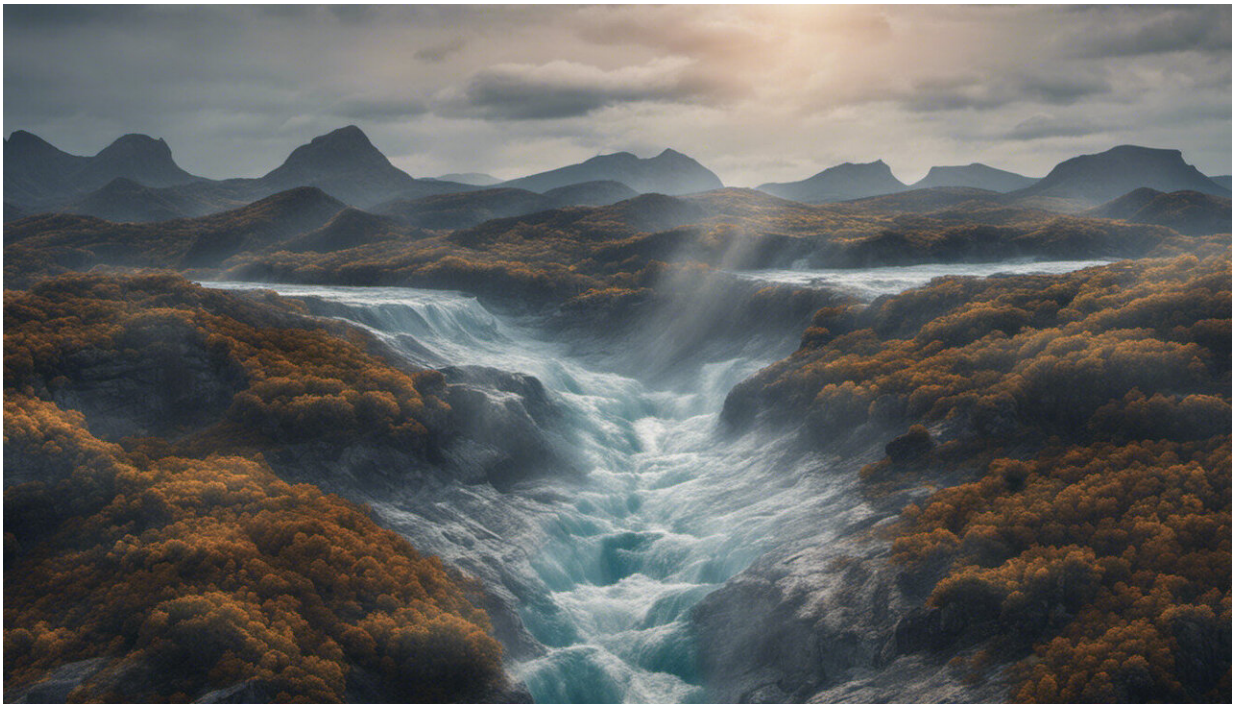


# Water governance: Flexibility, uncertainty and participation

May 31 2019, by Kevin Grecksch

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Credit: AI-generated image ([disclaimer](#))

Whenever I start a presentation about water governance, I ask the audience if they know what the price of a litre of tap water is. Usually the room goes quiet, shoulders shrug and only a few make a guess, usually an overestimation. My next question is about the price of a litre of petrol. Within a split second, I get the right answer from the audience.

Water is indispensable, not only for humans, but for all living things. Yet our relationship with [water](#) is out of touch. In developed countries, drinking water is readily available everywhere: from the tap, the supermarket, and the corner shop. Most of us take water for granted; many do not realise just how important water really is and what we use it for. Besides drinking water, water is used in production processes, both industrial and in the food and drinks sector. We trade water in reality and virtually, we regulate water, we divert water, we pollute water, we fight over water, we rely on water to cool thermal power plants, and most importantly, water will be the medium through which [climate change impacts](#) are felt and experienced. Water can also be a threat. Floods and droughts endanger and destroy livelihoods, kills people and animals, and contributes to the spread of vector-borne diseases.

Water is an important issue, if not the most important, yet at the same time it cannot be singled out as it is part of the wider environmental story. That story tells us about the interdependencies and links between water and other sectors, such as agriculture, energy, forestry, manufacturing, and waste disposal. For example, a simple daily routine such as a hot shower involves not only the public water supply, but also relies on electricity or gas to heat up the water. Furthermore, water is a highly social issue. It is humans who make decisions about water, and who gets it and how much.

Sustainable water [governance](#) is therefore a precondition for successful climate change adaptation. Water governance describes the steering, coordination and decision-making processes of actors to govern water. This includes laws, regulations, [public participation](#) and education. A diversity of actors—[policy makers](#), regulators, water companies, non-governmental organisations and consumers—have a role in this process. This differs from jurisdiction to jurisdiction, and legacies and path dependencies play a major role in how [public water supply](#) is institutionalised in a country.

Water governance faces challenges such as population growth, rapid urbanisation and land use changes. Climate change and its projected effects will exacerbate this. Some regions will have more water, and others less. Increasing populations will lead to questions about access and allocation. A key issue is uncertainty: we simply do not know if and when the projected effects of climate change will happen, and to what extent.

In the context of climate change, the term 'adaptive water governance' is frequently used. What this means is that water governance needs to be flexible in order to adapt to uncertainties. Legislation and policies should not be set in stone, but reviewed at regular intervals to account for the latest research results or practical experiences. In some cases we need to be able to overcome current water policies and opt for new approaches. Cape Town's threat of a "day-zero" in 2018, where all taps would be turned off, led to drastic policy changes, which subsequently led to massive reductions in daily water consumption by the general public and businesses.

Flexibility also means to cater for the different projected impacts of climate change across the world. This includes taking into account geographical, regional, social and cultural characteristics, and should result in tailor-made adaptation strategies. Public participation from the very beginning of a process, and not just to legitimise the outcome, should be an inherent part of adaptive water governance. Unfortunately, the latter is also one of the greatest challenges. Who are the stakeholders who should take part? Do they have enough staff and financial resources at their disposal?

Another key issue to overcome is the "silo-mentality" we still find in environmental governance. While the [scientific consensus](#) is clear about the need to look at an issue like water in an integrated way, in reality we often find a "silo-mentality." This refers to the non-collaboration across

policy sectors, for instance among water, urban planning, agriculture and energy. Even within water governance, we often find that flooding and drought policy teams operate separately from each other and are not looking at the issue from an integrated perspective.

Water governance is a challenging task, but there are many positive and promising examples, policies, and approaches available. Some great examples are the catchment-based-approaches, which look at a river catchment as a whole. Or in the Netherlands we find "water-squares," public places shaped like a bath tub that function both as a playground and as a retention area for overflow water after a heavy rain event. It is those co-benefits, being good for climate change adaptation as well as fulfilling another function such as recreation, creating jobs, or restoring wildlife, that are key.

We do not only drink water, but we swim in water, we sail or row on water, we walk along rivers, canals and lakes. We cherish water in various ways, but often neglect its social and cultural value at the same time. Tackling this is a key challenge for water governance in the future.

Provided by University of Oxford

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