

The big turn off: Could you drink, bathe and clean using just 20 litres a day?

You've cut down on carbon – but what about your water footprint?

By Sophie Morris
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Full marks to those who keep a tight rein on their carbon footprint, but don't relax just yet: water is the new carbon, and our engorged water footprints need to be scrutinised before the rivers really do run dry. At the World Economic Forum in January, the UN secretary general, Ban Ki-moon, warned that water and food shortages would be the crises of 2008. Last week we watched the escalating food crisis reverberate around the globe. Conflicts fuelled by water shortages may well be next, triggered by climate change, population growth and poor water management.

The phrase "water footprint" was coined to describe the embedded or "virtual" water in a food or industrial product – the real volume of water used to create that product. It is difficult to avoid using products which have not been involved in a water-intensive process somewhere along the line, and the figures are staggering: it takes 1,760 litres to get one pint of milk out of a cow and into your fridge; a kilogram of cheddar swallows up 5,000 litres.

There is also, of course, plenty of water embedded in everyday activities other than eating, such as washing, cooking and cleaning. The average Brit splashes about 155 litres of water each day, compared with 20 litres for most people living in sub-Saharan Africa. Water might flow freely from our taps, but our small island is not immune to global shortages. Water is a limited commodity, and is becoming more expensive as its supply grows more difficult to guarantee.

How do we get through almost nine times more water each day than someone living in Africa? Thirsty Planet, a bottled water brand which donates part of its profits to the charity Pump Aid, challenged me to survive on 20 litres for 24 hours to find out.

I discovered pretty quickly that we waste the larger part of those 155 litres, by leaving the tap on while brushing our teeth, over-filling kettles (this wastes electricity, too), luxuriating in hot baths filled to the brim, and running the dishwasher or washing machine half-empty. These bad habits seemed easy to fix, though, and I was confident surviving on the 20 litres would prove a doddle. My "preparatory techniques" (you might call this cheating) were to shower and wash my hair the evening before beginning the challenge, and to skip washing any clothes or dishes for the day.

When I wake up, I fill a measuring jug with one litre of water, which I use to wash in, and clean my teeth. I boil about 250ml for a cup of tea and drink a glass of water. As the morning wears on I need to go to the toilet. A single flush of a toilet consigns between six and 10 litres of clean water to the sewers, and I fear this is where I may come unstuck as the day progresses. Instead, I duck out of the loo without flushing and substitute hand washing for a squirt of hand gel.

"If it's yellow, let it mellow. If it's brown, flush it down," advises Thirsty Planet on the toilet flushing issue. I pretty much follow this rule in my own home anyway, but not at work or in someone else's home. No way. As I buy my lunch from the office canteen, I don't use any of my water allowance for cooking. I factor in a couple of litres, hoping the salad I eat has been washed. I have no way of knowing if it was given a quick rinse in a small tub of water or waved under a running tap, which gushes out five litres a minute. Forget indulgent toilet flushing, the water "embedded" in all food items is the real culprit.

Growing a bag of mixed salad in Kenya, where a good proportion of the UK's vegetables arrive from, uses about 300 litres of water. That is before the leaves have been washed, processed and packed in the ready-to-use bags of which we're so fond. It takes between 2,000 and 5,000 litres of water to grow just 1kg of rice, 1,000 litres for 1kg of wheat, and 500 litres for 1kg of potatoes.

Local water crises all over the world – remember last summer's floods? – are already having a knock-on effect, affecting ecosystems and contributing to water scarcities. Rising prices show that water is already an expensive commodity in the UK, and monitoring usage and installing a water meter could reduce your bills considerably.

Despite Britain's reputation as a rain-sodden nation, hosepipe bans in the South-east have been a feature of recent summers. Thirsty Planet raises money from the sale of its bottled water to support Pump Aid, which helps rural African communities dig wells and install water pumps. A noble idea, yet bottled water such as Thirsty Planet and Harrogate Spa Water, both produced by Waterbrands, are part of the false economy of branded water itself. Bottled water consumption has increased one thousandfold in the past 20 years and the global market is now worth about £25bn annually. Each year the world glugs down 180 billion litres of bottled water, two billion of those in the UK, where a litre costs about £1, roughly the same as petrol. Seven litres is wasted just to produce the

bottle itself – but designer waters with unproven health benefits continue to sell well. Bling H2O, for example, costs £20, with a Swarovski crystal-studded bottle thrown in.

I'm feeling rather good about the challenge as the day draws to a close, but at the eleventh hour, the toilet flush gets the better of me. Stuck in a shop at 9pm with just the manager, I use the toilet and am too ashamed not to flush, taking my consumption way above the prescribed 20 litres.

This flushing toilet trap illustrates why anyone living in a developed country will find it incredibly difficult to survive on 20 litres of water a day

In the 19th century, however, most British people did manage to exist on this amount. Clean water was as inaccessible and unaffordable as it is today in sub-Saharan Africa. This all changed with the public provision of clean water in 1852. Sanitation followed a few decades later, and deaths from cholera and other water-borne diseases and infections plummeted as a result. Modern water and sanitation systems are built so that we cannot avoid flushing away tens of gallons of water every day.

Before going to bed I clean my face with cleanser and cotton wool to avoid using any more water. Somewhat pointless considering irrigating cotton crops is one of the most water-intensive processes in farming. The 155 litres of water we use for domestic and hygiene purposes each day is paltry compared with how much it takes to grow crops and get food on to our plates. We produce twice as much food as we did in the 1970s, to keep pace with population growth, but we use three times as much water to do this.

Water is neither free nor unlimited. If we rethink our attitudes to it now, we should be able to avoid every day turning into a 20-litre challenge.

www.thirsty-planet.com

Draining away: where does it all go?

- * Average washing machine cycle - 65 litres (12p)
- * Dishwasher cycle – 25 litres (5p)
- * Flushing the toilet – about 8 litres (1.52p)
- * Bath – 80 litres (15p)
- * Shower – 35 litres (7p)
- * Power shower – 80 litres (15p)
- * Washing a car with a bucket – 8 litres per bucket (6p)
- * Washing a car with a hosepipe – more than 400 litres (over 76p)
- * Watering the garden with a hosepipe – 540 litres (£1.03p)

Figures from www.USwitch.com. Prices based on an average cost of 0.19p per litre



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