



## WWF-Australia 2023-24 Budget Submission

The World Wide Fund for Nature-Australia (WWF-Australia) welcomes the opportunity to make a submission to the 2023-24 Federal Budget.

WWF-Australia is part of the WWF International Network, the world's largest independent conservation organisation. WWF's global mission is to 'stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature'. WWF-Australia has approximately two million financial and non-financial supporters.

In the context of Australia's environmental decline and loss of unique biodiversity, WWF-Australia strongly welcomes the significant commitments made by the Government to address the state of the environment. The *Threatened Species Action Plan: Towards Zero Extinctions 2022-2032* and the Government's commitment to "prevent any new extinctions", the commitment to protect and conserve at least 30 per cent of terrestrial, inland water, and of coastal and marine areas by 2030, the Government's *Nature Positive Plan* and the agreement reached at COP15 in Montreal on the Global Biodiversity Framework, 2023 are vital to address the health of our natural landscapes and species.

Resourcing these commitments via the 2023-24 Federal Budget will be critical. Current funding is inadequate and without the appropriate level of funding and ongoing budget commitments, these plans will fail to reach their policy objectives.

To achieve the *Threatened Species Action Plan; Towards Zero Extinctions* the government will need to significantly increase funding for threatened species recovery. Australia's ongoing species loss and growing threatened species list is a direct result of inadequate funding for environmental protection and targeted species recovery. While we welcome the modest increases in species recovery funding in the 2022-2023 Budget, government expenditure on environmental management throughout Australia has declined over the past decade, and compared to countries of comparable wealth, Australia underspends on biodiversity conservation.<sup>1</sup> WWF-Australia recommends a threatened species recovery package at least in line with the estimated \$1.69 billion per year required to recover Australia's listed threatened species by a cohort of Australia's eminent scientists.<sup>2</sup>

Implementation of the *Nature Positive Plan* will also require adequate funding and is key to delivering these important reforms. Conservation Planning Reform, Regional Plans, and the establishment of an Environmental Protection Agency among others are key pieces of reform that will need dedicated and substantial investment.

Additionally, the Government plays a critical role in stimulating demand for the Nature Repair Market. Guaranteeing demand through a budget allocation in the 2023-24 Budget would help match, leverage and direct private investment towards positive biodiversity outcomes.

WWF-Australia welcomes the opportunity to feed into the Government's policy costings on these commitments. While this budget submission does not detail the level of funding required for threatened species recovery and implementation of the *Nature Positive Plan* and the *Nature Repair*

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<sup>1</sup> Australian Conservation Foundation, Federal Government spending on Australia's environment and climate, 2021; and Wintle et al., 2019, Spending to save: What will it cost to halt Australia's extinction crisis?, Conservation Letters, 12(2)

<sup>2</sup> Wintle et al., 2019.

*Market*, we are working towards more comprehensive proposals to deliver these important reforms. Nevertheless, we urge the Government to allocate sufficient funding to realise these policy commitments in the next budget and increase the level of funding for Australia's unique biodiversity overall.

We also welcome the Government's many commitments to transition to a renewables nation as part of its Powering Australia policy and strongly support the Government's ambition to host the United Nations' Climate COP31 meeting, in partnership with Pacific nations. To ensure the support of other countries in securing our bid being successful, Australia will need to do more to lift its credibility rating on the global stage. Australia must demonstrate domestically smart and ambitious climate policy, and showcase our progress implementing solutions at speed and scale. Critically, the transition to renewables needs to work for people and nature. Nature and communities must be at the heart of the solutions.

As the world shifts to a low carbon future, Australia has everything we need to take the lead and capture the opportunity presented by renewable energy powered exports and manufacturing. WWF-Australia is calling on the Government to make Australia the world's leading exporter of renewable energy powered products by 2030, and to accelerate the pathway to renewables in line with 1.5 degrees. To achieve this, the Government must provide national direction through a comprehensive renewable export plan that supports the development of renewable energy industrial precincts and the subsequent creation of 395,000 new jobs, as highlighted in the recent joint ACF, WWF-Australia, ACTU and BCA [Sunshot Report](#).

Included within this submission are eight budget proposals across three government departments. Each proposal has been drafted by experts, grounded by good science and prioritised due to the value they yield for both people and nature under an agenda to Regenerate Australia.

The table below provides a summary of the proposals, the relevant department and the total funding commitment over the forward estimates. WWF-Australia has also separately submitted a joint submission on 'Pathways to 30x30' in conjunction with Pew Charitable Trust, The Nature Conservancy Australia and Australian Land Conservation Alliance.

If you require further information, please contact Quinton Clements, Head of Policy and Horizon Scanning, WWF-Australia on [QClements@wwf.org.au](mailto:QClements@wwf.org.au) or 0419 626 268.

## Proposal catalogue

No.	Proposal	Department/Agency	Funding
1	A national Women Rangers Environmental Network	National Indigenous Australians Agency	\$8.35 million over four years
2	Koala Friendly Carbon program expansion	Department of Climate Change, Energy, the Environment and Water	\$7 million over three years
3	Assist the national recovery of greater gliders	Department of Climate Change, Energy, the Environment and Water	\$2.35 over four years
4	Rewilding priority landscapes	Department of Climate Change, Energy, the Environment and Water	\$1.215 million over three years
5	A national wildlife health network	Department of Climate Change, Energy, the Environment and Water	\$29 million over four years
6	Legal Advisory Service to support least-developed countries and small island developing states in plastic pollution treaty negotiations	Department of Climate Change, Energy, the Environment and Water	\$2 million over four years
		Department of Foreign Affairs and Trade	
7	Investing in nature-based solutions in Australia's international development program	Department of Foreign Affairs and Trade	\$400 million over four years
8	Creating a stronger, more resilient Fijian longline tuna industry, through technology-enabled data and transparency	Department of Foreign Affairs and Trade	\$4.5 million over three years
		Department of Agriculture, Fisheries and Forests	

## Proposal 1: A National Women Rangers Environmental Network

### Affected agency:

National Indigenous Australians Agency (NIAA)

### Financial implications:

\$8.35 million over four years

### Total cost of proposal:

	FY 23-24	FY24-25	FY25-26	FY26-27	Total
<b>State coordinators</b>	\$600 000	\$900 000	\$850 000	\$825 000	\$3 175 000
<b>State forums</b>	\$430 000	\$580 000	\$525 000	\$490 000	\$2 025 000
<b>National exchanges</b>	\$420 000	\$570 000	\$525 000	\$485 000	\$2 000 000
<b>National forum</b>	\$400 000		\$400 000		\$800 000
<b>National coordination</b>			\$350 000		\$350 000
<b>Total</b>	\$1 850 000	\$2 050 000	\$2 650 000	\$1 800 000	<b>\$8 350 000</b>

### Proposal outline:

Indigenous women play a critical and unique role within their communities and in environmental stewardship, with ranger roles being the primary source of employment in many areas. However, women make up less than 25% of the ranger workforce.<sup>3</sup> To overcome the gender imbalance and enhance the important role Indigenous women play in caring for Country, it is critical to develop professional pathways for Indigenous women rangers.

WWF-Australia is proposing the Australian Government commit \$8.35 million over four years to support an Indigenous women rangers' support network. This investment would support and expand on the three already established state hubs in the NT, QLD and WA to establish a truly national network by engaging new coordinators and establishing new hubs in Southern states. The expansion of the women rangers program would resource new opportunities for professional development, provide for capacity building and knowledge exchange and develop "one strong voice for women".

The Women Rangers Environmental Network (WREN) began in 2017 with Kimberley Land Council and WWF-Australia exploring ways to support the unique role of Indigenous women working for healthy country planning and delivery. The concept sought to bring together women from different ranger teams, provide a forum to share their experiences and knowledge, combine their voices to improve their work for the environment and develop new career pathways for the benefit of both people and Country. WWF-Australia has subsequently supported partners to establish WREN hubs in the Northern Territory and, in partnership with the Department of Environment and Science, Queensland who have now committed core funding to the Queensland Indigenous Women's Ranger Network (QIWRN).

Today, WREN links more than 400 Indigenous women, primarily in the north of Australia, through regional coordinators, state and territory forums, national programs and global opportunities.

<sup>3</sup> Janke T, Cumpston Z, Hill R, Woodward E, Harkness P, von Gavel S, Morrison J, 2021. Indigenous: Enablers of caring for Country. In: Australia State of the environment 2021, Australian Government Department of Agriculture, Water and the Environment, Canberra. Available at: <https://soe.dcceew.gov.au/indigenous/management/enablers-caring-country>

Nationally, the WREN Knowledge Exchange program and Professional Development Program supports new and emerging women rangers, the intergenerational transfer of knowledge and experience, career development and emerging leaders in conservation. WREN has supported travel to international ranger forums, and soon there will be opportunities for women rangers to undertake exchanges in the Pacific.

While WREN has supported many women rangers in northern parts of Australia, the success of the program highlights the need for a national initiative that can deliver support networks and resources to Indigenous women caring for Country across Australia.

**Rationale:**

Indigenous women play crucial roles in their communities and in caring for Country. There are many sacred and varied conservation duties which can only be performed by women. For some mobs, gender defines which species they manage, for others it may be about which techniques they use. For example, WWF-Australia's work in the Kimberley on the endangered Gouldian Finch can only be conducted with and by women rangers. For other partners, cultural burns (or right-way fire) is women's business only.

Through supporting their culturally aligned systems of conservation, management, and leadership, WREN seeks to address the structural and agential obstacles facing women looking after Country. Building a community of practice and a knowledge network is central to building leadership skills and furthering the career development of women rangers<sup>4</sup>. Co-designed between Indigenous women rangers, coordinators and WWF-Australia, WREN's mission is to help Indigenous women who care for Country to come together to share their experiences and knowledge, combine their voices to improve their work for the environment and develop new career pathways for the benefit of both people and Country. To address the unique barriers to women's full participation in the ranger program, these deadly women need a culturally-safe space where they can access emotional and professional support, pursue new opportunities, engage in knowledge exchange, and come together to unite their voices on common issues.

A key element of this proposal are national and state forums. Forum models have proved to be highly successful for focused knowledge exchange. In 2022, with the easing of COVID restrictions, women were able to gather again at their state and territory forums with renewed momentum. At these forums, the women expressed a feeling of readiness to work towards establishing a national network via a National Forum. A National Forum would maximise this momentum among Indigenous women rangers to design their future by building a community of practice and knowledge exchange with better personal and collective leadership skills, supported by structure, systems, goals, and programs that they design and manage. It also aims to develop an understanding of the ways in which Indigenous women influence and lead both within their communities and across the broader Australian community (Indigenous and non-Indigenous).

**Strategic policy alignment:**

The Federal Government's Indigenous Ranger Program which, in addition to being a job-creation strategy, plays a vital role in the protection and sustainable management of Australia's precious biodiversity. The Indigenous Ranger Program is also a critical link in the continuation of the world's oldest living culture enabling people to live and work on their ancestral lands, often in areas where few other employment opportunities exist.

2,100 (equivalent to 895 full-time) Indigenous ranger positions are currently funded under the program predominantly distributed across northern Australia and in central Australia. The

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<sup>4</sup> Miller and Woodside Kimberley Forum Report, 2019, Queensland Forum Report 2019, 2020

Indigenous Ranger Program has been an unqualified success and provides significant social and community benefit in remote and isolated communities.

WWF-Australia has strongly welcomed the Government's commitment to double the number of Indigenous rangers, and applauds the Government for acknowledging the need to achieve gender equality within the Indigenous Ranger Program. While dedicated funding for women ranger positions will be necessary to achieve this goal, it will not be sufficient to address the unique structural and individual barriers to women's full participation in the ranger program. A national network for Indigenous women rangers is a strategic initiative to mainstream the important role that Indigenous women play in caring for Country. It is a critical and proven solution that can develop professional pathways for Indigenous women rangers.

A national WREN program aligns with the prioritisation given to Indigenous-led conservation in the 2021 State of Environment Report, the 2022-2032 Threatened Species Action Plan, and the Environment Ministers Meeting Communique of 21 October, 2022. It also aligns with the priorities identified in the Federal Government's Indigenous Ranger Strategy 2022-2028.

### **Implementation:**

The following activities and resources are required for a National Women Rangers Network:

- ***State coordinators***

Female coordinators based in state-level Network Hubs would ensure specific local needs are met. These coordinators would be hosted by local Indigenous Land Management organisations and would develop yearly workplans for the goals and priorities as identified by the women in their network. Ongoing progress reports, reporting templates and case studies would enable effective monitoring and evaluation against short and long-term targets both regionally and nationally.

- ***Annual state forums***

Annual state forums (and some bi-annual forums) would provide rare opportunities for women rangers to gather in large numbers, connect on common priorities, action outcomes and plan activities and events for the network. For many they also provide a rare opportunity to meet other women caring for Country and support each other in their struggles and inspirations.

- ***WREN Knowledge Exchange program***

The WREN Knowledge Exchange program seeks to address key training and capacity building needs across the Network. Support to attend WREN events and training opportunities is crucial to the entire program and is the most advocated for idea from both the women rangers and coordinators. Currently the WREN Knowledge Exchange program facilitates Indigenous women who care for Country across Australia to meet up on Country, exchange knowledge and skills, and build a national WREN to develop "one strong voice for women" to influence conservation programs and bring Indigenous women's perspectives to decision making on their Country. WWF is currently working with the Government's Australian Volunteers Program to pilot an Indigenous women ranger exchange with community partners in the Pacific. This can be expanded on via a national program to further facilitate domestic and international knowledge exchange.

- ***National forum***

A National Forum would be co-designed with Indigenous women to discuss and find solutions to the needs of women rangers and the causes of gender imbalance. The WREN National Forum Working Group would be formed through consultation with the Women Rangers Network. The Group would decide the timeline of key activities and delegation of responsibilities and the location for the Forum. They would meet with Traditional Owners, consult, and plan the program and agenda for the event including speakers and facilitators.

- ***National coordination (transitioning management to Indigenous Prescribed Body Corporate):***

The long-term vision for WREN is a sustainable, Indigenous-led, national network that supports Indigenous women caring for Country to address the structural and agential obstacles to their participation. While WWF-Australia can, and should, continue playing an important role supporting and learning from WREN, it is important that the management and leadership of the Network be transitioned to a nationally focused Indigenous-led organisation alongside adequate and sustained funding.

**Value for money:**

There are many socioeconomic, cultural and environmental benefits provided by Indigenous rangers with Indigenous Protected Areas (IPAs) making up approximately half of the country's national reserve. Indigenous rangers bring a depth of cultural attachment and unique land management skills to the nationally and internationally important task of caring for Country. Indigenous ranger programs provide real jobs for Indigenous people to be proud of and are one of the few Indigenous programs to have shown significant measurable improvements in the health and well-being of participating Indigenous communities. A review conducted by Social Ventures Australia for the Department of Prime Minister and Cabinet published in 2016 reported a social return on investment of up to \$3.40 for every dollar spent in Indigenous Protected Areas, with those areas employing Indigenous rangers demonstrating higher returns.<sup>5</sup> A review by Allens Consulting found the true costs of the Working on Country program were at least 17-23% less than book costs when increased taxation revenue and decreased welfare payments were taken into account.<sup>6</sup> In the 2014–15 National Aboriginal and Torres Strait Islander Social Survey (ABS 2017a), 55% of Indigenous women cited 'no jobs in local area or line of work' or 'no jobs at all' as a barrier to finding employment. In remote areas, this figure was 66%.<sup>7</sup> Indigenous ranger jobs address this barrier with real jobs that people are proud to do. Supporting the expansion and long-term Indigenous leadership of a national network to support and encourage Indigenous women working on Country will help to extend these social, environmental and economic benefits to more communities and more ecosystems across Australia and represents excellent value for money for the Federal Government.

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<sup>5</sup> SVA Consulting, 2016. Social Return on Investment – Consolidated report on Indigenous Protected Areas

<sup>6</sup> The Pew Charitable Trusts 2019 Budget Submission, 2019. Indigenous Protected Areas and Indigenous Rangers: Protecting nature, creating jobs, transforming lives

<sup>7</sup> State of the Environment Report, 2021

## Proposal 2: Koala Friendly Carbon Program Expansion

### Affected agency:

Department of Climate Change, Energy, the Environment and Water (Parks Australia)

### Financial implications:

\$7 million over three years

### Cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	Total
<b>Koala Friendly Carbon program expansion to restore 10,000-20,000 ha through a Revolving Fund</b>	\$2 800 000	\$1 800 000	\$1 800 000	\$6 400 000
<b>Accounting for Nature monitoring and audit for koala benefit assurance</b>	\$200 000	\$200 000	\$200 000	\$600 000
<b>Total</b>	<b>\$3 000 000</b>	<b>\$2 000 000</b>	<b>\$2 000 000</b>	<b>\$7 000 000</b>

### Proposal outline:

WWF-Australia implements a multi-pronged approach to help double koala numbers on Australia's East Coast. One of the program's key projects is Koala Friendly Carbon; an initiative to unlock the viability of carbon finance as a key pathway to achieve restoration of degraded landscapes at scale.

This proposal aims to use the carbon farming industry to develop "premium" Australian Carbon Credit Units (ACCU), to restore 10,000-20,000 ha of high-quality koala habitat in priority areas of NSW and QLD over 10 years. It will have significant conservation and socio-economic impact, including;

- Restoring koala habitat: Restoring between 10,000 ha (baseline) to 20,000 ha (upside) that will significantly contribute to the National Recovery Plan commitments to show a total net increase of habitat by 2032.
- Positive socio-economic impacts: Rural landholder income generation and diversification, local community employment and enterprise development, Indigenous community engagement and employment opportunities.
- Biodiversity and other endangered species expansion potential: including the greater glider, glossy black cockatoos, rainforest restoration and box-gum grassy woodlands.
- Restoring koala population: Restoration of 10,000 ha is potentially expected to increase koala population by 3,000 to 13,000 koalas dependent on restoration factors (type of vegetation, location, and patch size).

The program intends to achieve koala friendly planting at scale over time through establishment of a 'revolving fund' model where carbon and biodiversity revenue is re-cycled to pay for ongoing plantings. This proposal seeks \$7 million over three years to help establish the fund and to scale plantings in 2024-2026. It has the ability to rapidly transform koala habitat restoration and scale in Eastern Australia.



**Rationale:**

Koalas are a national icon and yet are projected to become extinct in the wild as early as 2050 in east coast states on current trajectories. Koala populations are estimated to have declined by 50% in Queensland since 2020, and by up to 62% in NSW over the same period. The 2019-20 bushfires impacted an estimated 61,000 koalas.<sup>8</sup>

The National Koala Recovery Plan presents an opportunity to coordinate implementation of actions to slow and reverse the decline of koala populations, particularly in the bushfire regions of Queensland and NSW. To meet the goal of the Recovery Plan to stop the decline in population size of the listed koala it is crucial to increase the extent, quality and connectivity of habitat occupied. Grant funding alone will not deliver the scale needed to restore connectivity across their range. The establishment of a Koala Friendly Carbon Fund has tremendous potential to expand to become a significant driver of koala habitat restoration in eastern Australia that is not reliant upon future government or philanthropic funding. Internal modelling indicates the Fund could be self-sustaining within seven years dependent on scale and carbon market prices.

An investment of \$7 million would contribute to ongoing annual plantings of around 500-1000 ha. This would enable plantings of 2,000 to 3,500 ha in the first three to five years, with revenue generated from carbon and biodiversity benefits enabling an ongoing planting of an additional area of 2,000 to 3,500 ha every five to 10 years after. The exact frequency to achieve the additional area of plantings will depend on the areas agreed as 'koala habitat' for plantings, and future prices of carbon and biodiversity benefits.

The ongoing plantings would be funded through earlier carbon projects 'repaying' their planting costs through part of their carbon credits being returned to the Fund. This cycling of funds delivers a long-term self-sustaining model for koala habitat restoration.

This investment is different to traditional government grants. It is a one-off investment that delivers ongoing plantings into the future, funded by carbon and biodiversity benefits. It has a key focus on moving restoration from being publicly funded, to being privately funded. If the first fund is proven successful, as we expect, it would enable future funds to be developed that are funded purely by private sector capital markets. The revegetation investment is protected through 100-year permanence agreements, as opposed to most revegetation projects which are not protected.

**Implementation:**

The initial pilot project of Koala Friendly Carbon in NSW Northern Rivers successfully tested the business case with landholders, effectively registering carbon projects under the Environmental Plantings Method, with currently over 129,000 trees planted and a further 35,000 before the end of February 2023 across five projects.

The Koala Friendly Carbon initiative has received strong landholder interest and as a result WWF-Australia already has a pipeline of ~1000ha of projects in areas of koala population significance across NSW. Drawing on the successful pilot project, this proposal seeks investment to ensure these projects can be progressed for carbon project registration that will be ready for planting in 2023. This project would commence koala habitat restoration through 500 ha of plantings in FY23 and 1,000 ha in FY24 across koala strongholds within NSW. The aim is to restore between 10,000 ha

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<sup>8</sup> WWF-Australia, 2020. Impacts of the Unprecedented 2019-2020 Bushfires on Australian Animals. Available at: <https://www.wwf.org.au/news/news/2020/wwf-60000-koalas-impacted-by-bushfire-crisis#gs.ndyfhk>

(baseline) to 20,000 ha (upside) over ten years. This will significantly contribute to the National Koala Recovery Plan commitments to increase the extent and connectivity of habitat occupied.

WWF-Australia and partners have developed a koala assurance standard through Accounting for Nature (AfN). This is part of the mission to change how carbon projects are delivered in Australia by showing how important valuing things beyond carbon is.<sup>9</sup> Utilising the AfN Koala Population and Habitat Condition methodology, we are testing a credible, scalable, science-based approach to verifying measurable biodiversity benefits, with the intention to expand this to other species, demonstrating high integrity approaches which can be adopted within the emerging national biodiversity market.

This method will be applied at baseline Year 0 and in years 5 and 10. Baselines have been conducted on the first five 2022 Koala Friendly Carbon projects.

**Strategic policy alignment:**

This proposal will contribute to a number of Commonwealth Government priorities, including:

- The National Koala Recovery Plan
- Developing high integrity carbon markets
- The Nature Repair Market
- Global leadership on reversing biodiversity crisis as part of the Kunming-Montreal Global Biodiversity Framework (GBF).

**Value for money:**

The current business model under Koala Friendly Carbon indicates that a \$7 million contribution from the Federal Government will enhance the commercial viability of the venture for WWF-Australia to potentially unlock ~\$50-100m of private investment. This will deliver 10,000 - 20,000 ha of high-quality koala habitat restoration, while establishing sustainable new revenue streams for local landholders.

Additionally, the Koala Friendly Carbon Program will improve land condition, sequester carbon, provide landholders with an additional revenue stream and contribute to the recovery of the endangered koala.

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<sup>9</sup> Accounting for Nature – Fauna Methods. Available at: <https://www.accountingfornature.org/fauna-methods>

## Proposal 3: Assist the National Recovery of Greater Gliders

### Affected agency:

Department of Climate Change, Energy, the Environment and Water (Parks Australia)

### Financial implications:

\$2.35 million over four years

### Total cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
<b>Greater glider nest box program</b>	\$295 201	\$352 172	\$304 059	\$298 568	\$1 250 000
<b>Translocation of gliders back to Booderee National Park</b>	\$244 262	\$317 345	\$267 306	\$271 087	\$1 100 000
<b>Total</b>	<b>\$539 463</b>	<b>\$669 517</b>	<b>\$571 365</b>	<b>\$569 655</b>	<b>\$2 350 000</b>

### Proposal outline:

Greater gliders (*Petauroides spp.*) are a group of arboreal marsupial species that live in the forests and woodlands of eastern Australia, from Queensland to Victoria. These endemic Australian animals feed on eucalypt buds and leaves, and are the largest gliding marsupials in the world, capable of gliding up to 80 metres between trees.

A third of all greater glider habitat was burnt during the 2019-20 Australian bushfires. The southern and central populations of greater gliders, which occur south of Mackay (QLD), were uplisted from vulnerable to endangered under the EPBC Act on 5<sup>th</sup> July by the Federal Environment Minister Tanya Plibersek. The main factor influencing uplisting was an overall rate of population decline exceeding 50 percent over a 22-year (three generation) period, including population reduction and habitat destruction following the 2019–20 bushfires.

To date, WWF-Australia has invested considerably in projects to facilitate greater glider persistence and recovery post-bushfires. However, there is an urgent need for a coordinated national program that integrates these disparate conservation programs into a cohesive and potent body of work. A national greater glider recovery program would build on the important work to date and continue to trial and expand innovative, climate-sensitive habitat protection and restoration solutions such as nest boxes and other kinds of artificial cavities, as well as other restoration works in priority areas (e.g., Victorian Central Highlands and South Coast NSW). It would also promote knowledge exchange, while facilitating a coordinated approach between governments, NGOs, grassroots organisations, policymakers, Traditional Owners, and the general public.

### Rationale:

The greater glider has gone from being a common species (that is, listed as a species of least concern), to vulnerable, and then endangered in just six years (2016-2022). This is almost twice as fast as east coast koalas, which took a decade to be uplisted from not threatened to endangered (2012-2022). Key threats to greater gliders include the reduction of available habitat due to land clearing and native forest logging, and the impacts of climate change including increasing temperatures, catastrophic bushfires, and other extreme weather events.

This national greater glider program proposes the introduction of two critical streams of work that will expand and diversify Australia's current greater glider recovery portfolio. The two areas have been identified due to the extent of decline of greater glider populations in these locations and their strategic importance for recovery. The first is the Central Highlands of Victoria where the habitat requirements of greater gliders are well understood due to 40 years of intensive monitoring. Despite marked declines in Central Highland populations, there are still residual populations to form the basis for restoration programs and species recovery. In addition, there are strong elevational and climatic gradients in the Central Highlands of Victoria enabling restoration efforts to be focussed around potentially suitable long-term climate refugia for greater gliders. The second target area is Booderee National Park where the greater glider went extinct in 2007 but there are significant opportunities for translocation and population recovery. Greater gliders are an icon animal for local Indigenous people at Booderee National Park and there is a strong demand for a targeted species recovery effort.

**Strategic policy alignment:**

This proposal underpins the Government's commitment to stopping extinctions under the Threatened Species Action Plan. It would deliver key needed pieces of work as identified by the Threatened Species Scientific Committee in their endangered uplisting. Furthermore, by addressing a recently listed endangered species, this proposal would be evidence of the commitment to stopping extinctions, thereby aligning with Australia's commitments under the Leaders Pledge for Nature and the Kunming-Montreal Global Biodiversity Framework.

**Implementation:**

***Greater glider nest box program expansion to the Central Highlands of Victoria***

Greater gliders used to be the most frequently recorded species of arboreal marsupial in the Central Highlands of Victoria; however, populations in these forests have declined by ~ 80% in the past 25 years (since 1997) – the biggest overall decline of any mammal or bird species in this forested system.

Given the rate of decline of greater gliders, there is a strong degree of urgency in restoring habitat, including establishing alternative habitat structures that mimic hollow-bearing trees in the coming years. Trials by WWF-Australia and ANU have shown that site occupancy by greater gliders can be increased through the introduction of tailored hi-tech glider nest boxes in the greater glider's distribution. Drawing on these trials and using the key ecological insights based on the past 40 years of work in the Central Highlands of Victoria, there is an opportunity for the Government, in partnership with NGOs and academics, to invest in restoring suitable denning sites for greater gliders via a targeted nest box installation program in the Central Highlands of Victoria.

Sites where nest boxes are established could then be monitored to determine re-colonisation rates and increases in population abundances. The nest box program would be science-led with targeted monitoring and high levels of engagement with NGOs and the broader community. Data-rich mapping of habitat suitability layers would be used to determine the locations of sites for targeted nest box installation and subsequent monitoring of their effectiveness, both through conventional survey methods, and the installation of cameras concurrently with the nest boxes. Part of this project would include intensive radio-tracking of animals on a subset of sites to quantify their use of nest boxes. This would help better identify the number and spatial array of nest boxes needed to ensure the successful recovery of local populations of greater gliders. In addition, the program would consult widely with key stakeholders, in particular, the three First Nations Peoples (the Gunaikurnai, Taungurung and Wurundjeri Peoples) on whose country the proposed work will occur.

### ***Recovery of climate-impacted greater glider population in South Coast NSW***

Greater gliders became extinct in Booderee National Park in 2007, despite it previously being a common species. Ongoing monitoring at 134 long-term sites indicates the species has not re-colonised Booderee National Park since their extinction. The reasons for the park-wide extinction remain uncertain, although recent research indicates climate change induced heat waves may have played a part, as they have been implicated in the overall decline of this species in other parts of its distribution (particularly in warmer lowland sites).

To restore greater glider populations, there is a critical need for the Government to invest in translocating the greater glider back to Booderee National Park. Due to the rate of decline in other glider populations – especially lowland coastal populations – this translocation program would be a significant step in recovering glider populations, especially in areas of cultural significance. In addition, the translocation will be the first to explore the translocation potential of this species; this knowledge will be essential for ensuring their persistence in our changing climate and will form the basis of significant works towards downlisting the species.

The translocation and reintroduction of the greater glider to Booderee National Park would be delivered in partnership with NGOs, Parks Australia, ANU, and the Wreck Bay Aboriginal Community. In the past, Wreck Bay community members on the Joint Board have expressed a strong desire to see the glider re-established in BNP.

It would be research-based and underpinned by robust monitoring and high levels of community engagement. It would be one of the first terrestrial translocations to be conducted in response to climate change impacts. However, the level of planning and preparation would be some of the most advanced and well-considered for any Australian translocation program to date.

This proposal would complement and work in conjunction with the Rewilding priority landscapes Proposal in Booderee National as outlined in Proposal 4.

## Proposal 4: Rewilding priority landscapes

### Affected agency:

Department of Climate Change, Energy, the Environment and Water

### Financial implications:

\$1,215,100 over three years

### Cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	Total
<b>Rewilding Lungtalanana</b>	\$384 700	\$332 400	\$168 000	\$885 100
<b>Booderee National Park</b>	\$110 000	\$110 000	\$110 000	\$330 000
<b>Total</b>	<b>\$494 700</b>	<b>\$442 400</b>	<b>\$278 000</b>	<b>\$1 215 100</b>

### Proposal outline:

Rewilding aims to enhance the resilience of landscapes to current and future threats by reintroducing native species and restoring populations that are vital to productive and healthy ecosystems. This proposal seeks to return threatened, iconic, and culturally significant species in two priority areas; Lungtalanana and Booderee National Park.

Key learnings from these projects will inform the direction of further rewilding strategies to scale solutions for restoring key species in priority Australian landscapes.

### ***Creating a safe haven for threatened native species in Lungtalanana***

Lungtalanana (Clarke Island) is an Indigenous managed island within the Furneaux Group of Bass Strait islands. The island lies at the interface of mainland and Tasmanian ecoregions and provides climatically suitable habitat for a range of species including the southern brown bandicoot, long-nosed potoroo, eastern quoll, eastern barred bandicoot, New Holland mouse, long-tailed mouse, and broad-toothed rat. Besides the broad goal to restore native wildlife species, rewilding Lungtalanana will also provide a proof-of-concept for invasive species management-led rewilding of other Bass Strait islands, including Cape Barren and Flinders islands.

This proposal seeks support for an ambitious Indigenous-led ecosystem restoration goal of Lungtalanana. The Tasmanian Aboriginal Centre (TAC) has recently partnered with WWF-Australia and University of Tasmania to develop a program to remove feral cats and restore a suite of culturally important and threatened species that are now absent from the Indigenous owned and managed island including Bass Strait Islands wombat, Bennett's wallaby, long-nosed potoroo, and eastern quoll. In order to continue the restoration of species on Lungtalanana, total additional funding required is \$885,100 over three years. This project has the potential to provide a superb example of Indigenous-led land management and ecosystem restoration of Tasmania's landscapes. A significant component of the project would involve utilising and upskilling Indigenous rangers to manage threats to wildlife on the island and undertake monitoring and management of the fauna that is translocated to the island. Rangers would also restore cultural burning practices on the island that would provide a mosaic of habitat that a range of species can utilise, whilst reducing the risk of catastrophic fire. Scaling up to significantly larger islands within this region, including Cape Barren Island, could be achieved with additional funding of approximately \$3.3 million dollars.

### ***Rewilding Booderee National Park***

Over the last century Booderee National Park has suffered declines and extinctions of many native species, especially mammals. Active management of invasive species has stabilised declines of many native species and created conditions considered suitable to trial reintroductions. This proposal would trial reintroductions of at least three regionally extinct mammals; the southern brown bandicoot, the long-nosed potoroo and the eastern quoll. The program would examine factors needed for the re-establishment and persistence of reintroduced mammals, consider possible impacts on local ecosystems and how to mitigate them, and determine best-practice translocation procedures for selected mammals. Findings would benefit threatened mammal conservation within and beyond the park. The proposed project is within a joint-managed Federal National Park (with Parks Australia and Wreck Bay Aboriginal Community) and would work with these partners in implementing this proposal.

#### **Rationale:**

In the context of Australia's extinction crisis and ongoing threats, it is no longer sufficient to simply prevent further extinctions or ecosystem degradation; it is necessary to restore what we've lost. Rewilding aims to enhance the resilience of our landscapes to current and future threats by reintroducing native species and restoring populations that are vital to productive and healthy ecosystems.

The highly distinctive and mostly endemic Australian land mammals have suffered an extraordinary rate of extinction over the last ~200 years. In comparison, only one native land mammal from continental North America became extinct since European settlement. A further 21% of Australian endemic land mammal species are now assessed to be threatened, indicating that the rate of loss (of one to two extinctions per decade) is likely to continue.<sup>10</sup>

By investing in strategies to manage or exclude threats, or assist animals to migrate away from threats, the Government can contribute to the understanding of the optimum long-term strategies required to restore species and ecosystems. This work is critical to restoring key species and ecosystems, however government support is urgently needed to expand these programs.

#### **Strategic policy alignment:**

This project is aligned with the Federal Government's 2021-2031 Threatened Species Strategy, which lists six prioritisation principles; (i) risk of extinction, (ii) multiple benefits, (iii) feasibility and effectiveness, (iv) uniqueness, and (v) representativeness. All six principles and their sub-points (as listed within the Strategy) are embodied within this project. By reintroducing and restoring key native species, this proposal also aligns with the Government's commitment to zero threatened species, as well as the Kunming-Montreal Global Biodiversity Framework targets.

#### **Implementation:**

##### ***Lungtalanana***

The project activities to restore Lungtalanana would include:

- Resuming cultural burning, preventing future catastrophic fire events and healing Country,
- Eradicating feral cats from the island, creating an 82 km<sup>2</sup> safe haven for threatened native mammals and migratory birds,
- Reintroducing conservation priority and culturally important species, such as the New Holland mouse, long-nosed potoroo, and Bass Strait Islands wombat.

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<sup>10</sup> Woinarski et.al, 2015. Ongoing unraveling of a continental fauna: Decline and extinction of Australian mammals since European settlement

On-country community engagement, ranger training, ecological surveys, and further fundraising has already commenced. This proposal presents an important opportunity for the Australian Government to support the Indigenous Tasmanian community, achieve their ecosystem restoration goal, and protect threatened species.

### ***Booderee National Park***

To reintroduce regionally extinct mammals into Booderee National Park, the rewilding strategies would include;

- Introducing the long-nosed potoroos to Bowen Island in Jervis Bay to provide a source population for future reintroduction of potoroos to Booderee National Park.
- Constructing a 4km predator proof enclosure at the Booderee Botanic Gardens for the translocation of eastern quolls. This would provide a source population for future reintroductions beyond the fence at Booderee National Park. Southern brown bandicoots, long-nosed potoroos, and eastern quolls would be released into the fenced site to establish secure populations.
- Eventually releasing southern brown bandicoots, long-nosed potoroos, and eastern quolls into unfenced, predator managed areas of Booderee National Park.
- Ongoing fox monitoring and management within and adjacent to Booderee National Park.
- Developing eco-tourism opportunities for Wreck Bay Aboriginal Community at Booderee Botanic Gardens site (e.g. spot-light walks).

This proposal would complement and work in conjunction with the proposed greater glider translocation into Booderee National as described in Proposal 3.

### **Value for money:**

The Lungtalanana project delivers exceptional value for money as the biosecurity of the island provides very low opportunity for reinvasion of invasive species. This improves the likelihood that a short-term funding arrangement to remove threats and restore biodiversity will have long-term ecosystem-health benefits. The cultural significance to the Indigenous Tasmanian community and the land tenure as an Indigenous Protected Area also provides assurances that the site will be provided with ongoing monitoring and management under existing Indigenous Ranger group structures that service the island (both the Truwuna and Pakana Aboriginal Ranger groups).

The Booderee National Park project provides an example of cost and resource-sharing collaboration between Government, universities, and NGOs, in one of Australia's longest site-monitoring programs – that provides data to support improved management of the National Park.



## Proposal 5: A national wildlife health network

### Affected agencies:

Department of Climate Change, Energy, the Environment and Water

### Financial implications:

\$29 million over four years

### Cost of proposal:

	2023-24	2024-25	2025-26	2026-27	Total
Wildlife health services	\$5m	\$5m	\$5m	\$5m	\$20m
Veterinary emergency response	\$1.5m	\$1.5m	\$1.5m	\$1.5m	\$6m
National wildlife database	\$1m	\$1m	\$0.5m	\$0.5m	\$3m
<b>Total</b>	<b>\$7.5m</b>	<b>\$7.5m</b>	<b>\$7m</b>	<b>\$7m</b>	<b>\$29m</b>

### Outline of proposal:

Saving Australian native wildlife from extinction and increasing the survival rate of wildlife that require professional health care is a national priority. This package would allocate \$29 million over four years to help support trained and authorised wildlife response teams and veterinary professionals. It includes support for;

- *Wildlife health services*: \$20 million would support the ongoing cost of treatment and hospitalisation of wildlife in veterinary facilities who are limited by competing priorities and commercial realities.
- *Veterinary emergency response*: \$6 million in environmental stewardship payments would incorporate veterinary professional services in emergency response units across all states and territories and improve the ability of veterinarians to respond to wildlife emergencies through the provision of resources and training in emergency wildlife management, national standards for triage and treatment, and coordinated communication pathways.
- *National wildlife database*: \$3 million would establish a platform and database to store and analyse information on the number of wildlife that enter veterinary care using standardised data collection methods. This would be aligned with and complementary to information captured from wildlife rehabilitation facilities through state government environment agencies, and the National Sentinel Clinic Wildlife Disease Surveillance Program. This database would underpin a national monitoring network to identify emerging risks, patterns of disease and population trends to direct targeted surveillance projects and conservation strategies.

### Rationale:

This proposal seeks to address the needed funding for three key areas of wildlife health.

#### **Wildlife health services**

General practitioner veterinarians and private veterinary hospitals provide first line care for wildlife in alignment with the relevant state code of practice. The majority (90%) of veterinary practices never or rarely received reimbursement for their wildlife work<sup>11</sup>. In addition, during environmental

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<sup>11</sup> Orr, B. and Tribe, A., 2018. Animal welfare implications of treating wildlife in Australian veterinary practices. *Aust Vet J*, 96: 475-480

extreme events, the number of injured animals that require care have overwhelmed the capacity of wildlife rehabilitation organisations and veterinary professionals that face existing and ongoing challenges such as a lack of funding and knowledge regarding wildlife care.<sup>12 13 14</sup>

### ***Veterinary emergency response***

The increasing frequency and intensity of extreme weather events presents a serious and ongoing threat to Australia's native animals. The 2019/20 Australian bushfires are estimated to have impacted nearly 3 billion native animals contributing to a rate of Australian mammal extinction over the last 200 years that is unparalleled. During times of crisis, wildlife are not currently incorporated into state emergency response actions which has resulted in prolonged times to receive veterinary care and decreased survival rates. Additionally, a lack of adequate resources and national standards for triage and treatment have reduced the efficacy of veterinary interventions and have placed significant pressure on volunteer-based organisations in the wildlife sector to absorb the costs of this funding gap.

### ***National wildlife database***

Zoonotic disease and ecosystem disruptions are estimated to rise due to the increased interface between domestic animals, humans and wildlife necessitating early and accurate monitoring programs.<sup>5</sup> Funding available through the National Significant Disease Investigation program, Wildlife Health Australia, Wildlife Disease Investigation Fund and One Health Investigation Fund are important resources that support elements diagnostic investigations.<sup>6</sup> However, the lack of funding to support reporting of wildlife which enter veterinary care has resulted in variable and incomplete data. Funds to implement a national database are necessary to determine reliable patterns and priorities in wildlife population dynamics, support early identification of wildlife health events, and inform action.

Funding these key areas of wildlife health would support the survival of Australian native animals and improve resilience as the risk of environmental extremes and pandemic potential rises with an increased human-wildlife interface.

### **Implementation:**

To implement much needed wildlife health care services, leading wildlife health stakeholders agree that a body for national coordination and collaboration is required to represent all jurisdictions and engage key stakeholders at all levels of wildlife health management. They should have the capacity to implement an easily accessible, open, centralised database and information sharing system for wildlife rehabilitation and veterinary admissions that would allow for the appropriate allocation of wildlife health service funding to veterinary facilities.

This body should also integrate with the National Emergency Management Agency during all hazard emergencies to coordinate a national network of interchangeable resources and trained wildlife professionals to provide swift support through clear communication pathways while adhering to national standards of wildlife care. Engagement of the network must occur in alignment with national and jurisdictional emergency and incident response frameworks (a "One Rescue"

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<sup>12</sup> Haering R, Wilson V, Zhuo A, Stathis P., 2021. A survey of veterinary professionals about their interactions with free-living native animals and the volunteer wildlife rehabilitation sector in New South Wales, Australia. *Australian Zoologist* 41 (2): 254–282.

<sup>13</sup> Jones-Fairnie H, Ferroni P, Silburn S, Lawrence D., 2018. Suicide in Australian veterinarians. *Aust Vet J.* Apr;86(4):114-6

<sup>14</sup> Englefield, Bruce, Simone A. Blackman, Melissa Starling, and Paul D. McGreevy, 2019. A Review of Australian Animal Welfare Legislation, Regulation, Codes of Practice, and Policy, and Their Influence on Stakeholders Caring for Wildlife and the Animals for Whom They Care, *Animals* 9, no. 6: 335 and Woinarski et al. 2015

approach),<sup>7</sup> recognising the benefits for public safety of integrating animal disaster preparation and response in mainstream emergency management.

Developing a strategic integrative approach for wildlife health would require the collaboration of the Chief Veterinary Office, Wildlife Health Australia and leading wildlife health institutions to achieve effective implementation.

**Strategic policy alignment:**

This policy aligns with:

- The national koala recovery plan and Pillar 3 and 4 of the NSW Koala Recovery Strategy.
- The [Wildlife and Threatened Species Bushfire Recovery Expert Panel](#), which identifies wildlife rescue and care as a priority action.
- Iconic species that have been upgraded to endangered (i.e. the koala and spectacled flying fox) on the Australian Threatened Species List following the 19/20 bushfires.
- The [Interim Report of the Parliamentary Inquiry into Australia's skilled migration program](#): Committee recommendation to expand Priority Migration Skilled Occupation List to urgently include veterinarians due to the severe veterinary workforce shortage within Australia.
- [The National Significant Disease Investigation](#) (NSDI) national program funded by Australian livestock industries and government, which aids investigation of significant disease events in livestock and wildlife. The Program is managed by Animal Health Australia, and the wildlife component is administered by Wildlife Health Australia.
- Emergency Animal Disease Response Agreement (EADRA), a unique contractual arrangement between Australia's governments and industry groups to collectively reduce the risk of disease incursions and manage a response if an outbreak occurs.
- National Environment Biosecurity Response Agreement (NEBRA) for notifiable disease reporting and response.
- The National Priority List of Exotic Environmental Pests, Weeds and Diseases.
- ['One Health Investigation fund'](#) and World Organisation for Animal Health (OIE) Collaborating Centre initiative to be administered by Wildlife Health Australia aimed at bolstering Australia's wildlife health and early warning capabilities.

## Proposal 6: Legal Advisory Service to support least-developed countries and small island developing states in plastic pollution treaty negotiations

### Affected agencies:

Department of Climate Change, Energy, the Environment and Water  
Department of Foreign Affairs and Trade

### Financial implications:

\$2 million over four years

### Cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
<b>Establishment and operation of Legal Advisory Service</b>	\$550 000	\$550 000	\$450 000	\$450 000	\$2 000 000

### Proposal outline:

Following agreement at the UN Environment Assembly in early 2022 to start work on an international agreement to end plastic pollution, a WWF-Australia-led consortium has undertaken initial work to establish a global service providing legal support to developing countries. The Service was successfully piloted at the first round of treaty negotiations and now seeks investment to scale-up and operate throughout treaty negotiations and early stage implementation.

This innovative initiative would leverage modest investment to deliver pro bono legal advice from major international law firms and research institutes. Highly professional, accessible and timely legal support would contribute to developing country delegations' deep engagement in treaty development, potentially enhancing commitment to implementation. The Service would have global coverage, but greatest need and use is anticipated from Pacific Island and African countries.

### Rationale:

UN Environment Assembly Resolution 5/14 entitled 'End plastic pollution: Towards an international legally binding instrument' agreed to establish an Intergovernmental Negotiating Committee and set out its mandate and an outline of the scope of the instrument. This decision marks a major milestone. The agreed goal of ending plastic pollution can only be achieved with an ambitious and comprehensive treaty, including global rules and other measures, effectively implemented by a significant majority of UN Member States. This requires substantive engagement in negotiations from all governments, including those most affected by plastic pollution.

UN negotiations tend to be dominated by well-resourced, wealthy countries. This creates a highly unequal playing field, which limits the ability of many countries to fully participate and lift the level of overall ambition. This risks the final instrument not sufficiently meeting the needs and ambition of developing countries, including those most adversely affected by plastic pollution.

One of the barriers to full participation is inadequate access to timely legal and technical expertise, particularly at the negotiations themselves. While many countries will have legal counsel within their negotiating teams, smaller delegations will not. Negotiations on other international treaties have shown that timely and effective legal assistance for small delegations is an invaluable resource.

Legal expertise and an understanding of the mechanisms of international law can assist delegations to assess their position; effectively navigate the interaction between new and existing obligations,

provisions and measures; and work through implications and implementation of these measures at a national level.

**Strategic policy alignment:**

There is significant overlap between Australia’s and Pacific Island countries’ policy positions on a global plastics treaty. Pacific nations are particularly negatively affected by plastic pollution, and support strong regulatory measures on plastic production, design and use, as well as improved transparency and accountability of plastic producers. This process is a high priority for the region, as indicated by the ‘One Pacific Strategy for enhanced, effective engagement at INC1’ and the ‘Pacific Regional Declaration on the Prevention of Marine Litter and Plastic Pollution and its Impacts’.<sup>15</sup>

Australia has signalled its intention to play a constructive leadership role in treaty negotiations. In November 2022 Australia joined the intergovernmental High Ambition Coalition to End Plastic Pollution. In its submission to the first negotiation session, the Government stated that *‘addressing plastic pollution through a new global instrument is a key pillar of Australia’s international environmental agenda.’*<sup>16</sup>

This proposal offers a unique opportunity for the Australian Government to provide targeted and tangible support to our Pacific partners to effectively engage in a process of significant importance to the region; to assist in building capacity within the region on international environmental law; and to make a substantial contribution to a once-in-a-lifetime opportunity to take meaningful global action to end plastic pollution. This would enhance existing collaboration, for example through the Pacific Ocean Litter Project.

**Implementation:**

The Legal Advisory Service was piloted at the first round of treaty negotiations in Uruguay in November/December 2022. Awareness of the service among potential clients is now widespread, and the service responded to around 30 requests from national delegations and regional organisations over the course of the negotiating session. The majority were from Pacific Island delegations.

A small team present at negotiations takes requests of a legal nature from developing country delegations that support a robust and effective treaty. These are answered onsite where possible or delegated to the global network of experts. The network comprises world-class environmental law specialists from around the world, sourced from major law firms and academic institutes.

Advice would be provided to national delegations at no cost, within 24 hours to meet the demands of negotiations. The service would provide advice and guidance outside of the negotiations, including technical briefings. This would be demand-driven, with briefings responding to specific requests from delegations, or responding to trends in requests, and anticipating future needs based on previous use of the service.

Capacity-building opportunities, potentially including developing country legal placements with the service, are currently being explored. An investment of \$2 million would enable the Service to operate both throughout treaty negotiations and for the first two years of treaty implementation, during which time national governments would benefit from additional support to incorporate treaty obligations into national law.

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<sup>15</sup> SPREP, 2022. One Pacific: First meeting of the Intergovernmental Negotiating Committee (INC-1) to develop a legally binding instrument on plastic pollution; SPREP Ministers’ Cir#21/113: Pacific Regional Declaration on the Prevention of Marine Litter and Plastic Pollution and its Impacts.

<sup>16</sup> Australian Government submission to INC1. Available at: [https://apps1.unep.org/resolutions/uploads/australia\\_updated.pdf](https://apps1.unep.org/resolutions/uploads/australia_updated.pdf)

While network members (legal firms and research institutes) will provide their services, pro bono, financial support is required to:

- Establish and run the service;
- Manage the service both during and between negotiating sessions;
- Participate in person in negotiating sessions and potentially intersessional work, on request; and
- Explore and implement capacity building components of the project.

Substantial investment has already been made in the project by WWF-Norway, WWF-Australia and Lexbridge Lawyers during the pilot phase. Project funding will build on that investment, leverage pro bono support, and enable continuation of this important service for four years.

**Value for money:**

WWF-Australia expects an investment of \$2 million to leverage more than \$5 million of pro bono legal advice over the project period. This is a conservative calculation based on the expected volume of inquiries (based on usage rates of the climate change legal initiative) multiplied by an average hourly rate for legal services of this nature.

## Proposal 7: Investing in Nature-based Solutions as part of Australia's International Development Program

### Affected agency:

Department of Foreign Affairs and Trade (DFAT)

### Financial implications:

\$400 million over four years

### Cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
<b>Targeted investments in nature-based solutions in Asia-Pacific region</b>	\$100m	\$100m	\$100m	\$100m	\$400m

### Proposal outline:

The twin ecological crises of climate change and biodiversity loss provide almost daily reminders at home and abroad of the increasing urgency to work with nature to support social, economic and ecological resilience across the Pacific and Asia. In order to combat the manifold effects of climate change and biodiversity loss across the Pacific and Asia, WWF-Australia proposes that the Federal Government builds the strategic foundation for a nature-positive International Development Program by investing at least \$100 million annually in initiatives that have the primary objective of achieving development outcomes through the protection and restoration of nature and climate-critical ecosystems.

### Rationale:

Addressing poverty and inequality cannot be effective or sustainable without addressing the interconnected global crises of climate change and biodiversity loss. Communities that are particularly dependent on nature for their livelihoods are the most directly affected by nature loss and climate change and these issues have the potential to undo decades of development progress.

Acknowledging the links between the global biodiversity and climate crises, national governments are increasingly recognising the critical role that nature plays in supporting development outcomes as well as climate change adaptation and mitigation. Nature-based Solutions (NbS) provide a widely accepted framework for harnessing nature to benefit biodiversity and human well-being. In the last two years, the United States, France, United Kingdom and Germany have all committed to mainstreaming biodiversity and investing in nature-based solutions within their international development programs.

WWF-Australia has consistently advocated for nature-based solutions to be mainstreamed into Australia's international development program through the adoption of a strategic target that at least 80% of aid investments, regardless of their objectives or sectoral focus, effectively address environmental issues. While a great deal can be achieved by mainstreaming biodiversity into broader development initiatives, there is still a need for specific, targeted investment in protecting, restoring and/or sustainably managing nature. Investing \$100 million annually in targeted solutions

that have the primary objective of achieving development outcomes through the protection and restoration of nature is aligned with commitments made by other developed countries, as well as the need globally for funding nature-based solutions to climate change. The United Nations Environment Program, which estimates that by 2030 nature-based solutions can deliver emission reductions of up to 11.7 GtCO<sub>2</sub>e per year,<sup>17</sup> is urging investments in nature-based solutions to triple by 2030 to close a USD 4.1 trillion financing gap in nature by 2050.<sup>18</sup>

Aligned to this is the Kunming-Montreal Global Biodiversity Framework (GBF) agreed to in December 2022 by all parties, including Australia, to the UN Convention on Biological Diversity. This includes an agreement to increase international biodiversity finance through a dedicated and accessible GBF Fund.<sup>19</sup> WWF-Australia welcomes this historic deal and we strongly support the Government's commitment to increase its international public finance for nature to support developing countries implement the GBF. Continuing to increase the amount of finance for biodiversity is vital to implement the GBF at the scale needed to halt and reverse nature loss. It is also important that these contributions are new and additional financial commitments that complement and align with Australia's Official Development Assistance. Investing \$100 million annually in nature-based solutions within the international development program would directly support development and biodiversity outcomes in the Asia-Pacific region and would both complement and be complemented by additional investments into a Global Biodiversity Fund.

#### **Strategic policy alignment:**

The Government is currently consulting on its international development policy. This is a unique opportunity to set the long-term direction for Australia's international development engagement and ensure that it is nature-positive. This proposal provides an opportunity to align Australia's development program with national policies and global agreements on climate change and nature loss. Significant progress is being made in Australia towards delivering a nature-positive future which can be leveraged and scaled within the region. This includes a zero species extinction target aimed at halting species decline, a commitment to conserve at least 30 per cent of terrestrial, inland water, and of coastal and marine areas by 2030, a commitment to reverse biodiversity loss by 2030 as well as Australia's bid to host COP31 with the Pacific. Greater investment into nature-based solutions would help develop exportable knowledge and case studies to demonstrate the value of these solutions at COP31 in 2026.

Importantly, this proposal is incredibly complementary to Australia's commitment to the GBF. Section two of the Framework focuses on meeting people's needs through sustainable use and benefit-sharing, this involves targets on the sustainable management of agriculture, aquaculture, fisheries and forestry and ensuring that nature's contribution to people is restored. A nature-positive international development program and an annual investment of \$100 million to augment the mainstreaming of biodiversity across the development program is critical to supporting partner countries in effectively and equitably implementing the GBF.

#### **Implementation:**

The Australian aid program's longstanding investments supporting community-based coastal fisheries management, forest carbon and regenerative agriculture projects, are helping communities to manage their resources and protect the ecosystems upon which they and their economies

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<sup>17</sup> UNEP, 2021, Nature-based solutions for climate change mitigation. Available at: <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/37318/NBSCCM.pdf>

<sup>18</sup> UNEP, 2021, State of Finance for Nature. Available at: <https://www.unep.org/resources/state-finance-nature>

<sup>19</sup> UNEP, 2022, Convention on Biological Diversity, Resource Mobilisation, Decision submitted by the President



depend. Through more ambitious international NbS investments as part of Australia’s international development policy, Australia can bring those investments, and their direct benefits to people and nature, to scale.

The Government’s current programs of work such as its Climate Resilience by Nature (CRxN) partnership with WWF-Australia, contributions to the multilateral Kiwa Initiative, and other regional and bilateral programs, are advancing high-integrity, equitable nature-based solutions to climate change in Southeast Asia and the Pacific. WWF-Australia has seen first-hand the benefits of investing in nature-based solutions through CRxN. In its first year, CRxN provided funding and technical support to develop eight NbS projects that supported community development aspirations through the protection and/or restoration of climate-critical ecosystems. These projects are harnessing the power of nature to directly support more than 20,000 people across the region build their social and ecological resilience.

A targeted investment of \$100 million annually in nature-based solutions would scale and expand on these investments in the Pacific and Southeast Asia to the benefit of both people and nature.

**Value for money:**

Through CRxN, WWF-Australia is seeing the immense value and wide-scale impact of targeted funding into high-integrity, community-centred nature-based solutions. This is reflected in a recent study of NbS in the Pacific region, commissioned by the CRxN program, which found that ecosystem-based approaches can strengthen development and climate outcomes across all development sectors.<sup>20</sup>

Moreover, there is a growing body of research that demonstrates how nature-based solution deliver social and ecological benefits while achieving remarkable value for money. For example, recent research from the International Institute for Sustainable Development (IISD) demonstrated that nature-based infrastructure costs around 50% less than equivalent built infrastructure while delivering the same – or better – outcomes. Examining examples such as using reefs and mangroves instead of concrete seawalls and complementing waste treatment plans with wetlands, IISD calculate that meeting just 11% of global infrastructure needs with nature-based, rather than tradition or “grey”, infrastructure could save USD248 billion a year.<sup>21</sup>

Further substantial investments are needed to mainstream NbS across various sectors – such as infrastructure, climate action, and food security - in the Asia-Pacific region. The relatively modest but long-term investments proposed would leverage Australia’s existing investments in the prosperity and stability of our region, and build a strong foundation for a nature-positive International Development Program.

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<sup>20</sup> Youngs, K, J Johnson, and B Basel, 2022. Review of Nature-based Solutions in the Pacific Region: Focus and Opportunities

<sup>21</sup> IISD, 2021. Using nature in infrastructure projects could save USD 248 billion a year - study

## Proposal 8: Creating a stronger, more resilient Fijian longline tuna industry, through technology-enabled data and transparency

### Affected agencies:

Department of Agriculture, Fisheries and Forests  
 Department of Foreign Affairs and Trade

### Financial implications:

\$4.5 million, over 3 years

### Cost of proposal:

	FY 23-24	FY 24-25	FY 25-26	Total
<b>Support capacity and capability building within the Fijian Ministry of Fisheries / local stakeholders</b>	\$1m	\$1m	\$1m	\$3m
<b>Program management and technology implementation</b>	\$0.5m	\$0.5m	\$0.5m	\$1.5m
<b>Total</b>	<b>\$1.5m</b>	<b>\$1.5m</b>	<b>\$1.5m</b>	<b>\$4.5m</b>

### Proposal outline:

This proposal is promoting the need for technology driven transparency solutions to build resilience into Fiji's longline tuna industry. It aims to support the Fijian Government in enhancing the value of its local longline tuna industry through technology-enabled supply chain transparency.

WWF Pacific has worked closely with Fijian longline tuna fishing operations and Fiji's Ministry of Fisheries for a decade to develop technology-based traceability solutions. In response to the success of an initial Fijian pilot program in 2017, WWF-Australia co-founded OpenSC, a supply chain transparency platform. OpenSC's technology was then developed and proven 'at scale' in two Australian fisheries, enabling automated and real-time verification of fishing activities and blockchain traceability from vessel to market.

Since 2020, WWF's Pacific (Fiji office) and Australian teams and OpenSC have been working together to adapt OpenSC's solution to suit the Fijian longline tuna industry and bring greater transparency to this supply chain. As part of an initial proof of concept, WWF engaged directly with one Fiji fishing company, Solander Pacific, to successfully demonstrate the applicability of the technology. The next phase, designed to deliver real 'on the water' change at scale, will require implementing this transparency solution across the entire Fijian longline tuna fleet, with the support of the Fiji Ministry of Fisheries (MoF).

This cooperative arrangement will comprise two components; i) the application of the supply chain transparency technology, based on a "confidential" data-sharing arrangement between the parties and ii) building capacity and capability within the MoF to support implementation of the program.

This holistic approach will be the focus of the ‘resilient and transparent Fijian tuna industry’ program.

This technology would build off and utilise OpenSC’s pre-existing platform and would focus on three core capabilities:

1. Verification of fishing activity: Utilising existing data sources, and machine learning models to automatically and continuously monitor fishing activity in real time in support of improved fisheries management.
2. Traceability: Creating a secure chain of custody via reliable, real-time digital traceability that addresses illegal, unreported and unregulated (IUU) fishing and conservation goals.
3. Reporting: Supporting automated generation of reports and documentation for use by industry and fishery managers to meet emerging international traceability requirements.

The implementation of this solution would support three key goals, identified by the Fijian Ministry of Fisheries as critical to the long term sustainability of the longline tuna industry:

1. Securing market access: Meeting traceability requirements for international import regulations (e.g., SIMP) will secure economic benefits through preferential sourcing in export markets
2. Eliminating IUU fishing: Monitoring fisheries to eliminate IUU caught tuna will ensure Fiji’s government is receiving the full economic value from their natural capital.
3. Implementing sustainability policies effectively: Monitoring and compliance will facilitate programs such as Fiji’s national marine park area expansion as part of its “30 x 30” marine protected areas commitment.

Verification and traceability will not only bring improved transparency to supply chains, they will amplify opportunities for product differentiation. With buyers and retailers increasingly making commitments to ESG and implementing science-based targets, the potential to deliver price premiums for exported tuna products is growing.

#### **Rationale:**

More than 60% of the world’s tuna comes from the Pacific, with tuna fisheries estimated to be worth \$5-7 billion annually to Pacific Island economies.<sup>22</sup> Despite the importance of this resource for the region, overfishing and IUU fishing are posing a serious threat, with IUU costing the Pacific ~\$350m USD annually.<sup>23</sup> In conjunction, predicted decreases in stock and changing tuna migratory patterns will continue to impact fishing nations, local economies and livelihoods.<sup>24</sup>

Another challenge has been created through the increasing demand for traceability and transparency of traded seafood by supply chain actors and consumers, leading to changing international regulations and stricter traceability requirements from importing countries (i.e., US, Australia, Japan and Europe). The requirement for seafood products to be able to be tracked from ‘bait-to-plate’ is placing an additional cost burden on producing country governments and industry. Concurrently, effective management of longline tuna fisheries in the Pacific are being undermined by inadequate monitoring, control, and surveillance. Digital supply chain transparency is widely

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<sup>22</sup> Hanich, Q., Jung, M., McDonald, A., Oh, S., Moon, S., 2021. *Tuna Fisheries Conservation and Management in the Pacific Islands Region*. Asia-Pacific Journal of Ocean Law and Policy. Volume 6 pp 192-220

<sup>23</sup> MRAG Asia Pacific, 2021. The Quantification of Illegal, Unreported and Unregulated (IUU) Fishing in the Pacific Islands Region – a 2020 Update. p125

<sup>24</sup> Bell, J.D., Senina, I., Adams, T. et al., 2021. Pathways to sustaining tuna-dependent Pacific Island economies during climate change. *Nat Sustain* 4, 900–910

acknowledged as being capable of addressing both key management risks and traceability inspired cost imposts in longline tuna fisheries.

Building on the technology and capacity it has developed from previous work in Fiji, the OpenSC platform is well positioned to provide robust, digital supply chain transparency for the Fijian longline tuna industry through its cooperative engagement with the Fiji MoF. The approach of this program also acknowledges that the ongoing success of implementing this technological solution will require a dedicated effort to build capability and capacity within Fiji's MoF through systems development, training, resourcing and back-end support.

**Strategic policy alignment:**

Australia has a long-standing interest in the success of its near neighbours. For many Pacific Island countries, economic success depends heavily on the management of fisheries, especially tuna, which accounts for a major share of economic output, government income and export revenue. The sustainable management of offshore fisheries is a strategic priority for the Government of Fiji and other Pacific Island Countries and Territories (PICTs).

The importance of food systems in the context of climate change was recognised for the first time at COP27 and has been acknowledged for inclusion in future COPs. Aquatic food systems facing the highest risk from climate change are located in regions where communities' and nations' reliance on aquatic foods is highest and where the capability to respond and adapt to impacts is lowest (e.g. Asia-Pacific). The Australian Government is bidding to host COP31 in 2026 in partnership with Pacific nations. If the bid is successful, COP31 could provide an opportunity to showcase the role of Australian technology in securing resilient and viable aquatic food systems that support livelihoods in the Pacific.

There is also positive alignment with existing Fiji Government policy. In particular, the Fiji Ministry of Fisheries Strategic Development Plan 2019 – 2029 includes the following short-term priorities:

- Develop a sustainable and profitable tuna industry,
- Improve service delivery through technology,
- Develop 'hook to fork' traceability.

This proposal will align strategically with several existing tuna transparency initiatives in the Western Central Pacific Ocean designed to tackle IUU and deliver improved economic benefits to Pacific Island countries.

**Implementation:**

The program would be delivered in a partnership of WWF (Pacific and Australia), the Fijian Ministry of Fisheries, OpenSC working with local stakeholders. It would build off learnings from aforementioned previous work in the region and will adjust and add to technology already developed by OpenSC in Australian fisheries, in order to minimise development time and costs. The approach is founded on the substantiated view that the solution must be regulator driven to be scalable and create systemic change.

The program will be undertaken across three phases, with activities focused on capacity and capability uplift of the Ministry of Fisheries and technology implementation:

**Phase 1: Research and review**

- Data and documentation review of the Ministry of Fisheries manual and digital records
- Needs and gaps analyses in relation to existing tuna monitoring and reporting
- Broader landscape analysis of international regulatory import standards/requirements
- Capacity/capability gap review within the Ministry of Fisheries.

#### Phase 2: Design and develop

- Implement multi-year capacity and resourcing and training strategy
- Design digital Chain of Custody model, utilising available Ministry of Fishery information, aligned to international import standards (e.g. Key Data Elements)
- Co-develop implementation plan across 1-2 fishing company's vessels, scale up plan
- Utilise OpenSC platform to develop, configure, or adjust relevant digital chain of custody solution
- Define and document required process change for MoF to support platform and data outputs.

#### Phase 3: Implementation, adjust and scale

- Training with relevant fishing company crew and Ministry of Fishery staff on use of solution, process change and required upskilling
- Acquire and install required hardware and run implementation across multiple fishing vessels
- Utilise implementation findings to adapt and scale up plan and adjust solution as required.

#### **Value for money:**

Whilst the focus of this program will be solely on Fiji, many other Pacific Island nations are facing the same challenges to improve transparency to meet international trade obligations in order to secure the economic benefits that flow from their longline tuna industries. We envisage this program to act as a 'pilot' for the region's longline fleets and a launchpad to scale the OpenSC solution across longline fleets in key Pacific countries. All learnings would be consolidated and used as input for any future regional programs, minimising implementation time and costs. Minimising costs of development will ensure future funding and focus can be on capacity building and implementation at scale across multiple fishing fleets across the Pacific, building impactful, sustainable and transparent management of Pacific tuna longline fisheries.