

# **Submission on the implications of climate change for Australia's national security**

4 August 2017

Submission to the Implications of climate  
change for Australia's national security

August 2017

For further information on this submission, please contact:

Dr. Dean Thomson  
Manager, Food Security and Natural Resources  
World Vision Australia  
[Dean.thomson@worldvision.com.au](mailto:Dean.thomson@worldvision.com.au)

Megan Williams  
Policy Advisor  
World Vision Australia  
[megan.williams@worldvision.com.au](mailto:megan.williams@worldvision.com.au)

# Summary of World Vision Australia's Recommendations

## World Vision Australia recommends that the Australian Government:

1. Develop and implement a Climate Change Strategy for the Department of Foreign Affairs and Trade, that includes a strategic approach to how measures to address climate change should be integrated across all Australian aid investments.
2. Increase Australian Aid funding to community adaptation initiatives to support communities on the frontlines of climate change.
3. Develop mechanisms to calculate the amount of Australian Official Development Assistance (ODA) spent on disaster risk reduction.
4. Increase year on year, the percentage of Australian ODA allocation for Disaster Risk Reduction initiatives, particularly in countries with high vulnerability to natural hazards.
5. Scale up Australia's support to International Climate Finance, including through the GCF by 2020.
6. Use Australia's leadership of the Green Climate Fund to continue to ensure climate financing is accessible to vulnerable communities and the organisations that support them.
7. Facilitate partnerships between NGOs and the private sector to develop climate adaptation projects to scale.
8. Review Australia's emissions reduction goal to ensure it aligns with our responsibility under the Paris agreement.

# Introduction to **World Vision** Australia's submission

World Vision World Vision Australia is a worldwide community development organisation that provides short-term and long-term assistance to 100 million people worldwide. Through its work around the world, World Vision sees that the poorest and the most vulnerable people, especially children, are already experiencing the devastating effects of climate change and environmental degradation. It is likely that the effects will become greater over time without urgent action at the global, national and local level.

For six decades, World Vision has been engaging people to work towards eliminating poverty and its causes. Informed by Christian values, World Vision is committed to working with those living in poverty, with a particular focus on the most vulnerable children. World Vision works with people of all cultures, faiths and genders to achieve transformation. This is done through humanitarian responses and ongoing community development, public policy and advocacy for change, collaboration, education about poverty and an emphasis on personal growth, social justice and spiritual values.

World Vision Australia has a productive working relationship with the Australian Government as a key partner in the delivery of the Australian aid program. Alongside its international programs, World Vision Australia also implements a range of community development programs and brokers public-private partnerships to benefit indigenous communities around Australia.

World Vision Australia welcomes the opportunity to provide input to the Inquiry into Implications of climate change for Australia's national security. Our submission focuses on the following items in the terms of reference:

- a. the threats and long-term risks posed by climate change to national security and international security.
- b. the role of both humanitarian and military response in addressing climate change.
- d. the role of Australia's overseas development assistance in climate change mitigation and adaptation more broadly.
- e. the role of climate mitigation policies in reducing national security risks.

While we acknowledge the work done by other organisations in considering the national security risks of climate change, World Vision Australia remains deeply concerned over the implications of climate change for the lives and livelihoods of the communities we work with around the world. The impact of climate change on vulnerable communities in the Asia-Pacific region is of concern to Australia, and left unaddressed will likely become a driver of poverty and inequality. Over time, this will have implications for the security and stability of Australia's region.

Through the lens of World Vision's experience with communities around the world, this submission looks at how climate change will impact upon people living in poverty in Section 1. Section 2 looks at the implications of climate change for Australia's diplomatic, economic and humanitarian interests around the world. The final section looks at the actions the Australian government can take to curtail and reduce the most devastating impacts of climate change, and the policy and funding commitments to support those countries and communities most affected

## **A changing climate: the experience for people living in poverty**

### **Impacts on agricultural productivity**

Communities World Vision works with are already experiencing the negative impact of climate change on livelihoods and poverty reduction. The Mongolia Dzud (extreme winter), has become significantly harsher due to climate change. During the 2007 Dzud, World Vision Mongolia staff saw a high number of suicides in communities in which they work, due to the significant loss of assets that the community had depended on because of the extremes of the Dzud.

The latest Intergovernmental Panel on Climate Change (IPCC) report mirrors the experience of World Vision staff in Mongolia and globally, and paints a stark picture of the future of climate-change impacts on livelihoods and poverty reduction: impacts of climate change are projected to slow economic growth, erode food security, and exacerbation of poverty in most developing countries.<sup>1</sup> Climate Change is projected to reduce the renewable surface water and groundwater resources in most dry subtropical regions, thereby intensifying competition for water among sectors. Insufficient

access to drinking and irrigation water poses a significant risk to rural livelihoods and income and negatively impacts agricultural productivity.<sup>2</sup> Growing water insecurity also impacts food insecurity. All aspects of food security are potentially affected by climate change, and a significant global temperature increase, combined with increasing food demand, would pose a large risk to global and regional food security.<sup>3</sup> Reductions in crop yields; migratory changes of fish stocks, a primary source of protein; disruption of rivers, sea level rises and natural disasters and their associated impact on agricultural land, are all linked to the impact of climate change on food production in the Asia Pacific.<sup>4</sup> Climate change is expected to detrimentally impact on food and water insecurity. This will significantly undermine global poverty reduction.

## More extreme weather

Around the world, World Vision staff are experiencing more extreme weather situations, requiring greater resources to support communities dealing with complex natural hazards. On 13 March 2015 Cyclone Pam struck Vanuatu, the most powerful to ever hit the South Pacific. 70% of the population (188,000 people) were affected by the cyclone, which caused extensive damage to the agriculture sector, decimating key crops and with it, the main source of income for a significant portion of the population.<sup>5</sup> World Vision staff, many of whom were also impacted, worked in partnership with the Government of Vanuatu to provide direct assistance to more than 62,000 people to recover and rebuild their lives.

The IPCC has concluded that a changing climate leads to 'changes in the frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events, and can result in unprecedented extreme weather and climate events'.<sup>6</sup> For Australia, this is of concern given that the Asia Pacific region is the most vulnerable to disasters: In 2015, half of all reported global disasters occurred in Australia's region, affecting over 51 million people.<sup>7</sup> The 2015 Global Assessment Report on Disaster Risk Reduction calculated that the global burden of disasters is equivalent to major diseases with an average of 42 million human life years lost each year. This burden is shouldered by the poor, with more than 80 per cent of the life years lost in low and middle income countries.<sup>8</sup> Beyond the physical damage and disruption to livelihoods, natural hazards cause significant economic losses. In 2011, estimates indicate that natural disasters caused economic losses of approximately US \$366 billion, again, most of which occurred in the Asia Pacific.<sup>9</sup> These events pose, Ross Garnaut suggests, a significant security challenge, because of the political, economic and social stresses hazards place on even the most developed states.<sup>10</sup> Climate Change is anticipated to cause more extreme weather situations, with the potential of more natural hazards (disasters), occurring more often, and predominately in the Asia

## Movement of people

Pacific.

When Alem Desta Gebre's degraded land could no longer support his growing family, Alem migrated from Tigray Region of Ethiopia to Saudi Arabia to help make ends meet. Alem's story is one of many heard by World Vision staff working on agricultural programs in Ethiopia, and mirrored around the world.

As a result of significant changes to food and livelihoods, and the increasing risk of natural hazards, climate change is likely to have a strong impact on the movement of people, both within and between states. In 2015, disasters caused twice as much displacement as conflict and violence (19.2m compared with 8.6m).<sup>11</sup> Of those displaced, the majority (85% of incidence) were from South and East Asia, although no region was immune from displacement challenges.<sup>12</sup> Further, the Internal Displacement Monitoring Centre (IDMC) estimates that disaster related risk has quadrupled since the 1970s, the majority in the Asian region.<sup>13</sup> The Representative of the Secretary-General of the Human Rights of Internally Displaced persons, Walter Kälin, has identified five climate-change-related scenarios that may cause human displacement, directly or indirectly: hydro-meteorological disasters (i.e. flooding/cyclones); zones designated by governments as being too high-risk or dangerous for human habitation; environmental degradation and slow onset disasters (i.e. desertification, salinization of coastal zones); 'sinking' small island states; and violent conflict triggered by a decrease in essential resources due to climate change.<sup>14</sup> Researchers anticipate that climate change-induced migrants will move in large numbers but over longer periods of times and in more diverse directions.<sup>15</sup> Noting the impact discussed previously that climate change is having on livelihood security, World Bank data highlights the dramatic rural-to-urban migration already taking place in Mongolia. As a percentage of total population, Mongolia's urban population has increased from 57% in 2000 to over 72% in 2015.<sup>16</sup> New forms and patterns of movement will emerge, exacerbated by a changing climate, but that don't necessarily fit traditional categories designed to support the movement of populations.

## Increased conflict

In the Bawku West region of Ghana, World Vision staff noticed the daily disputes occurring between Fulani herdsmen and the people of the Akara area. To search for cattle fodder, Fulani herdsmen had to travel long distances with their cattle often destroying Akara crops in the search and causing disputes with local Akara farmers.

Disruption to livelihoods, increased physical, economic, and psycho-social losses due to natural hazards, and the movement of people within and between countries, may contribute to existing social and political tensions, and become a melting pot for future conflict. Conflicts are driven by complex and interacting driving forces, and while the link is not directly causal, climate changes impact on communities and countries as noted above, may worsen pre-existing tensions, place further stress on a community, and further add to the risk of conflict. Some analysts have suggested that the affordability of food prices, and a subsequent spike, contributed to the destabilisation in the Arab spring and have played a factor in the ongoing Syrian conflict.<sup>17</sup> Further, looking at the impact of natural disasters and conflict, research from the Feinstein Center has found that the relationship between natural disasters and conflict is non-linear. Risk of conflict is low in countries with less than five, or more than eight natural disasters per year. However, natural disasters put stress upon society and in countries with few resources for coping, can lead to civil unrest and violence.<sup>18</sup> Climate change, and its associated impacts on livelihoods, contribute to existing pressures and changes within communities and lead to, or further aggravate, conflict situations. These changes will influence and impact Australia's interests in the world, and demand greater Australian attention, support and resources.



# A changing climate: implications for Australia

## Diplomacy

Inadequate support in addressing the potential impact of climate change, may have diplomatic consequences for Australia. Over many years, Pacific governments have consistently been publicly critical of Australia's climate policy. Lorraine Elliott outlines the discord within the Pacific Islands Forum (PIF) over Australia (and New Zealand) Climate policy since 2011.<sup>19</sup> While Pacific leaders have consistently identified climate change as the greatest threat facing their people, forum agreements have been experienced as exercises in 'creative ambiguity aimed at papering over the fundamental differences.'<sup>20</sup> Reports suggest that in 2015 Australia's continued membership of the PIF would be questioned if Australia 'was not prepared to stand with the Pacific'.<sup>21</sup> Furthermore, Australia's exclusion, from the High Ambition Coalition on Climate Change in the lead up and during the Paris COP, is indicative of the diplomatic regard in which Australia will continue to be held without concerted action on climate change.<sup>22</sup> A 2015 Lowy institute analysis examining Australia's engagement in climate negotiations, warned that the Howard Government's 2002 announcement that Australia would not be ratifying the Kyoto Protocol made other governments unhappy and some were deeply offended. Howard Bamsey and Kath Rowley suggest that there were instances where 'otherwise friendly governments inexplicably declined to agree to Australian requests.'<sup>23</sup> As Wesley Morgan has suggested in the context of the Pacific<sup>24</sup>, Australian governments will increasingly find it hard to convince neighbours suffering the impacts of climate change that they are a friend as well as a neighbour.

## Trade

As the impact of climate change affects the economic activity of Australia's neighbours, Australia's future trade opportunities will likewise be impacted. In 2016, Australia's export and import markets contributed to more than 40 per cent of Australia's GDP.<sup>25</sup> More than two thirds of Australia's current trade in goods and services is with countries in the Asia-Pacific Economic Cooperation (APEC) group, and this is expected to rise in line with the region's rapid growth.<sup>26</sup> Climate change however, is expected to negatively affect those nations that are predicted to become Australia's major export markets, including China, India, and Indonesia. The 2008 Garnaut review identified that climate change will 'affect the supply of imports to Australia and demand for Australian exports and consequently Australia's terms of trade.'<sup>27</sup> The review's modelling indicated that 'Australia's terms of trade are affected much more adversely than any other developed country by climate change.'<sup>28</sup> Australia's decades-long investment in strengthening the APEC grouping, demonstrates the Australian belief that a strong Asia Pacific region is good for Australia's long term prosperity. However, without adequate support for climate change mitigation and adaptation, Australia's longer term economic and trade networks in the region may be seriously undermined.

## Humanitarian Assistance

As climate change is predicted to cause unprecedented extreme weather and climate events, this will increasingly require Australian aid and humanitarian assistance to support populations affected by natural disasters, many of which will be in the Asia Pacific region. Humanitarian assistance is a critical component of being a good international citizen, and our aid budget contributes both to saving lives and alleviating suffering, and to increasing our regional reputation as a good middle-power donor. In 2015-16 Australia responded to more than 20 humanitarian crises, at a cost of \$329 million.<sup>29</sup> With an exacerbation of emerging humanitarian and security situations because of climate change, experts have cautioned that climate change will lead to increasing demand on Australia for humanitarian assistance, in part because we have the resources and personnel able to respond quickly and effectively.<sup>30</sup> A further implication of climate change for Australia's humanitarian engagement because of climate change, will be on providing support to people displaced by climate change. Currently, 23% of migrants in Kiribati and 8% in Tuvalu have named climate change as a reason for their migration decision. Based on a medium climate change scenario (RCP 6) international migration trips will increase by 35% and 100% respectively by 2055.<sup>31</sup> Given that the majority of climate induced displacement is anticipated to occur in the Asia-Pacific, Australia will not be immune from the consequences of population movement and will experience the ripple effects of regional upheaval as a result of climate

change.<sup>32</sup> The impact of climate change on the Asia Pacific region, has the potential to demand more Australian resource support through the provision of aid and humanitarian assistance. To curtail and reduce, the most devastating impacts of climate change, now is the time for Australia to act with greater ambition and action on limiting climate change and supporting those communities predicted to become worst affected.

## Australia's response

The Asia Pacific region is already experiencing the impacts of climate change, in ways that are expected to be exacerbated into the future. This will have a range of implications for Australia's diplomatic, economic and aid resources. The Australian government has already demonstrated its commitment to addressing climate change through ratification of the Paris Climate agreement and has demonstrated leadership on adaptation and mitigation efforts through its leadership of the Green Climate Fund. Australia then, has a strong foundation for taking further steps towards decisive action. World Vision recommends that Australia acts to support regional governments and affected communities to mitigate and adapt to the impacts of climate change. Additionally, we recommend that Australia furthers its own contribution to climate change through stronger domestic mitigation commitments.

## Support Regional Adaptation

Recommendation 1: Develop and implement a Climate Change Strategy for the Department of Foreign Affairs and Trade, that includes a strategic approach to how climate change should be integrated across all Australian aid investments.

At present climate change receives little attention in the Government's aid policy and performance framework. Considering the wide-ranging implications that climate change is predicted to have across Australia's foreign policy agenda, the Department of Foreign Affairs and Trade should develop and implement a Climate Change Strategy to guide the full spectrum of Australia's international engagement and help prepare DFAT officials to carry out their work in a changed environment. A DFAT Climate Change strategy should set out how Australia's official development assistance integrates climate change considerations across all Australian aid investments. The strategy should recognize the disproportionate impact of climate change on vulnerable groups, and prioritise the inclusion of women, children, indigenous peoples and people with disabilities across all Australian supported climate change initiatives.

Recommendation 2: Increase Australian Aid funding to community adaptation initiatives, to support communities on the frontlines of climate change.

A key component of Australia's strategic approach to climate change, must be greater investment in building community level resilience to climate change, and preparedness to disasters. The IPCC has noted that insurance programs and disaster risk management may help to enhance long-term livelihood resilience among poor and marginalised people.<sup>33</sup> This is an area of focus for World Vision's programs around the world. Through Farmer Managed Natural Regeneration (FMNR) World Vision supports rural communities to naturally regenerate trees on farmland and forest areas in order to improve agricultural productivity and reduce the incidence and severity of droughts, floods and landslides.<sup>34</sup> World Vision worked with Alem Desta Gebre, who as noted migrated to Saudi Arabia to help make ends meet, and other farmers in his community to restore vegetation and bring their previously degraded land back to a productive state in the Tigray Region of Ethiopia. Alem's farm is now his Saudi Arabia and he will no longer need to migrate for work. World Vision's FMNR project in Bawku West, Ghana, where Fulani herdsman were often involved in disputes with local Akara farmers, included components of conflict resolution training, to equip community members to deal with conflicts and to promote the peaceful co-existence between farmers and herdsman.<sup>35</sup> Community adaptation initiatives should be targeted towards the most vulnerable

countries and communities, and support a wide range of adaptation programs, including supporting early warning systems, forest, landscape and mangrove restoration and improving food security.

Recommendation 3: Develop mechanisms to calculate the amount of Australian ODA spent on disaster risk reduction.

Recommendation 4: Increase year on year, the percentage of Australian ODA allocation for Disaster Risk Reduction initiatives, particularly in countries with high vulnerability to natural hazards.

World Vision also supports communities to prepare for natural disasters through supporting disaster risk reduction activities. In 2014, World Vision worked with villages in the Makira province in the Solomon Islands to undertake a 'risk mapping' exercise identifying the vulnerable areas of the community, and develop plans to respond to the impacts of such hazards. Two weeks after the risk mapping exercise and a mock evacuation, a 7.5 magnitude earthquake struck the coastal village. Members of the Natagera community put their knowledge into practice, following the identified evacuation routes, and nobody panicked or was injured. Initiatives such as these, are critical activities in helping communities prepare for, and adapt to changes in the climate. World Vision Australia recommends that DFAT scale up its support for disaster risk reduction initiatives with a focus on those designed to support the most vulnerable individuals and communities. This support should include the development of regional early warning and climate information systems, which World Vision notes is a priority for the GCF in 2018. Reducing vulnerability is critical to reducing climate change risk, and Australia is well positioned to make a positive contribution in this area.

## Support Regional Mitigation

Recommendation 5: Scale up Australia's support to International Climate Finance, including through the GCF by 2020.

Recommendation 6: Use Australia's leadership of the Green Climate Fund to continue to ensure climate financing is accessible to vulnerable communities and the organisations that support them.

Recommendation 7: Facilitate partnerships between NGOs and the private sector to develop climate adaptation projects to scale.

To help developing countries take strong action on Climate Change, World Vision recommends that the Australian Government significantly scales up its support to International Climate Finance to help communities already experiencing the impacts of climate change, and support the international enabling environment for action on climate change. Australia was instrumental in the development of the 2016, *Roadmap to US\$100 billion* that established a pathway to fulfilling the commitment under the Paris Agreement to mobilise \$100bn per year by 2020 for supporting developing countries to take action on climate change. The Australian Government has committed \$1 billion over five years through Australia's aid program.<sup>36</sup> While World Vision welcomes this commitment, we do not consider the current funding as commensurate to the scale of current and future needs. We recommend that the government establish a strategy for scaling up current contributions to reach a fair share of the international goal by 2020.<sup>37</sup> We stress that funding increases must be new and additional funding to Australia's Official Development Assistance, to ensure that funding is not allocated away from essential poverty alleviation programs.

Further, noting Australia's current leadership of the Green Climate Fund, we urge the Australian Government to use its leverage to ensure that funding made available through the Green Climate Fund can be accessed by developing countries and affected communities, and that GCF supported initiatives are effectively owned by and responsive to the needs of affected communities.

Finally, World Vision Australia recommends the Australia Government play a leading role in facilitating and brokering partnerships between NGOs and the private sector to develop adaptation projects to scale. Areas for focus may include working with the financial sector to develop climate insurance products suitable to the Pacific context, or fostering partnerships with telecoms to support the delivery of climate information services to communities.

Recommendation 8: Review Australia's emissions reduction goal to ensure it aligns with our responsibility under the Paris agreement.

Central to contributing to greater international action to prevent and curtail the most damaging implications of climate change, Australia has a responsibility to be ambitious in its mitigation efforts. The Paris Agreement has committed all countries to limiting warming to below 2°C and pursuing efforts to limit to 1.5°C. There are still substantial differences in the impacts associated with 1.5°C and 2°C of warming, and for many vulnerable communities, these impacts may be a matter of survival. Central to Australia playing a leadership role on the international stage in supporting communities impacted by climate change, World Vision recommends Australia do its part towards limiting warming to 1.5°C, through increasing Australia's emissions reduction targets to 40-60% reduction on 2000 levels, as advised by the Climate Change Authority.<sup>38</sup> In reviewing this target, we recommend Australia also establishes a plan for the realisation of this target.

## Endnotes

---

<sup>1</sup> *IPCC Report, 2014: Summary for policymakers*. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Edri, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 20.

<sup>2</sup> *Ibid.* pp.13-4.

<sup>3</sup> *Ibid.* p.18.

<sup>4</sup> Ross Garnaut, *The Garnaut Climate Change Review*, 2008, p.145; WWF-South Pacific, *Impacts of Climate on Tuna Fisheries*, May 2013, available at: [http://d2ouvy59p0dg6k.cloudfront.net/downloads/climate\\_change\\_factsheet\\_final\\_1.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/climate_change_factsheet_final_1.pdf)

<sup>5</sup> Government of Vanuatu, *Tropical Cyclone Pam Humanitarian Action Plan*, 1 May 2015, available at: [http://reliefweb.int/sites/reliefweb.int/files/resources/vanuatu\\_tc\\_pam\\_hap.pdf](http://reliefweb.int/sites/reliefweb.int/files/resources/vanuatu_tc_pam_hap.pdf)

<sup>6</sup> IPCC, 2012: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, p.7

<sup>7</sup> 152 disasters were reported in Asia, and 22 in Oceania. See, UNISDR, USAID and CRED, *2015 disasters in numbers*, 2015, available at: [http://cred.be/sites/default/files/2015\\_DisastersInNumbers.pdf](http://cred.be/sites/default/files/2015_DisastersInNumbers.pdf)

<sup>8</sup> UNISDR, *Global Assessment Report on Disaster Risk Reduction*, 2015, p.v

<sup>9</sup> Debby Guha-Sapir, Femke Vos, Regina Below and Sylvian Ponserre, *Annual Disaster Statistical Review 2011: The numbers and trends*, CRED, 2011, p.13.

<sup>10</sup> Ross Garnaut, *The Garnaut Climate Change Review*, 2008, p.147.

<sup>11</sup> Internal Displacement Monitoring Centre, *2016 Global Report on Internal Displacement*, 2016, p.7

<sup>12</sup> *Ibid.*

<sup>13</sup> Justin Ginnetti, *Disaster-Related Displacement Risk: Measuring the risk and addressing its drivers*, Internal Displacement Monitoring Centre, 2015, pp. 8-9.



---

<sup>14</sup> Walter Kälin, *The Climate Change – Displacement Nexus*, July 16 2008, Brookings, available at: <https://www.brookings.edu/on-the-record/the-climate-change-displacement-nexus/>

<sup>15</sup> UNHCR, *Climate change, natural disasters and human displacement: a UNHCR perspective*, 14 August 2009.

<sup>16</sup> Jasmine Neve, Rachael Diniega, Sumiya Bilegsaikhan and Benoit Mayer, *The changing climates, cultures and choices of Mongolian nomadic pastoralists*, IOM, February 2017, available at: [https://publications.iom.int/system/files/pdf/policy\\_brief\\_series\\_vol3\\_issue1.pdf](https://publications.iom.int/system/files/pdf/policy_brief_series_vol3_issue1.pdf)

<sup>17</sup> See Caitlin E. Werrell and Francesco Femia (eds), *The Arab Spring and Climate Change: A Climate and Security Correlations Series*, February 2013. For further consideration of the links between climate change and non-state armed groups, see Katharina Nett and Lukas Rüttinger, *Insurgency, Terrorism and Organised Crime in a Warming Climate*, Climate Diplomacy, October 2016.

<sup>18</sup> Peter Walker, Josh Glasser and Shubhada Kambli, *Climate Change as a Driver of Humanitarian Crises and Response*, Feinstein International Centre, June 2012, p. 11.

<sup>19</sup> Lorraine Elliott, 'The environment in Australia's foreign policy,' in Mark Beeson and Shahar Hameiri (eds), *Navigating the New International Disorder*, 2017, pp.176-191.

<sup>20</sup> Greg Fry, 'Pacific Islands Forum: climate 'consensus' on the road to Paris.' *The Strategist*, 21 September 2015, available at: <https://www.aspistrategist.org.au/the-pacific-islands-forum-declaration-on-climate-change-consensus-at-the-cost-of-strategy-on-the-road-to-paris/>

<sup>21</sup> As quoted in Lorraine Elliott, 'The environment in Australia's foreign policy,' in Mark Beeson and Shahar Hameiri (eds), *Navigating the New International Disorder*, 2017, p.186.

<sup>22</sup> Wesley Morgan, 'Pacific pariah: how Australia's love of coal has left it out in the diplomatic cold,' *The Conversation*, 7 September 2016, available at: <https://theconversation.com/pacific-pariah-how-australias-love-of-coal-has-left-it-out-in-the-diplomatic-cold-64963>

<sup>23</sup> Howard Bamsey and Kath Rowley, *Australia and climate change negotiations: at the table, or on the menu?*, Lowy Institute for International Policy, March 2015, p.7.

<sup>24</sup> Wesley Morgan, 'Pacific pariah: how Australia's love of coal has left it out in the diplomatic cold,' *The Conversation*, 7 September 2016, available at: <https://theconversation.com/pacific-pariah-how-australias-love-of-coal-has-left-it-out-in-the-diplomatic-cold-64963>

<sup>25</sup> Australian Government, *Federal Budget 2016-17*, Budget Statement 2

<sup>26</sup> Australian Government White Paper, *Australia in the Asian Century, 2012*, Department of Foreign Affairs and Trade, Asia Pacific Economic Cooperation group, available at: <http://dfat.gov.au/international-relations/regional-architecture/apec/pages/asia-pacific-economic-cooperation-apec.aspx>

<sup>27</sup> Ross Garnaut, *The Garnaut Climate Change Review*, 2008, p.147.

---

<sup>28</sup> Ibid.

<sup>29</sup> Department of Foreign Affairs and Trade, *Performance of Australian Aid 2015-16*, May 2017, p.86.

<sup>30</sup> Australian Academy of Science, *The science of climate change: questions and answers*, February 2015, p.27; Ross Garnaut, *The Garnaut Climate Change Review*, 2008, p.149.

<sup>31</sup> United Nations University Institute for Environment and Human Security (UNU-EHS), *Climate Change and Migration in the Pacific: Links, attitudes, and future scenarios in Nauru, Tuvalu, and Kiribati*, available at: [https://i.unu.edu/media/ehs.unu.edu/news/11747/RZ\\_Pacific\\_EHS\\_ESCAP\\_151201.pdf](https://i.unu.edu/media/ehs.unu.edu/news/11747/RZ_Pacific_EHS_ESCAP_151201.pdf)

<sup>32</sup> Australian Academy of Science, *The science of climate change: questions and answers*, February 2015, p.27; Ross Garnaut, *The Garnaut Climate Change Review*, 2008, p.149.

<sup>33</sup> IPCC Report, 2014: Summary for policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Edri, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)] Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 20.

<sup>34</sup> FMNR is a low-cost land restoration technique. It involves the systematic regrowth and management of trees and shrubs from felled tree stumps, sprouting root systems or seeds. The regrown trees and shrubs – integrated into crops and grazing pastures – help restore soil structure and fertility, inhibit erosion and soil moisture evaporation, rehabilitate springs and the water table, and increase biodiversity. Further information on FMNR is available at: <http://fmrhub.com.au>

<sup>35</sup> Further information on World Vision's FMNR project in Ghana is available at: [http://fmrhub.com.au/conflict-resolution-sustainable-management-trees-ghana/#.WXI\\_Y4SGPRZ](http://fmrhub.com.au/conflict-resolution-sustainable-management-trees-ghana/#.WXI_Y4SGPRZ)

<sup>36</sup> Department of the Environment and Energy, *The Australian Government's action on climate change*, 2017, available at: <https://www.environment.gov.au/system/files/resources/f29a8ccb-77ca-4be1-937d-78985e53ac63/files/factsheet-australian-government-action.pdf>

<sup>37</sup> Oxfam Australia recommends that based on Australia's relative economic strength and our contribution to climate change, Australia should contribute 2.4% of the current goal of USD \$100 billion a year. This would equate to at least USD \$1.2 billion in public funds, and an equivalent contribution from the private sector. Further information is available at: Oxfam Australia, *Bringing Paris Home*, 2016, available at: <https://www.oxfam.org.au/media/files/2016/04/Oxfam-Australia-Bringing-Paris-Home-Report.pdf>

<sup>38</sup> Climate Change Authority, *Reducing Australia's Greenhouse Gas Emissions: Targets and Progress Review – Final Report*, February 2014, p.119.