

### Water, sanitation and climate action

## Climate action means making people in vulnerable situations more resilient

There is an urgent need for action to reduce the release of greenhouse gases in the water and sanitation sectors and to adapt to the effects of climate change by making communities and services more resilient. This is one of four short papers that highlight challenges, good practices and dilemmas and provide examples to inspire climate action in these sectors. They support policymakers and practitioners to promote ways to mitigate and adapt to climate change while strengthening efforts to fulfil the human right to safe drinking water and sanitation.

Mitigation is about measures to reduce greenhouse gas emissions while adaptation is about adjusting to change, including measures to prepare for extreme events such as floods and droughts and to make communities more resilient. Improving water and sanitation systems that are capable of delivering better services is itself an important means of adaptation. Strong systems are themselves resilient.

The papers are based on the experiences of Dutch-funded climate change adaptation and mitigation initiatives in the sectors and discussions with actors looking for ways to integrate climate action with activities to strengthen water and sanitation services for people in vulnerable situations. Papers have been developed on: (1) climate change mitigation, (2) climate change adaptation, (3) climate change resilience and

vulnerability and (4) climate change and finance. This paper focuses on climate change resilience - action taken to make people in vulnerable situations more resilient.

From 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change<sup>1</sup> while nine out of ten environmental disasters are water related<sup>2</sup>. While disasters such as floods and tsunamis receive global attention, climate change relentlessly and with far less visibility undermines the lives of those who contribute least to man-made global warming. Extreme droughts, rising sea level, floods, and powerful storms multiply pressure on already overstretched water sources and mainly afflict the poor<sup>3</sup>. Women and girls make up the vast majority of the poor<sup>4,5</sup> and are traditionally responsible for securing water and sanitation; this is

1 <https://www.ipcc.ch/report/ar6/wg2/resources/spm-headline-statements/>

2 <https://www.unwater.org/water-facts/disasters/>

3 <https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/short-changed-on-climate-change.pdf>

4 <https://www.unwater.org/publications/world-water-development-report-2020/>

5 <https://www.un.org/en/chronicle/article/womenin-shadow-climate-change>

the epitome of climate injustice.

Water and sanitation sectors face these challenges while making strenuous efforts to reach huge numbers of people who lack basic acceptable services. In 2020 a quarter of the world's population still had no access to safely managed drinking water while half the population lacked safely managed sanitation<sup>6</sup>. The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) estimates that the rate of progress needs to be four times higher to achieve the relevant Sustainable Development Goal targets in SDG 6.

This drive to expand WASH services to the unreached is happening against a backdrop of increasing urbanization<sup>7</sup>, population growth<sup>8</sup> increasing water consumption<sup>9</sup> and the COVID-19 pandemic. Climate change undermines all these efforts. The 2022 IPCC report<sup>10</sup> on adaptation states that climate-related extremes have reduced food and water security and are hindering efforts to meet the Sustainable Development Goals.

Many climate-resilient technologies and approaches demand collective behaviour change, policy changes and different methods of financing. However, water and sanitation sectors cannot easily access climate finance as many strengthening measures are regarded as 'business as usual' rather than 'climate action'. Sometimes existing methodology, done better and at greater scale, is indeed what needs to be financed.

The Dutch Ministry of Foreign Affairs is giving climate change mitigation and adaptation a higher priority. The Netherlands WASH strategy 2016–2030 proposes that water and sanitation services “contribute to climate change mitigation by using pumping systems that are energy-efficient and/or powered by renewable energy, or by using energy recovered from wastewater facilities”. A Ministry policy note “Do what we do best”<sup>11</sup> on international development and trade (June 2022) prioritises proven support programmes to build the resilience of the poor.

## CLIMATE CHANGE AND RESILIENCE OF PEOPLE IN VULNERABLE SITUATIONS

Climate resilient, inclusive and sustainable water and sanitation services are especially relevant to people in vulnerable situations. Such services are more likely to function during adverse weather events, and contribute to a healthy population that can better withstand the impact. Safely managed sanitation and improved hygiene reduces the risk of contamination in times of flooding while resilient water services with increased storage provides a critical buffer in times of scarcity.<sup>12</sup>

Water and sanitation interventions are always climate adaptation interventions as well since resilience depends on having access to clean water, decent sanitation and good hygiene. The human right to water and sanitation was explicitly recognized in 2010 by the United Nations General Assembly and the Human Rights Council<sup>13</sup>. In 2021, the Council recognised it as a human right to a safe, clean, healthy, and sustainable environment<sup>14</sup>. The systems that deliver WASH services to everyone are therefore at the heart of climate adaptation efforts. Communities, institutions, and households with good WASH services are more likely to cope with extreme weather events and increased temperatures. Unfortunately, in many low- and middle-income countries the systems that deliver those services are weak<sup>15</sup>.

Climate justice is a human rights approach that relates to concerns about the inequitable outcomes for different people and places associated with vulnerability to climate impacts and the fairness of policy and practice responses to address climate change and its consequences. While climate change affects everyone in society, the impact is felt differently. While floods were experienced in Europe and Asia in 2021, climate change disproportionately affected those who have contributed the least to global warming. Climate change hazards impact differently on rich and poor, on men, women and children and have a stronger negative impact on all those who are in vulnerable situations.

6 <https://washdata.org/report/jmp-2021-wash-households-LAUNCH-VERSION>

7 Just under 1-in-3 people in urban areas globally live in a slum household and by 2050 it's projected that more than two-thirds of the world population will live in urban area (<https://ourworldindata.org/urbanization>)

8 Low-income countries have annual population growth estimated at 2.6% <https://data.worldbank.org/indicator/SP.POP.GROW?locations=XM>

9 Per person consumption going up due to lifestyle changes, commodities, and access to better services.

10 <https://www.ipcc.ch/report/ar6/wg2/>

11 <https://www.government.nl/documents/policy-notes/2022/10/10/policy-document-for-foreign-trade-and-development-cooperation-do-what-we-do-best>

12 <https://washmatters.wateraid.org/sites/g/files/jkxoof256/files/programme-guidance-for-climate-resilient-water-sanitation-and-hygiene.pdf>

13 <https://www.unwater.org/water-facts/human-rights/>

14 UN Human Rights Council adopted Resolution 48/13

15 [https://www.ircwash.org/sites/default/files/climate\\_change\\_water\\_resources\\_and\\_wash\\_working\\_paper\\_irc\\_and\\_water\\_for\\_people\\_1.pdf](https://www.ircwash.org/sites/default/files/climate_change_water_resources_and_wash_working_paper_irc_and_water_for_people_1.pdf)



A group of women from the Siniena village in the Banfora commune learning seeding techniques in July 2022.

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### Water and livelihood approach – key to sustainable development in Burkina Faso

In December 2020, SNV and World WaterNet kicked off a € 12.5M project to strengthen the capacity of Burkina Faso's water authorities to increase access to safe and sustainable water for drinking, sanitation and improved hygiene practices, and agriculture production. Five Water Agencies (Agences D'Eau) are implementing the Eau, Clé du Développement Durable (ECDD) project that will reinforce the service delivery systems of 17 water committees (CLEs) that manage water resources at local level. SNV and World WaterNet are working with institutions to strengthen their capacity to carry out their governance and service delivery responsibilities in line with the national framework. This initiative includes investment in sustainable technologies, soil and water conservation, drinking water supply, sanitation and hygiene services, and small-holder agriculture practices. Success will improve the WASH delivery and management systems of 17 CLEs and improve the day-to-day lives of and livelihood opportunities for people in their areas.

Jeanette de Regt, Country Director, SNV in Burkina Faso said: "We aim to increase the resilience and preparedness of decision-makers and service providers to cope with climate variability. By strengthening the capacity to govern and deliver safe and reliable water services in ECDD project areas, with the Government of Burkina Faso, we hope to achieve a sustainable level of water resource management to benefit people's domestic needs and productive use of water resources."

<https://snv.org/update/eu-125m-dutch-funding-set-contribute-wash-systems-change-burkina-faso>



SLOPB Programme Officer, Duli Akter, is conducting an awareness-raising session on hygiene, water preservation and climate adaption with a mixed group of people, including women and youth, in Barguna District, Bangladesh. Major climate concerns include water logging and cyclones. Stichting Land Ontwikkelings Project Bangladesh (SLOPB) is a Water Alliance International (WAI) partner.

© Rita Akter

### Prioritising the most vulnerable - Bangladesh

WASH SDG sub-programmes in Bangladesh (sponsored by SNV and WASH Alliance International) work towards total coverage for water, sanitation and hygiene services, leaving no one behind. They emphasized gender equality and social inclusion, and closing gaps in service delivery, especially in low-income communities. Through professionalising services, they improve access for the poor and marginalised women and girls. Notable achievements include:

- Tracking and monitoring service delivery for water and sanitation and budgets and expenditures, to identify what is allocated for women and socially excluded persons. This provides evidence for advocacy to persuade the government and service providers to prioritise people in vulnerable situations and for the need to increase the water and sanitation budget at local government level.
- Community-based monitoring system to monitor behaviour change in protecting water and using latrines.
- Revolving funds supplied by local NGOs for household investments in water supply options and toilets. Repayments are then re-invested in services.
- Women and those who were socially excluded are participating more actively at local government level and raising demands at local government institutions for better provision of water and sanitation services.
- Microfinance institutions are providing loans to (small) water and sanitation entrepreneurs for business expansion. The businesses have formed their own association and have become more financially sustainable. Their livelihoods have improved.

<https://wash-alliance.org/country-alliances/bangladesh/>

## DILEMMA

Prioritising people in vulnerable situations can only be effective in the context of a strong system for providing water and sanitation services. Poorly functioning services are hardly able to meet the basic needs of their populations and even if they have a desire to focus on the most vulnerable, they are in no position to fulfil their ambition. In practice when services are sporadic and patchy they are more likely to be inequitable; with whatever is available being captured by those with most influence or power. Sustainable services that can meet the needs of all users are only achievable in the

context of a strong system approach within a strong enabling environment, which has strong planning and monitoring and robust finance and regulation. Approaches that strengthen the capacities of government and service providers as well empowering (poor) communities are the most likely to result in services that provide sustainable services for those in vulnerable situations.



Community members of Kamonojwii village, Geregere sub-county in Agago District are digging trenches and retention points to avoid flooding. Flooding had led to the collapse of latrines, waterlogged farmlands and inaccessible roads.

© JESE

### Construction of trenches as a flood control measure in Kamonojo Village, Uganda

In Kamonojo village, Uganda, 46 households depend on one borehole for domestic water supply. The village experiences regular flooding because of deforestation, wetland degradation and bush burning for charcoal. Flood water rises 60 cm above ground level, washing away latrines, and waterlogging gardens. The immediate consequences include reduced food security, lower household incomes and an increase in open defecation. The social consequences include increased migration from the village and an increase in domestic violence.

Villagers feel that they are living in a failing community. Rebecca Akidi said: "My garden is always filled with water and my crops destroyed, which leads to hunger"

Erobina Adong told the Uganda NGO JESE: "My sons cannot marry from another area because people are always saying their daughters should not marry a man from Kamonojo!"

Joint Effort to Save the Environment (JESE) has supported the community to take local steps to protect the soil and their water by digging trenches to create retention ponds, where animals can be watered. In the short term, this has reduced flooding and led to gardens being waterlogged less often. JESE has demonstrated how to build raised latrines which withstand flooding. Villagers are encouraged to continue to improve the new defences and protect the new drainage infrastructure against siltation. Living conditions have improved and there is less conflict, meaning that people are more likely to stay.

Based on PPT presentation by Haron Okulu of JESE (<https://jese.org/>) on 22 July 2022 for a learning clinic of the WASH SDG programme.

## CONCLUSIONS

Those who have contributed least to climate change, unjustly and disproportionately suffer the greatest harm. They must be meaningful participants in and primary beneficiaries of climate action and have access to effective remedies<sup>16</sup>. The majority of people without access to safe drinking water are not living in arid environments. Rather, they are living in poverty, lacking access to safe drinking water while living next to polluted rivers, lakes or aquifers. The key to reducing the risks and impact of climate change on drinking water lies in restoring the functioning of aquatic ecosystems, robust water and sanitation systems and addressing the socio-economic inequalities that exacerbate risks. Climate change is not the only pressure to be damaging water and livelihoods. In many countries, climate change combines with other drivers like urbanisation, pollution, competing demands for water and social inequalities. In many cases, in the short to medium term, these other drivers may pose bigger threats to water resources and water and sanitation-dependent services than climate change. Measures that make people more resilient and enable them to protect their environments are protective to some extent against all these factors.

Increased priority and effort is needed to strengthen the resilience position of people in the most vulnerable situations. Concretely for water and sanitation interventions, this means:

- Knowing where most vulnerable groups are and how they are impacted; making this part of the initial assessments for planning interventions
- Mainstreaming vulnerability approaches in both policies and implementation: at least basic services for all; local IWRM<sup>17</sup>; and multiple use water services (MUS<sup>18</sup>)
- Building capacities of communities and local government to adapt to climate change and recover from climate hazards
- Subsidies where necessary for people in vulnerable situations
- Advocacy for basic services to prioritise people in vulnerable situations

16 [https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/KeyMessages\\_on\\_HR\\_CC.pdf](https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/KeyMessages_on_HR_CC.pdf)

17 <https://www.ircwash.org/resources/integrated-water-resources-management-local-level-role-local-government> and [http://www.iwmi.cgiar.org/Publications/Other/PDF/Guidelines\\_for\\_local-level\\_integrated\\_water\\_resource\\_management.pdf](http://www.iwmi.cgiar.org/Publications/Other/PDF/Guidelines_for_local-level_integrated_water_resource_management.pdf)

18 <https://www.musgroup.net/>

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