



Strengthening climate resilience in the water and sanitation sector & the role of Protocol on Water and Health

Professor Guy Howard, Cabot Institute & School of Civil, Aerospace & Design Engineering, University of Bristol

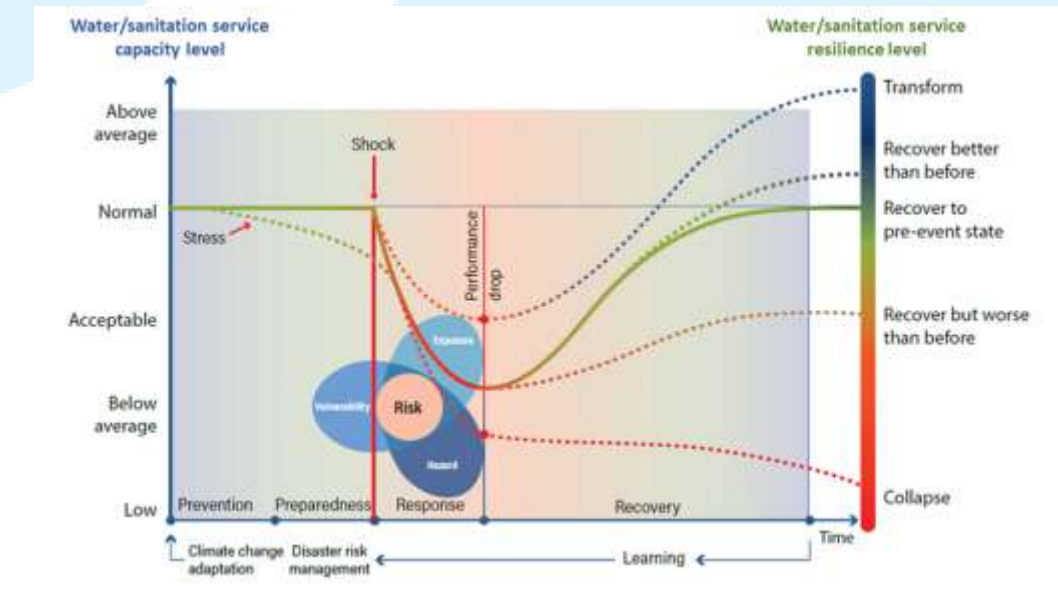
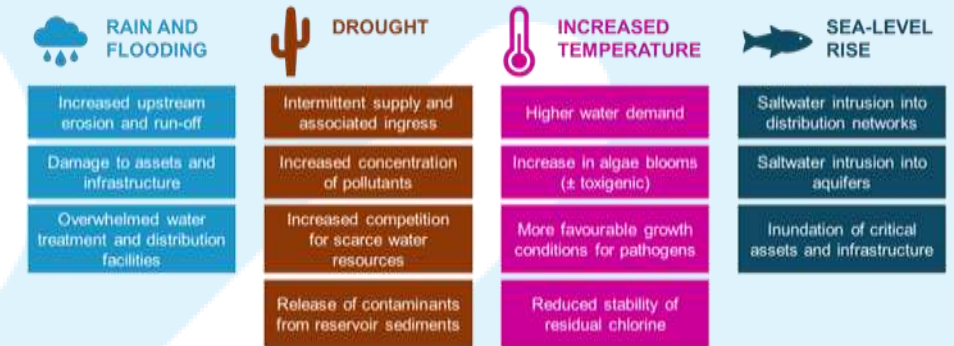
Strategic Roundtable on Increasing Resilience to Climate Change in the Water and Sanitation Sector

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Climate change and water and sanitation

- Building resilience is key: tackle rapid and slow-onset threats; cascading and multiple threats
- Resilience requires investment in emergency preparedness and response
- Building resilience in smaller and less-well resourced systems is challenging

Climate change altering water quality and quantity patterns



Actions by suppliers

- Integrate climate into WSPs & SSPs: climate expertise needed in teams
- Improve efficiency & reuse wastewater
- Investment plans: low-regrets; scenario-based planning and climate risk narratives; factor in redundancy

Climate change altering sanitation systems

RAIN AND FLOODING	DROUGHT	INCREASED TEMPERATURE	SEA-LEVEL RISE
Damage to sanitation assets and infrastructure	Ground movement leading to broken pipes	Infrastructure failure and damage due to ground thaw in permafrost areas	Reduced efficiency of biological treatment processes due to saltwater
Flooding and/or collapse of on-site systems	Increased corrosion of sewer pipes	Reduced efficiency of biological wastewater treatment	Damage to underground infrastructure from rising groundwater levels
Overflow of overwhelmed storm- and wastewater containment systems	Impeded function and use of water-reliant sanitation systems	Quicker drying of faecal sludge in waterless latrines	Damage to wastewater treatment works in low-lying/coastal areas
Spillage from bypassed wastewater treatment plants	Reduced capacity of receiving water bodies to dilute wastewater		

Actions by regulators

- Require suppliers to demonstrate how climate factored into operations and planning
- Use of existing regulations – e.g. Drinking water directive
- Assessment of resilience using metrics to identify key priorities and systematic problems
- Need greater climate knowledge among regulators



Net zero

- Water and sanitation emit GHGs – methane and nitrous oxide particular concerns
- Some emissions non-discretionary to protect public health
- Some authorities require actions by suppliers as part of national net zero strategies

Options include:

- Methane capture at WWTP
- Improve faecal sludge and sewage management
- Improved energy efficiency
- Generation of within-system energy
- Insetting and sequestration in catchments

Conclusions: the Protocol

Role of the Protocol

- Ongoing programme of work to support action on climate change
- Promote and harmonise targets
- Platform for lesson-sharing
- Map capacities and future needs
- Links to NAPs and NDCs

Which means...

- Parties agree how they want to address climate change
- Programme of work on climate
- Engage with climate processes

Thank you!

Contact:

guy.howard@bristol.ac.uk

Website:

[Professor Guy Howard - Our People
\(bristol.ac.uk\)](http://bristol.ac.uk)

[Climate resilient WASH at Bristol](#)

