**Briefing Paper 497** 

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# Climate Change Finance and Water: Closing the Gap

#### 1. Introduction

We all know that water is an important natural resource needed for life to exist; it has many uses including agricultural, industrial, household, environmental and recreational activities. It is the most precious resource, yet for very long it has been the least regarded in both development policy and practice. For many decades, development programmes have changed freshwater courses such as wetlands, lakes, aguifers and rivers into concrete and other nonpermeable surfaces, increasing the risk of water scarcity. Though this continues to be a challenge, there is a growing realisation that it is an unsustainable approach and one that needs critical evaluation.

Current considerations about water in policy planning are largely influenced by widely experienced surface water scarcity, which challenges development and environmental health across the globe. Fresh surface water resources continue to degrade more and more rapidly, and thus the focus is now shifting towards exploitation of ground, grey and non-fresh water resources, including ocean and saline water.

### 2. Water Scarcity

It is estimated that water scarcity affects at least 40 % of the global population; this is projected to rise with contributing factors such as climate change, population growth, unsustainable water use practices, degrading water infrastructure, capacity constraints in water institutions, and human induced pollution. It is important to note that some progress was made through the Millennium Development Goals (MDGs), with more than two billion people gaining access to

improved water resources between 1990 and 2010.² However, there is still an overwhelming number of people without access to clean drinking water and sanitation facilities. For example, even though Africa contains numerous natural water sources such as rivers, lakes, streams and springs, it is estimated that over 300 million people still have no access to clean safe water, and 700 million are without adequate sanitation facilities across the continent.³ UN-Water has identified many gaps in finance, policy and governance which must be closed if we are to provide accessible and improved water resources and sanitation as a human right.

## 3. Finance for Water

An evaluation of Sustainable Development Goal 6 (SDG 6), indicates that at least 60% of countries are unlikely to attain the target of ensuring availability and sustainable management of water and sanitation for all by 2030.4 This is partly attributed to a decline in the flow of foreign aid commitments for the water sector. Though not the only important aspect of water resources management, finance is by far the most challenging and complex aspect of water management. It is vital to have in place global financing strategies that guide national financing plans which are well defined and consistently followed. With vague and inconsistent policy priorities and challenges pertaining governance, it has become more difficult to mobilize and effectively commit financial resources for the water sector. There was a noted decline in international financial resources committed through the Official Development

Assistance (ODA) disbursements between the 2015 and 2017 periods,<sup>5</sup> during which water stress levels increased for regions including Southern Africa.

## 4. Climate Change

Climate change threatens to increase water scarcity by affecting the delicate balance between evaporation and precipitation as the primary elements of the water cycle. Furthermore, temperatures will continue to rise as the globe increasingly warms up, exceeding average rates due to greenhouse gases pumped into the atmosphere. The effects of climate change directly linked to water include droughts and floods and sea-level rises, partly caused by the melting of glaciers, which result in frequent storm surges. The previous decade has been recorded as the most stressful for water resources in most parts of the world, and it is predicted to get worse as climatic conditions continue to change.

# 4.1 Climate change adaptation

Climate change presents both opportunities and challenges for water management and security. There will be an increase in demand for already strained water services due to increased temperatures and infrequent rainfall. This will require funding for access to improved water sources in terms of the overarching climate change response policy framework. Climate change adaptation focuses on building resilience for societies to be able to cope with natural disasters and shocks, by enhancing strengthening capacities. This includes infrastructure development and maintenance, enhancing institutional capacities, and protecting ecological infrastructure so as to reduce human vulnerability.

# 4.2 Climate change finance mechanisms

There are two main climate change finance mechanisms which provide a flexible approach in funding climate change priorities, outside of the project-specific mechanisms mostly used:

 National climate change funds: centralised funds that collect and manage all climate change related revenue streams from both international and national sources, which can then be allocated to local priorities

- without the challenge of programme specificity;
- National/domestic carbon markets: compulsory carbon offset flows that are regulated at a national/domestic level, to pursue an emission trading system between the energy and water sectors.

## 4.3 Climate change finance instruments

There are different recognised climate change financial instruments at an international level that developing countries have the liberty to choose from. There is also a wide space for creativity, as climate change affects different regions and population groups in various ways. Most of these instruments are appropriate in specific economic and country contexts. Therefore, it is important for countries to carefully study and understand each instrument and how it best fits their context before adoption, in order to maximise benefits and prepare for implications:

- Insurance instruments: an approach that seeks to mitigate climate related disasters through risk prevention and risk transfer mechanisms, by shifting resource loss responsibilities from governments to the capital markets.
- Non-concessional and concessional loans: water has a high return on benefits for both social and environmental impact, an attribute that could be used to attract loans from Development Finance Institutions.
- Bilateral and multilateral grants: provided for non-revenue activities such as knowledge management and capacity building programs in the receiving country.

#### 5. Roundtable Discussion

In March the CPLO hosted a roundtable discussion entitled 'Climate change finance policy packages and water security'. The presenters were Ms Anna Taylor, from African Centre for Cities at University of Cape Town; Ms Malango Mughogho, from ZeniZeni Sustainable Finance; and Mr Rashid Khan, from the Department of Water and Sanitation in the Western Cape. Ms Taylor gave a contextual overview of South Africa's water resources, and of the drought that almost every region in the country has experienced. She

mentioned that the country had already overallocated its surface water resources as far back as the year 2000, which means that whatever water South Africa gets is bound to be overexploited, leading to ever-increasing vulnerability of the water system. This includes water from the Lesotho Highlands project and from what have now become infrequent rainfall patterns. She explained the importance of reframing the concept of 'water security' to 'water resilience' as this was a more integrative approach to the whole water system, not just its protection, as implied by the term 'security'.

Ms Mughogho's presentation focused on finance concepts relating to climate change. From an overarching perspective, she spoke about the alignment of both public and private financial resources with development processes as a focal area in addressing climate change. She noted that there are opportunities for financing from within the national fiscus, and explained that it would take measures such as water valuing and costing to ensure returns on investment. She concluded by saying that there is a need for policy alignment between climate change and water.

## 6. Conclusion

Climate change effects have different implications for different regions and economies. There is a great need for outlining regional and national climate change priorities in alignment with development policies. Water scarcity is a greater challenge for a dry region such as Southern Africa. Water is a cross-sectoral, and most valuable. which stands to benefit resource interventions in various sectors. It would be beneficial to mainstream water into agricultural, industrial, household, environmental recreational policies to address climate change With the current shifts towards challenges. ground, grey and ocean water sources, there is a great need for dedicated research to help focus financial and related resources. Current financial allocations are insufficient to achieve the ambitious SDG6 targets for water provision, and these targets are not clearly defined in our water policies. An integrated management systems approach that is fully implemented and financially supported could help attain access to improved water sources for many of our people.

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<sup>&</sup>lt;sup>1</sup> https://www.thedailystar.net/world/40-percent-worlds-people-affected-water-scarcity-1549057 http://files.unicef.org/publications/files/Progress on Sanitation and Drinking Water 2015 Update .pdf

<sup>&</sup>lt;sup>3</sup> https://www.globalcitizen.org/en/content/water-and-sanitation-crisis-sub-saharan-africa/

 $<sup>^{4}</sup> https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-6-clean-water-and-sanitation/targets.html$ 

<sup>&</sup>lt;sup>5</sup> https://www.sdg6data.org/indicator/6.a.1