
Discussion Summary

Do the public care about water and flooding?

Top Lines

- **Our choices and behaviours are influenced by factors and biases that are often unconscious** – we are often not the well-reasoned, coherent and deliberative decision-makers that we think ourselves to be. Appealing to the public on rational messages like ‘save water to save on your water bill’ will be of limited effectiveness. The brain discounts future rewards for the present at a high rate – so a long shower today is more appealing than saving water in the future.
- **Behavioural change messaging needs to be a simple and specific call to action**, and reflect the desires and needs of the users in order to be effective. Generic messages like ‘save water’ don’t work. Effecting people’s perceived social norms can also be effective in getting behavioural change – ‘Join your neighbours in saving water’. Messages also need to consider the framing of the message, and the social context in which water is used. Tweaking messaging to promote better behaviours for society can be cheap and low regrets actions for the government and water companies.
- **Habitual behaviours can be hard to break**, which is why the optimal time to try and influence behaviour is to communicate with them at a time of change e.g. when someone moves house.
- **Public awareness of drought and flood risk is low**, as this is the first barrier to achieving behavioural change. However just giving the public more information alone will not be effective. Fearmongering of the worst case scenario is also an inhibitor of action, and could be perceived as too pessimistic to be believed.

WSBF recommends:

- **A Property Resilience Certificate for houses should be introduced** by the government to raise public awareness of the relative water efficiency and flood resilience of their home.
- **Water bills need to be easier to understand and more smart meters are needed.** The public need readily available data on their consumption in order to correct their daily habits.
- **Water companies need to reduce water leakage** to show the public that they value water, and their efforts to save water are not wasted. The water industry needs to get better at continually talking to their customers about saving water.
- **The government should review the role of Flood Re** (Government backed flood insurance scheme) in providing the right incentive for making homes more resilient to flooding.

Speakers

- **Angela Smith MP**, Chair – Bricks & Water report co-chair, member of the EFRA Select Committee and former Shadow Water Minister

- **Carolin Reiner:** Behavioural Insights Team
 - **Dr Vittoria Danino,** Anglian Centre for Water Studies
 - **Dr Rose Meleady,** University of East Anglia
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Overview

Hosted by the Westminster Sustainable Business Forum (WSBF), this policy roundtable on 13th November 2018 built on the findings and recommendations from WSBF's recent [Bricks & Water](#) report published in June 2018, which was a plan of action for building homes and managing water in England.

This was the second of four follow-up events, which looked at public attitudes to water resources and flooding in England. Some of the highest per capita water demand in the country is in areas that are already under water stress (South East Water average is 161 Litres per person per day (Lpppd)), and have high levels of water leakage from pipes (Thames Water average is 171 Lpppd). The session sought to answer the following questions:

- Are people aware of the amount of water that they use? Does 100 litres per person per day mean anything to them?
- 78% of Affinity Water customers already think that they are doing their bit on water efficiency - how do we instill collective responsibility to do more?
- How do people understand risk and probability? What does 'a 1-100 year flooding event' mean to them?
- Even after being flooded, why do only 4% of people who have been flooded then take property-level resilience measures in their homes?

This roundtable was kindly chaired by Angela Smith MP, Member of Parliament for Penistone & Stocksbridge, member of the EFRA Select Committee, former Shadow Water Minister and Bricks & Water report co-chair.

Speaker Summary

Carolin Reiner – Behavioural Insights Team

- People tend to think about themselves as well-reasoned, coherent and deliberative decision-makers. This is true to a certain extent, however, reality shows that our choices and behaviours are influenced by factors that are often unconscious in significant ways. Low uptake of flooding protection and high levels of water consumption are also partly driven by such behavioural barriers and biases.
- In relation to flooding protection these might include:
 - The **optimism bias**, meaning we believe that success is more likely, and negative events are less likely (for ourselves) than they really are. So when flooding risk is communicated

- to us, we neglect the odds at which this can happen in our own backyards. *E.g. "Flooding may be bad but it won't happen to me."*
- The **availability heuristic**: Which describes that we intuitively judge probability not on knowledge of statistics, but on the ease at which we can recall similar examples. Calls to action for flooding protection might therefore be disproportionately effective after a recent flood or another adverse weather event. *E.g. "It rained yesterday, that must mean we have plenty of water."*
 - **Hyperbolic discounting**: We are also disproportionately focused on the present, meaning that we overweigh benefits of a certain decision that we might gain today at the expense of neglecting costs and consequences that decision or behaviour might bring in the future. When we have a limited budget, we are therefore more likely to spend it on things we need or enjoy today rather than protection measures that may only be useful in the future. *E.g. "I would rather spend this money on a holiday now, rather than protecting my home against future flooding."*
- In relation to saving water the following behavioural biases and mechanisms might be at play:
 - **Lack of awareness**: Most people simply aren't aware of how much water they are using, nor how much they are 'supposed' to use. More regular feedback through bills and other channels could help with that. We are social creatures and heavily influenced by what we think those around us are doing; therefore communicating the norm consumption level can encourage others to adjust to the norm.
 - **Collective action problem**: Whereby we believe our individual efforts to save water might not be worthwhile if others' won't make the same effort. Correcting that perception about others' lack of engagement by communicating the norm behaviour might help overcome this. *E.g. "I won't bother to save water unless I'm sure everyone else is also making an effort."*
 - **Intention-action gap**: Especially in environmental policy, most people have good intentions to change their behaviour and to recycle, save water, or waste less food, but more often than not **these good intentions do not translate into action** because of a number of reasons. For example, small hassle factors like having to rinse a yogurt cup keep people from recycling. Removing such frictions can therefore disproportionately help people to act on their good intentions.

"We like to think of ourselves as well-reasoned, coherent and deliberative decision-makers. Often however, our behaviour is influenced by biases born from unconscious assumptions and stereotypes. For example, we heavily discount costs faced in the future in favour of benefits we might gain in the present and small hassle factors disproportionately come in the way on acting on our good intentions. That means, even if the public understands the overall need to save water it may not stop them having a long shower today."

Carolyn Reiner – Behavioural Insights Team

Dr Vittoria Danino – Anglian Centre for Water Studies

- Water companies need to consider how their internal culture and processes impact the effectiveness of their interaction with customers. For example the use of per capita consumption as a measure that is relevant to customers.
- The sector needs to ask itself what societal shift is desired, and understand and address the social, cultural and personal barriers to change attitudes to water efficiency and flood resilience.
- When communicating with customers we must be sure to engage with them using language that they will find persuasive, not assume that they share industry beliefs, opinions and ways of communicating.
- An individual's total water usage is very difficult to accurately measure due to using water outside the household.
- Few people know their own water consumption with any degree of accuracy. Water bills need to be made simpler and easier to understand for customers, so they can quickly see their consumption and how this compares with other people in the area. If people don't know how much water they are using to start off with, it is difficult to get them to use less of it.
- If we are to enable customers to understand their water consumption there is a need for greater water meter coverage in England (currently around 50%), and learn from the energy sector on how smart meters have been used to engage customers on increasing their efficiency.
- As water is a cheap utility, the majority of the public won't care about the bill savings from water efficiency, so the sector needs to think about tailoring persuasive messages to different demographic groups (e.g. saving water to protect rivers and the environment).
- Rising block water tariffs (where people who use more water pay progressively more for it) used in conjunction with other behavioural change initiatives, have been successful in arid countries to encourage the public to use less water through giving them a stronger economic incentive to save. The problem is that rising block tariffs are very difficult to properly design: how big the initial cheaper block of water that everyone gets is, the number of blocks, the increase in price of each block. You need to really ramp up the costs of water for it to become a proper incentive for people to use less, and poorly designed tariffs may disadvantage the poorest in society who can't reduce their water usage.

“Most people don't know their water usage. If people don't roughly know how much they use and how that compares to others, it proves difficult in persuading people to reduce their use. Companies need to understand the social context in which water is used and the impact of company internal cultures on customer engagement strategies.”

Dr Vittoria Danino – Anglian Centre for Water Studies

Dr Rose Meleady – University of East Anglia

- To save water in the future and make ourselves more resilient, incremental change will be required from policy improvements, technological innovations and behavioural change interventions.

- There is often a misassumption that others fail to act because of an information deceit. This is why just giving the public more information on water levels or drought probability may not be effective in reduced water demand.
- The public has a huge role to play in making the water sector more resilient. A/B testing of different messaging has shown that small changes can radically change the effectiveness of the message, such as using collaborative language: 'join us in saving water'. These changes to messaging can be cheap and low regrets interventions for companies. Amending the message framing has helped to save water in hotels.
- To get the public to save water we need to get them to think of themselves as active consumers of a valuable collective resource, and away from seeing themselves as passive consumers of an invisible and unquantifiable resource.

“There is often a false assumption that the public is failing to act because of an information deficit, and just telling them more about drought risk and the need to save water will make them do so.”

Dr Rose Meleady – University of East Anglia

Open Discussion

The open discussion around the table covered various topics, including:

- Optimism bias (“it’ll never happen to me”) amongst the public can limit personal action on drought and flooding, as people tend to have a poor understanding of risk/probability, and therefore will underrate both the risk of a potential drought/flood event in the future, and how their own behaviour plays into that risk.
- The subconscious has a very poor understanding of numbers and risk probabilities. Rather than ‘1 in 100 year’ events or percentage chances of events occurring then risk could be communicated as like rolling a 100-sided die: it is unlikely that you would roll ‘Flood’ twice in a row but it is possible. It should be explained to the public that these events are not mutually exclusive, and could (and do) occur in close sequence (hence Gambler’s Fallacy).
- The water sectors past performance on leakage sends a mixed message to the public on the value of water. Water companies may not have fixed some pipes because of failing the SELL (sustainable economic level of leakage) calculations, which runs against ‘water is a valuable resource’ messaging from companies. Water leakage acts as a prohibition on water efficiency messages in this way, which is why there must be significant action to reduce leakage.
- Bringing together drought and flooding messaging in the same communication may confuse the public and so be ineffective. A possible solution for this is teaching more children about the water cycle, and how drought and flooding are related environmental problems. Water companies already have education teams that go into schools and build sustainable drainage systems for them to interact with, but the educational reach of this is limited without national curriculum backing. More research needs to be done on the actual value of ‘pester power’ in influencing adult behaviour, although the theory is difficult to test in a study because of removing other possible variables.

- Public opinion can change after dramatic events and examples, such as Blue Planet 2 creating demand for action to reduce plastics. After the damaging 2013/14 floods, public opinion shifted to wanting more action from government on flooding. The PM at the time promised action “whatever money is needed, we will spend it”. It is uncertain about how elastic these societal shifts are, and whether after a year or two people forget and move onto something else. 78% of Affinity Water customers already think that they are doing their bit to save water. It could be difficult to tell them that they need to be doing more.
- Is Flood Re working to deliver greater flood resilience? The price of home insurance in flood risk areas is being artificially kept low by the taxpayer, so having expensive home insurance premiums is no longer a driver of greater resilience behaviour. Property-level flood resilience measures have had varying public policy and financial support, but they can still be quite expensive for the householder to install, and they get support from their home insurance (Flood Re) to incentivise them to make their home more resilient. There is also a responsibility deficit for taking action on flooding, with confusion amongst the public on whose responsibility flood protection is – the householder or the government through the Environment Agency. The government should review the effectiveness of the Flood Re scheme in making the country more flood resilient.
- Habitual behaviours can be hard to break, which is why the optimal time to try and influence behaviour is to communicate with them at a time of change e.g. when someone moves house.
- Behavioural change messaging needs to be simple and specific, and reflect the desires and needs of the users in order to be effective. Generic messages like ‘save water’ don’t work.
- More research needs to be done on whether nudges stick: how long messages continue to influence public behaviours in regard to water after the initial campaign. The messages may need to be alternated over time to keep them novel and prevent them being ignored by the public.
- Successful behavioural change can cause ‘behavioural spill-over’ effects which influence behaviours other than the initial intended intervention by effecting the persons egocentric evaluation of themselves – “I am someone who values and saves water, so I will water the garden less.”
- The public has a high degree of trust in the water sector, and the continuous provision of water even in drought scenarios. United Utilities did see a big increase in interest from their customers in water-saving devices when they issued drought warning and a hosepipe ban during the summer heatwave. The problem is there seems to be a public perception that they don’t need to start saving water until drought warnings are issued.
- The water industry needs to get better at communicating with their customers, rather than just acting as silent servants and providers of a service which they have been in the past.
- Influencing policy so that we design better and more water efficient houses is important. This could take the form of adapting building regulations to give great weight to greywater reuse and rainwater harvesting. The guidance could also be amended to set higher standards for the water efficiency of fixtures and fittings. Rainwater harvesting is mandatory in properties in Holland for instance.

- There is some confusion amongst the public (and sector) about who ‘owns’ water, and what effect this will have on planned inter-region transfers in a shortage scenario. If the water falls on my land, is it mine to store?
- Fearmongering on exaggerated threats doesn’t work when communicating with the public. By outlining the worst case scenarios, such as warning of extreme future droughts and flooding, just switches people off and gives people an excuse not to act – “If things really are that bad, there’s nothing that I can do about it.” Also the optimism bias means that the most are unlikely to believe such predictions, and have trust in the water sector to sort the problems out.
- The way to promote behavioural change is to try and remove any negative connotation from action, by attempting to gamify the action and make it a pleasurable experience. This could mean that households that save water below a certain level get ‘credits’ which can be exchanged for something.
- To encourage greater public awareness of the relative water efficiency and flood resilience of their home, a Property Resilience Certificate (PRC) should be introduced. Like the EPC, the PRC would rate homes on a wide range of factors such as flood risk, water efficiency and thermal performance, to encourage public demand and a market for more efficient and resilient homes.

About the organisers

The Westminster Sustainable Business Forum (WSBF) is a high-level coalition of key UK businesses, Parliamentarians, Civil Servants and other organisations. Providing a politically neutral environment for knowledge sharing and discussion on sustainability policy, we help to inform the wider sustainability agenda in government and are a trusted source of independent information and advice for policymakers. We publish authoritative research reports; impact on government policy through our in-depth round table policy discussions and outputs; and inform the wider sustainability debate by convening Parliamentarians, senior Civil Servants, business experts and other stakeholders at our larger policy events and seminars. The WSBF works in the policy areas of construction, infrastructure, water, sustainable planning, green finance and natural capital. We are cross-party, independent and not-for-profit.

For more information on our activities, please visit: www.policyconnect.org.uk/wsbf or alternatively please contact Jim Clark at jim.clark@policyconnect.org.uk

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