



Resource Management



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Changing Water Demand in the UK

quiz

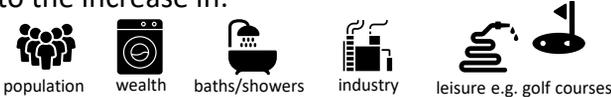


The Big Picture

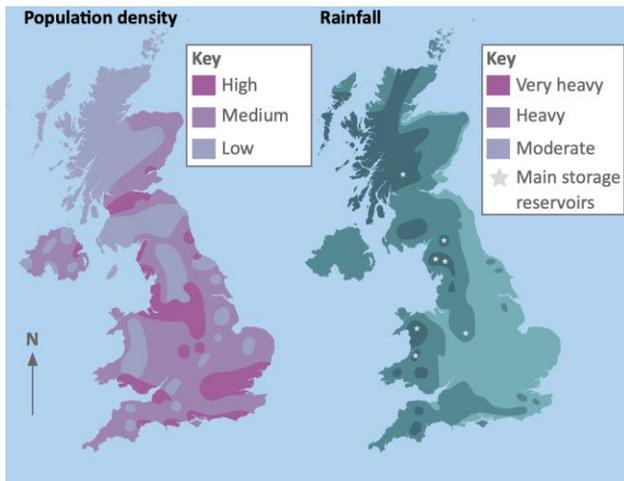


Changing Water Demand

Average household water use in the UK has increased by 75% since 1985. The average person uses 150 litres each day, compared with 47 litres in Africa. The growing demand is due to the increase in:



Water Deficit and Surplus



The UK receives enough rainfall to meet its demand for water. However, rainfall is uneven. Annual rainfall is highest in the west, whereas the east of the UK has a lower than average rainfall. 1/3 of the UK's population lives in the southeast, the driest part of the UK. Therefore, the west has a water surplus, whereas the east has a deficit, leading to water stress.



Need for Water Transfer

The UK has considered a national water transfer scheme to match supply and demand. However, due to the expense, community displacement and CO2 emissions it has not been put in place.



Key Terms



Water deficit – where water demand is greater than supply.



Water quality – the chemical, physical, and biological content of water.



Water stress – demand for water exceeds the available amount restricting use.



Water surplus – where water supply is greater than demand.

Small scale water transfer occurs between Kielder reservoir, pumping water into the North Tyne River.



UK Water Quality

The Environment Agency manages water quality in the UK. Despite improvements since the Industrial Revolution only 27 per cent of water is classified as good.



Causes of Water Pollution

- Agricultural chemicals e.g. fertiliser
- Warm water from industrial cooling
- Oil from ships and boats
- Untreated waste from industry
- Sewage release



Effects of Water Pollution

- Aquatic life killed by pesticides
- Fertilisers cause algae growth, leading to eutrophication (insufficient oxygen in river)
- Wildlife poisoned by toxic waste
- Microbacteria from sewerage spreads disease affecting humans and wildlife



Managing Water Quality

- Strict legislation limits
- Waste water treatment plants remove solids, bacteria, algae and chemicals
- Pollution traps such as reed beds filter pollutants
- Sewers and water mains reduces overflow of current sewers, spills and accidents