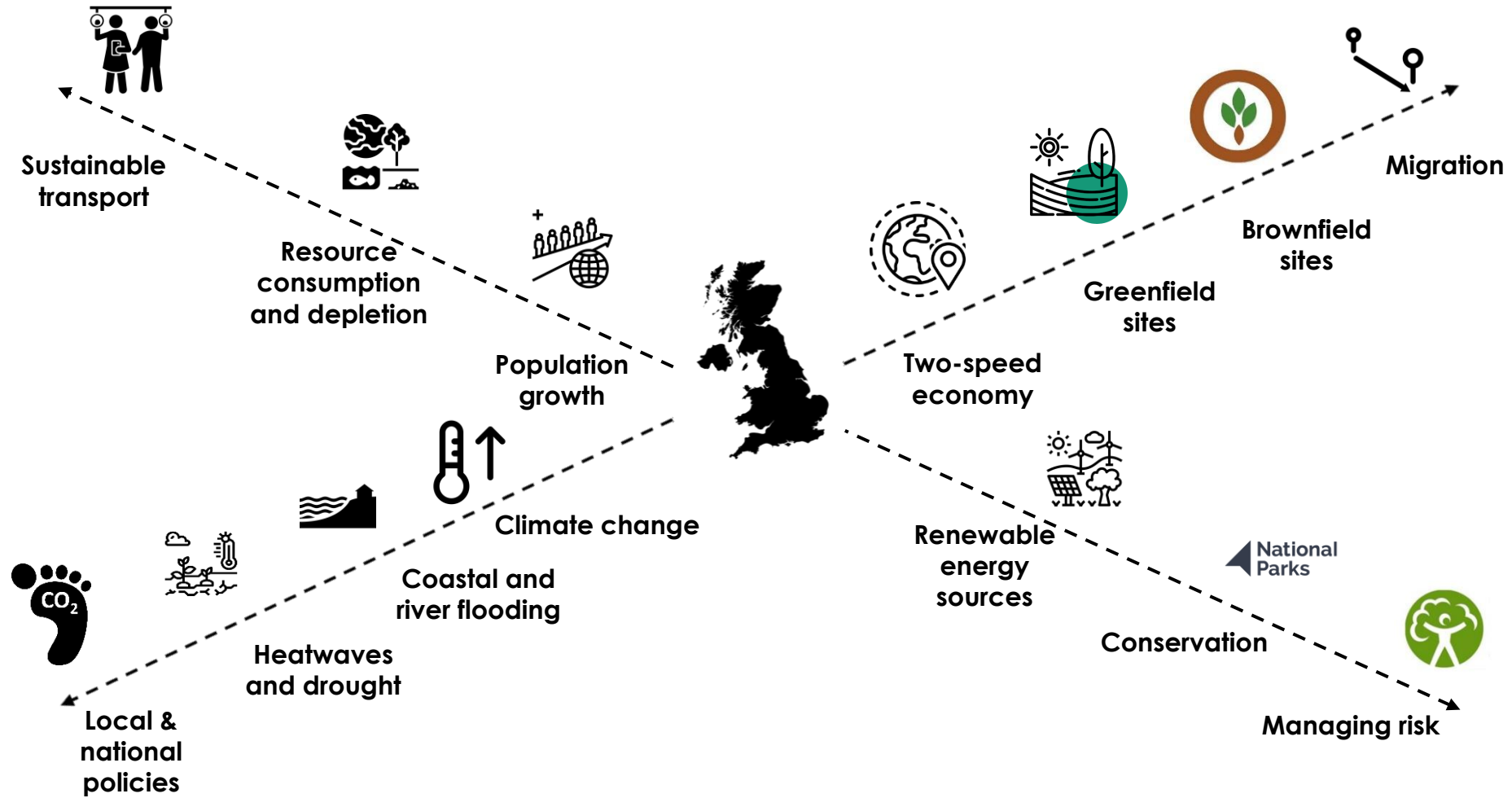


# Paper 3 Topic 8 UK Challenges



## Population, consumption & resource challenges

Table 1 Projected population for the UK (millions)

	2010	2015	2020	2025	2030	2035	2050
*UK	62.3	64.8	67.2	69.4	71.4	73.2	77.0
England	52.2	54.5	56.6	58.6	60.4	62.1	
Wales	3.0	3.1	3.2	3.2	3.3	3.4	
Scotland	5.2	5.4	5.5	5.6	5.7	5.8	
Northern Ireland	1.8	1.9	1.9	2.0	2.0	2.0	

\*The figures for England, Wales, Scotland and Northern Ireland may not add up to the total for the UK. This is because the numbers have been rounded up.

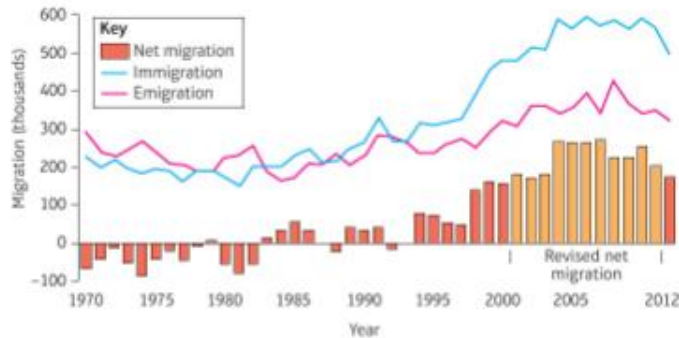


Figure 4 Net migration statistics for the UK between 1970 and 2012

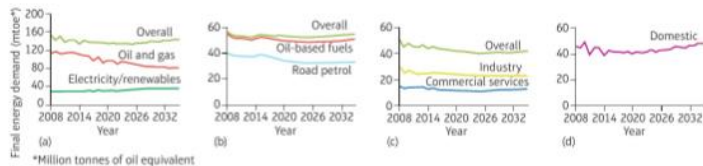


Figure 1 Projected energy requirements by sector. (a) Summary of demand by fuel type. (b) Final energy demand by transport. (c) Final energy demand by industry and services. (d) Domestic final energy demand

The UK is becoming overpopulated. By 2030, the UK's population is expected to exceed 70 million owing to natural increase and migration. This will put further strain on natural resources and ecosystems

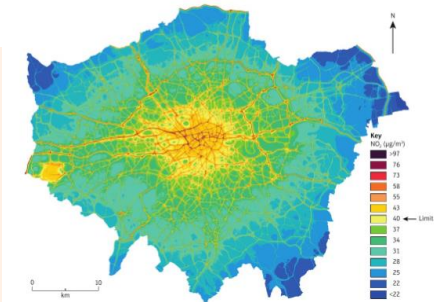
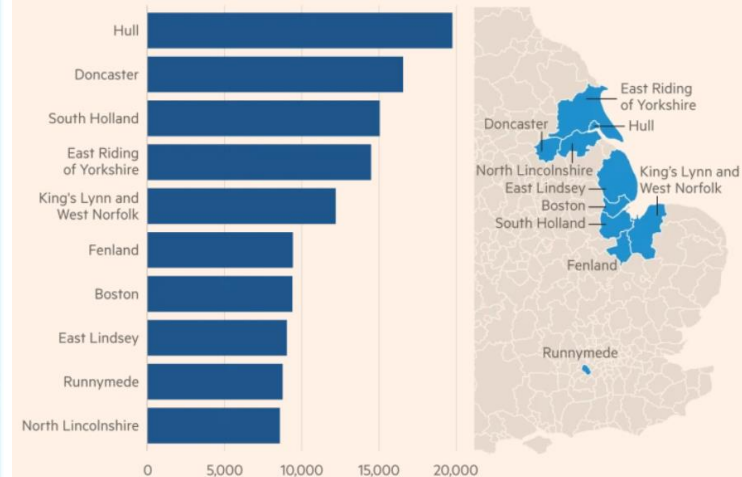
## Settlement & environmental challenges



Figure 3 House price map of England and Wales, January 2014

### Authorities with the most homes at high risk\* of flooding

As at March 2019



A 'two-speed economy' refers to the uneven growth of the UK economy, with the south-east developing fastest. A possible solution to help close the gap between the south-east and the rest of the UK is to improve transportation links e.g. HS2.

Pressures of a growing population and increased land and house prices means developers are looking to build on both greenfield and brownfield sites and on land that is at high risk from flooding

Awareness of transport impacts has led to many urban areas implementing charges for travelling within the city and an increase in public transport options

## Landscape challenges



Figure 5 Locations of UK National Parks

	Advantages	Disadvantages
Greenfield sites	<ol style="list-style-type: none"> <li>1 Relatively cheap and rates of house building faster</li> <li>2 The layout is not hampered by previous development so can easily be made efficient and pleasant</li> <li>3 Healthier environment</li> </ol>	<ol style="list-style-type: none"> <li>1 Valuable farm or recreational land lost</li> <li>2 Wildlife and their habitats lost or disturbed, partly due to more noise and light pollution</li> <li>3 Often far from work and services, generating more traffic</li> <li>4 Encourages <b>suburban sprawl</b></li> </ol>
Brownfield sites	<ol style="list-style-type: none"> <li>1 Reduces the loss of countryside and land that might be put to agricultural or recreational use</li> <li>2 Helps revive old and disused urban areas</li> <li>3 Services such as water, electricity, gas and sewerage already in place</li> <li>4 Located nearer to main areas of employment, so commuting reduced</li> </ol>	<ol style="list-style-type: none"> <li>1 Often more expensive because old buildings have to be cleared and land cleaned of pollutants</li> <li>2 Sometimes surrounded by rundown areas so does not always appeal to more wealthy people as a residential location</li> <li>3 Higher levels of pollution; less healthy</li> </ol>

## Climate change challenges

The long-term impacts of climate change are still uncertain but Changes to the UK's climate is already being felt. Warmer, drier winters and warmer, wetter summers have resulted in changes to the growing seasons of plants and crops and the changes to the intensity and frequency of extreme weather events such as storms and droughts has meant more people, animals and plants are at risk.

Water insecurity has meant more freshwater is being transported from the north and west of the UK to the densely populated south and east.

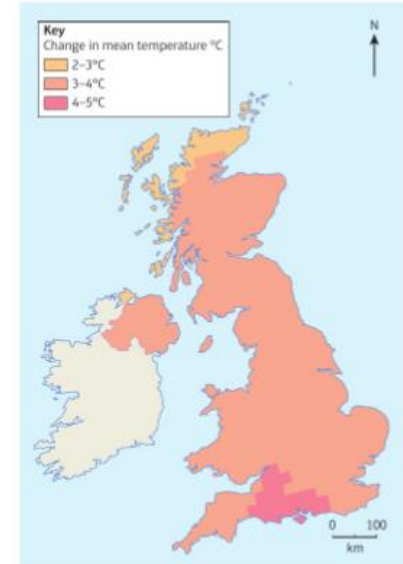


Figure 8 Change in mean temperatures in the UK in 2080, middle range prediction

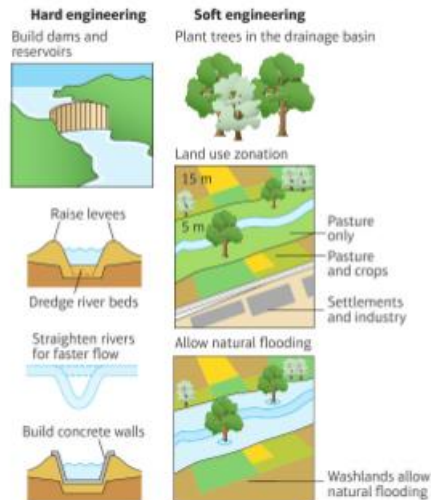


Figure 6 Dealing with floods: what are the options?

National Parks, first established in 1951, aim for sustainable development, balancing the needs of visitors and residents whilst conserving landscapes and habitats through working with local businesses and landowners.

By creating jobs in conservation, education and land management this goes some way in reducing rural to urban migration and reduces the North-South divide.

The Environment Agency is responsible for protecting and maintaining all waterways and coastal landscapes and reducing flood risk

Changes to individual lifestyles and government policies could have a positive impact.

Increased use of renewable energy sources, such as wind and tidal power to generate electricity, changes to transport and car legislation and new household heating boilers are also designed to reduce the country's carbon footprint and CO<sub>2</sub> emissions.

International agreements to reduce global emissions and keep global warming at 1.5° C are in place but as seen as the recent COP26 conference in Glasgow, conflicts can arise between those who will be impacted the economically and those who will be impacted physically.



Figure 10 Satellite photo showing energy usage at night in Europe, the Middle East and North Africa