npj | Clean Water

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Engaging with the politics of climate resilience towards clean water and sanitation for all

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Climate resilient development has become the new paradigm for sustainable development influencing theory and practice across all sectors globally—gaining particular momentum in the water sector, since water security is intimately connected to climate change. Climate resilience is increasingly recognised as being inherently political, yet efforts often do not sufficiently engage with context-specific socio-ecological, cultural and political processes, including structural inequalities underlying historically produced vulnerabilities. Depoliticised approaches have been shown to pose barriers to concerted and meaningful change. In this article, world-leading water specialists from academic and practitioner communities reflect on, and share examples of, the importance of keeping people and politics at the centre of work on climate resilient water security. We propose a roadmap to meaningfully engage with the complex politics of climate resilient water security. It is critical to re-politicise climate resilience to enable efforts towards sustainable development goal 6—clean water and sanitation for all.

INTRODUCTION

Climate resilient development has become the new paradigm for sustainable development influencing theory and practice across all sectors globally. On every continent, governments are adopting policies for climate resilient economies, driven in part by international frameworks such as the Paris Agreement and the Sustainable Development Goals. International organisations are forming 'climate resilient development pathways'[1,2]—supported by scientific findings from the IPCC[3]. At the same time, donors are responding; for example, the World Bank will more than double its investment in climate resilience to US$50 billion over the next 5 years[4].

Climate resilience is increasingly recognised as being inherently political[5], yet efforts often do not sufficiently engage with context-specific socio-ecological, cultural and political processes, including structural inequalities underlying historically produced vulnerabilities. Depoliticised approaches have been shown to pose barriers to concerted and meaningful change, in particular, they risk concealing the agency of different actors and obfuscating roles and responsibilities[6]. Resilience is a useful concept because it speaks across sectors and disciplines but this also makes it open to interpretation resulting in differing, and at times competing, definitions[7].

Climate resilience is gaining momentum in the water sector since water security is intimately connected to climate change. Illustratively, the theme for the annual World Water Week 2021 is 'Building Resilience Faster'. In this commentary, world-leading specialists from academic and practitioner communities reflect on, and share examples of, the importance of keeping people and politics at the centre of work on climate resilience. We propose a roadmap,

building on years of expert thought, to navigate the complex and challenging task of meaningfully engaging with the politics of climate resilient water security. Now is the time to examine how to re-politicise climate resilience to support efforts towards achieving sustainable development goal 6—water and sanitation for all.

A roadmap for engaging with the complex politics of climate resilience

The so-called resilience revolution[8] within the sustainable development agenda is fuelling a global journey towards defining, measuring and utilising the concept of resilience. Climate resilience is generally considered to be the ability to recover from, or to mitigate vulnerability to, climate-related shocks such as floods and droughts. Here, we show how the operation of climate resilience can have greater engagement with politics[9] in six areas by asking resilience of what, to what, for whom, over what time frame, by whom and at what scale[10]? We argue that climate resilience is a political process that strengthens the ability of all to mitigate vulnerability to risks from, and adapt to changing patterns in, climate hazards and variability.

Resilience of what?

Beyond infrastructure—resilience of water resources, institutions and users. Mainstream (depoliticised) ideas of climate resilience are born from engineering approaches that use hydroclimatic information and invest in technological, infrastructure-based solutions. However, for sustainable water security for all, a holistic approach is necessary that includes the resilience of water users

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npj nature partner journals

and local institutions, water resources and aquatic ecosystems, alongside water infrastructure. Specifically, for water supply, sanitation and hygiene (WASH) systems, WaterAid, and others, take an approach that considers not only how WASH infrastructure is climate resilient, but also how WASH systems contribute to climate resilience[11].

Resilience of relationships—climate resilient water security necessitates engaging with context-specific governance structures and institutional norms. Working in fragile and protracted crisis contexts requires building relationships with a complex web of stakeholders while navigating sensitive local institutional norms as well as socio-cultural and political processes. For example, Oxfam GB is working to support sustainable water supply and sanitation systems in DRC that expand and contract dependent on conflict-driven changes in demand. This has only been possible by working at multiple scales with diverse participation to professionalise management and improve technical capacity for system maintenance.

Resilience to what?
Smaller variations in water quantity and quality are as important as extreme events. Water-related climate shocks, extreme drought or flooding events that result in humanitarian disaster, deservedly receive high attention. However, smaller changes in seasonal rainfall variability can have devastating impacts on rainfall-dependent communities. Moreover, those without access to safe, reliable domestic water supplies face heightened water insecurity at specific times throughout the year due to cyclical changes in water quantity or quality. The inclusion of multiple levels of climate variability in climate resilience fosters equitable approaches through a heightened focus on those that are more vulnerable to less extreme variability.

Building resilience to changing patterns in climate hazards and variability requires politicised decisions about how to use climate information. There is a substantial politicised requirement for navigating the tension between climate information that is both uncertain and trustworthy. Climate information can be hastily operationalised with insufficient consideration of whether it is reliable, which can undermine public trust in science. On the other hand, the liability in using uncertain climate information is high, hence stakeholders can be reluctant to engage with it, resulting in inaction. The success of interventions based on reliable climate information is underpinned by complex political realities that must be sufficiently emphasised when climate information is being generated and shared[12]. Moreover, it is crucial to look at existing capabilities and localised knowledge that can directly support adaptation efforts in the path towards long-term resilience.

Resilience over what time frame?
Protracted social and environmental issues require long-term engagement, yet the norm in the development sector is short-term, technical projects driven by value-for-money thinking and a fear of engaging with complex, intractable problems. However, there is added value in longer-term investments. For example, in Central African Republic, Water for Good has trained local maintenance teams to professionally manage rural waterpoints that has kept water flowing through droughts, periods of violent civil unrest and during the COVID19 pandemic[13]. Demonstrating local value by partial payments from rural water users, the performance-based model has gained interest from national government and funders shifting from building water infrastructure to maintaining services over time.

There must be action to address current climate variability, without deferring to 'uncertainty' as a reason to hesitate in investment. The uncertainty of future climate change often takes the spotlight in climate resilience building discourse since uncertainty makes investments in improving water security risky. However, this should not be used as a reason to not act—there are immediate water challenges posed by existing climate variability that can be effectively addressed with flexible approaches to resilience building now, despite uncertain future spatial and temporal changes in water availability and distribution[14]. Risks and responsibilities need clear allocation between actors, whether state, market or civil society. For example, the most vulnerable often face the highest risks since serving and protecting the most vulnerable is more costly; here there is a critical, though complex, role for political and financial commitment from governments.

Resilience for whom?
Reducing vulnerability and preventing maladaptation. Maladaptation—when adaptation strategies inadvertently increase vulnerability to climate change—has long been recognised as a problem. Emerging evidence suggests that it is widespread; numerous planned measures to increase resilience are backfiring to increase vulnerability. For instance, top-down, technocratic interventions that attempt to work around power and politics undermine indigenous knowledge and compromise community resilience[15]. Poor design is one of the main causes of maladaptation, resulting from sidestepping local knowledge and priorities. To avoid this, there is a need to ask: who are the people at the centre of resilience building and what is their role in designing strategies?

Embedding values for universal impact. Local values-based approaches are particularly useful for generating context-specific indicators for how climate resilience can be monitored and measured over time. Values are socially and culturally constructed and vary across contexts, shaping people's aspirations and worldviews. SDG 6 calls for safe water and sanitation for all; in practice, this means working towards greater water equity and taking intersectional approaches to reduce inequalities in vulnerability[16]. Placing values at the centre of climate resilience offers a politicised and human approach that acknowledges the importance of contextual working for vulnerability reduction and understanding that climate resilience means different things to different people.

Resilience by whom?
Including diverse actors can expose, and allow operation within, power imbalances across scales. Examination of who participates in the political processes of climate resilience is often insufficient. One reason for this is that critical reflection opens a fundamentally political debate that exposes power imbalances and processes that underpin cultural and epistemic hegemony, inequalities and exclusion. It is essential to engage meaningfully with these debates, in order to interrupt the reproduction of the inequitable distribution of capacity, participation and funding, hence inequitable climate vulnerability and water insecurity over time and across scales.

Gendered approaches are essential for building climate resilience. This reality must shape who is included, what issues and solutions are financed and how success is measured when seeking to meet SDG 6. Multi-country research programmes are working towards embedding gender and inequities in conceptualisations of climate resilient water security[17]. When moving from research to resilience building, work by ActionAid, for example, has shown how mainstreaming gender relations

and incorporating local knowledge of community risks in their approach in fragile and protracted crisis contexts has been key to the sustainability of their work and fostering risk-informed decision making[18].

Resilience at what scale?

Scaling-up solutions while maintaining context specificity. The process towards achieving climate resilience will vary across contexts even if there are shared outcomes. Strategists and donors seek to scale-up solutions for climate resilience to get value for money while local practitioners and the research community call for nuanced approaches that recognise inequities, power imbalances and variation in values across contexts. There are ways to achieve both; for example, community participation, though not an easy or straightforward solution, has been shown to support appropriate and sustainable interventions while facilitating shared learning of successes across contexts[19]. Such approaches offer enhanced opportunities for engaging with the politics of climate resilience at multiple scales.

Identifying the scale of ambition from the outset. Scale is not always explicitly considered in efforts towards resilience building, despite the need for different types of interventions. This is evident when working towards climate resilient urban WASH that requires drawing a boundary around an urban area that can be highly political and depends upon contextual institutional arrangements and socio-cultural demarcations. For example, peri-urban areas have historically been overlooked and are notoriously under-served with water since they are neither strictly 'urban' nor 'rural'. In pursuing SDG 6, it is critical that any delineation seeks to ensure that the benefits of any efforts are shared with the most vulnerable and marginalised.

CONCLUDING REMARKS

In order to tackle inequities, and achieve the SDGs, more attention should be paid to contending with the political nature of climate resilience. Whilst the impacts of the climate emergency are most visible in the natural environment—the causes, and wider effects, are rooted in human behaviour, political processes and gendered socio-cultural norms. So, whilst increasing climate information, financing and technical capacity for flexible and dynamic systems is essential within climate resilient development efforts, alone, they are insufficient.

Climate resilience helps bridge epistemic, sectoral and area divides supporting collaborative working within sustainable development efforts. However, there must be greater consideration of the socio-ecological resilience and context-specific values of marginalised communities and meaningful engagement with the most vulnerable in decision making[20]. This must go hand-in-hand with acknowledging and challenging historical legacies and gendered power inequalities for climate resilient water security for all. Despite its rise in prominence, climate resilience is not a panacea; resilience means different things across scales, sectors and society and it can only be meaningful from a contextual perspective.

DATA AVAILABILITY
Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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AUTHOR CONTRIBUTIONS

COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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