UN-Water Policy Brief – Climate Change and Water

The global climate crisis is inextricably linked to water. Climate change increases variability in the water cycle, inducing extreme weather events, reducing the predictability of water availability, affecting water quality and threatening sustainable development, biodiversity and the enjoyment of the human rights to water and sanitation worldwide.

Growing demand for water increases the need for energy-intensive water pumping, transportation, and treatment, and has contributed to the degradation of critical water-dependent carbon sinks such as peatlands. And, some climate change mitigation measures, such as the expanded use of biofuels, can further exacerbate water scarcity.

National and regional climate policy and planning must take an integrated approach to climate change and water management. Increased water stress and meeting future demands will require increasingly tough decisions about how to allocate water resources among competing water uses, including for climate change mitigation and adaptation. If we are to create a sustainable future, business as usual is no longer an option and water management needs to be scrutinized through a climate resilience lens.

We need more investment in improved hydrological data, institutions and governance, education and capacity development, risk assessment and knowledge sharing. Policies need to ensure the representation, participation, behavioral change and accountability of all stakeholders, including the private sector and civil society. Adaptation plans need to incorporate targeted strategies that assist lower-income populations – those who are disproportionately affected by climate change impacts – to navigate new conditions.
Meeting the climate challenge means:

1. **Acting now**: Uncertainty about the future cannot be an excuse for inaction today; if the world is to limit global temperature increases to well below 2°C, we must act immediately. Securing water for communities, economies, and ecosystems is critical for poverty reduction, green energy transformation, and creating a buffer from natural disasters. Climate policy must address water across all sectors of the economy and the environment to ensure a climate-resilient and sustainable future for all.

2. **Considering water as part of the solution**: Improved water management, including sanitation, is an essential component of successful climate mitigation and adaptation strategies, as called for in the Paris Agreement. Water is also key to attaining the goals of the 2030 Agenda for Sustainable Development and the Sendai Framework for Disaster Risk Reduction. For these reasons, climate-resilient water management can act as a mechanism of coherence between these global frameworks.

3. **Improving water management practices**: As countries begin to review and implement their national plans in the context of the Paris Agreement, there is a unique opportunity to improve and enhance water management practices in ways that will allow communities, countries and basin authorities to make confident, risk-informed decisions that can help increase climate resilience, improve ecosystem health, and reduce the risk of water-related disasters.

4. **Ensuring transboundary cooperation in adaptation**: Transboundary cooperation is needed to address climate impacts that cross national boundaries (i.e. drought, flooding of transboundary rivers, etc.), to avoid maladaptive consequences from a basin perspective and also harness the potential co-benefits of improved regional cooperation, such as reduced uncertainty due to exchange of data, peace and stability, enlarged planning space and shared costs and benefits.

5. **Rethinking financing**: Climate finance for water resource management and sanitation supports community climate resilience, job creation at local level through green works, and helps to improve sustainable development outcomes. Innovative, blended finance solutions for water and climate, such as green and blue climate bonds, can help to leverage climate investment across the economy. Barriers to increased access to climate finance, such as lack of capacity and lack of institutional coordination, must be urgently addressed.

There are significant co-benefits to managing climate and water in a more coordinated and sustainable manner. Solutions for addressing these integrated challenges are available and being implemented by a growing number of countries and international river basins.