

## Implications of climate change for Australia's national security

### WaterAid Australia's submission to the Senate's Foreign Affairs, Defence and Trade References Committee

July 2017

#### Summary

WaterAid is an international non governmental organisation focused on ensuring every person has access to water and sanitation, and can practice good hygiene. Climate change is of relevance for WaterAid as it is inextricably linked with water: the impacts of climate change will mostly be felt through the water cycle. We view climate change as a 'threat multiplier' that will exacerbate existing challenges to sustainable development. These impacts will be felt first, and hardest, by marginalised people, undermining human security.<sup>1</sup>

Although access to water, sanitation and hygiene is affected by a changing climate, it is also the case that access to these services provides people with vital protection from climate change impacts. This submission outlines how we improve people's access to water, sanitation and hygiene as a 'no or low regrets' adaptation strategy, with the dual benefit of increasing people's resilience to current and future climate shocks, while delivering immediate improvements to people's health and productivity, and improving resource sustainability. Australia's assistance to address climate change overseas, whether provided bilaterally or to multilateral bodies, therefore must increasingly include measures to improve access to water, sanitation and hygiene as mechanisms to improve human security, and also in turn strengthening Australia's national security.

#### Recommendations

We ask that the Committee support the following recommendations, in order to enhance resilience to climate change in the Asia-Pacific region, in turn supporting human security for vulnerable communities, and national security for Australia.

WaterAid Australia recommends that:

1. Australia's assistance to address climate change overseas increasingly includes measures to improve access to water, sanitation and hygiene as mechanisms for strengthening resilience, with emphasis on the most vulnerable countries and communities.
2. Australia uses its position as Co-Chair of the Green Climate Fund to advocate for increased funding of household and community-level water and sanitation projects, as well as hygiene education, as a matter of primary interest for our region.

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<sup>1</sup> 'Human security' is a concept popularised by the United Nations Development Programme in their 1994 Human Development Report. It argues the individual, rather than the nation-state, is at the centre of the idea of security. Security then is people living free from 'fear and want', and is achieved through sustainable human development rather than through armaments. Further details are available in:

United Nations Development Programme, *Human development report 1994* (New York: Oxford University Press, 1994), [http://hdr.undp.org/sites/default/files/reports/255/hdr\\_1994\\_en\\_complete\\_nostats.pdf](http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf)

## Climate change and security

From increased extreme weather events to slower-onset changes, climate change has far-reaching implications for security. As identified by the United States Department of Defense it is a 'threat multiplier' that will exacerbate existing challenges of 'hunger, poverty, and conflict'.<sup>2</sup> The World Economic Forum has identified extreme weather events as the most likely global risk in 2017 and as the second-highest risk in terms of catastrophic impact – second only to the large-scale use of weapons of mass destruction.<sup>3</sup>

The risk in our region is particularly high. This year, the Asian Development Bank described the Asia-Pacific as 'extremely vulnerable' to the impacts of climate change, asserting that:

*'Unabated warming could significantly undo previous achievements of economic development and improvements of living standards... Among others, climate change impacts such as the deterioration of the Asian "water towers", prolonged heat waves, coastal sea-level rise and changes in rainfall patterns could disrupt ecosystem services and lead to severe effects on livelihoods which in turn would affect human health, migration dynamics and the potential for conflicts.'*<sup>4</sup>

This regional instability in turn poses risks for Australia, but it is also the case that all of these impacts will be felt first, and hardest, by marginalised people. Not only are they the most vulnerable to the initial impact of climate-related shocks, they will also struggle most to recover in the aftermath, especially when households have no savings or assets to rely on, or have a limited ability to migrate. Considering who is primarily impacted, it is critical that we take a broader view of security, aiming to achieve human security so that each person can live free from fear and want, instead of considering only the relatively narrow scope of Australia's own national security.

## The intersection of climate change, security and water, sanitation and hygiene

Climate change and water are inextricably linked: the impacts of climate change will mostly be felt through the water cycle. As rainfall becomes less predictable people will be faced with longer droughts and more intense wet periods. Higher temperatures will increase evaporation. Rising sea levels will reduce available freshwater through saltwater intrusion. After a flood event, rates of diarrhoeal diseases – such as cholera – may increase, especially where sanitation facilities and hygiene practices are poor. These impacts add an additional stress to existing threats to water security – weak governance, poor management of water resources, and growing demand pressures.

Although access to water, sanitation and hygiene is affected by a changing climate, it is also the case that access to these services and improved water resources management provide people with vital protection from climate change impacts. The vital role of both water supply services and water resources is illustrated throughout the 2015 report of the US Department of Defense – from the need for clean drinking water in responding to extreme weather events

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<sup>2</sup> Department of Defense, *National security implications of climate-related risks and a changing climate*, (submission to U.S Congressional Inquiry, 23 July 2015), <http://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery>

<sup>3</sup> World Economic Forum, *The global risks report 2017: 12<sup>th</sup> edition* (Geneva: WEF, 2017), [http://www3.weforum.org/docs/GRR17\\_Report\\_web.pdf](http://www3.weforum.org/docs/GRR17_Report_web.pdf)

<sup>4</sup> Asian Development Bank, *A region at risk: the human dimensions of climate change in Asia and the Pacific* (Manila: ADB, 2017), <https://www.adb.org/sites/default/files/publication/325251/region-risk-climate-change.pdf>

and natural hazards, to the impacts of higher temperatures and sea-level rise on the quality and availability of freshwater resources.<sup>5</sup>

As people shift from relying on surface water (springs and lakes) to more reliable sources such as groundwater, tanks or reservoirs, they are better able to manage water supplies and cope during periods of drought. Improved sanitation and good hygiene practices reduces the likelihood of diseases such as cholera spreading after a flood. Proper water resources management can improve equitable allocation and use of limited resources.

## What WaterAid is doing

### Improving access to services

We focus on improving access to water, sanitation and hygiene as a 'no or low regrets' adaptation strategy. This means it will benefit people's development regardless of how the climate changes. Ensuring access to these services has the dual benefit of increasing people's resilience to current and future climate shocks, while delivering immediate improvements to people's health and productivity, and improving resource sustainability.

WaterAid is addressing these issues through both our service delivery and advocacy work. One example is presented below.

#### **Box 1: Building greater resilience through the Bangladesh climate change programme**

Ratings agency Standard and Poor rank Bangladesh as the country most likely to be hit hardest by climate change. With large numbers of people living only a few metres above sea level, a heavy dependence upon climate sensitive agriculture and low adaptive capacity, Bangladesh is highly vulnerable. WaterAid has been working in Bangladesh for three decades and has had a specific programme aimed at targeting climate change vulnerability since 2009 with successful results in flood prone areas. The programme involves:

- Construction of dual platform tube wells: one platform is at ground level and the other is at a height above anticipated flood waters. During flooding the pump head is withdrawn from the lower platform and placed in on the elevated platform to ensure uninterrupted water supply. This means that climate hazards do not prevent people from getting water.
- Construction of elevated latrines: structures are built above the height of anticipated flood waters using wind and salt resistant materials.
- Production of Integrated Action Plans: WaterAid and partners carry out a Participatory Ward Vulnerability Assessment which indicates what activities are necessary to manage or respond to disaster, captured in Integrated Action Plans that provide a blueprint for future action.
- Support to budgeting processes: Action Plans need to be underpinned by local government budgets enabling improved water, sanitation and hygiene facilities to be delivered and disaster resilience measures to be implemented. WaterAid supports local government to develop these budgets.

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<sup>5</sup> Department of Defense, *National security implications of climate-related risks and a changing climate*, <http://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery>

## Climate finance

Industrialised countries have committed to mobilising at least USD \$100 billion per year through 2025 to help developing countries mitigate and adapt to the impacts of climate change.<sup>6</sup> WaterAid is working to ensure that a growing proportion of this climate finance is invested in water, sanitation and hygiene projects to build resilience, and that increasingly this money supports the most vulnerable countries and communities.

The Green Climate Fund (GCF) is a relatively new institution that is expected to channel a large share of this international finance. Australia currently serves as the Co-Chair of the Board of the GCF. By allocating half of the fund's resources to adaptation, the GCF has the potential to be the largest multilateral funder of climate adaptation initiatives, and as such holds huge promise for improving the human security of people in developing countries that face severe climate change impacts.

## What more can be done

**Recommendation 1. Australia's assistance to address climate change overseas increasingly includes measures to improve access to water, sanitation and hygiene as mechanisms for strengthening resilience, with emphasis on the most vulnerable countries and communities.**

As outlined above, delivering universal access to water, sanitation and hygiene is a critical part of building climate resilience. For this reason, ensuring access to these services must be at the core of Australia's aid program, both in its approach to helping countries and communities in our region adapt to climate change, but also more broadly as a foundation of human health and development. As noted earlier in this document, improving access to water, sanitation and hygiene is a 'no or low regrets' adaptation strategy and so will fulfil aid program objectives of improving human development regardless of how the climate changes.

As in any other area, successfully addressing climate change requires a strong enabling environment. Our aid program must therefore put as much effort into strengthening institutions as we do into building more robust infrastructure. Access to good quality data, policy coherence and strong institutions are all critical and should be a key focus of any Australian aid investment.

Whilst actively calling for the mitigation of emissions is not WaterAid's core business, we recognise that a strong, global agreement on reducing greenhouse gas emissions is critical for ensuring universal access to water, sanitation and hygiene, and so encourage the Australian Government to meet its own emissions targets, and to work with other countries to ensure they are meeting theirs.

**Recommendation 2. That Australia uses its position as Co-Chair of the Green Climate Fund to advocate for increased funding of household and community-level water and sanitation projects, as well as hygiene education, as a matter of primary interest for our region.**

It is essential that at least half of global public funds for climate change are directed towards

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<sup>6</sup> United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015*, (conference report made 29 January 2016), <http://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>

adaptation in developing countries and that a substantial proportion of this goes towards ensuring people's access to safe water, sanitation and hygiene as a critical mechanism to build resilience.

The GCF is on the right track with its commitment to allocate half of its resources to adaptation. However, little funding to date has flowed to projects that address water, sanitation and hygiene at the community level. Australia, as Co-Chair, is uniquely placed to advocate for increased funding of these projects, in the best interests of the sustainable development and security of our region.

Submitted by: WaterAid Australia, Level 9/176 Wellington Parade, East Melbourne VIC 3002  
For more information about this submission, please contact us via [info@wateraid.org.au](mailto:info@wateraid.org.au).

### **About WaterAid Australia**

WaterAid is an international non governmental organisation, founded in 1981. Our mission is to transform the lives of the poorest and most marginalised people by improving access to clean water, sanitation and hygiene.

WaterAid Australia focuses our efforts on the Asia-Pacific region, managing country programs in Cambodia, Papua New Guinea and Timor-Leste.

For more information, please visit: [www.wateraid.org/au](http://www.wateraid.org/au)