

UK water imports 'unsustainable'

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The amount of water used to produce food and goods imported to developed countries is worsening water shortages in the developing world, a report says.



The report, focusing on the UK, says two-thirds of the water used to make UK imports is used outside its borders.

The Engineering the Future alliance of professional engineering bodies says this is unsustainable, given population growth and climate change.

It says countries such as the UK must help poorer nations curb water use.

"We must take account of how our water footprint is impacting on the rest of the world," said Professor Roger Falconer, director of the Hydro-Environmental Research Centre at Cardiff University and a member of the report's steering committee.

" If the water crisis becomes critical, it will pose a serious threat to the UK's future development "

Professor Peter Guthrie

"If we are to prevent the 'perfect storm', urgent action is necessary."

The term perfect storm was used last year by the UK government's chief scientist, Professor John Beddington, to describe future shortages of energy, food and water.

Forecasts suggest that when the world's population soars beyond 8bn in 20 years time, the global demand for food and energy will jump by 50%, with the need for fresh water rising by 30%.

But developing countries are already using significant proportions of their water to grow food and produce goods for consumption in the West, the report says.

"The burgeoning demand from developed countries is putting severe pressure on areas that are already short of water," said Professor Peter Guthrie, head of the Centre for Sustainable Development at Cambridge University, who chaired the steering group.

"If the water crisis becomes critical, it will pose a serious threat to the UK's future development because of the impact it would have on our access to vital resources."

Key to the report is the concept of "embedded water" - the water used to grow food and make things.

Embedded in a pint of beer, for example, is about 130 pints (74 litres) of water - the total amount needed to grow the ingredients and run all the processes that make the pint of beer.

A cup of coffee embeds about 140 litres (246 pints) of water, a cotton T-shirt about 2,000 litres, and a kilogram of steak 15,000 litres.

Using this methodology, UK consumers see only about 3% of the water usage they are responsible for.

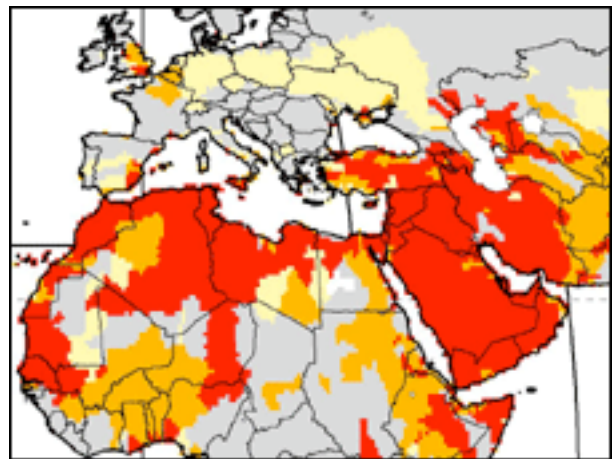
The average UK consumer uses about 150 litres per day, the size of a large bath.

Ten times as much is embedded in the British-made goods bought by the average UK consumer; but that represents only about one-third of the total water embedded in all the average consumer's food and goods, with the remainder coming from imports.

The UK is not unique in this - the same pattern is seen in most developed countries.

The engineering institutions say it means nations such as the UK have a duty to help curb water use in the developing world, where about one billion people already do not have sufficient access to clean drinking water.

UK-funded aid projects should have water conservation as a central tenet, the report recommends, while companies should examine their supply chains and reduce the water used in them.



[Interactive map: Rising water stress in a changing world](#)

This could lead to difficult questions being asked, such as whether it is right for the UK to import beans and flowers from water-stressed countries such as Kenya.

While growing crops such as these uses water, selling them brings foreign exchange into poor nations.

In the West, the report suggests, concerns over water could eventually lead to goods carrying a label denoting their embedded water content, in the same way as electrical goods now sport information about their energy consumption.

The Engineering the Future alliance includes the Institution of Civil Engineers (ICE), the Royal Academy of Engineering (RAE) and the Chartered Institute of Water and Environmental Management (CIWEM).

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