to flooding there. This is why the Environment Agency uses a combination of hard and soft engineering strategies

Case Studies For Paper 2



Paper 2		
Section	You need to know...	My example is...
Urban Issues and Challenges	A major city in an LIC or NEE	Rio de Janeiro
	How urban planning helps the urban poor	Favela Bairro
	A major city in a HIC	Birmingham
	An urban regeneration project	Arena Central
	A city that is sustainable	Freiburg, Germany
Changing Economic World	Tourism in an LIC/NEE to close the development gap	Jamaica
	An LIC or NEE – context	Nigeria
	An LIC or NEE – TNCs and growth	Nigeria
	An LIC or NEE – impacts of TNCs and growth	Nigeria
	A HIC – regional differences	UK
	A HIC – post industrial economy	UK
	A HIC - modern sustainable development	Nissan, Sunderland
	A HIC – growth and decline in rural areas	South Cambridgeshire and Outer Hebrides
	A HIC – links to the wider world	UK
Resources	A large scale agricultural development	Irrigation in Burkina Faso
	A local and sustainable food supply scheme in an LIC or NEE	Agroforestry in Koutiala, Mali

Case Study Factsheet

Rio de Janeiro



South East coast of Brazil, South America



Second largest city in Brazil, with 6.5 million people and rapidly growing due to internal and international migration



Four zones within the city, with different characteristics – North, Centro, South, West

Global:
Christ the Redeemer
World Heritage Site,
Rio Carnival

Global:
International events –
2016 Olympics & 2014
Football World Cup

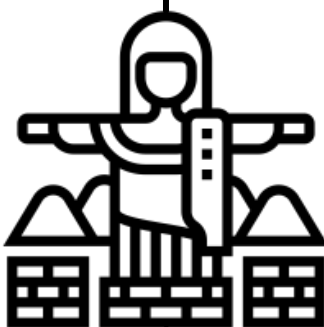
Regional:
2nd largest
economy in Brazil –
7% of national GDP

Regional:
Many companies
have their
headquarters in Rio

Migrants from rural
areas are attracted
by better facilities
and services

Migrants from South
Asia and the UK are
attracted by the
growing economy

Context



Features

Challenges

Urban growth:
Squatter settlements
(favelas)



Unemployment:
Informal sector and
low incomes



Services:
Lack of clean water,
health & education



Environment:
Air, land and water
pollution



Health:
Mobile clinics have
reduced IMR



Education:
Grants have helped
families afford costs



Water supply:
Treatment plants
and new pipes



Energy:
Nuclear, hydro and
new power lines



Opportunities



Rio continues to attract people from within Brazil and from all over the globe



Rapid urbanisation leads to a range of social, economic and environmental challenges



Wealth is growing, but the gap between rich and poor has become wider

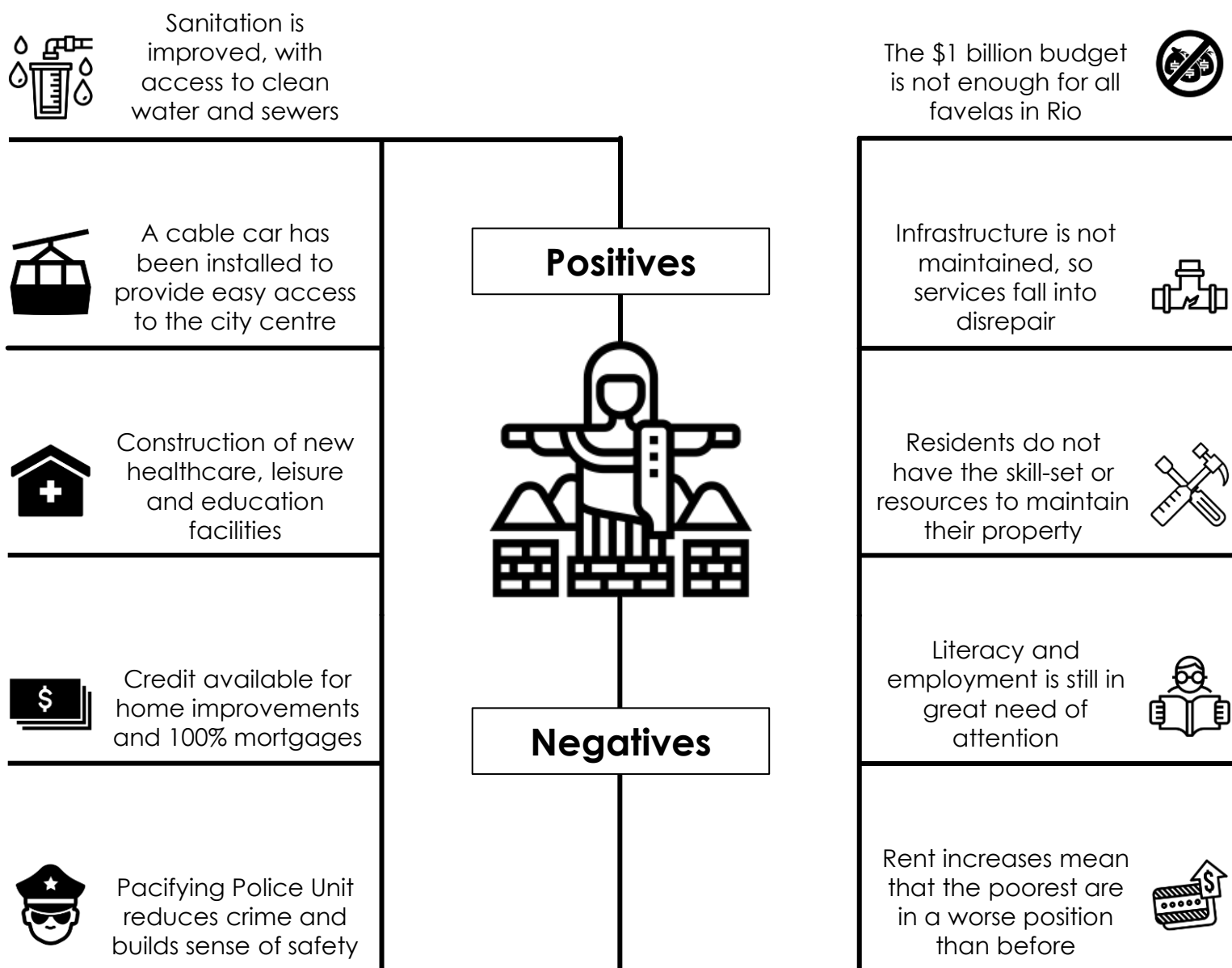
Case Study Factsheet

Favela Bairro Project



Squatter settlements (favelas) develop when people move from rural areas for better opportunities but lack the money to rent accommodation and skills for a decent wage

In recent years, the government have tried to improve building quality and services in the favelas with site and services schemes that provide land for people to build on



The United Nations have recognised the success of this scheme and it has been used in other Brazilian cities



Residents have improved access to services and quality of life

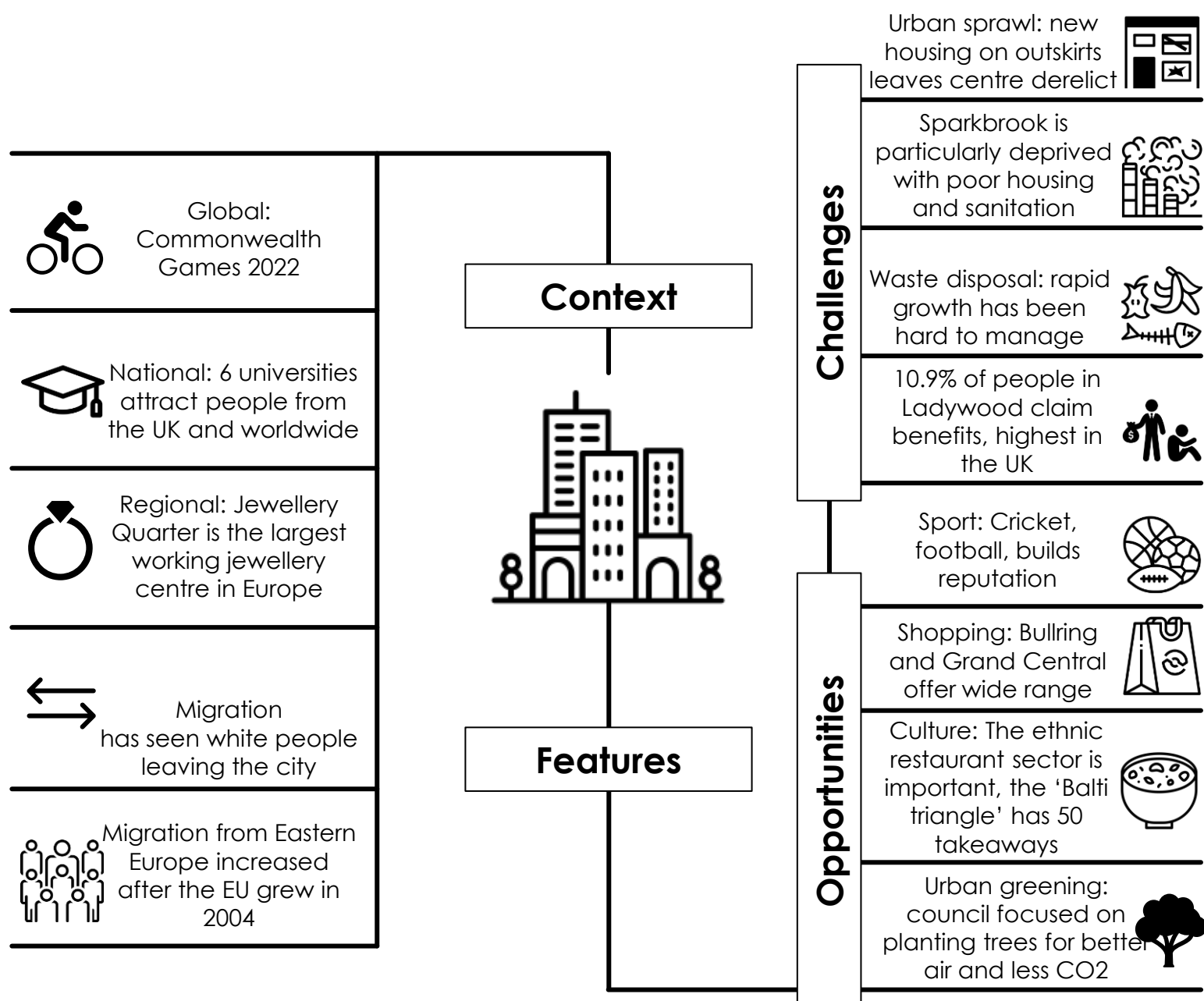


It is not without its problems, but these are slowly being addressed

Case Study Factsheet

Birmingham

-  Birmingham is a city with a population of 3.8million and is the second largest city in the UK
-  It is located in the West Midlands
-  Rural to urban migration began during the industrial revolution



-  Birmingham is the second most multicultural city in the UK and ethnic minorities make up 30% of the population
-  However, 86% of the cities population consider themselves British and many of these see themselves as 'Brummies'
- Ethnic minorities consist of those from Pakistan, India and the Caribbean

Case Study Factsheet

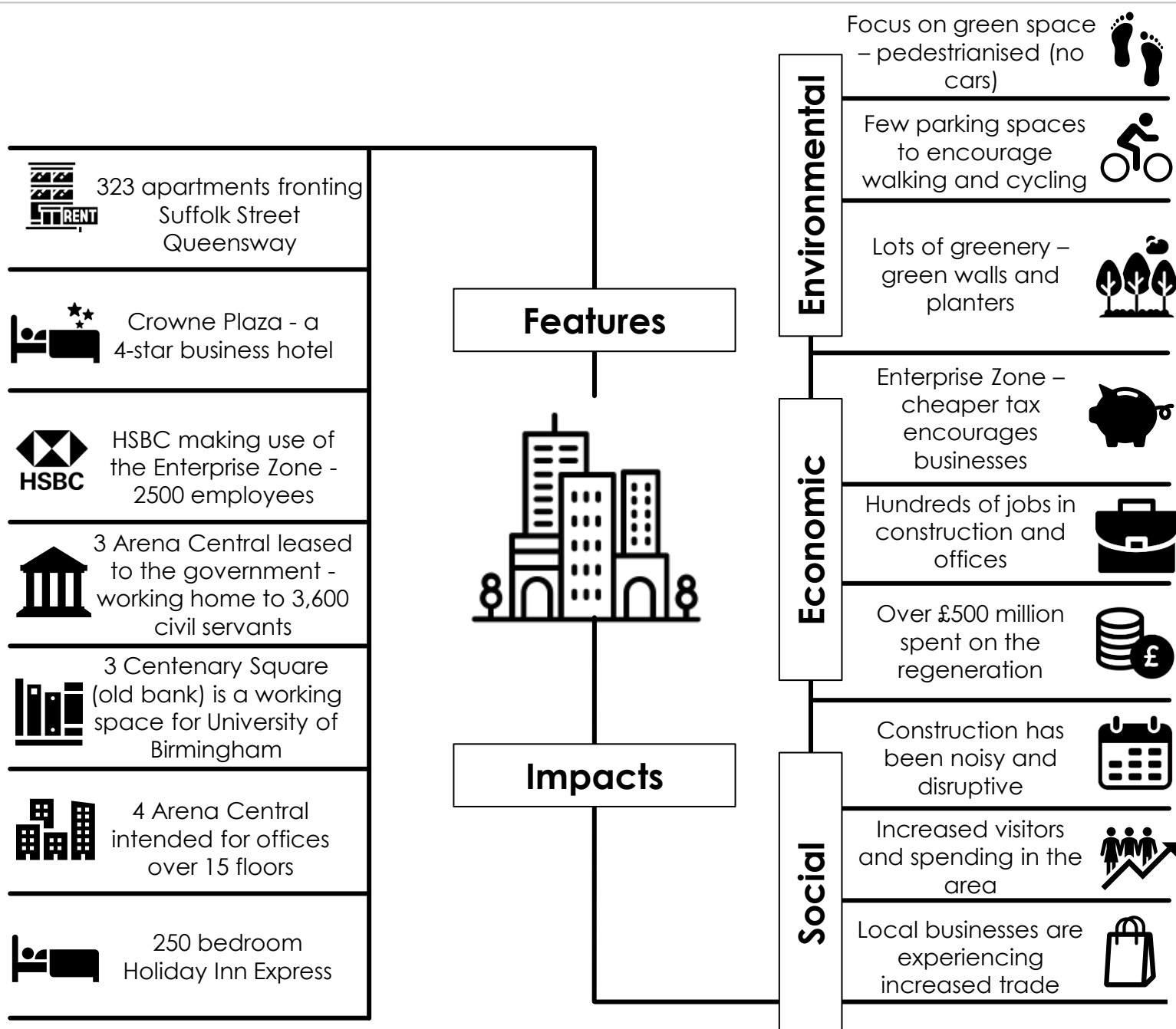
Arena Central, Birmingham



Arena Central will provide a mixed-use location in the heart of Birmingham city centre

It is designed to meet Birmingham's growing demand for high-quality office space and city centre residential accommodation

It is part of Big City Plan and is situated in Birmingham's Enterprise Zone



The Masterplan: To deliver 1.2 million sq ft of mixed-use development set within a brand new landscaped public realm.



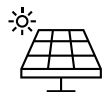
In simple terms: To create an area that can be used for work, living and socialising, in a regenerated space that is focused on sustainability.

Case Study Factsheet

Freiburg, Germany



Freiburg is a city in the south of Germany. In the 1970s, the local government set the aim of becoming more sustainable in all aspects of life



10,000 residents are employed in a green industry. One example of green industry is the large cluster of solar panel manufacturers, nicknamed the 'Solar Valley'



400 km of cycle paths and over 9,000 bicycle parking spaces

70% of the population lives within 500 meters of a tram stop



350 recycling collection points in the city



Over 600 hectares of parks and 160 playgrounds



Local food is also supplied by farm shops



Waste levels have been reduced by almost 2/3 since 1988

Positive outcomes



Trains appear every 7.5 minutes



3,800 small privately owned garden allotments



Locals invest in renewable energy – one district has collectively bought 9 windmills



Those that invest in renewable energy get free football tickets



Freiburg has the youngest population in Germany; 10% of the population is university aged (18-24 years old)



Freiburg's old town is cobbled, which reduces the amount of car traffic in the city



Environmental sustainability means all developments and day-to-day living doesn't damage the environment

Case Study Factsheet

Jamaica – tourism



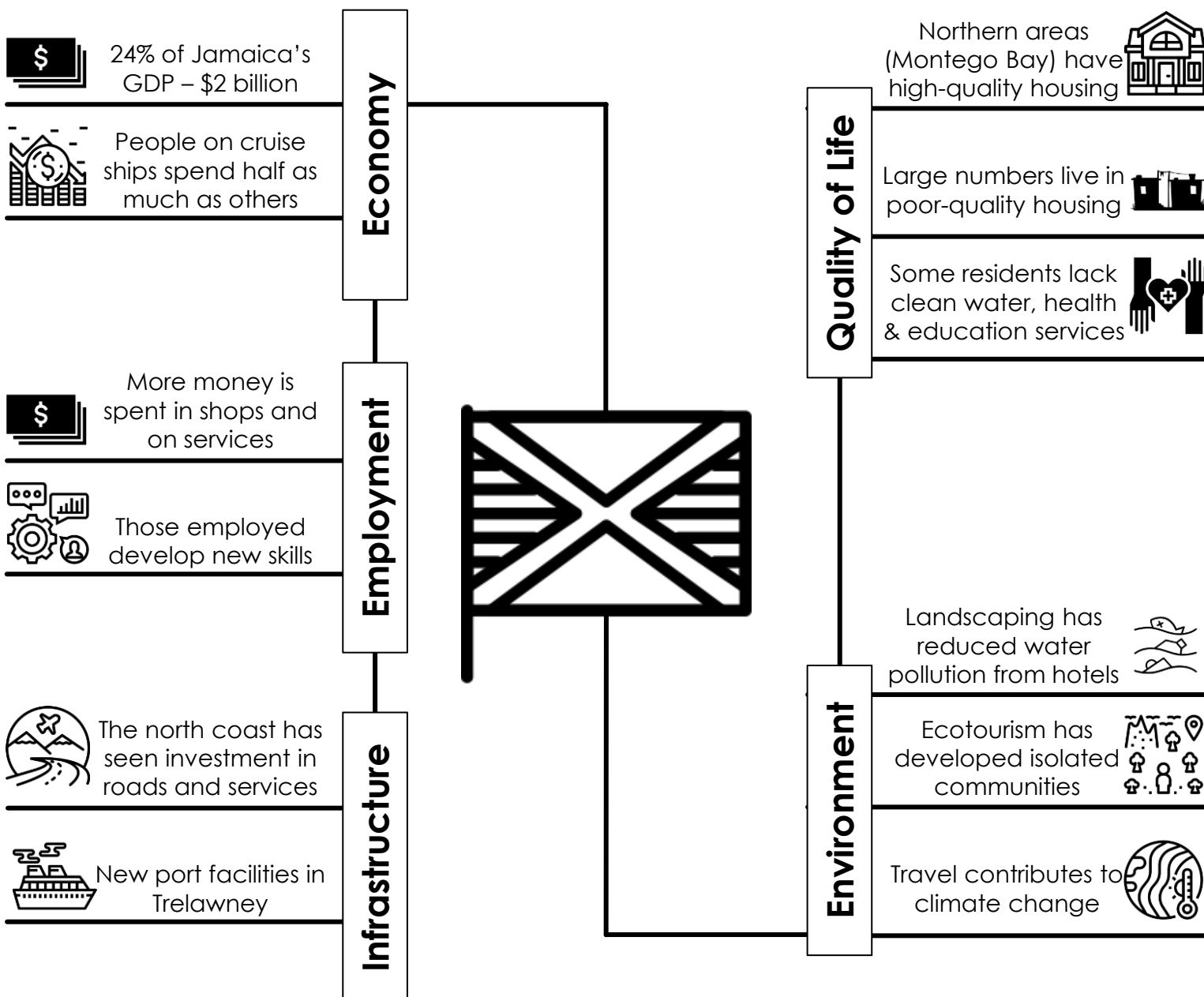
One of the largest islands in the West Indies



Economy based on minerals, agriculture and tourism



Tropical climate and white, sandy beaches



Jamaica enjoys good international air links and is a hub for cruise ships



Tourism generates taxes, employment and income – over 200,000 jobs link to tourism

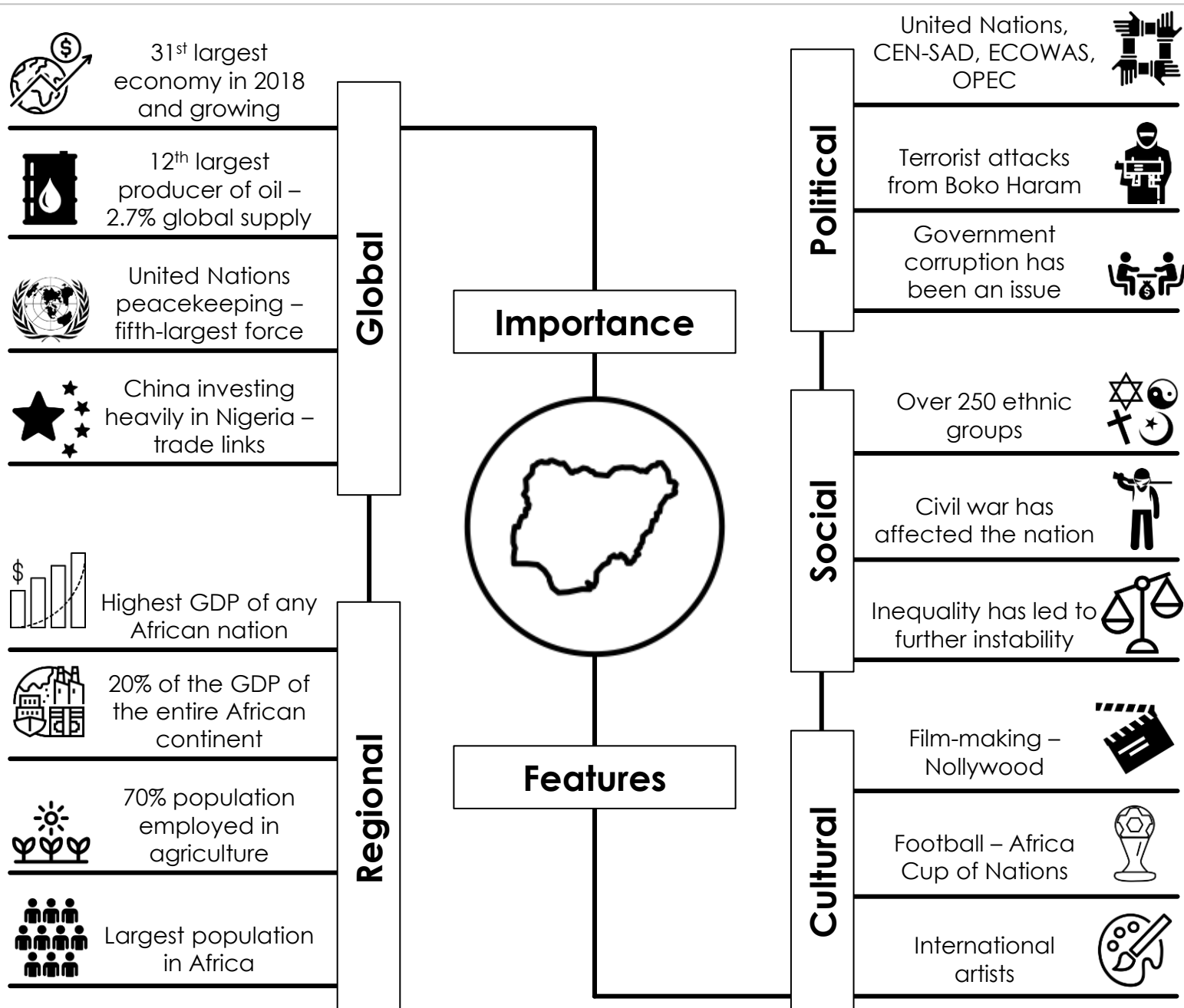


Economic growth, debt and unemployment are all improving

Case Study Factsheet

Nigeria – context

-  West Africa, bordering Benin, Niger, Chad and Cameroon
-  Tropical forests in the south, Jos Plateau highlands in centre and dry Sahel to north
-  The capital of Lagos lies on the Gulf of Guinea



-  Huge variation in wealth and development – 60% secondary school attendance in cities but 36% in rural areas
-  GDP per person varies greatly – highest in the south and more than 10x lower in the north
-  Rural-urban migration occurs because of the distinct differences

Case Study Factsheet

Nigeria – TNCs and growth



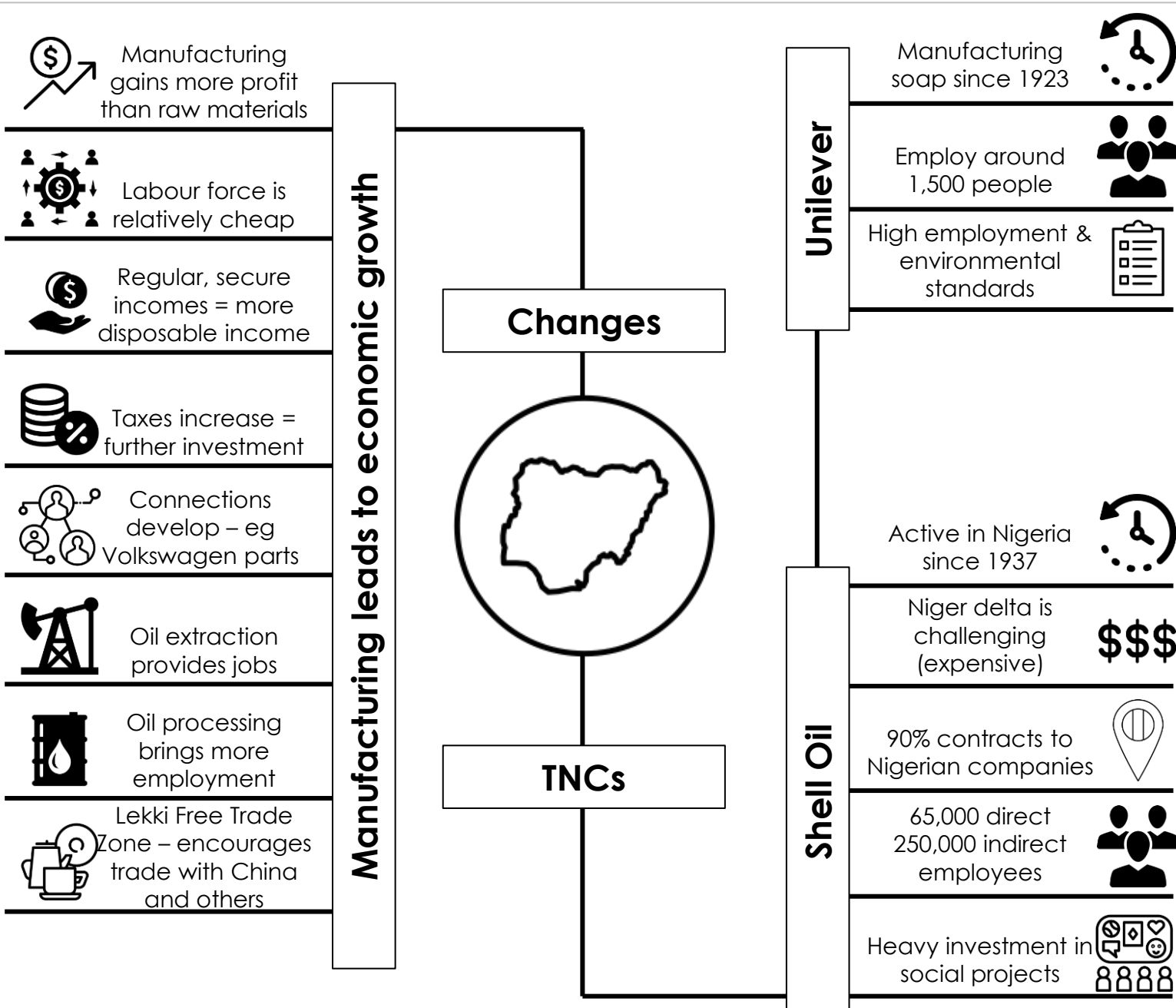
Employment in agriculture is falling due to mechanisation



Primary industry is becoming more and more focused on oil



Construction and motor manufacturing are growing



The involvement of Transnational corporations is a driving factor in economic growth in Nigeria



TNCs are attracted to develop here because of relaxed taxes and working standards (Which has social and environmental impacts)



The relationships that develop are invaluable to nations that want to develop their economy and become more connected to the global network

Case Study Factsheet

Nigeria – impacts of TNCs and growth



As the economy grows, the population should see some benefits; their quality of life should improve



In 2000, Nigeria was placed among the 'least developed nations' in terms of wealth and education – in 2011, it had one of the highest HDI improvements over the past decade



Reliable employment and new skills



More disposable income to spend on food and recreation



Better access to safe water and sanitation



A healthier diet makes a more productive workforce



Infrastructure improvements, eg roads

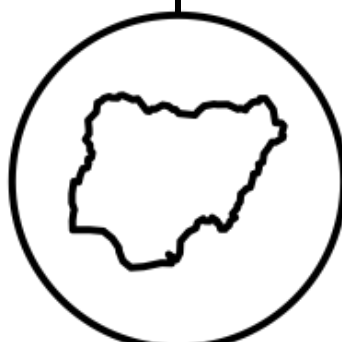


Reliable electricity gives safety at night



Better healthcare provision – more doctors and nurses

Benefits



Challenges

Environmental – Shell Oil

Oil extraction has led to conflict over land use



Bodo – 2008/9 – 11 million gallons of oil from leaks



20km² area covered in crude oil



Fish farms destroyed by oil spills



£55 million pay-out from Shell



10 years to start the clean-up process



Not all benefits are felt evenly – inequality still exists



Still a need for a stable government



Historical distrust between ethnic groups



Cultural



Despite the clear improvements, many people in Nigeria are still poor – access to services continues to be a problem



Oil wealth has not been shared with the country effectively, with many profits going to the TNCs rather than fully invested in Nigeria



The gap between rich and poor has become wider

Case Study Factsheet

UK – regional differences



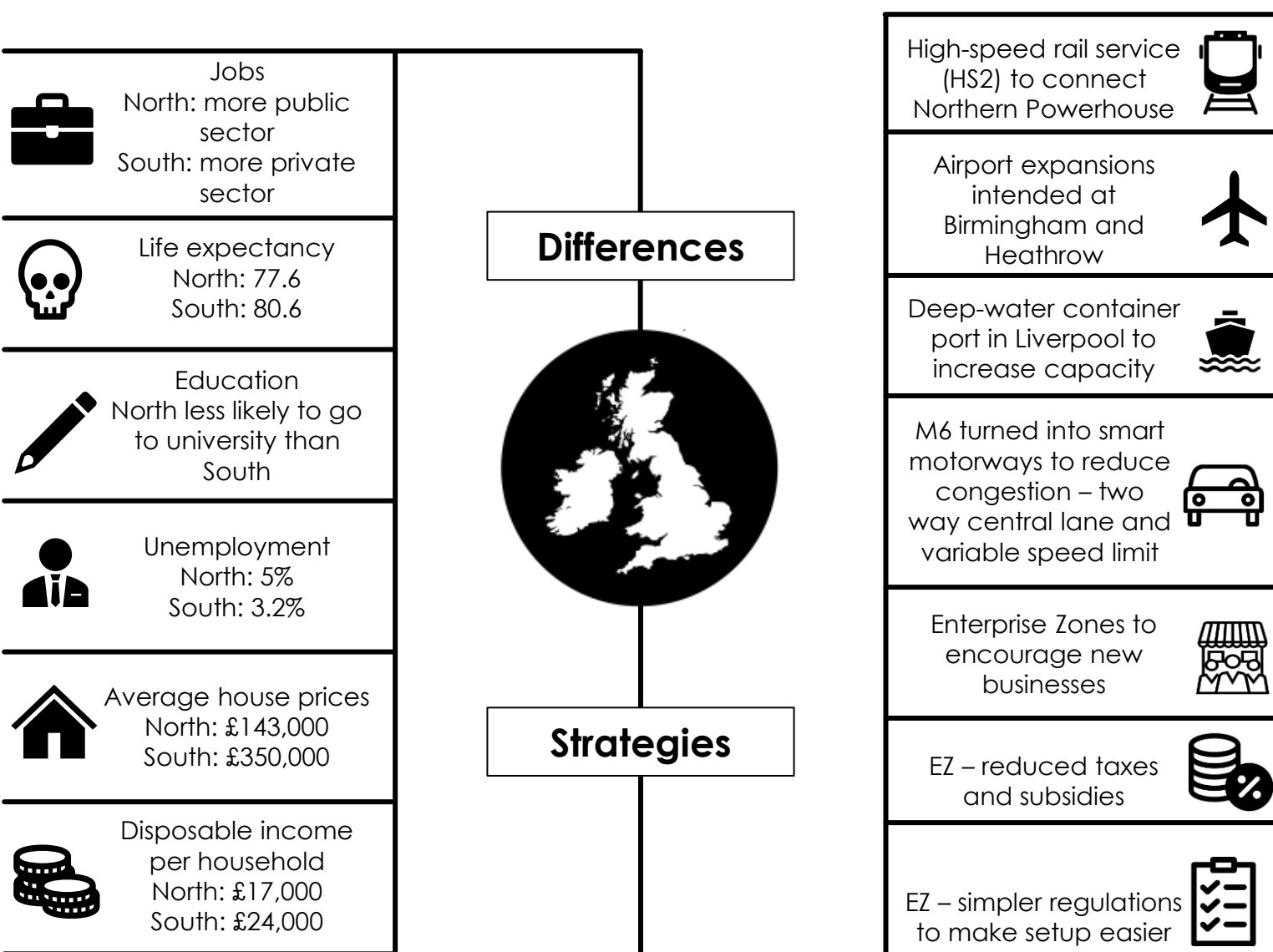
The north-south divide shows significant differences in wealth and health



Deindustrialisation affected the North more, due to their heavy industries (ships, steel, coal)



The fast-growing service sector was based around London and the south – London is globally important and has developed more quickly



Financial support from the UK government and the EU has helped to develop new businesses and infrastructure



The Northern Powerhouse is a key element of the government's focus on reducing the north-south divide, with Lancashire, Liverpool and Manchester being focus areas



Transport improvements will increase access and help to fuel the growth of the north

Case Study Factsheet

UK – post-industrial



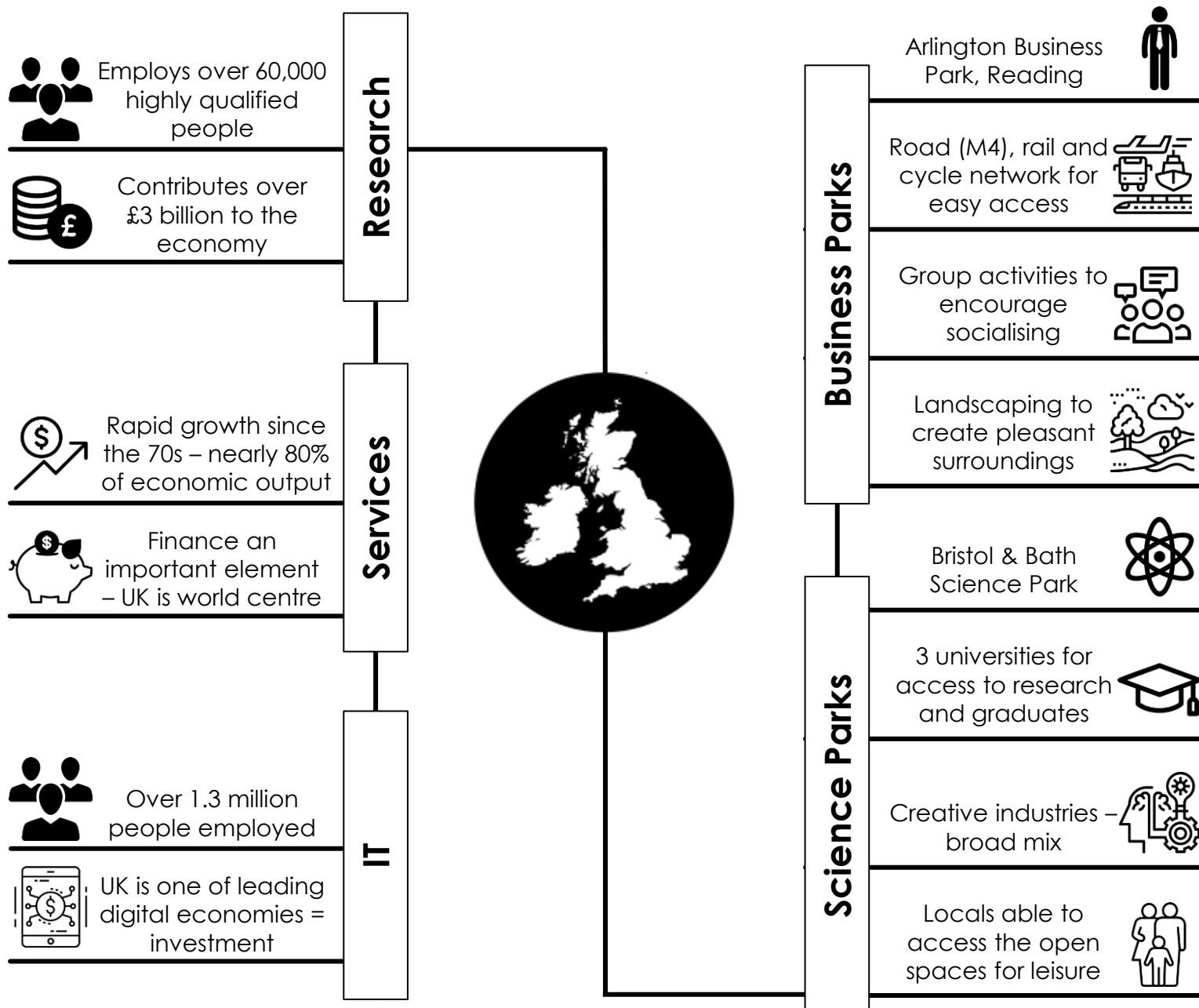
Deindustrialisation has occurred due to mechanisation and cheaper products elsewhere



Globalisation means that ideas and people can move around the world and has encouraged growth of the quaternary sector



Government policies have driven support (or lack of) for particular industries



The UK is a post-industrial economy – manufacturing has been replaced by tertiary and quaternary services – by 2015, 88% of people were employed in these two sectors



Technology plays a key role in people accessing these services around the world – even the world wide web is a creation of a UK scientist



Research and development is likely to be one of the UK economy's main growth areas

Case Study Factsheet

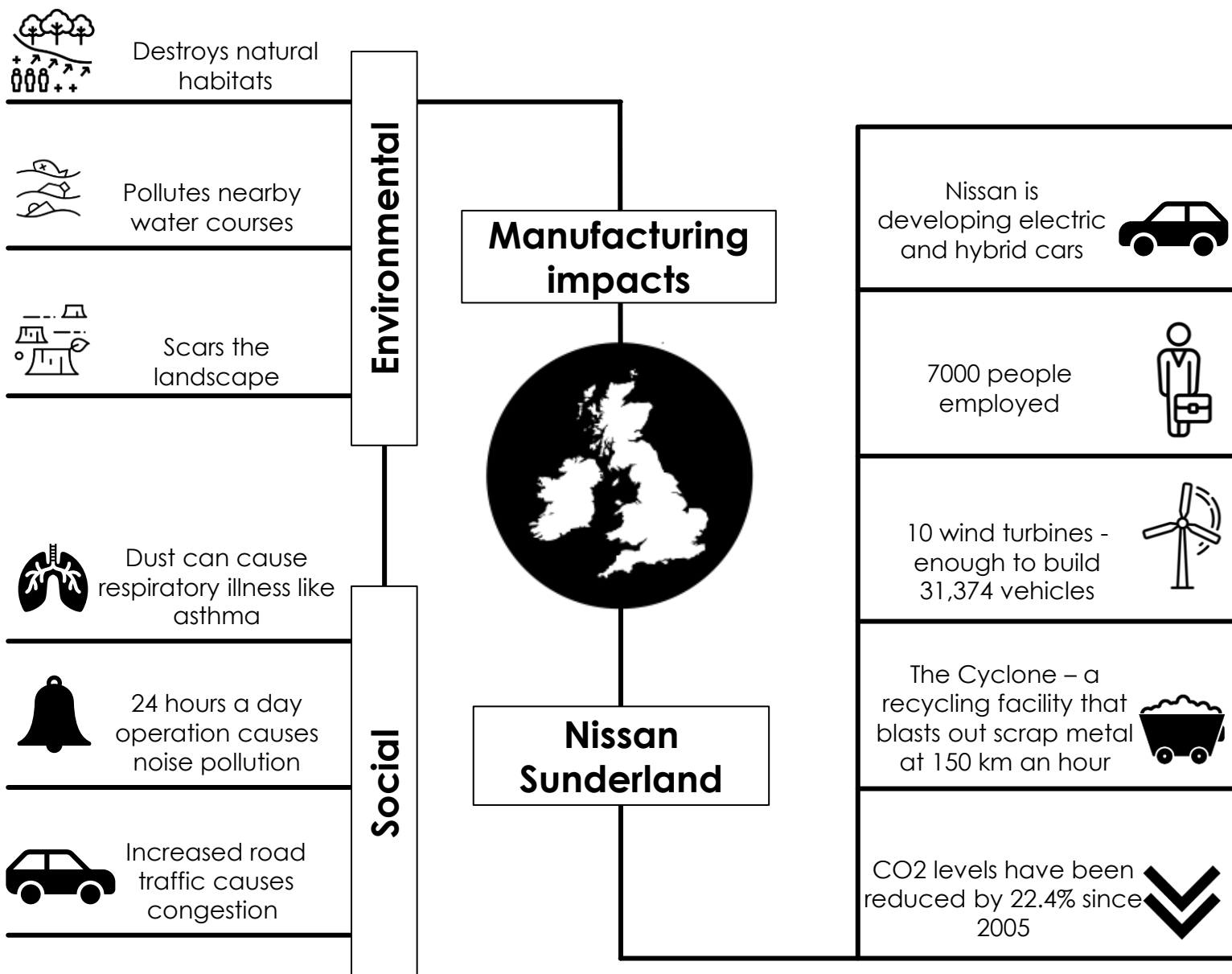
UK – sustainable industry



Car manufacturing was not sustainable in the past due to inefficient engines producing toxic pollutants, parts that were difficult to recycle and the energy-intensive production processes. However, the situation is very different today



Sustainable development is increasingly important when companies carry out their work, with strict planning and operations regulations



Today there is much greater concern about the impacts of economic activity on the environment



Technology helps us to ensure that the landscape does not suffer as much when we use materials from the earth



Stricter targets, and fines if they are not met, help to protect the landscape from air, water and land pollution

Case Study Factsheet

Growth and decline in rural areas



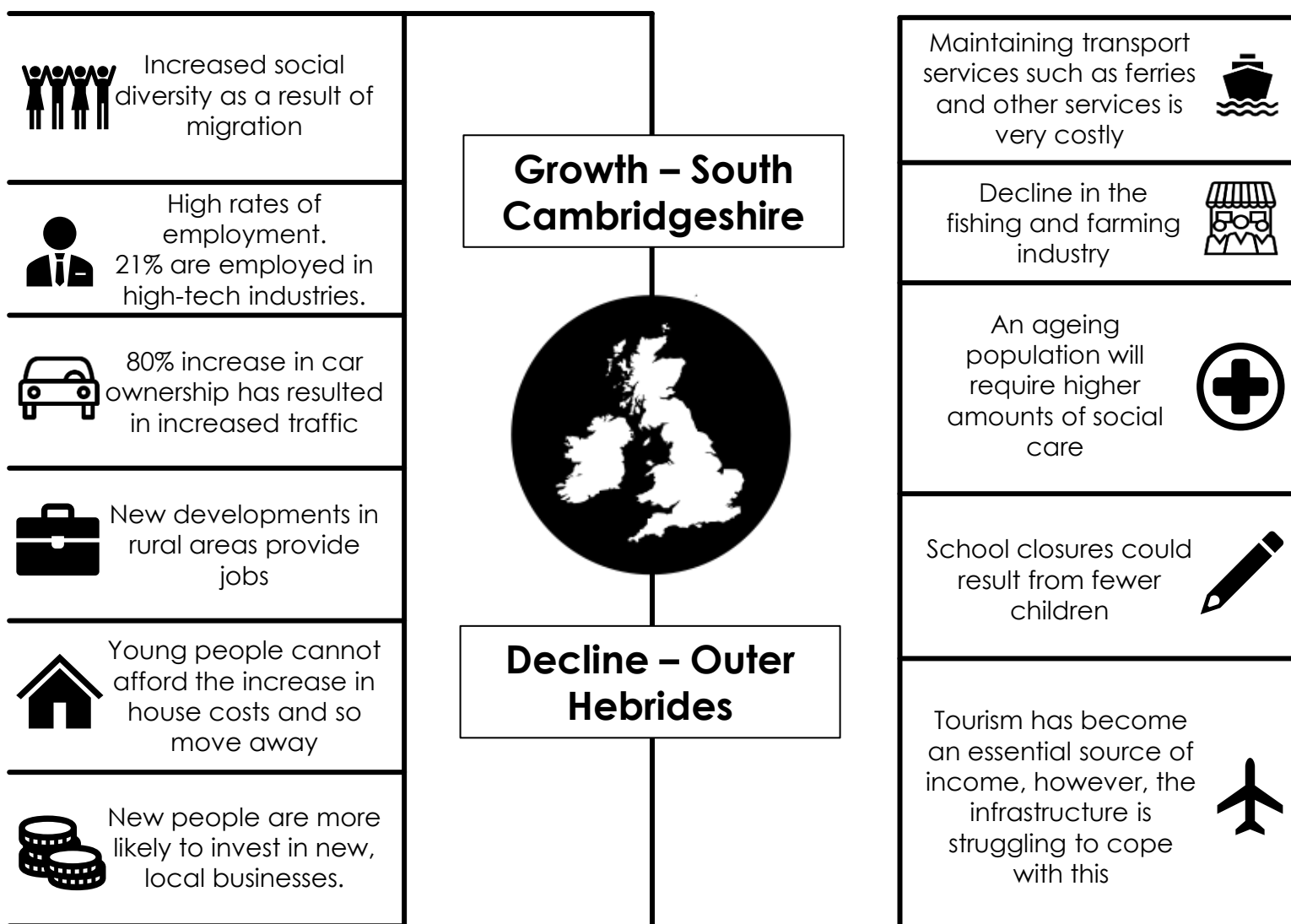
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Although the majority of people live in urban environments, 19% of the population live in rural areas



People are migrating from urban to rural areas for a better quality of life as urban areas are expensive and crowded



Major cities in the UK are surrounded by a greenbelt, an area of green, open space where development is restricted. Within, and just beyond the greenbelt are desirable towns and villages from which commuters can travel to work

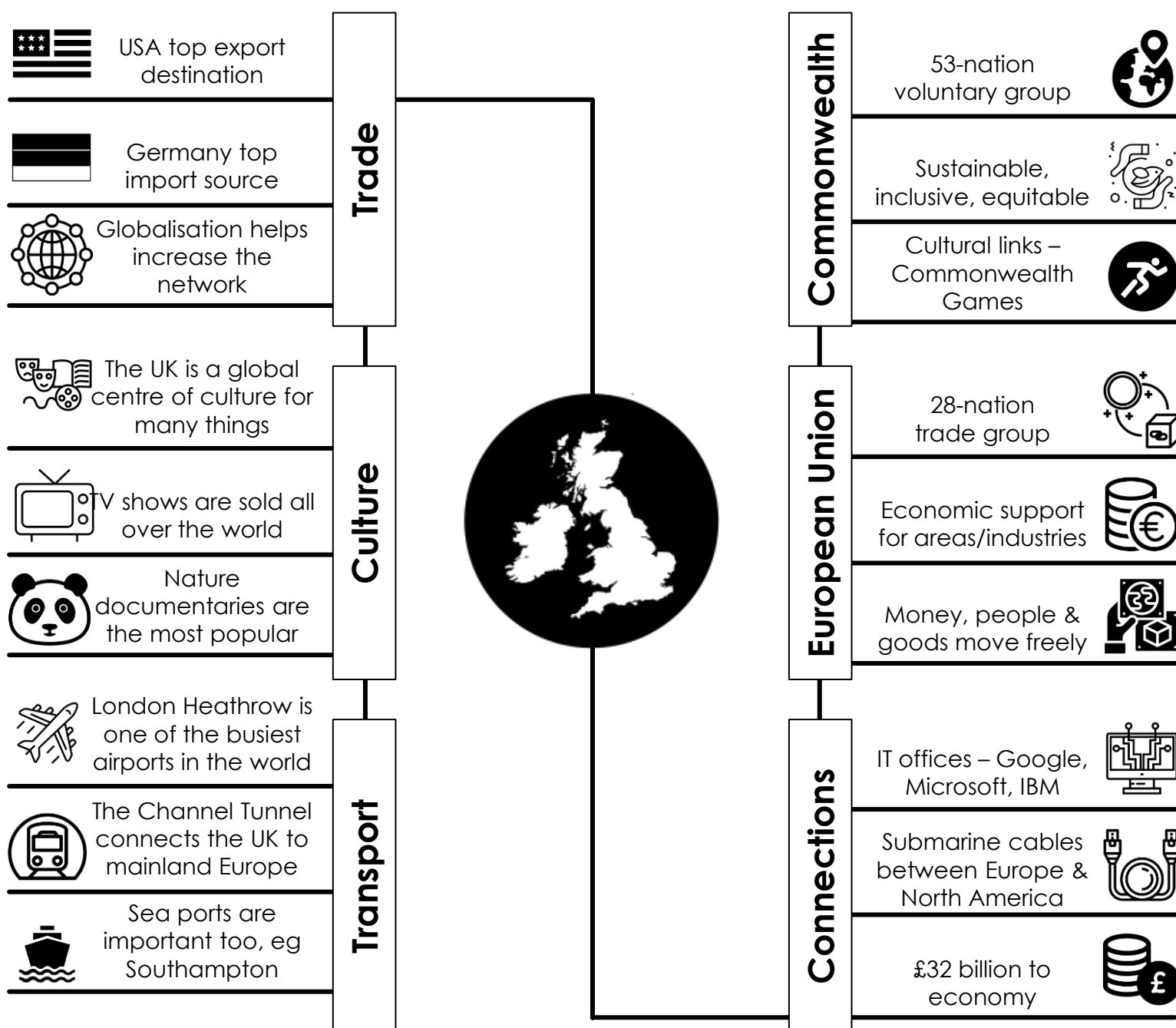
Case Study Factsheet

UK – wider world

 Globalisation has increased the possibility and importance of links between nations

 In the past, the UK was one of the world's superpowers and the history of the British Empire is still evident in our relationships with other countries

 Links with other nations bring many benefits to the economy and the people



 The outcome of the UK referendum was to leave the EU, which is a work in progress

 Our strong links with countries that were previously colonies gives us reach across the globe

 As a small island nation, some see links with other nations as important, so that our voice continues to be heard

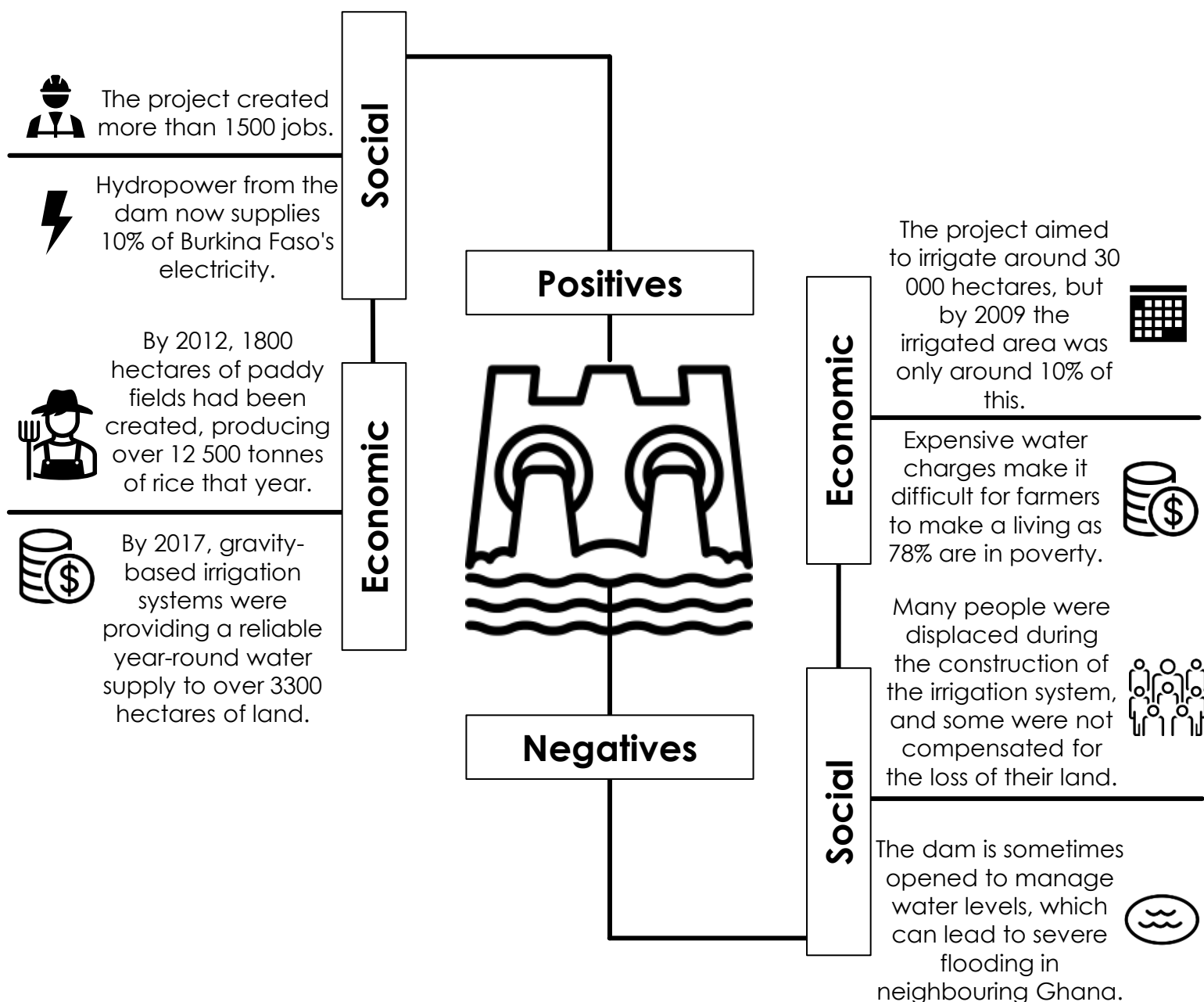
Case Study Factsheet

Irrigation in Burkina Faso

The dam was built in 1993 on the White Volta River, about 150 km from the country's capital, Ouagadougou. It can store up to 1.7 billion m³ of water.



From the late 1990s, canals were built to carry water from the reservoir for irrigation. The government hoped that the scheme would increase agricultural productivity and reduce food insecurity.



30% of people in Burkina Faso rely on agriculture for employment



The climate is hot and dry with a short rainy season, meaning there is limited time water and malnutrition is therefore widespread



Case Study Factsheet

Agroforestry in Koutiala



Koutiala is located in Mali, in Africa



Mali is a very dry country. Intensive use of land for farming is causing desertification making land less fertile.



Gravity is used to move the water, so it is sustainable and doesn't rely on electricity



The trees provide shade and prevent soil erosion



The trees increase the nutrient and water content of the soil - leaf fall increases the organic content of the soil so that it holds water better



This system increases maize yield (by 8% compared to places not doing this) at the same time as protecting the soil



The system is sustainable because farmers can produce food without damaging the local environment

Positives



Negatives

Planting trees takes time – this is not an instant fix



Climate change means this problem is getting worse, so although the scheme works now, it might not always



To combat the poor quality soil, farmers have started planting staple crops like maize in amongst trees and nitrogen-fixing plants.

The plants add nitrogen to the soil so artificial fertilisers aren't needed.