Toward Australian leadership on biodiversity for climate and development Ashley Brooks (PhD), Submission to DFAT, November 2022.

Summary of recommendations

- 1. **DFAT's action on climate change must be twinned with action on biodiversity loss.** DFAT has placed climate change as a critical priority across its program. Yet support to biodiversity protection remains low or non-existent in current DFAT references. The twin issues of climate change and biodiversity loss are inseparable. As biodiversity loss accelerates across the Asia Pacific, so too do the natural systems that support the health, wellbeing and sustainable development of communities. DFAT must raise biodiversity to an equal and inseparable priority to climate change in order to both contribute to mitigating effects of climate change as well as to support adaptation and maintain sustainable development regionally.
- 2. Biodiversity must be elevated as both a thematic priority and a guiding principle of DFAT's program. Chronic biodiversity loss across the Asia Pacific is: an indicator of poor natural resource governance, a significant risk to public health and national economies, a potential accelerant or catalyst for increased social inequalities, and a significant contributor to increased carbon emissions (via habitat loss). Ignoring biodiversity loss within Australia's development policy risks: accelerating climate changes, exacerbating the severity and speed of impacts of climate change on the most vulnerable regional groups, misses the opportunity to implement some of the most effective solutions to avert the worst impacts of climate change, and can undermine the strength and effectiveness of the broader program of support across DFAT's regional work.
- 3. **DFAT should position Australia as a catalytic investor in biodiversity**. Australia has for many years been lagging in its support for biodiversity protection and natural resources management across the aid program. The current public sector leaders in the biodiversity and environment sector are the European Union, and governments of Germany, United Kingdom, Norway, France, and United States. Australia cannot match the scale of funding already being provided by these leading bilateral and multilateral agencies, but it can support a reduction in biodiversity loss through building the regional architecture for innovative finance frameworks (e.g. early stage equity and catalytic funding) to mobilise both private and public sector investment in biodiversity.
- 4. DFAT should enhance the export of Australian national environmental expertise. Australia has a wealth of relevant knowledge to offer and export to the Asia Pacific region on natural resource management and biodiversity protection, yet currently this expertise is lost without DFAT's direct investment in this sector. Australia's investment in biodiversity and the environment sector is principally via multilateral institutions (including the World Bank, Asian Development Bank, and UN agencies and programs) and is therefore largely invisible as explicit Australian added-value. Australia should take its rightful place as a regional leader in this field.
- 5. **DFAT can draw on its long-term successes in sector-wide and programmatic approaches to enter into the biodiversity space very quickly and effectively.** Australia's standout NRM Regions model, exemplary indigenous led protected areas, fire and ecosystem management, and the mining sector as a partner for conservation are all readily exportable areas of expertise that can be delivered via DFAT's Facilities approach.
- 1 Key trends that will shape Australia's engagement with the region over the next 10 years Humans and nature are inseparable, and as natural systems erode so does human health: the COVID-19 pandemic exposed the harsh reality of how vulnerable people, communities and national-global economies are to shocks in nature. COVID-19 also brought into focus the effects of our actions that have eroded biodiversity globally.

COVID-19 heralded a wave of analysis and commentary from the microbial level interactions between humans and nature, cascading right up to the broad scale and systemic decay of global environmental systems that underpin human existence [1, 2, 3]. The consensus is that the global systems that support and underpin human wellbeing are in chronic decline:

- the Intergovernmental Platform on Biodiversity and Ecosystem Services suggests that of the 18 categories of how nature contributes to human wellbeing, 14 have been in decline over the past 50 years due to human actions [3];
- terrestrial ecological communities have lost more than 20% of their original biodiversity [3];
- a fifth of all species are in danger of extinction over the next few decades [2];
- since 1970, species abundance has dropped globally by an estimated 69% (in the Asia Pacific the loss has been 55%) [4]; and
- countries have failed to stem the loss of biodiversity and environmental systems despite global commitments with none of the Aichi Biodiversity Targets for 2020 being met, and none of the nature-related UN Sustainable Development Goals (i.e 6, 13–15) tracking toward to success [2].

Developing appropriate policies to simultaneously address the multiple challenges of climate change, biodiversity loss, sustainable development and quality of life is necessary but presents a challenge as the interactions of the climate-biodiversity-society nexus operate at different temporal and spatial scales [5]. Narrowly conceived climate mitigation projects for instance may have unintended consequences to local biodiversity of livelihoods. For example, a well-intentioned monoculture plantation in a natural grassland or savanna to mitigate climate change may result in negative impacts to native species and biodiversity, with flow-on impacts to environmental product and service provision for local communities [5]. Similarly isolated biodiversity protection programs may unintentionally limit climate adaptation efforts resulting in negative impacts to local communities. Action on climate change must be twinned with action on biodiversity loss.

2 The risks of biodiversity loss for Australia's development assistance

Biodiversity loss and climate change may have slightly differing origins¹, however they are all intensifying, and both have serious implications for people's quality of life:

- Terrestrial biodiversity loss and degradation negatively impacts the quality of life of over 3.2 billion people worldwide [5];
- Biodiversity loss can have major consequences for production and agricultural systems, public health, and can exacerbate existing inequalities, including access to healthy diets [6];
- Biodiversity loss translates into economic and social issues when it leads to loss of habitat, loss of
 economic opportunity and exacerbates vulnerability in some cases when it is threatening food or
 water security [6];
- Climate change poses significant risks for quality of life by impacting food production and food security, including food access, utilization and price stability [6]; and
- Climate extremes disrupt food production and water supply, damage crops, infrastructure and transport networks, and reduce air quality with consequences for human health [5].

The negative impacts of biodiversity loss and climate are disproportionately felt by the most vulnerable people in society – those who are marginalised socially, politically, economically, or culturally. Indeed,

¹ Biodiversity loss is driven by terrestrial and marine resources-use intensity and change, direct consumption of species, pollution, climate change and invasive species [6] which are all increasing in scope and severity. Climate change is driven by greenhouse gas emissions from fossil fuel combustion and land-use change (e.g. deforestation and agricultural practices) [7].

these marginalised groups are also often those in rural, island, or mountainous areas across the Asia Pacific who depend directly on nature for their livelihoods and often have less options to adapt to environmental change [3, 6]. The UNDP goes further to suggest that where ecological threats overlap with social vulnerability, climate change and biodiversity loss can further exacerbate local and national inequalities [8]. With biodiversity loss suggested to have hampered 80% of progress on the SDGs and at the same time extreme poverty is rising again after 20 years [6], the issue is now central to the global fight against inequality.

DFAT should not only mainstream biodiversity across its program but also adopt a principled biodiversity approach to ensure that all programmatic support across its portfolio is not only filtered against minimum biodiversity safeguards, but also promotes biodiversity-positive action. The French development agency's "Nature+" approach is highly instructive in what DFAT could consider. The Nature+ approach builds AFD's financial contributions to biodiversity; ensures a minimum 30% of total finance is nature positive; and ensures AFD strongly aligns to the future Global Biodiversity Framework [9].

3 Australia's capability to support biodiversity

An estimated \$180 - \$226 billion² a year is spent globally on biodiversity conservation [8]. Of this, Official Development Aid funding represents between \$6 and \$15 billion per year [10]. There is an estimated gap of around \$900 billion -\$1.23 trillion a year to meet global biodiversity commitments, increase protected areas, improve the productive management of landscapes and seascapes and protect biodiversity in areas of high human impact [8]. The relatively small portion of ODA commitments to the protection of biodiversity remains insufficient, with many of the most critical areas with highly threatened biodiversity are found in countries where domestic budgets for protection is insufficient and ODA remains the principal funding source [10].

According to the OECD, Australia provided \$5 billion of ODA in 2021 (an increase of 4.5% in real terms in volume from 2020). In 2020, social infrastructure and services was the largest focus of Australia's bilateral ODA allocations (42.1% of ODA commitments (\$1.63 billion)), with a strong focus on support to government and civil society (\$609.6 million), health (\$540.5 million), and education (\$215.6 million). Agriculture (\$259.5 million) and humanitarian assistance (\$344.25 million) make up the remaining significant sectors of ODA support [11]. It is difficult to distil specific funding data for biodiversity from OECD donors, however within the OECD bilateral ODA funding allocation "Multi-sector", we can compare commitments in 2020 by each of the leading donors plus Australia under the "Environmental Protection" allocation. Australia's commitments in 2020 (\$50 million, 1.29% of total ODA) are overshadowed by the very large commitments made by the US, France and Germany (Figure 1) [11].

Furthermore, France, Germany, Sweden and the EU are further increasing their commitments to biodiversity. In 2021, France announced it would increase its bilateral ODA funding for biodiversity to reach \$1.54 billion a year by 2025, and in September 2022, German Chancellor Olaf Scholz announced that Germany will increase its funding for biodiversity conservation to \$2.46 billion annually until 2025 [10]. Australia under DFAT cannot match these commitments and nor is it realistic to consider doing so. Australia can however position itself as a catalytic investor in biodiversity regionally. Global commitments under UNFCCC or UNCBD are gradually coalescing around global funding mechanisms and frameworks to reduce the worst impacts of climate change. Significant aspects of the current discourse centre on nature-based solutions, mitigating and responding to disasters, and increased investment by the private sector. As a result of global agreements, innovative funding frameworks are already being tested and scaled up.

² All dollar (\$) values are in Australian dollars throughout. Where \$ amounts have been converted to AUD, https://www.oanda.com/currency-converter/ has been used.

These include environmental bond markets, outcomes-based financing for biodiversity protection, and biodiversity and carbon offset schemes. Australia can play a significant role in slowing biodiversity loss by supporting the growth and development of these finance frameworks through early-stage equity and catalytic funding for that attracts and mobilises both private and public sector investment in biodiversity.

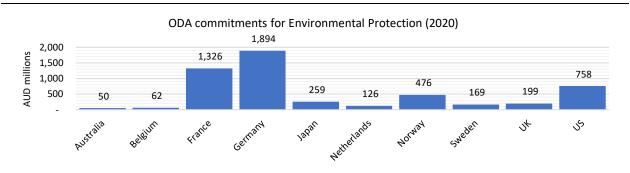


Figure 1: Comparison between top OECD ODA countries' commitments to biodiversity in 2020.

Source: [11]

4 Australia's national strengths to support regional biodiversity conservation and enhance impact

The unique constellation of: Australia being an entire continent-country spanning the wet tropics to the cold temperate islands of Tasmania; a vast marine estate; the arid deserts to the productive agricultural plains and the lush Great Dividing Range; the acute natural disasters that play out in unpredictable and large pulse events; coupled with an ancient, multi-nation, indigenous heritage – means that Australia has a wealth of relevant knowledge to offer and export to the Asia Pacific region on natural resource management and biodiversity protection. Yet currently this expertise is lost without DFAT's direct investment in this sector. Australia excels in multiple areas that are of direct relevance and application across the Asia Pacific – yet at present does not export. Some key thematic and governance areas include:

- The national NRM Regions model: the model provides a very instructive framework for adaptation
 across the Asia Pacific NRM context. Much can be learned from the coordinated, decentralised, and
 area-based integrated management of resources model that focuses and aggregates knowledge and
 financial investment, plus builds enduring partnerships with local communities;
- Indigenous co-management of protected land and seascapes: Australia is a pioneer and global leader in indigenous leadership and co-management of protected area. Premier examples that have exemplified this for many years include Uluru, Kakadu, Katherine Gorge, and Kata Tjuta, along with best practice indigenous leadership and management of customary lands across the Torres Strait, the Kimberley and Arnhem Land. These examples are decades old, yet indigenous co-management is only now emerging globally as an area of "innovation";
- Fire and rangeland management: world leading savannah burn-off approaches to reduce emissions, enhance ecosystem productivity, and reduce risk across northern Australia in partnerships between indigenous communities, NGOs and corporate sector, along with fire and invasive species management across critical ecosystems and protected areas nationally. Southeast Asia and the Pacific have large areas that are also naturally dry and are now feeling the economic and ecological impacts of extended dry seasons and increasing fire events;
- The mining sector as a partner for conservation: Australian corporate miners have developed world leading practices to support regional community development, jobs and strong environmental safeguards all to contain potential negative impacts and foster regional benefit sharing. These features are critically missing across the Asia Pacific countries where both incipient and burgeoning

mining sectors are present and more often than not have footprints that align very strongly with areas of high biodiversity and ecosystem service value;

5 Key areas DFAT could support regional partners

- A suite of regional landscape Facilities and Centres of Excellence in either priority landscapes or in support of thematic areas, that support biodiversity and climate adaptation. These help to build the national institutions but also create the mechanisms for collaboration locally around the climate, biodiversity and society nexus. These can largely align with the NRM Regions model. Facilities as a strong delivery point of DFAT's can also address:
 - Policy integration across sectors and scales;
 - Mechanisms for learning and scaling-up;
 - Strong equity considerations to ensure access to both processes of governance and its benefits, including economic, social, environmental and political opportunities;
 - Expanded mechanisms for participation;
- Development of sector-wide catalytic financing, including outcomes-based funding; and creating the
 architecture for private sector participation and investment to halt biodiversity loss. Key thematic
 areas that new financing should support and encompass include:
 - Strengthening of protected area networks along with their funding and management;
 - Landscape and area-based management approaches that integrate sustainable rural development with ecosystem protection; and
 - A focus on Nature-Based Solutions (NBS) or Natural Climate Solutions (NCS) to climate change via protecting, restoring and sustainably managing forests, peatlands, and mangroves at scale.

6 References

- 1. Brodie, J.F., et al., The decline of mammal functional and evolutionary diversity worldwide. Proceedings of the National Academy of Sciences of the United States of America, 2021. **118**(3).
- 2. Bradshaw, C.J.A., et al., Underestimating the Challenges of Avoiding a Ghastly Future. Frontiers in Conservation Science, 2021. **1**(9).
- 3. Díaz, S., et al., Pervasive human-driven decline of life on Earth points to the need for transformative change. Science, 2019. **366**.
- 4. WWF-International, *Living Planet Report 2022 Building a nature-positive society*, R.E.A. Almond, Grooten, M., Juffe Bignoli, D. & Petersen, T., Editor. 2022, WWF International, Gland, Switzerland.
- 5. Pörtner, H.O., et al., Scientific Outcome of the IPBES-IPCC co-sponsored workshop: Biodiversity and Climate Change. 2021, IPBES secretariat, Bonn, Germany.
- 6. IPBES, Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. 2019: IPBES secretariat.
- 7. IPCC, Summary for Policy Makers, in Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, P. R. Shukla, et al., Editors. 2019, Intergovernmental Panel on Climate Change.
- 8. UNDP, *Human Development Report 2020: The next frontier Human development and the Anthropocene*. 2020, United Nations Development Program, New York.
- 9. AFD, *Nature + Finance: Principles for tracking biodiversity and nature-positive finance.* 2022, Agence Francaise de Developpement, Paris.
- 10. Dufief, E., et al., Scaling up the European financial package and leadership on biodiversity for development. 2022, IDDRI, Paris.
- 11. OECD-DAC, *Development cooperation profiles: Australia*. 2022, Organisation for Economic Co-operation and Development, Paris.