

WØRLD ECONOMIC FORUM

In collaboration with Deloitte

Embedding Indigenous Knowledge in the Conservation and Restoration of Landscapes

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Foreword: Acknowledgement of Country

In Australian Indigenous culture, we hold that we are of the landscape. Our language and culture are formed by it. It is our Mother. We have many names for it, but the simplest term we have for it is "Country".



Deen Sanders Proud Worimi Man and Integrity Practice Leader, Deloitte, Australia

My people (the Aboriginal and Torres Strait Islander people of Australia) are part of a global community of Indigenous peoples who have nurtured the land, carved story in it, sung and danced and cared for every inch of its vast landscape as ecological scientists and nature resource managers, since time immemorial.

As the world's oldest continuous culture, my people have lived through time measured on a geological scale, witnessed multiple ice ages and adapted to transformative climate change. The plain truth is that the scale and consequence of this present change is different, and the tools and authority for addressing it are no longer ours alone. The history of our globalizing community and the social, political and economic systems that underpin it have brought us all to the precipice of systemic collapse. The circumstances are more urgent than before, the context more complex, but – just as it has always been – the answer lies in a better understanding of nature, a better (proper) relationship with our landscapes and, as ever, it is the knowledge and sense of responsibility of Indigenous people, as custodians of landscape, that best place them to help everyone come into a proper relationship with nature, with "Nayiri Barray" – our Mother.

We are hopeful that, because now is different, people will listen differently, and then, that they will act differently. There is an opportunity (and necessity) for a new relationship to be struck between economies and nature. The Indigenous people of the world are best placed to be the negotiators of this new relationship because we have the deepest knowledge and we also experience the deepest consequences when things go wrong. For us, nature cannot be separated from survival, from life, from responsibility. It is life. It demands our responsibility.

Being responsible begins with acknowledging the relationality we hold with the land we stand on. Wherever we are is our Mother. The authors of this report (Indigenous and non-Indigenous) come from all lands and we pay our respect to the elders (past and present) of the lands from which contributions to this report have emerged, and the land on which you are reading this report now.

BOX 1 A note on acknowledging Country and landscape

"Acknowledgement of Country" is the term used in Australia (while "Land Acknowledgement" is common in the United States and Canada) as a form of showing respect to the land and the Indigenous peoples of the lands on which we all live and work, and to honour their continuous connection to the landscape. Many individuals generously provided their time and insights into this report. A separate acknowledgment for these individuals is provided at the end of the report.

This report is ultimately about prioritizing the voice of nature and those Indigenous peoples who have spoken for it for millennia. An essential, shared principle of Indigenous cultures is that land has agency and deserves our respect as an active participant in our work. In Australian Indigenous culture, we hold that we are of the landscape. Our language and culture are formed

I acknowledge that all of us are only here today because of the sacrifice and curatorial responsibility our elders carried and continue to carry for these places. I also want to acknowledge any Indigenous brothers, sisters and elders who read this report or who are asked to give their leadership and knowledge, because we share responsibility across the globe for the health of our shared system.

Marrungbu – Thank you

by it. It is our Mother. We have many names for it in the languages of our cultures and those words multiply in Indigenous culture across the globe. The simplest term we have for it is "Country". Others call it "land".

We always acknowledge Country or landscape at the beginning of important work and reports as a way of recognizing that the very existence of everything relies on it and that, as the central author and participant in the work, it connects everyone who worked on and who will read this report. We readers, researchers and writers can share in this report because of the lands that join us all, because of the peoples whose knowledge informs this work and the content that is intended to speak to us all.

– Deen Sanders



Executive summary

Respecting Indigenous peoples' cultural knowledge, rights and responsibilities will boost the resilience and long-term impact of landscape conservation and restoration projects.

The current state of landscape conservation and restoration investments

Our planet is in crisis. While urgent action is needed to accelerate pathways to reduce reliance on fossil fuels, there is no viable option to keep the 1.5-degree climate target alive without also protecting, restoring and managing nature.¹

Investment has started to flow to landscape conservation and restoration projects, both to offset carbon emissions and to propel positive co-benefits such as fresh water, clean air, biodiversity protection and human wellbeing.

Often, these projects prioritize speed, scale or financial returns, without as much attention paid to long-term outcomes. However, the failure to consider long-term outcomes risks misaligning responses to shared long-term problems, misdirecting vital financial resources and failing to optimize impact and returns for the parties attempting to invest in nature and climate change. The barrier to long-term thinking is often concern around the unpredictability or complexity of unplanned outcomes.

However, complexity and long-term perspectives are the speciality of Indigenous Knowledge systems, especially when it comes to nature-based investments. Across the globe, Indigenous people have engaged in patient, observational science and practice as part of their cultural and sustainability activity for tens of thousands of years, holding knowledge of great value to any investments in nature and climate change.

So it is deeply concerning to note that even when projects take place on lands that are under Indigenous ownership or custodianship, Indigenous Knowledge about how best to achieve mutual success is often ignored and the involvement of Indigenous peoples as potential investment leaders and ecological knowledge-holders has often been limited. This is not just a failure to respect beneficial knowledge or an ignorance of opportunity, it is often a direct violation of the rights of Indigenous peoples as legal rightsholders, stakeholders and knowledge-holders, with cultural responsibilities for their landscapes.

Indigenous peoples' and local community lands cover one-third of Earth's territories. Remarkably, 91% of their lands are in good or fair ecological condition today.² This is a testament to the effectiveness of long-term Indigenous stewardship that caters to the needs of humans and their natural landscapes. Investing in partnership with Indigenous peoples embeds just and equitable approaches, while promoting system-wide resilience. As the nature and climate crisis gains pace, the resilience of conservation and restoration projects will determine their effectiveness, making this report essential reading for any investor interested in impact over the long term.

Complexities investors need to consider before engaging with Indigenous peoples

Engaging in new relationships with Indigenous peoples can be complex, rich and beneficial. And it is important to acknowledge where many of these complexities arise. The impacts of settlercolonial movements have had a devasting effect on Indigenous peoples all over the globe, causing genocide and damage to land, culture, community and knowledge, with long-term consequences for relationships with non-Indigenous business and government systems. This should not be seen as a discouragement to engagement or investment but as a statement of truth about the complexity of engaging in new relationships with Indigenous people. As a precursor to engaging with Indigenous peoples, investors should seek to understand the complexities that emerge from the legacies of settler-colonial movements. Among many others, five stand out:

- Power imbalance. While structural power inequalities between investors and Indigenous peoples' communities are deep and complex, investors can seek to minimize these by understanding how systems of government, industry and finance may disproportionately benefit themselves in negotiations and agreements with Indigenous peoples.
- Trust building. The transactional model of relationship building in business is inappropriate for building relationships with Indigenous peoples. Building trust with an Indigenous community is a long-term process and the onus is on investors to demonstrate this, by being willing to listen, learn and act on the perspectives of the community.
- 3. Knowledge transfer. Combining the insights of modern ecological science together with traditional Indigenous "Knowledge" (cultural knowledge) and business acumen has great potential in its application, but requires a thoughtful and respectful approach to bringing them together at the landscape level.
- 4. Gender roles. The patriarchal systems that continue to construct gender disparity in non-Indigenous cultures have been imported with colonial-settler systems, and now also affect Indigenous community in its intersection with government, business and non-Indigenous

society. While seeking to overcome these imported disparities, certain gender roles and responsibilities that are important to the preservation of traditional culture should be considered and respected.

5. **Cultural load**. While Indigenous peoples are being consulted more widely across a range of initiatives, this can come at a direct personal cost or "cultural load". Investors can help mitigate the costs of sharing culture, knowledge and time by understanding the extractive nature of the request, the proprietary community provenance of knowledge and ensuring appropriate compensation.

In addition to understanding these complexities, investors should seek to ensure that their projects respect both the **rights** and **responsibilities** of Indigenous peoples in their landscapes.

Following the framework of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) – including key components of the right to self-determination and free, prior and informed consent (FPIC) – is more than simply a recommendation, it is a fundamental step to recognize Indigenous peoples' rights.

Respect for Indigenous responsibilities is equally important. Indigenous communities will have practices that they are culturally bound to undertake. It is important investors understand that these responsibilities are handed down through generations and originate from the landscape.

How embedding Indigenous Knowledge concepts can help design better solutions

 Indigenous communities will have practices they are culturally bound to undertake; these responsibilities are handed down through generations and originate from the landscape. Working with different cultures and Knowledge systems is always complex and often enlightening. While every Indigenous group has its own unique culture and values, there are a range of landscapeled philosophies that are generally shared across local and global communities. Embedding the following three interrelated cross-cultural Indigenous concepts into landscape conservation and restoration solutions has the potential to increase their effectiveness and sustainability while also addressing broader ecosystem challenges.

Relational obligation can be understood as having responsibilities to elements within a landscape (e.g. water, forests, air) while maintaining the relationship between these elements. Building the concept of relational obligation into a landscape conservation or restoration project brings a deeper understanding and a sense of shared learning to ensure that the right conditions exist to enable all interdependencies within the ecosystem to thrive. It avoids giving priority to a single element at the expense of others. **Multigenerational responsibility** holds that you are responsible not only for yourself or your immediate family, but also for carrying the knowledge and responsibility of past generations for the generations to come. Building the concept of multigenerational responsibility into a landscape conservation or restoration project requires a shift in thinking about the timescale of a project (including when benefits will be realized) and what might be entailed in the design of governance as a process that will continue to evolve over the course of years, decades and lifetimes.

Fractal scalability is a way of achieving project "scale" that demonstrates how a combination of results from a larger number of smaller, localized projects can deliver more value than a singular, larger, generalized project. Fractal scalability succeeds in Indigenous communities because Indigenous peoples understand the degree to which landscape solutions must be localized, and everyone shares a common understanding of the ecosystem. Building the concept of fractal scalability into a landscape conservation or restoration project may mean working across several neighbouring Indigenous nation groups and building co-operative models across landscapes.

How to improve Indigenous peoples' engagement and install their leadership

The degree to which Indigenous Knowledge can be embedded in a landscape conservation or restoration project is directly correlated to the extent to which Indigenous peoples can play a leadership role in the investment. This report presents a spectrum of project governance and ownership models that can help investors anchor their projects according to their broader organizational goals, available funding and risk appetite.

In addition to the common business processes that exist around any project financing, investors will need to come prepared to listen and engage with complex social, economic, cultural and environmental needs, including the following:

- Understanding the unmet community needs across social, economic, cultural and spiritual domains, as well as the external dimensions surrounding those needs and the pathways to achieving them, such as restoration of respect, self-determination and capability building.
- Developing appropriate objectives and milestones for the project that are not timebound, but process- or event-bound.

ALIVE: a framework for action

At the beginning of each sub-section within this report, a set of principles and practices has been proposed to inform how investors should think about landscape conservation and restoration solutions and what investors should do in landscape conservation and restoration. If the project is to be successful, both are equally important.

The following ALIVE domains are intended to guide action. They do not define an outcome, rather they guide a process by which landscape conservation and restoration projects can be conceived, designed, delivered and evaluated.

Acknowledgment: before proceeding with any land-based project, investors must first acknowledge the centrality of nature and landscapes to the identity and cultural integrity of Indigenous peoples. This should extend to both the rights and responsibilities held by Indigenous peoples.

Leadership: if a project is to be "Indigenous-led" this requires a deliberate effort to both enable and empower people and ideas – leading through Indigenous Knowledge and being led by Indigenous peoples.

- Exploring different pathways to achieve community needs, which may include having to negotiate for the return of traditional land or the authority to control existing land, with external covenants and limitations where jurisdictionally permissible.
- Identifying the range of project options that meet community needs and determining which fit with community ambition. This may include identifying "no go" zones that are sacred or of particular cultural significance, as well as the potential mixed-use of sites.
- Ensure equitable benefit sharing and compensation agreements with Indigenous peoples for benefits arising from projects on lands and territories occupied by Indigenous peoples and from the use of Indigenous Knowledge.
- Moderating or modifying the reporting requirements attached to investment funding, to ensure that the community has the capacity and capability to provide feedback, and is not over-burdened by reporting demands. Additionally, requirements for reporting should be mindful of any cultural sensitivities.

Insights: taking the time to engage in deep listening and gathering insights to understand the contextual factors relevant to the community is critical to relationship-building and necessary to inform project design and governance.

Value: if projects are to successfully embed Indigenous Knowledge, achieve genuine wholesystem outcomes and enable Indigenous peoples to be leaders, then the way they are designed to deliver value – and the vehicles through which that value is understood, measured and managed – cannot follow a traditional investor paradigm.

Expertise: the transactional process for exchanging knowledge that is commonly accepted within business, philanthropic and government systems is not fit-for-purpose when it comes to respecting Indigenous Knowledge systems and those within communities who hold this Knowledge or expertise.

If the ALIVE domains are authentically embedded across the project lifecycle, investors should have greater confidence that the necessary actions will cascade from these domains to ensure project success.

Introduction: On nature, voice and representation

Separating nature from society is a fiction that isolates us from the deeper value of landscapes. Investments in nature will be more likely to succeed when we recognize the primacy of Indigenous Knowledge and rights.



How nature has historically been understood

For much of society, nature is an abstract concept. Something out there, beyond the boundaries of our offices and homes. Separate from a world of work and cities. For many businesses and governments, nature has become an economic construct – an asset to be valued or negotiated with, to allow for the extraction of resources, or used to offset against environmentally harmful behaviours or "externalities".

Seeing nature and society as separate is a fiction – one that allows us to separate action from obligation.

Seeing nature and society as separate, however, is a fiction – one that allows us to separate action from obligation, to distance ourselves from the ethics of our actions, to simplify our thinking and standardize our approach. The fiction is then used to justify a transactional relationship between economic participants and nature. This practice also allows us to distance cause from effect, dependency from impact, and to isolate the deeper, true value of nature from our corporate, political, social and personal responsibilities to help it heal.

The separation of society and nature goes beyond business and government; it has also informed the direction of NGOs actively seeking to protect and repair landscapes. In response to seeing the harmful impacts of society on nature, early conservationists sought to "save" these spaces from all humanity. However, this historic approach didn't fully appreciate that leaving nature alone also creates harm. For nature and landscapes to prosper in their full biodiversity, they have always relied on the intervention and care of Indigenous peoples, acting in relationship with nature.



Who can speak for nature?

(66)

Non-Indigenous distinctions between nature and society sit in contrast to Indigenous world views.³ In many Indigenous languages, there isn't even a word for "nature". It is so deeply engrained that

it is more akin to the concept of family or shared identity.⁴ The Indigenous perspective is first and foremost a relational world view that holds that nature is the whole-system:

We are part of nature and nature is part of us.... When the land and resources are misused and destroyed, Cree people and their ways of life are profoundly affected. When one aspect of nature is destroyed, all life forms are impacted... The entire earth is a sacred place from which all knowledge flows. All entities, human and non-human, share the same spiritual breath of life. Ancestors who pass on become part of the living earth, landscape, elements, animals and plants. Harold Michell, Woodlands Cree⁵ © Evidence shows that Indigenous custodianship, where it has been able to be maintained, has a direct benefit to the environment. While today's ecological science is not at odds with Indigenous world views, it does not adequately account for the complexity of correlation between the strength of a society's cultural and spiritual connection to the landscape, and the ecological health of the landscape.

Cultural and spiritual connections to landscape are activated through communal cultural activities, such as ceremonies, rituals, camping and even fire-use activities. It is vital to understand that culture and ceremony are not only a process of encouraging a generational sense of responsibility to preserve and care for the landscape,⁶ but the very practice of such activities has a direct effect on enlivening and supporting the landscape.⁷

Evidence shows that Indigenous custodianship, where it's been able to be maintained, has a direct benefit to the environment. At least 32% of the world's mappable territories are owned or governed by Indigenous peoples and local communities, via legal or customary-held means. Of these lands, 65% are in good ecological condition – that is to say, they have zero to low levels of human modification. In all, 91% of lands maintained by Indigenous peoples and local communities have been found to be in good or moderate ecological condition.⁸ This report seeks to encourage a new relationship between society and nature, arguing that present approaches are misaligned to the restoration of nature and humanity's shared future. The report hypothesizes that investment decisions of the future will be more likely to succeed when they recognize that society is nature and nature is society, and that Indigenous people are best able to speak for that relationship, as they bring with them the culture, wisdom and science that informs it.

To achieve this, we recommend pathways towards recognizing the primacy of Indigenous peoples' voices in speaking on behalf of nature, and towards finding and building the right relational models that will channel effective investment return and generate genuine change in the conservation and restoration of nature.

One of the ways this report will seek to acknowledge the separation of nature from society is through our use of language. Where possible, we favour the term "landscape" over nature to signify the domain in which Indigenous peoples hold rights, "Knowledge" (cultural knowledge) and responsibilities. One exception is the use of the phrase "nature-based solutions" (NbS), which is commonly used by business to describe the types of investments in the landscape that are the subject of this report.





Who this report is intended for

This report is for investors. It has been designed to provide an audience of (non-Indigenous) investors with insights and perspectives from Indigenous peoples. It necessarily offers only an introduction to the richness and complexity of Indigenous peoples' relationship to nature and the role they can play in maximizing our shared interest in nature-based investments in conservation and restoration.

The report touches only lightly on deeply complex issues such as colonial nature destruction, Indigenous authority and rights, gender roles, sacred knowledge and Indigenous nature science. It provides insight into those within Indigenous communities who are authorised to speak to these issues. By providing a window into that complexity, this report is designed as an entry point for investors. We encourage you to read widely and engage directly with communities of Indigenous people to discover the wisdom that has grieved the decay of our natural systems for the last several hundred years and that has been waiting to be heard, respected and invited to lead.

The focus on non-Indigenous investors, both forprofit and philanthropic, is not to detract from the important work that Indigenous peoples are already doing in actively investing in, and leading, landscape restoration and conservation projects. It is purely a recognition that the bulk of the work in making this paradigm shift and changing the relationship between investment and nature should fall to the non-Indigenous investment community itself. When it does, and when investments find the right relationship to landscapes (through Indigenous peoples), it will mean capacity has been properly matched to opportunity and genuine transformation can take place.

Who this report can speak for

The perspectives of Indigenous peoples (and through them, of nature/landscape itself) are profiled in this report, building on extensive academic literature reviews and direct consultations. However, in putting forward perspectives from Indigenous peoples, the report recognizes that even within nation groups, people will have different experience, expertise and interests, and may have a divergence of views and approaches.

While sharing many common value systems, a large diversity of Indigenous cultures exists. For example, there are more than 500 different nation groups in Australia alone⁹ and over 300 in Brazil .¹⁰ Globally, the number of nation groups would number in the tens of thousands. No Indigenous Elder or Chief within any one community would claim to speak on behalf of another community or a landscape that is not their own. To Indigenous peoples, nature is not separate from society. As society is local, so too is knowledge of the landscape.

To say that this report speaks on behalf of Indigenous peoples would therefore be to promote another fiction. The perspectives presented in the report are designed to reflect shared or prevailing views of Indigenous peoples. Presenting these views does not equate to a preference or endorsement for these views above any others.

In many regions of the world, local landscapes are in the care of communities most often made up of Indigenous peoples or mixed communities, having intergenerational access to Indigenous Knowledge about the landscape. In other regions, local communities have entirely displaced the Indigenous peoples, notably not always of their own agency and, in some cases, through actions occurring thousands of years ago.



While non-Indigenous local communities are not within the scope of this report, the authors recognize that local communities nonetheless have special relationships to, and unique dependencies on, the landscape, regardless of Indigeneity. It is the thesis of this report that in designing landscape conservation or restoration solutions that are informed by Indigenous Knowledge, this solution is also likely to provide greater benefits to non-Indigenous local communities.

The challenge of constructing a report that purports to speak on behalf of Indigenous peoples goes beyond a cataloguing of respondents and demonstration of geographic breadth. Acts of genocide, dispossession, displacement and dislocation of Indigenous peoples globally mean that certain nations have been diminished or no longer exist – their language, culture and Knowledge systems have been disrupted or taken, and their direct and continuous connection to landscape has been broken.¹¹ The ongoing legacies of settler-colonial movements are explored in chapter 1 of this report. They represent, in part, an important truth about the challenge of authentically embedding Indigenous Knowledge at the centre of conservation and restoration practices. However, it is also the case that such legacies have too often been used as an excuse to ignore or devalue the Knowledge that does continue to exist or is, in many cases, being rebuilt through intergenerational transfer.

In the face of a complex tapestry of Indigenous voices, Knowledge and strength across the global landscape, this report has sought to reflect and share principles of culture and knowledge about land relationships in ways that offer broad applications. Nevertheless, wherever investments are made and where Indigenous people and Indigenous Knowledge exists, localized perspectives should be sought and respected for their foundational capacity to inform efforts to conserve and restore landscapes.



About this report

This report is divided into two chapters and a conclusion that address landscape conservation and restoration solutions:

- Chapter 1 examines the current paradigm of approaches to landscape conservation and restoration, explores ways in which Indigenous Knowledge has an impact on landscapes, and looks at the challenges and gaps in past and present engagement with Indigenous peoples and their Knowledge.
- Chapter 2 explores the opportunities for future engagement with Indigenous peoples and Indigenous Knowledge.
- The Conclusion presents a new paradigm to guide investor action, known as ALIVE, and proposes a list of topics for further research.

Throughout chapters 1 and 2, the complexities that investors will face when engaging with Indigenous peoples and Knowledge in landscape conservation and restoration solutions are identified and explored.

Additionally, listed at the beginning of each subsection of chapters 1 and 2 – and summarized within a framework in the Conclusion – are a series of principles and practices that, if taken on board, will help investors manage such complexities.

The principles are designed to inform how investors should think about landscape conservation and restoration solutions, while the practices are designed to inform what investors should do in landscape conservation and restoration. If a project is to be successful, both are equally important to get right.

Engaging with Indigenous peoples and Indigenous Knowledge: Challenges and gaps

This chapter explores current approaches to landscape conservation and restoration solutions.



My culture reminds us that the earth, the air, the water is not ours for the hoarding. Nature belongs to none of us. We belong to it. Over the last several hundred years we have damaged it almost beyond repair and extinction of systemically significant species is now inevitable. Present approaches will not change that trajectory, even if they lessen the decline, because the answer does not lie in investment markets linked to corporate enthusiasm for growth and returns. It lies in recognizing that the only growth that matters is the growth in our relationships with each other and nature, and the only return that matters is the return of healthy systems of nature.

Deen Sanders, Worimi man and co-author

1.1 | The current paradigm

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Principles and practices

- The business priorities of speed and scale should not come at the expense of delivering high quality, culturally biodiverse, long-term outcomes that create greater ecosystem-wide benefits.
- The "leave nature alone" conservation paradigm often excludes Indigenous people and the benefits that their conservation and cultural Knowledge can bring to the genuine repair of natural environments, biodiversity and climate change.

The state of the planet

Humanity has created an ecological debt whereby natural resources are being extracted faster than they can be restored¹³ and the earth's ecosystems are deteriorating at an increasingly alarming rate. Of the nine boundaries¹⁴ required to sustain the stability of the planet,¹⁵ three of the most pressing boundaries being exceeded are:

 Climate change: Rising temperatures from greenhouse gas emissions are already costing the global investment community, through impacts including extreme weather, sea level rise, changing crop yields and lower productivity from heat stress.¹⁶

Nature as a climate solution

There is no viable pathway to keep the 1.5-degree climate target alive without protecting, restoring and managing nature.²² As such, investors are increasingly exploring nature-based solutions as a way to sequester carbon dioxide and generate an investment return, with these investments having the potential achieve 30% of the Paris Agreement goals. Some of these projects have come under scrutiny for the grounds on which investments have been made, the consequences they may have for wider ecosystem health and the direct impacts they have on communities.

- While the requirement for "additionality"¹² is important to ensure that the project brings additional benefit to the environment, this requirement can also disincentivize investments in Indigenous-led landscape conservation and restoration where activity is already underway. Investors should re-consider the additionality requirement in cases where this may prevent funding from flowing to Indigenous-led projects and placing them at risk.
- Biodiversity loss: There has been a 69% decline in wildlife populations since 1970.¹⁷ Biodiversity is critical to ensuring a sustainable food supply, as well as providing protection from pollution, flooding and climate breakdown.¹⁸
- Land conversion: In 2021 the tropics lost 11.1m hectares of tree cover.¹⁹ In the last 50 years the earth has lost 17% of the Amazon rainforest.²⁰

The impact of exceeding these planetary boundaries and the associated consequences on businesses will be substantial, including rising commodity prices, job losses and resource shortages.²¹

Criticisms of the environmental credentials of these solutions have ranged from nature investments being used to justify continuing questionable business practices and extend to accusations of misleading markets and greenwashing.^{23, 24} Organizations that profile their investments in carbon offsets while moving too slowly to phase out their structural reliance on fossil fuels are particularly at risk of such accusations.²⁵

69% decline in wildlife populations since 1970

 There is no viable pathway to keep the 1.5-degree climate target alive without protecting, restoring and managing nature. While this scrutiny and criticism is justified, it also risks deterring much needed investments that take novel approaches or challenge prevalent investment risk/return formulae. Future investment in naturebased solutions would need to at least triple in real terms by 2030 to over \$536 billion each year, if the world is to meet its climate change, biodiversity and land degradation targets, according to the UN Environment Programme.²⁶ Given the huge gap between current levels of finance flowing to these solutions and what is required, it is clear that a willingness to engage in innovation, risk and uncertainty is an essential element of any investment strategy.



Weighing priorities of speed, scale and quality

In using landscape restoration and conservation projects to address the crises of climate change and nature loss, investors typically seek three project outcomes: speed, scale and quality of impact. That is, how fast a solution can be implemented and how large (and predictable) the impact and return can be.

However, these investment priorities can neglect the concept of quality as a long-term impact and incentivize perverse outcomes to the wider ecosystem. For instance, monocultural landscape investment focusing on restoring a single "carbon attractive" species may provide relative certainty for scale and speed, but it is also likely to cause systemic and long-term detriment to soil, flora and fauna diversity, ultimately having a destructive effect on nature restoration and the quality of long-term outcomes.

The growth in global standards has elevated attention around the need to improve investment and policy priorities in relation to outcomes. REDD+ (Reducing Emissions from Deforestation and forest Degradation) projects, for example, increasingly encourage better quality outcomes from forest relationships, and include biodiversity and social elements even if these come at a cost to the investment priorities of speed and scale. Avoiding deforestation is a welcome and necessary approach, but there is still a need for deeper engagement and reliance on Indigenous leadership and respect for the rights of Indigenous peoples in REDD+ projects, so as to magnify the quality of the outcomes.

For instance, legal frameworks of property affect whole-system outcomes that are fractured by individual boundaries, ownership structures and sometimes even different legal jurisdictions. These challenges limit the scope for designing solutions that respond to the interconnectedness between neighbouring landscapes. Nature, however, does not adhere to legal boundaries. So an intervention designed to be productive for one area may have unintended and potentially negative impacts on another, especially when speed and scale dominate the investment paradigm.

© Investment priorities can neglect the concept of quality as a long-term impact and incentivize perverse outcomes to the wider ecosystem.

Additionality: friend or foe?

Another common element of many of the global standards and frameworks guiding landscape conservation and restoration solutions is the principle of additionality. With its intention of encouraging change, additionality requires that emissions reductions or removals associated with a project be additional, in the sense that they would not have occurred without the incentive provided by project finance.

However, additionality can act as a double-edged sword, in particular by disproportionately excluding Indigenous-led landscape projects. In their search for "additional" carbon removals, current additionality requirements are biased towards both "new" practices and "new (degraded) landscapes" where the credit can "make a difference". This discourages rewards for the sustainable protection and stewardship of landscapes in perpetuity, which has been led by Indigenous peoples globally.

Indigenous models of landscape care that rely on traditional cultural practice may already be providing

the maximum environmental benefit to the landscape. Instead of introducing something "additional" that could threaten or usurp traditional practice, it would be more efficacious to apply additional investment to sustain or scale existing practices.

Investment in traditional practices should always be understood as "additional", especially where it amplifies efforts for whole-system outcomes, or indeed when it is practised as a necessary act of healing the damage caused by past industrial, agricultural or misaligned investment-led conservation practices.

Rather than remove the requirement for additionality, the concept could be more usefully defined in global standards and practice, in a way that encompasses a more comprehensive view of what might be considered "additional", and this should be inclusive of encouraging and scaling Indigenous practices.

Engagement with Indigenous peoples and their Knowledge

It is acknowledged that Indigenous peoples are increasingly recognized in global standards and investment practice, usually as an important pool of stakeholders required to be "consulted" with. However, consulting with Indigenous peoples as part of an investment decision or nature-based solution is quite different from a project being led by Indigenous people and Indigenous Knowledge. Where consultation does occur in present models, it often comes too late, too quickly and without the mechanisms in place to act on the outcomes of the discussions.

Too often, consultations are experienced by Indigenous peoples as a "check-box" exercise for the benefit of the organization's compliance requirements, rather than as an attempt to build genuine relationships or partnerships. The process rarely results in communities feeling like they have been heard or their interests understood.

Even when successfully executed, the consultation process often doesn't sufficiently account for the role of Indigenous peoples as both rights-holders and knowledge-holders for that landscape, with larger whole-system responsibilities carried in their cultural and curatorial roles. More detail on the topic of rights and responsibilities can be found in section 1.3.

For some time now, there has been a moral, social and often legal imperative for investors to engage with Indigenous peoples, even if only to reduce harm and mitigate risk to the company. The larger opportunity for investors is to recognize the tangible impacts that Indigenous Knowledge is having on landscapes (see Box 2), and to understand that engaging with this Knowledge, as a body of complex ecological science, is also an economic opportunity leading to more effective solutions.

In regions of Canada, Australia and New Zealand (CANZ), Indigenous Knowledge is playing an increasing role in the conservation and restoration of Indigenous-owned or controlled landscapes, as well as in the management of government-designated protected areas such as national parks.^{27,28}

These efforts, driven largely by Indigenous peoples, academics, natural resource managers and ecologists, are rarely being replicated in the design of nature loss and climate change solutions by investors, and typically aren't reaching countries outside of CANZ.

The solutions being privileged in the global investment and conservation paradigms not only risk detriment to Indigenous peoples, they also miss a critical body of ecological knowledge that has been patiently constructed over millennia, and limit environmental outcomes as a result.

There is an enormous opportunity for the investment community to learn from existing research and practice. Enabling Indigenous leadership will result in a more just and equitable transition to a low-carbon future.

© Too often, consultations are experienced by Indigenous peoples as a check-box exercise rather than an attempt to build genuine relationships. The Indigenous conception of caring for Country or nature should not be understood as singularly cultural, agricultural or conservationist. For my people, this practical, spiritual and curatorial concept is steeped in 100,000 years of patient science and biodiversity care that ensured landscapes were managed in such a way that led settler "discoverers", surveyors-general and governors to describe Australia in poetic terms as a paradise of plains and trees, flora and fauna. The "park-like" countryside and "wonderful natural sublimity" they described was not an accident of nature or the gift of god that they proclaim, but the direct result of millennia of ecological care, intergenerational Knowledge-transfer and cultural practice that has taken just five generations of colonial practice to undo.

Culture, Knowledge, science, survival, family, lore and law are not divisible concepts for us – the immediate needs of any one of them are steeped in the long-term needs of the wholeness of the system that we call Country. Inviting that Knowledge and voice to support the design and implementation of landscape conservation and restoration projects is the missing element in our strategies to reverse the course of a planet in crisis.

Deen Sanders, Worimi man and co-author

CASE STUDY 1

(66)

The Dampier Peninsula monsoon vine thicket project²⁹

Across the Dampier Peninsula in the Kimberley region of northern Western Australia are dry monsoon rainforests, or vine thickets, that have become endangered due to land clearing, weeds, changes in fire regimes and hydrology, and loss of traditional culture and practice.

Seven Indigenous nation groups hold traditional custodianship and responsibilities for this vast area, which provides food and medicine, and is a site of significance for the practice of cultural ceremonies and lore (cultural law).

Between 2008 and 2021 a collaboration was initiated by the NGO Kimberly Environs, which brought together representatives from the government of Western Australia and local Indigenous ranger groups to better document and conserve the area and its cultural practices.

The project employed the following cross-cultural science principles in the restoration of the endangered ecosystem:

1. Respect for cultural knowledge and priorities: Recognition, inclusion and prioritization of cultural knowledge and practice; use and documentation of traditional languages; treating cultural information as intellectual property of the Traditional Owners; and awareness and acceptance of cultural practice and protocols.

- 2. Respect for cultural knowledge-holders: Inclusion of Elders as cultural experts in project planning, implementation, project review and transfer of knowledge to rangers and young people as future cultural experts.
- 3. Respectful long-term partnerships: Seeking funding for all parties (rangers, Elders and scientists); collaboration through all aspects of the project (e.g. design, completion and review); treating staff retention as high priority due to the critical nature of building and maintaining cultural understanding and trust; and aligning the project with Healthy Country Plans or other management plans created by the communities.

The project resulted in greater conservation outcomes for the monsoon vine thickets in controlling weed spread, strategic fire management, reduced land clearing, seed collection, propagation, revegetation, community education as well as the documenting, transferring and practicing of cultural knowledge. A challenging aspect of the project was in prioritizing cultural activities, which is recognized as beneficial to ecological conservation results and cultural maintenance.



BOX 2 | Where Indigenous Knowledge is having an impact in landscapes

This report focuses on the opportunity for investors to embed Indigenous Knowledge and enable Indigenous leadership in landscape conservation and restoration projects. There is both a gap between what is currently being done and what could be done, and a gap in what is being done well and what could be improved by adoption of Indigenous Knowledge. The evidence for this is strong. Around the world, there are many instances of where Indigenous peoples to this day are succeeding in their efforts to conserve and restore landscapes. Proving this is not the purpose of this report, but by way of illustration, the following examples demonstrate the effects that Indigenous Knowledge and leadership have had on both a localized and a macro scale:

- Indigenous people manage nearly 300 billion metric tons of carbon stored above and below ground, equal to more than 30 years' worth of global emissions, according to global coalition Rights and Resources International.³⁰
- 47% of threatened mammals live on Indigenous land and are protected by Indigenous management.³¹
- Deforestation rates in the territories managed by Indigenous people tend to be 50% lower than in territories elsewhere.³²
- In a cross-country analysis of Indigenouscontrolled landscapes in Brazil, Australia and Canada, it was found that these landscapes had levels of biodiversity that were comparative to government-protected nature areas.³³
- A review of Indigenous land management practices across the continent of Australia found that the benefits associated with

Indigenous peoples' ecological leadership extended to protection, quarantine, fire management, wildfire abatement, carbon sequestration and trading, weed control, feral animal control, biodiversity conservation, fisheries management, restoration of wetlands, and water resource management.³⁴

- The re-introduction of traditional practices in controlled forest-burning by the Indigenous peoples of Northern Australia over the last 15 years has been found to have reduced the volume of high-carbon-emitting late season fires by half.³⁵
- In the Amazon Basin, almost half the intact forests are in Indigenous territories, and even though Indigenous territories cover 28% of the Amazon Basin, they only generated 2.6% of the region's carbon emissions between 2003 and 2016.³⁶
- From 2006-2011, Indigenous territories in the Peruvian Amazon reduced deforestation twice as much as protected areas with similar ecological conditions and accessibility.³⁷
- On the island of Borneo, one study found that the local Kenyah Dayak people successfully manage more than 150 species within a single plot of land, while non-Indigenous foresters struggle to manage just four or five species, and prefer to deal with one or two.³⁸

Additional insights around many of these examples can be found in the World Economic Forum's white paper <u>Forests for Climate: Scaling</u> <u>up Forest Conservation to Reach Net Zero</u> and in the Australian Government's <u>State of Environment</u> <u>Report (2021).</u>

1.2 | The legacies of settler-colonialism

Principles and practices

- Investors should aim to understand the social, economic, legal and political context of any region in which they are seeking to invest, particularly as it relates to the historical treatment of Indigenous peoples and their landscapes.
- Prior to any discussions with Indigenous peoples, investors should seek to understand how the structural power inequalities within the region may disadvantage Indigenous people and disproportionately benefit themselves, so that they can take action to minimize these impacts in their decision-making processes.
- In looking to bring diverse knowledge systems together, investors should prioritize the process over the outcome and create a safe environment that supports Indigenous peoples in feeling comfortable to choose when and how to share.
- To build a trusted relationship with Indigenous peoples, investors should be open to both hearing about and helping address past harms experienced by the community and their landscape. They should be willing and able to invest in building a relationship slowly, as they would seek to build a friendship, rather than transacting a business opportunity.
- Investors should be wary of the cultural and identity burden they may be placing on Indigenous peoples when asking them to take on roles or share Knowledge that will likely be a product of cultural and shared community provenance. They should set aside funds to compensate these Knowledge-holders and the community for their participation at every stage of the investment, including for any preliminary discussions prior to investment.



How settler-colonialism has impacted Indigenous peoples

When talking about the misalignment between market practice, global business, government and Indigenous people – and to understand why this has occurred – it is necessary to touch on the impact that settler-colonialism has had on the world's Indigenous peoples. Not discounting the fact that settler-colonial practices are still ongoing, their history is both deeply problematic and complex.

 It is important to be aware of the negative impacts of existing government policies and structures, even when they are unintentionally or ignorantly harmful.

The legacies of settler-colonialism continue to inform government policies that discriminate against Indigenous peoples,³⁹ while also contributing to the "systemic racism, cyclical poverty, economic inequality, [and] violence" experienced by Indigenous peoples to this day.⁴⁰

Although a genuine understanding of these legacies for the purposes of engaging with Indigenous peoples is far beyond the scope of this report, it is important to be aware of the negative impacts of existing government policies and structures, even when they are unintentionally or ignorantly harmful. It is not the purpose of the following sections to do full justice to topics that are individually vast and complex, nor would it be possible to do so in the limited space available. From an investor standpoint and for our purposes here, the following sections seek to provide an entry-level discussion of five of the primary considerations to keep top of mind:

- Power imbalance
- Trust building
- Knowledge transfer
- Gender roles
- Cultural load

Power imbalance

Indigenous
 peoples are
 disproportionately
 at risk from the
 consequences of
 nature loss and
 climate change.

The power dynamic between investors and Indigenous peoples is an inherently unequal one, both in terms of direct (visible) and systemic (often invisible) relations. Indigenous peoples worldwide have unequal access to many of the means through which power is generally established and that are typically held by investors, namely: wealth, education, health, safe housing and equality of justice.

Systemic power imbalances are encoded in the law and governance of land use and ownership by multiple, overlapping layers of government that discourage or directly prohibit Indigenous authority. These layers are sometimes so complex, fragmented and resistant (at least to Indigenous intervention), that they have come to be referred to collectively as "systemic wicked-ness".⁴¹

While deficit-framing of Indigenous peoples can be problematic, it is contextually important to recognize that Indigenous peoples are disproportionately at risk from the consequences of nature loss and climate change, because of the landscapes they continue to occupy, their dependence on these landscapes, and their relative lack of political, social and economic power to address these risks. Settler-colonies, which generally privilege land as capital, have historically made deliberate efforts to establish themselves on land that is productive, valuable and often more protected from adverse weather events. The very process of establishing settler-colony locations has frequently destroyed the Indigenous people of that location or displaced them to areas that are less productive, less valuable and more vulnerable to the impacts of climate change.

In addition, given the exclusion of Indigenous peoples from other means of value extraction and provision, they are more likely to need to rely on the landscape for community life, economic value and even as a source of direct subsistence, as a result of their continued cultural and survival relationship with landscape.⁴²

These vulnerabilities further entrench the levels of inequality in power between Indigenous peoples and governments, businesses and philanthropists, and have a profound impact on the degree to which both the outcomes of negotiations and the impacts of distant investment policies disadvantage Indigenous peoples.



Trust building

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In entering a new relationship with Indigenous peoples, investors sometimes find a level of caution or scepticism among the community. This can be as much a result of past interactions with non-Indigenous systems, organizations or people, as it can be a misunderstanding between the two parties as to what is required to establish working relationships and build trust.

While investors may be familiar with – and prefer – quick, transactional business relationships framed

around shared goals, commitments and contracts, in many cases Indigenous peoples will be looking to build genuine relationships with investors before trust is established.

It may not always be apparent to investors how much time and effort are needed to build a trusted relationship, but this observation from an anonymized Indigenous co-researcher, cited in a case study of fish management in the wet tropics of Australia, gives us some sense of what it takes:

[In this project I saw] western and indigenous knowledge together. Scientists respecting and appreciating traditional knowledge and ways, earning trust, value and respect – not just [a] one hit wonder come in and fly out again – but earning that trust, well, becoming a friend like we have over the last year and a half. At the start it was a bit edgy, but since you come up and then you started being a part of a bigger picture with the traditional owners, they accepted you because they trusted you, and just working with scientists and that and telling them that we do have ways that date back for 40,000 years that we need to put on the table for you to understand with your western ways.⁴³

Anonymous Indigenous Australian co-researcher



Everyone who seeks to enter into Indigenous community relationships carries both the general weight of settler-colonial past histories and the specific weight of past relationship efforts (failed or successful). Genuine relationships will require more than simply new faces, new intentions and new contracts.

The harms to landscape, community and culture from settler-colonialism have been profound. In some instances, this hurt and harm might lead to an expectation that compensation or reparations be made for that past before a new relationship can proceed, irrespective of the role of the investor in those historical harms. Reparations could vary widely and they are not always financial. Examples could include support for community and infrastructure projects addressing priorities such as governance, education, housing, health and water systems, or reworking of land-ownership structures. Such projects would all contribute to the capacity of Indigenous communities to help deliver investment outcomes and should not be misunderstood as narrow and unrelated interests.

The issue of trust often comes to a head in the development and execution of contracts, where the negotiating and drafting power usually resides with the investor. According to Kahea Pacheco from the Women's Earth Alliance, whom we interviewed during our research for this report, contract negotiations with a company are often beyond the capacity or desire of a community to engage with. "In places where Indigenous peoples don't even have bank accounts, let alone a legal team, the power imbalance challenges business to do the right thing and to codify the interests of community ahead of their own in the contract," she said, adding: "To fail in this is to risk damaging project success, long-term trust and repeatable opportunity."

Knowledge transfer

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As noted in the Introduction, while today's ecological science is not at odds with Indigenous Knowledge, it does not adequately account for the depth and breadth of the correlation between the strength of a community's cultural and spiritual connection to the landscape, and the ecological health of that landscape.

There is a growing body of academic research that seeks to find appropriate processes in which to bring together Indigenous and non-Indigenous landscape epistemologies and the owners of those knowledge systems. These studies have identified three common challenges that continue to hamper effective outcomes.

First, Indigenous Knowledge can be misrepresented or misconstrued to "fit in" with the dominant ideologies presented by non-Indigenous science. This often arises when a non-Indigenous researcher (consciously or unconsciously) centres "Western Enlightenment" science as the valid base and seeks to bring Indigenous systems into alignment with it. Such misrepresentation can also be introduced by Indigenous persons themselves seeking to align systems, as the following insight reveals:

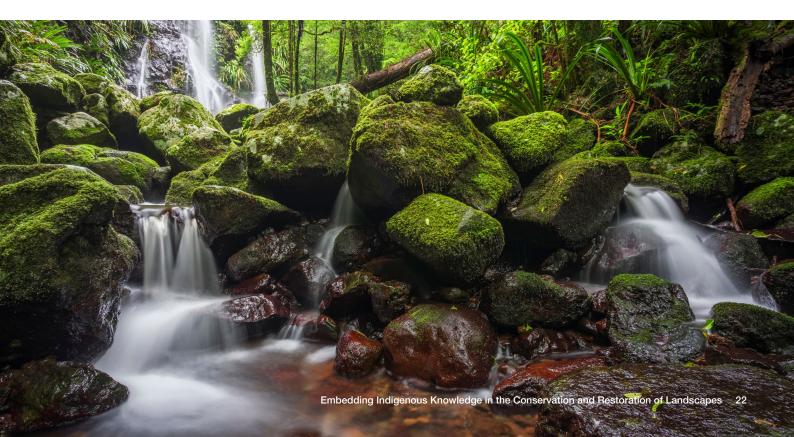
The well-meaning co-opting of IK [Indigenous Knowledge] by the academy has also had a tendency to place a great deal of expectation on indigenous people in northern Australia to "produce" IK. The result can be the creation of a "cultural self-consciousness" whereby knowledge can be manufactured to appease nonindigenous researchers".⁴⁴

Marc Wohling, Nyamal Indigenous ranger and author

Second, it is not always understood when it is and is not appropriate to bring the two knowledge systems together. Indigenous Knowledge is understood in a rich and complex field of context, which can include culture, landscape, gender, lore and even levels of sacredness. Responsibility for navigating the appropriate release of such Knowledge traditionally sits with Elders, and improper integration can at times risk unintended and unjust consequences.⁴⁵

Third is the issue of Knowledge as "process" compared to Knowledge as "outcome". One of the common points of disconnect that has been observed by Indigenous Knowledge-holders is the Western Enlightenment preference to classify processes, beliefs, truths and causal outcomes. For Indigenous peoples, by contrast, these elements are often indivisible: relationships are indivisible from process and causal outcomes are indivisible from relational outcomes. What is important is how one lives, less so what one believes.

As long as there remains misalignment on the importance of process and relational outcomes between the different knowledge systems, efforts towards genuine integration are unlikely to be successful. Instead, investor models that respect both systems, accept both and then actively privilege Indigenous Knowledge are more likely to succeed.





Gender roles

Another vital dimension to the unequal power and knowledge structures between global business and Indigenous peoples is the relationship between different knowledge-holding and gender. This issue is sensitive and complex, not only due to the importance of respecting traditionally gendered cultural practices and protocols, but also because of the need to acknowledge the impacts of colonization on gender norms within Indigenous communities.

In many Indigenous nation groups within Australia, for example, gender responsibilities are referred to as "men's business" and "women's business", terms which demonstrate the collective effort required to maintain the prosperity of the community and the landscape,⁴⁶ rather than specific conceptions of gender as binary. Some of these responsibilities can be shared across genders and some knowledge shared outside communities (e.g. which animals can be hunted by which gender). However, other responsibilities may be sacred and not permitted to be spoken of even between genders within a community (e.g. tending to specific landscapes or performing particular cultural ceremonies) and never outside communities.

must be careful not to place any expectation on Indigenous peoples to share information that puts cultural protocols at risk.

O Investors

Cultural load

After generations of not having their voices heard, the surge in recognition of rights-holding has meant that Indigenous peoples have now become some of the most-consulted "stakeholder" groups worldwide. This is both a positive and a negative. Positive, because Indigenous people do want to be consulted about issues relevant to their communities. But this need for consultation can also be a negative, when it comes at a direct cost to Indigenous peoples personally, financially and culturally.

Cultural load is a term used to describe the burden that Indigenous peoples often face in settings

While traditionally gendered cultural responsibilities should be respected, the specificity of these differences is not always clear to investors or external observers. Just as patriarchal systems continue to construct gender disparity in non-Indigenous cultures, the effect extends to some Indigenous communities with the importation of colonial-settler systems, in particular through the intersection of these communities with government, business and non-Indigenous society.

Investors must be careful not to place any expectation on Indigenous peoples to share information that puts cultural protocols at risk. Investors can provide a more culturally safe environment, and one that may help surface non-Indigenous patriarchal power systems, by ensuring there is sufficient diversity within their own teams when engaging with Indigenous communities. This could include, for example, providing the opportunity for gender-specific conversations to take place (men/men, women/women etc.), if the community or knowledge-holder prefers that approach.

where they are asked to share their culturally informed Knowledge. Even the idea of "personal knowledge-holding" is a complex concept, when Indigenous Knowledge – having been passed down intergenerationally and collectively – is often the shared wisdom of a whole community. Knowledge of this type has been carefully transmitted through generations by following strict protocols and practices, often linked to assessing the "readiness" of the receiver. The nature of knowledge-holding and cultural practice means there are often limited numbers of individuals who can share this sought-after Indigenous Knowledge and who are culturally authorized to do so. © Investors should be willing and able to provide appropriate compensation to Indigenous peoples when (cultural) Knowledge is requested or shared. As a further layer of complexity, Indigenous people are often expected to step out of their personal knowledge-holding and speak for the entirety of community experience (or even another community's experience) or knowledge. Such an extra – and often unauthorized – "load" of responsibility can cause a great deal of discomfort and stress. It may even put an Indigenous person at risk.

Now that many Indigenous people are operating within non-Indigenous systems of knowledge and business (including academia and government), a growing area of concern is the difficulty of maintaining the integrity of Indigenous culture and Knowledge-holding under pressure from dominant and sometimes competing work, social and academic systems. For the Indigenous person - asked to navigate between these different "systems of knowing", all of which may use different frameworks and values - challenges around "identity strain" and even mental health can emerge. For example in the field of naturebased solutions, Indigenous peoples, who are employed as ecologists or in any role informed by non-Indigenous scientific ideologies, may then be expected to reconcile these different world views across conflicting frameworks and values.

Related to the experience of identity strain is the issue of "code-switching" – the practice of shifting

language, modes of expression or even behaviour to comply with the dominant norms and expectations of the social environment. In the example of the Indigenous ecologist, they are likely to feel the need to switch codes between talking to fellow community members on a cultural science level and their non-Indigenous science dialogue with other (non-Indigenous) professionals. This concept of "walking in two worlds" and translating both worlds for everyone else can be additionally taxing.

Investors should try to minimize cultural load and identity strain wherever possible. The first step is to recognize the extractive nature of the request to share knowledge and the complexity of Indigenous Knowledge as proprietary community knowledge with rules attached to its dissemination. One of the ways investors can help is by simply being aware of the multitude of demands being made of any Indigenous person. Investors can also take practical additional steps to research the issue at hand, and ahead of meeting with Indigenous peoples - thereby reducing the amount of information that needs to be shared in dialogue. Lastly, and perhaps most obviously, investors should be willing and able to provide appropriate compensation (including financial) to Indigenous peoples (and potentially their community) when Knowledge is requested or shared.

CASE STUDY 2 Ngukurr Yangbala project⁴⁷

Ngukurr is a remote Aboriginal community in southeast Arnhem Land, Northern Territory, Australia. Recognizing that the young women within the community were disconnected from their traditional culture and landscapes, and wanting to address the under-representation of women in paid employment and leadership roles within natural resource management, the Ngukurr Yangbala project was initiated by Elder Cherry Wulumirr Daniels in collaboration with biocultural researchers and the local Yugul Mangi Ranger group.

The project leadership highlighted that the continuity of traditional Aboriginal Australian women's knowledge was particularly at risk, for two reasons. First, as the women Elders passed away they took their Knowledge with them. Second, because "Caring for Country" (a term Indigenous people use for conservation and land management) tended to be male-led work, this meant that Aboriginal men's practices were more frequently recorded, while Aboriginal women's knowledge, work and opportunities received limited attention. The intention of the project was to develop the skills and confidence of young adult women (aged 18-35 years) in meaningful ecological and cultural conservation projects, as a pathway to working as a ranger and other occupations.

Over three years, the Yangbala project engaged with 60 Ngukurr Yangbala rangers and approximately 300 other Ngukurr community members. Participants demonstrated their Knowledge of Country and culture and conducted cross-cultural, collaborative biocultural research on billabongs (water holes), animals, plants and seasons. They produced written and audio-visual publications to share their cross-cultural knowledge and learning.

The Yangbala rangers built their leadership and confidence through training, mentoring, presenting their work at conferences and running workshops with school children. All of these activities aligned with the contractual and co-designed aims of the project, which ultimately served to empower young women in Caring for Country work in southeast Arnhem Land.



1.3 | The role of rights and responsibilities

Principles and practices

- Investors should design and follow processes that will ensure all the individual and collective rights of Indigenous peoples are protected and respected, including as enshrined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and other internationally recognized human rights.
- Investors should understand that Indigenous rights regarding land use and responsibility might not be formalized in non-Indigenous

Indigenous peoples' rights

Most engagements with Indigenous peoples in landscape conservation and restoration solutions are influenced by, if not governed on, principles emerging from the UNDRIP. Since their introduction in 2007, these principles – even though not ratified in every jurisdiction – have provided an important vehicle through which Indigenous peoples have been able to advocate for their rights and influence decision-making.⁴⁸

While the articles of the UNDRIP were designed and intended to be applied in their entirety rather than preferentially, two key concepts have received particular attention: FPIC (free, prior and informed consent) and self-determination. constructs of property and ownership but that this does not diminish the responsibility Indigenous people may have for those landscapes – a responsibility and relationship that predate and override title and property laws.

 Investors should acknowledge the responsibilities that Indigenous peoples hold in sustaining their landscapes and seek to understand where their actions might prevent Indigenous peoples from carrying out these responsibilities.

The right to self-determination is a fundamental right of Indigenous peoples, without which they cannot fully realize many other collective and individual human rights, while FPIC is one of many ways that self-determination is exercised in decision-making.

Free, prior and informed consent (FPIC)

Free, prior and informed consent is both a right and a process that enables Indigenous peoples to exercise their overarching rights to selfdetermination. Indigenous peoples can choose to give or withhold consent to proposals that may affect their rights. Consent is a collective decision made by rights-holders through their own decisionmaking mechanisms and, if consent is given, it can later be withdrawn. While most
Indigenous peoples
have welcomed
the recognition of
rights, the shift of
Indigenous peoples
from stakeholders
to rights-holders
can also be
misconstrued as
a transactional
opportunity by
investors.

Consent can only be achieved when it meets each of the following thresholds:

- Free: freely given through a process free from coercion and intimidation in any form.
- Prior: taking place before decisions that affect Indigenous peoples are made.
- Informed: providing full information about risks and opportunities, adequate resources and capacity, and, if necessary, capacity-building initiatives – disclosed in a manner and language that are accessible to Indigenous peoples.⁴⁹

While FPIC as a standard has been adopted by many organizational policies and global frameworks, the implementation has not always been successful. In some cases, Indigenous peoples' rights to self-determination have not been respected. In other cases, consent has been explicitly withheld by Indigenous peoples, while governments or organizations have chosen to move forward with their proposals regardless.

Self-determination

Article 3 of the UNDRIP states the following: "Indigenous peoples have the right to selfdetermination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development."⁵⁰

As with FPIC, there is often good will among investors to support self-determination of Indigenous peoples but realizing this right within the existing paradigms and processes of land ownership policies or business and philanthropic activities often falls short.

This is further evidenced by inequality in negotiations which may be focused on prioritizing short-term economic or financial needs, while failing to adequately address social and cultural needs. This may particularly be the case where Indigenous communities have a history of being deprived of their cultural rights and their lands, territories and resources.



Indigenous peoples' responsibilities

While most Indigenous peoples have welcomed the recognition of rights, the shift of Indigenous peoples from stakeholders to rights-holders can also be misconstrued as a transactional opportunity by investors, allowing rights to be contracted away by representative participants.

Focusing on Indigenous peoples solely as rightsholders is also problematic as it fails to adequately acknowledge the original custodial and cultural responsibility they hold for the landscape, which cannot be traded away through contract.

Jeff Corntassel, a member of the Tsalagi Cherokee Nation of Canada, has written extensively on the limitations of rights-based discourse as a means through which Indigenous peoples can achieve self-determination. To move beyond this, Corntassel argues that "for Indigenous self-determination to be meaningful, it should be economically, environmentally and culturally viable and inextricably linked to Indigenous relationships to the natural world."⁵¹

Often the purpose of cultural practice is spiritual and practical, with the specific intended effect of encouraging the landscape to reach its full biodiversity and health.⁵² However, if the landscape has been repurposed for investments that remove biodiversity, limit access or are otherwise unsympathetic to the purpose of cultural practice, then that purpose cannot be fulfilled. This will ultimately lead to the detriment of that ecosystem and, at times, to further displacement of Indigenous peoples from their lands. In our world, responsibility is an acceptance of agency (for all things and for ourselves), rather than an assumption of governments or international declarations as the bestower of rights. All things have responsibility. Even a river has a purpose and responsibilities. Our role is to bring our own responsibilities into relationship with the purpose and responsibility of others.

Rights are often a demand for something in the present, where in our culture 'responsibility' is an acceptance of obligation for the very, very long term ("Maa Bularrbu", in my language, meaning for the next seven generations), and which overrides the extractive, opportunistic self-interest of the present.

Deen Sanders, Worimi man and co-author

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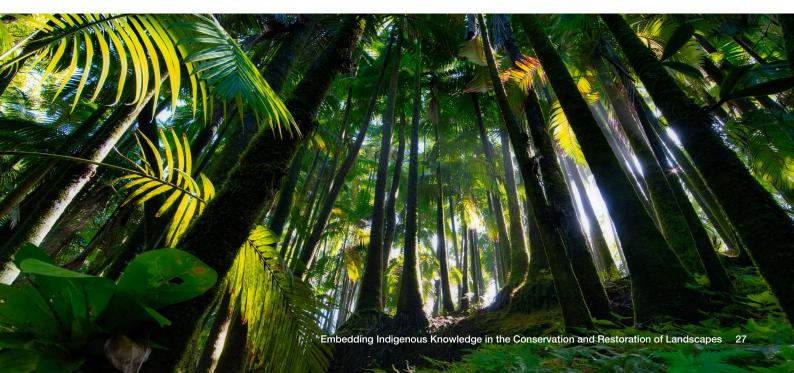
It is critical that investors both recognize and respect Indigenous peoples' rights and cultural responsibilities in equal measure, as either taken in isolation is unlikely to enable meaningful self-determination to occur.

CASE STUDY 3 Women's Earth Alliance

Women's Earth Alliance was created to provide leadership, strategy, technical training and funding for women to scale their climate and environmental initiatives and solutions. Their holistic programming and wraparound support build the capacity of women who are already working on the frontlines of the nature and climate crisis, while connecting them with a global alliance of peers, mentors and investors.

In an interview for this report, Kahea Pacheco, a Kanaka Maoli (Native Hawaiian) woman and co-director of the alliance, explained that while it is important to be bringing women—particularly Indigenous women—to the decision-making table globally, ultimately the Women's Earth Alliance wants these women leaders to start setting that table. She encourages investors to sit with communities and understand what capacity they want to build, rather than imposing their investment-led beliefs. Taking it a step further, she suggests that maybe it isn't the community that needs to build capacity to engage with investors, but rather for investors to build their capacity to ethically and equitably engage with communities, to support women-led and IP-led conservation and restoration projects.

Kahea is firm that, as long as businesses are prioritizing their bottom line as businesses do, they are standing in direct contradiction to the objectives of, and frameworks for, Indigenous communities' land care and stewardship efforts. Taking Indigenous frameworks and Knowledge and incorporating these into a business model that is still aiming to maximize profit above all else is missing the point. Kahea wants to see relationships between investors and communities where everything is balanced, where there is representation for communities on the highest level of businesses' governing boards and where there are actions being taken to ensure the long-term success of projects and relationships.



2 New models for embedding Indigenous **Knowledge and** leadership

This chapter highlights key Indigenous Knowledge concepts for landscape conservation and restoration and introduces a spectrum of engagement models.



2.1 | The opportunity

Principles and practices

- Investors should understand the different choices available to them in engaging Indigenous leadership in projects, and how project responsibilities and governance need to authentically adjust to match that decision. We provide a spectrum of options in this chapter.
- Investors should consider embedding the concept of "relational obligation" in their projects, as this will give rise to solutions that impact whole-ecosystem sustainability.
- Investors should seek to design projects with a view to enabling "multigenerational responsibilities" to be carried forward by the Indigenous peoples of that project's landscape well beyond the horizon of the planned intervention.
- Investors should aim to find ways to build projects from a proposition of "fractal scalability" rather than vertical scalability, giving rise to more localized, tailored solutions.

Indigenous peoples are uniquely placed to inform solutions

The solution lies in reorienting the systems of 'value': to listen to; respect; and economically, academically, socially and politically value the knowledge that governed land use and care for millennia. Nature has a human voice. It's just not one that the colonial systems have been willing to hear. As Uncle David Mowaljarli said,

'We are really sorry for you people. We cry for you because... we have a gift we want to give you. We keep getting blocked from giving you that gift... All we want to do is come out from under all of this and give you this gift. And it's the gift of pattern thinking. It's the culture which is the blood of this country, of Aboriginal groups, of the ecology, of the land itself.'⁵⁵

Deen Sanders, Worimi man and co-author

Over 80% of earth's biodiversity is stewarded by Indigenous peoples

(66)

Indigenous peoples were not only the original custodians of the landscape, but their curatorial responsibilities and practices continue to this day. While they comprise less than 5% of the world's population, they protect and steward an estimated 80-95% of the earth's biodiversity.¹⁹

Through history measured on a geological scale of several millennia, Indigenous peoples have managed their environments, adapting "to the shifting of land masses, rising and falling of seas, climate change, fire, arrival of exotic plants and animals, and many other landscape influences."⁵⁴

By integrating contemporary non-Indigenous ecology tools and technologies with traditional Indigenous Knowledge systems, a richer and more holistic understanding of the landscape can be achieved. This will bring dividends to the environment and create economic efficiencies in its application.

Embedding Indigenous Knowledge systems can also open up more opportunities for Indigenous peoples to play a direct role in the design, delivery and management of projects, creating alignment between culture and employment, and generating jobs in regions where employment is limited. A spectrum of models for engaging Indigenous Knowledge and supporting Indigenous leadership can be found in section 2.2. Implicit in this spectrum is the opportunity to incorporate insights from the common threads of Indigenous Knowledge systems globally, regardless of where in the investment lifecycle the project sits or the level of direct engagement by Indigenous peoples.

While Indigenous cultures are highly localized and no Indigenous person would claim to speak for other landscapes or people, there are a range of landscape-led philosophies of responsibility and obligation that are generally shared across local communities globally, providing investors with useful insight to Indigenous concepts crossing widely varying environments.

This section highlights three examples of interrelated, cross-cultural Indigenous landscape concepts:

- Relational obligation
- Multigeneration responsibility
- Fractal scalability



Relational obligation

The concept of relational obligation can be understood as not only having responsibilities to the elements of the landscape – to the trees, or the birds, or the soil, or the water or the air – but to have responsibility for maintaining the relationship between these elements, each of which can only prosper insofar as they all prosper (see Box 3). Building the concept of relational obligation into a landscape conservation or restoration project can bring a deeper understanding (and a sense of shared learning and obligation) to ensure that the right conditions exist to enable all interdependencies within the ecosystem to continue.

BOX 3 **Two examples of relational obligation**

Woodlands Cree Nēhîthâwâk community of southern Canada

"Our Woodlands Cree way of life is guided by values of respect, compassion, generosity and love for all our 'relations' around the sacred circle of life. This respect is based on a philosophy of interdependence and co-existence with other beings, and the inherent responsibilities and obligations involved in maintaining these relationships."⁵⁶

Putting relational obligation into action may involve learning from the Indigenous Knowledge-holders about the signifiers of a healthy or sick ecosystem, as well as setting aside the time and financial resources to support Indigenous peoples in carrying out necessary cultural and spiritual practices required by the landscape.

Multigenerational responsibility

The concept of multigenerational responsibility holds that you are responsible not only for yourself or your immediate family, but also for carrying the knowledge and responsibility of past generations for the generations ahead. In the Australian Indigenous community of the Worimi people, this is understood Warlpiri people make a point that it is the relationships between the parts that matter."⁵⁷ Embedding relational obligation will mean designing

Warlpiri desert people of central Australia

"The Warlpiri framework is called ngurra-kurlu,

within [people]". As this translation suggests,

ngurra-kurlu embodies the fundamental Warlpiri

ethic of reciprocity between people and country....

which is interpreted as "from country" or "country

Embedding relational obligation will mean designing solutions that are not only more effective and efficient, but also more robust – for when all elements of a landscape are in good relation to one another, they will be more resilient when faced with extreme weather, such as fires or floods.

through the term "Maa Bularrbu", which means the "next seven again" – a principle that embodies an acceptance of this Knowledge-bearing obligation and the practical, cultural actions that turn that knowledge into action, for the next seven generations of kin and community. As explored in a recent <u>World Economic Forum</u> blog, this principle is seen across Australia, New Zealand and Canada, among other countries. Indigenous notions of kinship and ancestry don't easily translate into descending hierarchies. But to imagine the Seven Generations principle in a non-Indigenous setting would mean thinking about the impact of your everyday actions on your greatgrandchildren's great, great-grandchildren.⁵⁸

Building the concept of multigenerational responsibility into a landscape conservation or restoration project requires a shift in thinking about the timescale of a project. This in turn requires a shift in thinking about what might be entailed in the governance design, to ensure a process of oversight and responsibility that will continue to evolve over the course of years, decades and lifetimes.

Fractal scalability

The principle of fractal scalability demonstrates that when everyone shares a common understanding of the ecosystem and the collective governance principles for relational landscapes, and is empowered with individual responsibility for maintaining it, then the health of the combined system will be maintained.

Fractal scalability sits in contrast to typical non-Indigenous conceptions of vertical scalability, which assume that an ever-increasing base of capacity (e.g. labour or nature) will generate an ever-increasing return for the increasingly distant investor – akin to a pyramid model of organizational hierarchy. Fractal scalability is non-hierarchical, but highly replicable when the core tenets are shared across different actors.

An illustration of this arises in Australia, where hundreds of separate Indigenous nation groups across a vast and biodiverse continent have practised similar but different land care responsibilities in their respective landscapes. This magnified to Given the time-limited nature of investor reporting and return expectations, and noting that the average lifespan of an organization is less than 35 years and shrinking,⁵⁹ achieving prosperity for the "next seven again" will ultimately mean setting up a project with the intention for it to become "selfsustaining" from an investor perspective.

However, given that landscapes (even healthy ones) are not always able to sustain themselves, what this may mean in practice is handing over responsibility (and where possible, ownership) for that landscape back to the Indigenous peoples, who could carry it forward for future millennia, as they have done so in the past.

a collective effect even though it was not directly coordinated, other than through the shared cycles of nature and cultural knowledge exchange.

Building the principle of fractal scalability into a landscape conservation or restoration project could see an investor reimagining how to achieve scale in a project in a way that gives rise to localization. Rather than looking for a single large property to achieve scale (a traditional model of vertical scalability), the investor might instead look to achieve scale through a series of smaller neighbouring properties that exist within a "natural" boundary (e.g. bordered by rivers, mountains, deserts or seas).

As this may involve working across a number of different Indigenous peoples' groups and potentially negotiating across a network of land titleholders, applying fractal scalability is likely to require a greater commitment to time and resources early in the project's inception. However, the trade-off will be a much higher quality project in terms of meeting a wider set of ecosystem goals.



G Achieving prosperity for the "next seven again" means setting up a project to become "self-sustaining" from an investor perspective.

2.2 | A spectrum of investment models

Principles and practices

- First and foremost, investors need to be open to investing considerable amounts of time actively listening to Indigenous peoples to understand the complex social, economic, spiritual and cultural needs of a community.
- Investors should be aware that they may be one of many funding agents working with an Indigenous community on a range of projects, and as such they may need to modify reporting

The investor governance spectrum

To help guide the decision-making process through the investment lifecycle, there is a range of models that have typically been applied and are available. The greatest responsibility of an investor is making an informed and deliberate choice about where they wish to anchor their project on the spectrum, noting that trade-offs and opportunities will differ accordingly.

A spectrum of investor governance and relational options for engaging with Indigenous peoples (IP) and Indigenous Knowledge (IK) are outlined in Figure 1 below.

At the left end of the spectrum are traditionally conservationist functions (e.g. invest in forests and

requirements to help reduce the overall burden that could otherwise act as a disincentive for the community to accept the investment.

 Investors may need to consider how they measure and report on the progress of an Indigenous-led project in a way that recognizes that progress is tied to specific events rather than pre-determined intervals of time.

leave them alone) and the rapid scaling of monoculture solutions (e.g. rapid reforestation projects) – both of which tend to have low involvement with IP or IK systems and may even displace them (see Box 4).

At the right end of the spectrum sit IP-led projects that are governed by Indigenous people (though not to the exclusion of external investment), where their traditional ecological and cultural knowledge takes primacy in practices of looking after the landscape. In between these extremes lie a range of options in terms of landscape, Knowledge and relationships with Indigenous peoples.

BOX 4 Indigenous leaders concerned 30x30 target could lead to "biggest land grab in history"

One of the key "2030 action targets" of the UN Convention on Biological Diversity (CBD), as proposed in its new <u>post-2020 global biodiversity framework</u>, is to: "Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area based conservation measures, and integrated into the wider landscapes and seascapes."

However, advocates for the rights of Indigenous peoples are concerned that this "30x30" goal could have serious negative impacts on Indigenous peoples, rights and lands. In a letter to Elizabeth Maruma Mrema, Executive Secretary of the CBD, and other COP15 participants, Indigenous leaders wrote: "If Indigenous Peoples do not maintain or secure ownership of our land nor have equal authority in the decision-making process, the UN's 30×30 policy may be the biggest land grab in history and further threaten the physical and cultural survival of Indigenous Peoples worldwide." In the past, Indigenous peoples have been forced off their land in the name of conservation. For example, in the Democratic Republic of the Congo, Indigenous Batwa were evicted, killed and group-raped during a violent eviction campaign from Kahuzi-Biega National Park, under the pretence of protecting the UNESCO World Heritage Site from poachers and deforestation. In Nepal, Indigenous Tharu and others were evicted from their lands to create Chitwan National Park and Bardiya National Park, both of which have been supported by <u>international conservation organizations</u> like the World Wildlife Fund. And in Tanzania, nearly 150,000 Indigenous Maasai could be evicted from their homes to create game reserves and protected areas.

As advocated by Indigenous leaders, it is vital for the prosperity of land and communities that Indigenous peoples are seen as equal decisionmakers and leaders in any processes affecting the conservation and status of lands which they own or have custodianship over.

Sources: UN Convention on Biological Diversity (CBD), <u>Post-2020 global biodiversity framework</u>, July 2021; Grist, <u>How Indigenous people are fighting to stop 'the biggest land</u> <u>grab in history'</u>, 7 December 2022.

 In Tanzania, nearly 150,000 Indigenous Maasai could be evicted from their homes to create game reserves and protected areas.

Less IP involvement

More IP involvement

Practice of investor-led conservationist solutions or reforestation solutions without engagement with IP and uninformed by IP knowledge. Practice of engaging with IP through structured funding that specifies land use or limits cultural practice and self-determination. Partnership with IP that acknowledges and rewards cultural practice and landscape action, although likely limited to usage approved within statutory or land ownership obligations. IP-led where the IP determine the programme and develop/strengthen cultural practice through the programme. Success remains constrained by external statutory land ownership or usage obligations. IP-led where the IP determine the programme and cultural practice is respected as the basis of the programme. IP have unfettered control of landscape usage and full ownership, where jurisdictionally permissible.

Determining a project within the spectrum

While there is some scope for an investor to decide where their project should sit on the spectrum, this decision may also be constrained by factors beyond their reach, including legal limitations for land use or access to the relevant Indigenous people.

There are regions of the world where Indigenous peoples are seeking direct financial investment, but otherwise have the capacity, the capability and the will to lead conservation and restoration projects in their landscapes. There are also regions where Indigenous peoples no longer exist due to settlercolonial movements, or for whom participating in a landscape restoration or conservation project is not a priority. And of course, there are many regions of the world that fall somewhere in between these two.

As a very early step in the project lifecycle, investors should ask themselves: Should we first seek out a relationship with an Indigenous community that will in turn determine the landscape? Or should we first seek out a landscape which will in turn determine the Indigenous community? At a minimum, investor organizations will need to consider the following questions in making their decision:

- Does the project align to a broader organizational mission, purpose or social licence objective that is aligned to human rights or ecosystem sustainability?
- Is there an identifiable Indigenous community that a relationship might be formed with?
- How much time, funding and resourcing can be allocated to the project in the short-, mediumand long-term?
- What are the risks associated with the respective choices and how might these be appropriately managed?

 Enbedding Indigenous Knowledge in the Conservation and Restoration of Landscapes
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Associated trade-offs within the spectrum

Implicit in this spectrum is the assumption that the further to the right that a project sits, the greater the ultimate benefits will be to the landscape. The reason for this is that the deeper the engagement with Indigenous peoples goes (as exemplified by their level of leadership), the more likely that critical ecological Indigenous Knowledge can be understood and embedded in the project.

Importantly, this assumption does not predict an equally beneficial outcome as measured by shortterm investor metrics, acknowledging that shortterm metrics such as speed have already been identified as problematic. Among other reasons for this, Indigenous-led projects are likely associated with longer lead times to build relationships, or with the need to establish multiple local projects to reach the scale requirements, while maintaining the integrity of localized authority and Knowledge of the relevant Indigenous peoples.

Cost-benefit trade-offs

The shorter-term financial costs associated with establishing Indigenous-led projects should be offset by a range of longer-term benefits. These include efficiency gains in executing the project (e.g. by employing Indigenous people who are both local to the area and have expertise in land management practices), accelerated scalability for future projects, and ultimately a higher-quality project that delivers across multiple ecosystem objectives.

Embedding Indigenous Knowledge and leadership also generates a range of socio-economic community benefits, including enhanced food security, employment opportunities, wealth generation and overcoming economic disadvantage (see Box 5).60

BOX 5

C Embedding

and leadership

range of benefits,

employment and

wealth generation

including enhanced

Indigenous

Knowledge

generates a

food security,

opportunities.

Job creation potential of Indigenous-led conservation and restoration

A study conducted on the job creation potential of ecosystem restoration in Brazil found that each hectare of restoration can create 0.42 jobs. In the case of Brazil's national 2022 restoration target of 12 million hectares, this means that up to 2.5 million direct jobs can be created. The study highlighted that grassroots organizations, particularly Indigenous peoples, are critical to maximizing restoration opportunities for socio-economic development.61

Launched at the recent UN Biodiversity Conference COP15, the report Decent Work in Nature Based Solutions found that of the 75 million people worldwide already employed in naturebased solutions, the vast majority live in lowermiddle income countries in Asia and the Pacific.62 It forecast that an additional 20 million jobs could be generated if investment in nature-based solutions were tripled by 2030, but called for a necessary focus on just transition policies, in part to ensure full participation of Indigenous peoples.

The report includes multiple examples of naturebased solutions involving Indigenous peoples and Indigenous Knowledge. One such case study in Burkina Faso found that traditional Indigenous restoration techniques – such as *demi-lune* dikes to retain nutrients and rainfall - could be used to address the land degradation and desertification that is increasingly afflicting the Sahel region. However, due to conflict, poverty, intense use of the land and migration, the local populations were not able to apply these techniques at the scale required.

A project was initiated in 2022 by the International Labour Organization (ILO) to assess the potential impact of these Indigenous practices and to implement them in three villages. The project successfully created 300 job opportunities, mainly for women, youth or internally displaced people (IDPs). Across the three project sites, previously barren land was successfully restored and made available for cultivation.63

Risk trade-offs

Where shorter-term trade-offs are preferred, they will need to be thoughtfully balanced with the longer-term risks associated with the absence of Indigenous leadership. These risks may include:

- Reputational risk: Greater potential for local community opposition to the project as well as internal community conflict.
- Impact risk: Increased likelihood of developing a solution that is not fit-for-purpose for the landscape and fails to deliver environmental objectives.
- Financial risk: The costs associated with projects that are ultimately unsuccessful and have to be written-off.

An investor keen to ensure long-term, high-quality outcomes should ensure long-term thinking from the very outset of the intervention, to best align the design, governance and approach – which in turn will mitigate these risks.



Where to start investing in Indigenous-led projects

Despite the obvious gains to be made from engaging with Indigenous peoples (as detailed in this report), for investors who do not have experience in engaging with these communities (or whose experience is limited to negotiating land rights or benefitssharing agreements), the prospect of investing in an Indigenous-led project may appear daunting. But it is entirely feasible with the right approach.

Globally, a number of large and small NGOs, government bodies and consultancies can be employed to guide and help facilitate the establishment of a relationship with an Indigenous community as a precursor to an investment. This will require additional funding and time, but it will also help ensure that the risks associated with landscape projects are qualified and managed.

While a third party can ensure that an Indigenous community is identified and approached respectfully, the duty of building trust and establishing relationships still falls on the investor – this will be critical for project success, even when a third party is used.

For Indigenous-led landscape conservation and restoration, in addition to the common business processes that exist around any project financing, investors will need to come prepared to listen and engage with complex social, economic, cultural and environmental needs, including those outlined below.

Unmet community needs

- Understand unmet community needs across social, economic, cultural and spiritual domains, as well as the external dimensions surrounding these needs.
- Understand pathways to achieving these needs, such as restoration of respect and self-determination, and capacity and capability building.
- For example, a community-controlled organization may require additional time and financial support to engage in outreach to their fellow nation group or collective (many of whom may no longer live on their traditional lands) and to build up skills to facilitate the project.

Pathways to meet community needs

- Explore different pathways to achieve community needs, which may include having to negotiate the return of traditional land or the control over existing land, with external covenants and limitations, where jurisdictionally permissible.
- For example, a community may require legal and/or taxation advice in regard to any necessary structural changes, in order to receive funding or hold the land title (where applicable).

Investors and Indigenous peoples are unlikely to derive the same value from every benefit, so a common understanding of the pool of benefits should be sought.

Range of project options

- Identify the range of project options that meet those community needs and fit with community ambition.
- This may include identifying "no go" zones that are sacred or of particular cultural significance, as well as potential mixed-use of the sites.
- For example, in addition to supporting conservation and restoration of a landscape, the community may seek investor support to provide or locate additional funding to develop cultural tourism sites or renewable energy options that can provide additional job opportunities and means of sustainable income for that community.

Benefit-sharing and compensation

- Ensure equitable benefit sharing and compensation agreements with Indigenous peoples for: (1) benefits arising from projects on lands and territories occupied by Indigenous peoples; and (2) the use of Indigenous Knowledge.
- For example, benefits within a landscape conservation or restoration project may accrue in the form of taxation, job creation, infrastructure-development, or carbon credits. Investors and Indigenous peoples are unlikely derive the same value from every benefit, so a common understanding of the pool of benefits should be sought from which agreements can then form. Separate to benefits-sharing agreements, Indigenous peoples should also receive direct compensation for both land-use and use of Indigenous Knowledge.

Modified reporting requirements

- Moderate or modify the reporting requirements attached to investment funding to ensure that the community has the capacity and capability to provide feedback and is not over-burdened by reporting demands.
- Additionally ensure that these reporting requirements are mindful of any cultural sensitivities.
- For example, a single community-controlled Indigenous peoples' collective may be tasked with regularly reporting on over a dozen bespoke funding arrangements to address the breadth of their community needs, with each arrangement asking for its own unique set of metrics. The administrative burden can sometimes overwhelm the ability of the community to accept or manage the investment.

Objectives and milestones

- Develop appropriate objectives and milestones for the project that are not time-bound, but process- or event-bound.
- For example, in a traditional landscape restoration project, a "measure of progress" might mean how many trees have been planted by a certain date. By contrast, in an Indigenous-led landscape restoration project, the measure might be the first sighting of an animal species once native to the area, as a signal that not only are the planted trees playing their role, but all the other ecosystem properties are coming into alignment.

CASE STUDY 4 Harvesting shea trees to allow for renewal

GreenAid is a Nigeria-based NGO that works through grassroots activities across the world towards advancing climate mitigation and environmental sustainability. Executive Director Tabi Joda is an agricultural forester working in Indigenous forestry value chain development, to enhance both environmental outcomes and local income generation.

Joda has spent over 25 years working on the frontlines, understanding the value of Indigenous Knowledge and practices, and improving the processes through which these resources can create opportunities for humans and the environment. He has been working to change narratives around the social, political and environmental changes that are affecting communities, and using Indigenous practices to help fight climate change. In an interview conducted for this report, Joda explained how responsible production and consumption (UN Sustainable Development Goal 12) are inherent to Indigenous communities. Joda has witnessed how these communities intuitively understand "harvesting to allow for renewal" and "the need to only take what they need".

He gave the example of how Indigenous communities harvest the shea tree in a way that allows for the tree's natural cycle, in which not every tree produces at the same time. As a result of this understanding, the shea tree, when harvested responsibly, can provide for a whole community. However, when shea butter production is scaled up to supply for global demand, the harvest over-exploits the trees in a way that disrupts their natural cycle.

Conclusion

Towards a new paradigm: ALIVE

Throughout this report, the complexities that investors face when engaging Indigenous peoples and Knowledge in landscape conservation and restoration solutions have been identified and explored.

A shift in approach to address these complexities may be challenging, but it will ultimately unlock reconfigured models of long-term investment returns that align with delivering shared ambition for nature and climate outcomes.

Each chapter in this report has opened by proposing a set of principles and practices to inform investors on how they should think about landscape conservation and restoration solutions and what they should do in landscape conservation and restoration. If any project is to be successful, both are equally important.

In turn, these complex principles and practices are informed by a higher-order vision, which this report defines through the acronym "ALIVE", and which comprises five domains – Acknowledgment, Leadership, Insights, Value and Expertise (see below).

The ALIVE domains are intended to guide action. They do not define an outcome, rather they guide a process by which landscape conservation and restoration projects can be conceived, designed, delivered and evaluated.

If the ALIVE domains are authentically embedded across the project lifecycle, investors should have greater confidence that the necessary actions will cascade from these domains to ensure project success. The five domains are detailed below.

Acknowledgment

Before proceeding with any land-based project, investors must first acknowledge the centrality of nature and landscapes to the identity and cultural integrity of Indigenous peoples. This should extend to both the rights and responsibilities held by Indigenous peoples.

Investors can make these acknowledgments by:

 Designing and following processes that ensure the individual and collective rights of Indigenous peoples are protected and respected, including, but not limited to, those enshrined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Ensuring that Indigenous peoples can carry out their responsibilities for sustaining landscapes, to include cultural and spiritual practices, as a priority that must be factored into the spatial planning, timing, resourcing and implementation of projects.

Leadership

If a project is to be "Indigenous-led" this requires a deliberate effort to enable and empower both people and ideas – leading through Indigenous Knowledge and being led by Indigenous peoples.

Investors can lead through Indigenous Knowledge by:

- Embedding the concept of relational obligation in their projects which will give rise to solutions that impart whole-ecosystem sustainability.
- Constructing projects with a view to enabling multigenerational responsibilities to be carried forward by the Indigenous peoples of that project's landscape, well beyond the horizon of the planned intervention.
- Designing projects from a perspective of fractal scalability rather than vertical scalability, giving rise to more localized, tailored solutions.

Investors can enable and empower Indigenous peoples to lead through:

- Learning about the social, economic and political context of a region in which they are seeking to invest in as it relates to the historical treatment of Indigenous peoples and their landscapes.
- Seeking to understand how the specific structural power dynamics within the region
 such as government regulations or industry dependencies – may disproportionately benefit themselves over the Indigenous peoples, and take action to minimize these impacts in their decision-making processes.
- Enabling and ensuring that there is genuine space for Indigenous leadership in the design, implementation, review and conflict remediation mechanisms of the project, through enabling capacity building and being willing to listen and adapt the project at the request of communities.

Insights

Taking the time to engage in deep listening and gathering insights to understand the contextual factors relevant to the community is critical to relationship building and necessary to inform project design and governance.

Investors can seek to build trusted and productive relationships by:

- Allowing sufficient time to invest in building a relationship slowly, as they would seek to build a friendship, rather than quickly, as is more the norm in transactional business relationships.
- Prioritizing process over outcome and creating a safe environment that supports Indigenous peoples in feeling comfortable to choose when and how to share their Knowledge and experiences.

Value

The way that projects are designed to deliver value and the vehicles through which that value is understood, measured and managed cannot follow a traditional investor paradigm – if they are also to successfully embed Indigenous Knowledge, achieve genuine whole-system outcomes and enable Indigenous peoples to be leaders.

In defining the value of a project investors should:

 Prioritize high-quality, culturally biodiverse, longterm outcomes that create greater ecosystemwide benefits, including when this means reducing the short-term outcomes of speed and (vertical) scale.

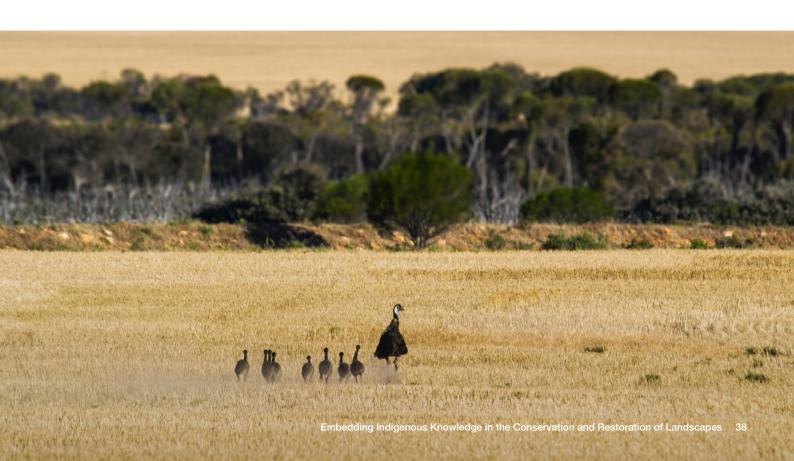
- Re-consider the investment additionality requirement in cases where this may prevent funding from flowing to Indigenous-led projects and place them at risk.
- Design measurement and reporting in such a way that minimizes the onus of administration on Indigenous peoples and recognizes milestones as tied to specific events as opposed to pre-determined intervals of time.

Expertise

The transactional knowledge exchange that is commonly accepted within business, philanthropic and government systems is not fit-for-purpose when it comes to the respect of Indigenous Knowledge systems and those within communities who hold this Knowledge.

To respect Indigenous peoples' time and expertise investors should:

- Be wary of the cultural and identity burden they may be placing on Indigenous peoples when asking them to take on roles or share Knowledge; try and self-source information from existing documentation where possible to limit this burden.
- Set aside the funds to compensate these Knowledge-holders for their participation at every stage of the investment, including for any preliminary discussions prior to investment.



After this report

This report is the beginning of a conversation that needs to be continued.

When this report was first envisioned, the ambition was to develop a document for an audience of both investors and Indigenous peoples. It became clear that reaching both audiences within the confines of a single report would fail to do justice to either. The decision was made to prioritize investors as the first step, given the risks of inaction were so profound. This prioritization does not negate the need for a separate publication intended for an audience of Indigenous peoples.

This report is therefore intended as a first step in encouraging a paradigm shift in investor relationship models with Indigenous people and landscapes. There is, however, a body of work still to be done to help investors and Indigenous peoples to better meet each other at the intersection of interests in landscape conservation and restoration.

While not intended as an exhaustive list, the topics listed below have been identified for future research and publications. It is critical to the development of any further work that it be developed with *Indigenous leadership.*

- Detailed case studies of projects and key learnings, mapped against the investor governance spectrum
- Identify the differentiated legal frameworks and solutions that Indigenous landscapes might be subject to
- Market matching solutions for investors and Indigenous communities
- Recommendations for working with intermediaries such as NGOs
- Apply or alter the raft of global standards from the position of Indigenous leadership
- Manage specific risks when working in foreign lands (including bribery and corruption)
- Develop equitable Indigenous-led benefitsharing models
- Detailed guidance for investors on engagement with Indigenous peoples
- Detailed guidance for Indigenous peoples on engagement with investors

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Endnotes

1.	The United Nations Office at Geneva, COP27: Protecting biodiversity is protecting the Paris Agreement, https://www.ungeneva.org/en/news-media/news/2022/11/cop27-protecting-biodiversity-protecting-paris-agreement, 16 November 2022.
2.	WWF, UNEP-WCMC, SGP/ICCA-GSI, LM, TNC, CI, WCS, EP, ILC-S, CM, IUCN, The State of Indigenous Peoples' and Local Communities' Lands and Territories: A technical review of the state of Indigenous Peoples' and Local Communities' lands, their contributions to global biodiversity conservation and ecosystem services, the pressures they face, and recommendations for actions, https://wwf.be/sites/default/files/2021-06/REPORT%20The%20State%20of%20the%20Indigenous%20 Peoples%E2%80%99%20and%20Local%20Communities%E2%80%99%20lands%20and%20territories.pdf, 2021.
3.	Bohensky, E. L., J. R. A. Butler and J. Davies, Integrating Indigenous Ecological Knowledge and Science in Natural Resource Management: Perspectives from Australia, Ecology & Society, 18(3): 20, http://dx.doi.org/10.5751/ES-05846-180320, 2013.
4.	Goodchild, Melanie et al., Indigenous Systems Thinking, The Other Others, Spotify, https://open.spotify.com/episode/7EVHUQQky4XRlil0u0WQfd?si=bd44471b4e3a4842, 2021.
5.	Michell, H., <i>Nēhîthâwâk of Reindeer Lake, Canada: Worldview, Epistemology and Relationships with the Natural World</i> , The Australian Journal of Indigenous Education, 34(1), 33–43, <u>https://doi.org/10.1017/s132601110000394x</u> , 2005.
6.	Lindsay, M., Beames, L., Yawuru Country Managers, Nyul Nyul Rangers and Bardi Jawi Rangers, <i>Integrating scientific and aboriginal knowledge, practice and priorities to conserve an endangered rainforest ecosystem in the Kimberley region, Northern Australia</i> , Ecological Management & Restoration, 23(S1), 93-104, https://doi.org/10.1111/emr.12535 , 28 January 2022.
7.	Barker, L. L., <i>Aboriginal Rainmakers, Water Policy, Imagination and Innovation,</i> Routledge, 41-52, <u>https://doi.org/10.4324/9781315189901-3</u> , 2017.
8.	WWF, UNEP-WCMC, SGP/ICCA-GSI, LM, TNC, CI, WCS, EP, ILC-S, CM, IUCN, The State of Indigenous Peoples' and Local Communities' Lands and Territories: A technical review of the state of Indigenous Peoples' and Local Communities' lands, their contributions to global biodiversity conservation and ecosystem services, the pressures they face, and recommendations for actions, https://wwfint.awsassets.panda.org/downloads/report_the_state_of_the_indigenous_peoples_and_local_communities_lands_and_territor.pdf, 2021.
9.	Goolmeer, Teagan, Anja Skroblin and Brendan A. Wintle, <i>Getting our Act together to improve Indigenous leadership and recognition in biodiversity management</i> , Ecological Management & Restoration, Vol.23, No.S1, https://onlinelibrary.wiley.com/doi/pdf/10.1111/emr.12523 , January 2022.
10.	International Work Group for Indigenous Affairs (IWGIA), Indigenous peoples in Brazil,
10.	https://www.iwgia.org/en/brazil.html, 2022.
11.	
	https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,
11.	https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1),</i> <u>https://doi.org/10.1186/s13002-020-00403-2</u> , 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality</i> ,
11. 12.	https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1),</i> https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality,</i> https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital,</i>
11. 12. 13.	https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia, Journal of Ethnobiology and Ethnomedicine, 16(1), https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, Carbon Offset Guide: Additionality, https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, Banking on natural capital, https://www2.deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., Planetary Boundaries: Exploring the Safe Operating Space for Humanity, Ecology & Society,
11. 12. 13. 14.	https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1),</i> https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality,</i> https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital,</i> https://www2.deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., <i>Planetary Boundaries: Exploring the Safe Operating Space for Humanity,</i> Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009.
 11. 12. 13. 14. 15. 	 https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1),</i> https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality,</i> https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital,</i> https://www2.deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., <i>Planetary Boundaries: Exploring the Safe Operating Space for Humanity,</i> Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009. Raworth, Kate, <i>Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist,</i> Penguin Random House, p.49, 2017.
 11. 12. 13. 14. 15. 16. 	 https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1),</i> https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality,</i> https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital,</i> https://www2.deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., <i>Planetary Boundaries: Exploring the Safe Operating Space for Humanity,</i> Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009. Raworth, Kate, <i>Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist,</i> Penguin Random House, p.49, 2017. Deloitte Economics Institute, <i>Turning Point: Technical appendix,</i> August 2021.
 11. 12. 13. 14. 15. 16. 17. 	 https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia, Journal of Ethnobiology and Ethnomedicine, 16(1), https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, Carbon Offset Guide: Additionality, https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, Banking on natural capital, https://www.2.deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., Planetary Boundaries: Exploring the Safe Operating Space for Humanity, Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009. Raworth, Kate, Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist, Penguin Random House, p.49, 2017. Deloitte Economics Institute, Turning Point: Technical appendix, August 2021. World Wildlife Fund, Living Planet Report 2022, https://wwflpr.panda.org/, 2022. McKie, Robin, 'We need a breakthrough deal on biodiversity': can Montreal summit deliver for nature?, The Guardian, https://www.theguardian.com/environment/2022/nov/27/biodiversity-montreal-summit-nature-earth-
 11. 12. 13. 14. 15. 16. 17. 18. 	 https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1)</i>, https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality</i>, https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital</i>, https://www.2deloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., <i>Planetary Boundaries: Exploring the Safe Operating Space for Humanity</i>, Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009. Raworth, Kate, <i>Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist</i>, Penguin Random House, p.49, 2017. Deloitte Economics Institute, <i>Turning Point: Technical appendix</i>, August 2021. World Wildlife Fund, <i>Living Planet Report 2022</i>, https://wwflpr.panda.org/, 2022. McKie, Robin, <i>'We need a breakthrough deal on biodiversity': can Montreal summit deliver for nature?</i>, The Guardian, https://www.theguardian.com/environment/2022/nov/27/biodiversity-montreal-summit-nature-earth-wildlife-canada?CMP=Share_AndroidApp_Other, 23 November 2022. Weisse M. and L. Goldman, <i>Forest Loss Remained Stubbornly High in 2021</i>, Global Forest Watch,
 11. 12. 13. 14. 15. 16. 17. 18. 19. 	 https://www.iwgia.org/en/brazil.html, 2022. Si, Aung, <i>Patterns in the transmission of traditional ecological knowledge: a case study from Arnhem Land, Australia,</i> Journal of Ethnobiology and Ethnomedicine, <i>16(1)</i>, https://doi.org/10.1186/s13002-020-00403-2, 2020. Greenhouse Gas Management Institute and the Stockholm Environment Institute, <i>Carbon Offset Guide: Additionality,</i> https://www.offsetguide.org/high-quality-offsets/additionality/, 2022. Deloitte, <i>Banking on natural capital,</i> https://www.cleloitte.com/au/en/pages/about-deloitte/articles/banking-natural-capital.html, 2022. Rockström, J. et al., <i>Planetary Boundaries: Exploring the Safe Operating Space for Humanity,</i> Ecology & Society, 14(2): 32, https://www.ecologyandsociety.org/vol14/iss2/art32/, 2009. Raworth, Kate, <i>Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist,</i> Penguin Random House, p.49, 2017. Deloitte Economics Institute, <i>Turning Point: Technical appendix,</i> August 2021. World Wildlife Fund, <i>Living Planet Report 2022,</i> https://wwflpr.panda.org/, 2022. McKie, Robin, 'We need a breakthrough deal on biodiversity': can Montreal summit deliver for nature?, The Guardian, https://www.theguardian.com/environment/2022/nov/27/biodiversity-montreal-summit-nature-earth-wildlife-canada?CMP=Share_AndroidApp_Other, 23 November 2022. Weisse M. and L. Goldman, <i>Forest Loss Remained Stubbornly High in 2021,</i> Global Forest Watch, https://www.globalforestwatch.org/blog/data-and-research/global-tree-cover-loss-data-2021/, 28 April 2022. World Wildlife Fund, <i>Deforestation and Forest Degradation,</i>

23. Amazon Watch, NGOs Release Letter Accusing Brazilian State of Pará of Greenwashing Through Carbon Credit Schemes, https://amazonwatch.org/news/2021/1109-ngos-release-letter-accusing-brazilian-state-of-para-of-greenwashingthrough-carbon-credit-schemes, 9 November 2021.

- 24. Morton, Adam, *Forest regeneration that earned multimillion-dollar carbon credits resulted in fewer trees, analysis finds*, The Guardian, <u>https://www.theguardian.com/environment/2022/nov/07/forest-regeneration-that-earned-multimillion-dollar-carbon-credits-resulted-in-fewer-trees-analysis-finds</u>, 6 November 2022.
- 25. Stavroula Melanidis, M. and S. Hagerman, *Competing narratives of nature-based solutions: Leveraging the power of nature or dangerous distraction?*, Environmental Science & Policy, 132: 273–281, June 2022.
- 26. United Nations Environment Programme, *The State of Finance for Nature in the G20 Report*, https://www.unep.org/resources/report/state-finance-nature-g20-report, 26 January 2022.
- Bohensky, E. L., J. R. A. Butler and J. Davies, Integrating Indigenous Ecological Knowledge and Science in Natural Resource Management: Perspectives from Australia, Ecology & Society, 18(3): 20, http://dx.doi.org/10.5751/ES-05846-180320, 2013.
- Hill, R., Grant, C., George, M., Robinson, C. J., Jackson, S., and Abel, N., A Typology of Indigenous Engagement in Australian Environmental Management: Implications for Knowledge Integration and Social-ecological System Sustainability, Ecology & Society, 17(1): 23, https://doi.org/10.5751/es-04587-170123, 2012.
- 29. Lindsay, M., Beames, L., Yawuru Country Managers, Nyul Nyul Rangers and Bardi Jawi Rangers, *Integrating scientific and aboriginal knowledge, practice and priorities to conserve an endangered rainforest ecosystem in the Kimberley region, Northern Australia*, Ecological Management & Restoration, 23(S1), 93-104, <u>https://doi.org/10.1111/emr.12535</u>, 28 January 2022.
- Catanoso, J., Climate mitigation has an ally in need of recognition and land rights: indigenous peoples in tropical countries, Mongabay, <u>https://news.mongabay.com/2018/09/climate-mitigation-has-an-ally-in-need-of-recognition-and-land-rights-indigenous-peoples-in-tropical-countries</u>, 10 September 2018.
- 31. Lee, J., *The world's healthiest forests are on Indigenous land. Here's why*, Grist, <u>https://grist.org/global-indigenous-affairs-desk/the-worlds-healthiest-forests-are-on-indigenous-land-heres-why/</u>, 28 October 2022.
- 32. World Economic Forum, Forests for Climate: Scaling up Forest Conservation to Reach Net Zero, https://www3.weforum. org/docs/WEF_Forests_for_Climate_2022.pdf, September 2022.
- Popkin, G., 'Forest gardens' show how Native land stewardship can outdo nature, National Geographic, <u>https://www.nationalgeographic.com/environment/article/forest-gardens-show-how-native-land-stewardship-can-outdo-nature</u>, 23 April 2021.
- 34. Weir J., Stacey C. and Youngetob K., *The Benefits Associated with Caring for Country*, Department of Sustainability, Environment, Water, Population and Communities, Australian Government and Australian Institute of Aboriginal and Torres Strait Islander Studies, <u>https://aiatsis.gov.au/sites/default/files/research_pub/benefits-cfc_0_2.pdf</u>, June 2011.
- 35. Royal Commission into National Natural Disaster Arrangements, *Background Paper: Cultural burning practices in Australia,* <u>https://naturaldisaster.royalcommission.gov.au/system/files/2020-06/Cultural%20burning%20practices%20in%20</u> <u>Australia%20-%20Background%20Paper.pdf</u>, June 2020.
- 36. Food and Agriculture Organization of the United Nations (FAO), Forest governance by indigenous and tribal peoples. An opportunity for climate action in Latin America and the Caribbean, https://www.fao.org/documents/card/en/c/cb2953en, 2021.
- 37. Food and Agriculture Organization of the United Nations (FAO), Forest governance by indigenous and tribal peoples. An opportunity for climate action in Latin America and the Caribbean, https://www.fao.org/documents/card/en/c/cb2953en, 2021.
- Schiffman, R., Lessons Learned from Centuries of Indigenous Forest Management, Yale Environment 360, https://e360.yale.edu/features/lessons-learned-from-centuries-of-Indigenous-forest-management, 20 August 2018.
- Howitt, R., Sustainable indigenous futures in remote Indigenous areas: relationships, processes and failed state approaches, GeoJournal, 77(6), 817-828, <u>https://www.jstor.org/stable/23325390</u>, 2 September 2010.
- 40. United Nations Office of the High Commissioner for Human Rights (OHCHR), *Acting High Commissioner: Addressing the Legacies of Colonialism Can Contribute to Overcoming Inequalities Within and Among States and Sustainable Development Challenges of the Twenty-First Century*, <u>https://www.ohchr.org/en/press-releases/2022/09/acting-high-commissioner-addressing-legacies-colonialism-can-contribute</u>, 28 September 2022.
- 41. Marshall, V., *Removing the Veil from the 'Rights of Nature': The Dichotomy between First Nations Customary Rights and Environmental Legal Personhood*, Australian Feminist Law Journal, 45(2), 233-248, https://doi.org/10.1080/1320096 8.2019.1802154, 30 September 2020.
- 42. Ramos-Castillo, A., Castellanos, E. J. and Galloway McLean, K., *Indigenous peoples, local communities and climate change mitigation*, Climatic Change, 140(1), 1-4, <u>https://doi.org/10.1007/s10584-016-1873-0</u>, 3 January 2017.
- 43. Gratani, M., J. R. A. Butler, F. Royee, P. Valentine, D. Burrows, W. I. Canendo, and A. S. Anderson, *Is Validation of Indigenous Ecological Knowledge a Disrespectful Process? A Case Study of Traditional Fishing Poisons and Invasive Fish Management from the Wet Tropics, Australia, Ecology and Society, 16(3):25, <u>https://www.researchgate.net/</u>publication/265045037_Is_Validation_of_Indigenous_Ecological_Knowledge_a_Disrespectful_Process_A_Case_Study_of_Traditional_Fishing_Poisons_and_Invasive_Fish_Management_from_the_Wet_Tropics_Australia, September 2011.*
- 44. Wohling, M., *The Problem of Scale in Indigenous Knowledge: a Perspective from Northern Australia*, Ecology and Society 14(1): 1, <u>https://www.jstor.org/stable/26268043#metadata_info_tab_contents</u>, June 2009.
- 45. Bohensky, E. L., and Y. Maru., *Indigenous Knowledge, Science, and Resilience: What Have We Learned from a Decade of International Literature on "Integration"?*, Ecology & Society, 16(4): 6, <u>https://www.ecologyandsociety.org/vol16/iss4/art6/</u>, 2011.
- 46. Parks Australia, Men's and women's business, https://parksaustralia.gov.au/uluru/discover/culture/mens-and-womens-business/.

- 47. Cherry Wulumirr Daniels, Ngukurr Yangbala rangers, Shaina Russell and Emilie J. Ens., *Empowering young Aboriginal women to care for Country: Case study of the Ngukurr Yangbala rangers, remote northern Australia,* Ecological Management & Restoration, Vol. 23, No. S1, 28 January 2022.
- 48. Goolmeer, T., Skroblin, A., Grant, C., Leeuwen, S., Archer, R., Gore-Birch, C. and Wintle, B.A., *Recognizing culturally significant species and Indigenous-led management is key to meeting international biodiversity obligation,* Conservation Letters, <u>https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/conl.12899</u>, 19 May 2022.
- 49. United Nations Office of the High Commissioner for Human Rights (OHCHR), *Free, prior and informed consent: a human rights-based approach Study of the Expert Mechanism on the Rights of Indigenous Peoples*, https://www.ohchr.org/en/documents/thematic-reports/free-prior-and-informed-consent-human-rights-based-approach-study-expert, 10 August 2018.
- 50. United Nations, United Nations Declaration on the Rights of Indigenous Peoples, https://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf, March 2008.
- 51. Corntassel, J. *Towards Sustainable Self-Determination: Rethinking the Contemporary Indigenous-Rights Discourse,* Alternatives 33(1), 105-132, <u>https://journals.sagepub.com/doi/10.1177/030437540803300106</u>, 1 January 2008.
- 52. Barker, L. L., *Aboriginal Rainmakers, Water Policy, Imagination and Innovation,* Routledge, 41-52, https://doi.org/10.4324/9781315189901-3, 2017.
- Cooke, P., Fahey, M., Ens, E. J., Raven, M., Clarke, P. A., Rossetto, M., and Turpin, G., *Applying biocultural research protocols in ecology: Insider and outsider experiences from Australia*, Ecological Management & Restoration, 23(S1), 64-74, <u>https://doi.org/10.1111/emr.12545</u>, 28 January 2022.
- 54. Mowaljarlai, D. and Ngarinyin, Yorro Yorro: Everything Standing Up Alive, ABC Radio, 1995.
- 55. Michell, H., *Nēhîthâwâk of Reindeer Lake, Canada: Worldview, Epistemology and Relationships with the Natural World*, The Australian Journal of Indigenous Education, 34(1), 33–43, <u>https://doi.org/10.1017/s132601110000394x</u>, 2005.
- Holmes, M. C. C. and W. (S. P.) Jampijinpa, Law for Country: the Structure of Warlpiri Ecological Knowledge and Its Application to Natural Resource Management and Ecosystem Stewardship, Ecology and Society, 18(3), <u>https://doi.org/10.5751/es-05537-180319</u>, 2013.
- 57. World Economic Forum, *This Indigenous principle could transform nature investing*, https://www.weforum.org/agenda/2022/09/indigenous-principle-invest-in-nature/, 19 September_2022.
- 58. Boston Consulting Group, *Die Another Day: What Leaders Can Do About the Shrinking Life Expectancy of Corporations*, <u>https://www.bcg.com/publications/2015/strategy-die-another-day-what-leaders-can-do-about-the-shrinking-life-expectancy-of-corporations</u>, 2 December 2015.
- 59. Weir J., Stacey C. and Youngetob K., *The Benefits Associated with Caring for Country*, Department of Sustainability, Environment, Water, Population and Communities, Australian Government and Australian Institute of Aboriginal and Torres Strait Islander Studies, <u>https://aiatsis.gov.au/sites/default/files/research_pub/benefits-cfc_0_2.pdf</u>, June 2011.
- Brancalion, P. H. S., de Siqueira, L. P., Amazonas, N. T., Rizek, M. B., Mendes, A. F., Santiami, E. L., Rodrigues, R. R., Calmon, M., Benini, R., Tymus, J. R. C., Holl, K. D., & Chaves, R. B., *Ecosystem restoration job creation potential in Brazil*, People and Nature, 4(6), 1426-1434, <u>https://doi.org/10.1002/pan3.10370</u>, December 2022.
- 61. United Nations Environment Programme (UNEP), *Nature-based Solutions can generate 20 million new jobs, but "just transition" policies needed*, <u>https://www.unep.org/news-and-stories/press-release/nature-based-solutions-can-</u> <u>generate-20-million-new-jobs-just</u>, 8 December 2022.
- 62. International Labour Organization (ILO), the United Nations Environment Programme (UNEP), and the International Union for Conservation of Nature (IUCN), *Decent Work in Nature-based Solutions*, <u>https://www.unep.org/resources/report/</u><u>decent-work-nature-based-solutions</u>, 8 December 2022.



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