

FOREST RESTORATION CATALYST



MEETING THE CLIMATE
CHALLENGE WITH FOREST
RESTORATION AT SCALE



Photo: WCS

Vision

Trillion Trees is a joint venture between three of the world's leading conservation organisations: BirdLife International [BLI], World Wildlife Fund [WWF] and Wildlife Conservation Society [WCS]. With a global portfolio of conservation partnerships covering over one billion hectares, our mission is to speed up and scale up the protection and restoration of forests, for the benefit of people, nature, and the climate.

In the next six years, we aim to incubate 20 forest landscape restoration initiatives with the potential to sustain high quality restoration at scale [$>10,000$ hectares]. We will achieve this through our new Forest Restoration Catalyst [FRC], which aims to catalyse the restoration of 250,000 ha of forest by 2030. We aim to leverage private sector investment of over \$1 billion to secure ecological recovery, underpin climate resilience, and deliver a just transition to regenerative and sustainable economies.

Overview

Investments in Nature-based Solutions are critical to stay within the two-degree target for global warming and create a climate resilient future. Forests provide both climate mitigation and climate adaptation benefits. Yet, while these benefits have clear value to the global economy, the flow of investment remains limited by:

- An insufficient enabling environment to permit scale while maintaining equitable governance
- The absence of recognised frameworks for good practice, and reliable impact metrics for people and nature as well as climate
- Few credible feasibility studies demonstrating nature-based outcomes and viable investment opportunities

SUMMARY

To address these challenges, Trillion Trees has partnered with Finance Earth, a leading environmental impact investment adviser and fund manager, to design and launch the Forest Restoration Catalyst. To unlock the potential of forests, we are bringing forward a portfolio of landscape level initiatives to achieve restoration at scale, located in some of our most vulnerable and critically important biodiverse areas.

The Forest Restoration Catalyst will support landscapes to reverse biodiversity loss, while enabling the just transition to regenerative economies for communities highly impacted by climate and economic shocks.

The Forest Restoration Catalyst's phased pathways across policy, impact identification and monitoring, and financing, have been designed to enable the delivery of high-quality forest restoration at scale. Supported projects will develop and realise bespoke financing approaches such as outcome-based payments (e.g., carbon, biodiversity, water, livelihoods), sustainable commodity production, and other revenue models, capitalising on growing interest in supporting high-quality Nature-based Solutions.

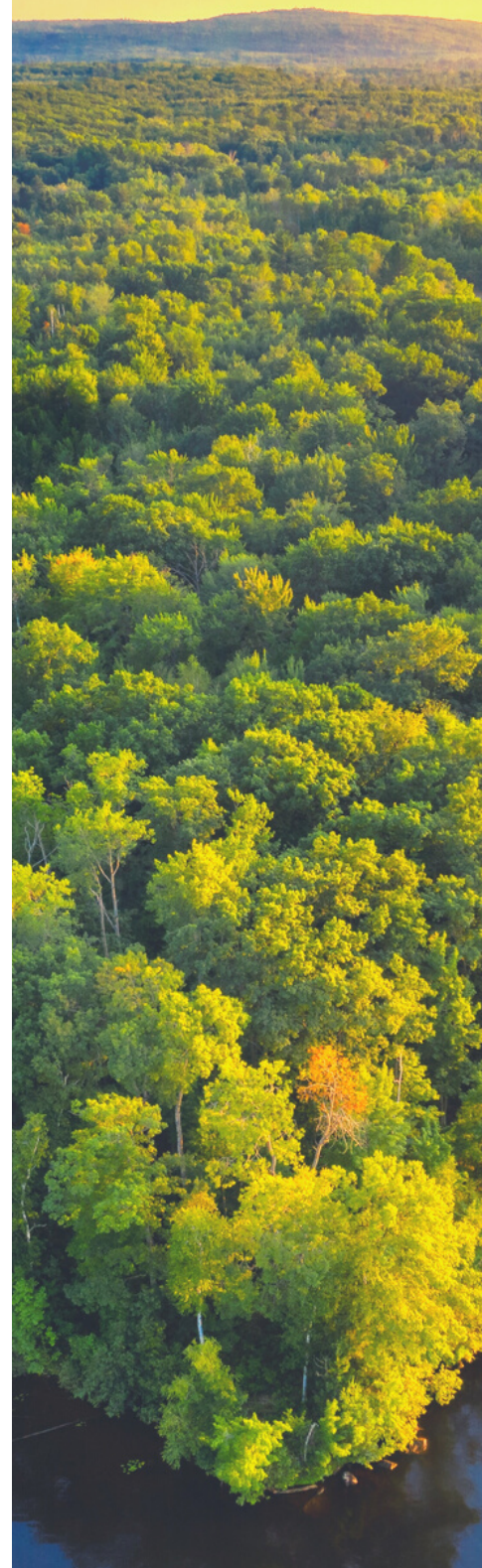
Trillion Trees is seeking support for the next phase of the Forest Restoration Catalyst, with opportunities for funders to support in a range of areas, including:

- Supporting landscapes with value chain/materiality interests through the Forest Restoration Catalyst package of support, aligned to SBTi;
- A cohort of landscape projects through certain aspects of the Forest Restoration Catalyst support; or
- All aspects of the Forest Restoration Catalyst provision.

INVESTMENT IN NATURE-BASED OUTCOMES IS CRITICAL

To prevent global warming, we must reduce greenhouse gas (GHG) emissions and end our reliance on fossil fuels. However, we cannot meet the goals of the Paris Climate Agreement or Convention on Biological Diversity (CBD) without the conservation and restoration of nature[1]. Nature-based solutions offer cost-effective climate solutions that are available to us now in parallel to fossil fuel phase out. For example, trees, and more specifically, forests regulate water availability through local weather patterns and the global climate. Forests already absorb around one quarter of global anthropogenic emissions, with the potential to provide up to a third of the climate mitigation needed by 2030 to stay within two degrees of global warming[2].

Protection and restoration of forests are both needed at an unprecedented scale, requiring strengthened and innovative collaboration between public and private financial resources. These would mobilize the considerable planetary returns from forest restoration where \$1 invested delivers at least \$9 in benefits to local communities and the climate[3]. As Investors recognise this potential, the demand for nature-based investment opportunities is growing. Yet, private sector investment remains only 17% of the total invested in Nature-based Solutions in 2022[4], hampered by the critical shortage of investment-ready projects delivering clearly quantified benefits.



To increase the pipeline of investable forest restoration projects, three crucial barriers need to be overcome:

1. The lack of an enabling environment where local and national governments are supportive of restoration ambitions, and land use incentives are aligned.
2. The lack of clear metrics through which environmental and social impacts can be tracked and ensuring the delivery of best practices on the ground.
3. The need for robust business plans and detailed feasibility assessments showing how nature-based outcomes can be generated, and that there are buyers willing to pay for these outcomes at a level which covers the costs of the project.

THE TRILLION TREES LANDSCAPES PORTFOLIO

Trillion Trees is a collaboration of three of the world's leading conservation organizations - WWF, BirdLife International and WCS – forged to accelerate forest restoration at scale, to conserve biodiversity, increase human wellbeing, and tackle our climate crisis. Our combined landscape portfolio, [where our conservation programmes seek to influence and delivery direct impact] extends across 1 billion hectares of the Earth's land surface. 154 million hectares has very high potential for reforestation, and there are around 170 million hectares of degraded forest with high potential for natural forest recovery[5].

Trillion Trees is committed to high quality restoration that is co-designed with local communities and delivers benefits for biodiversity, climate, and local communities. We believe that sustainable, nature-based economies are a necessary part of that process. Concentrating our efforts at the forest frontier presents the greatest potential to reverse biodiversity loss, address unsustainable land use change, and deliver positive outcomes for rural people. By applying Forest Landscape Restoration [FLR] Guiding Principles[6] we address the underlying drivers of land use change, and build participatory and collaborative approaches that reinforce the rights of local actors.

We put people at the centre of our interventions. The Forest Restoration Catalyst will use a people-centred process to co-design restoration goals and financing for each landscape, with an emphasis on inclusive and right-based approaches. Trillion Trees partners have robust social safeguard frameworks, and we are committed to championing local rights-holders, communities, and jurisdictions as the ultimate decision-makers in delivering a climate resilient future.



THE FOREST RESTORATION CATALYST

The Forest Restoration Catalyst has been designed to help our landscape partnerships to develop bespoke financing approaches, unlocking capital from outcome-based payments (e.g., carbon, biodiversity, water, livelihoods) or alternative revenue models, such as sustainable production of commodities. The Forest Restoration Catalyst works closely with landscapes to identify key pathways across three workstreams that need to advance together to create the basis for sustainable financing for Forest Landscape Restoration. It takes projects through three stages of development: feasibility, investment readiness, and acceleration [Fig. 1]

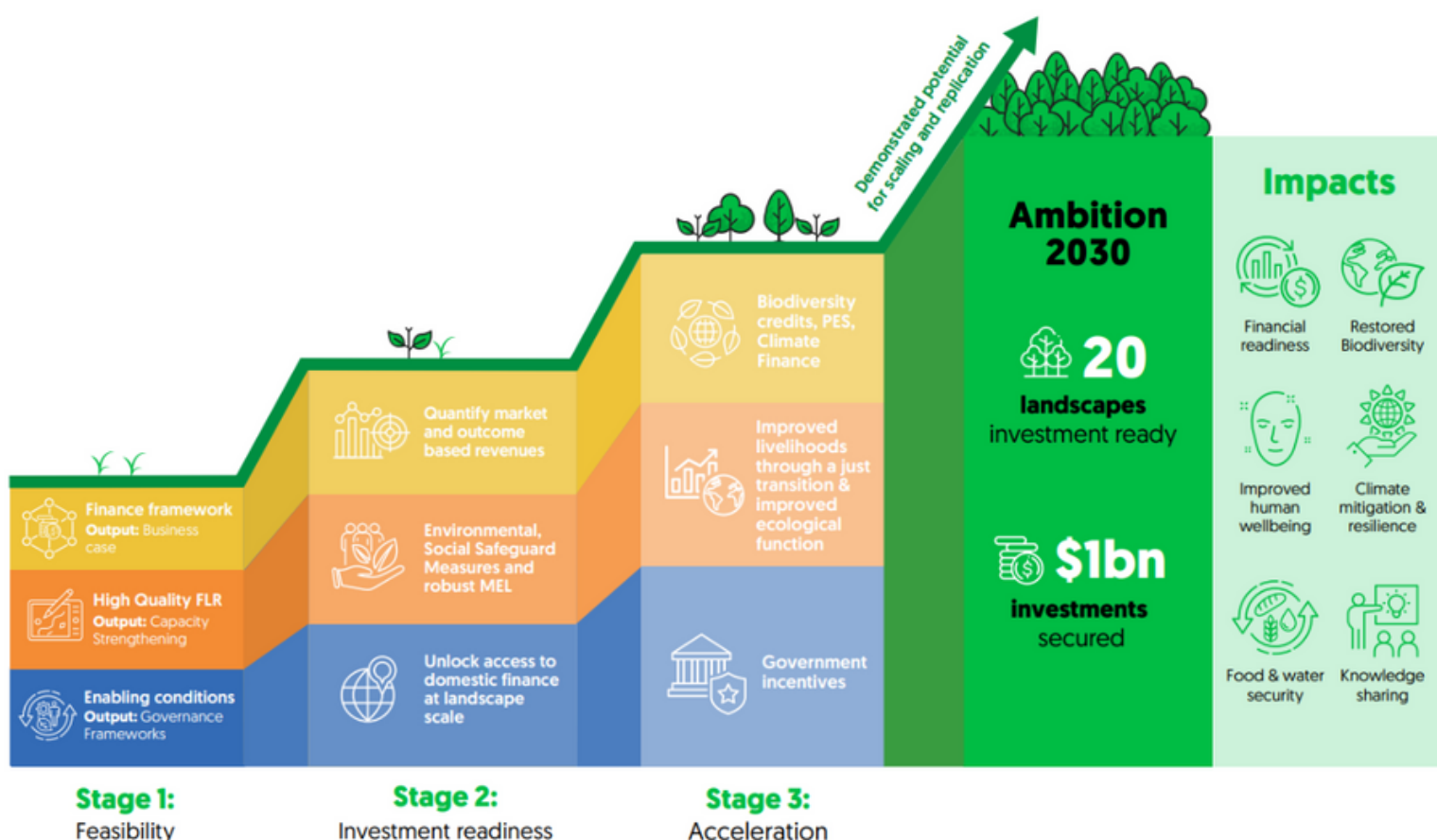


Figure 1. Forest Restoration Catalyst pathways to impact.

CATALYST WORKSTREAMS

Enabling conditions

Identifying the policies and regulations needed to promote and secure restoration while enabling sustainable and equitable investment into nature-based outcomes. Developing governance frameworks that ensure equitable decision making and benefit sharing. In the long term this can help create complimentary public and private incentives, reducing risks for rights holders and increasing the scope for action and finance at scale.

High quality

Building capacity to empower our partnerships to adopt and drive forward sectoral best practices for impact forecasting, monitoring, and accountability as impacts. Developing cost effective monitoring approaches while embedding robust social and environmental safeguards from the outset, co-developing interventions with rightsholders and partners strengthening marginalized voices to support a just transition. Over the long-term this ensures the livelihood, biodiversity and climate impacts of investments can be reliably tracked and ensure that benefits are shared appropriately with local stakeholders.

Financing

Establishing sustainable financing models through robust feasibility assessments, developing viable business plans to restore and sustain our landscapes, alongside commitments from all relevant stakeholders, including buyers. This means developing a portfolio of suitable outcome-based financing opportunities and the matchmaking of these opportunities with potential markets. Over the long term this will deliver a just transition to regenerative and sustainable economies.



THE MARKET OPPORTUNITY

FINANCE EARTH

As the UK's leading impact investment advisor, active in 30+ countries worldwide, Finance Earth has a depth of experience advising on a variety of financing mechanisms [including blended financing] across a range of terrestrial and marine ecosystems. This provides us with a strong foundation of expertise and deep knowledge which can be leveraged for this project. Finance Earth has extensive experience working in the Global South across a diverse range of countries and landscapes, including degraded forests, and is a market leader in designing innovative financing mechanisms that deliver positive impact for nature and communities.

Forest Landscape Restoration can provide a variety of benefits to people and nature, from carbon sequestration, and biodiversity enhancement, to commodity production and ecotourism. While each of these markets and opportunities is at a different stage of development, the scale of opportunity is significant. Boston Consulting Group estimates the Voluntary Carbon Market alone to have been worth \$2 billion in 2021 – four times that of its value in 2020 – with a prediction for the market to reach between \$10 billion and \$40 billion by 2030[7]. Markets for biodiversity benefits of Nature-based Solutions projects are developing at pace, supported in-part by the recent introduction of the Taskforce for Nature-related Financial Disclosures. Finance Earth's Fisheries Improvement Fund [which generates income through a volume-based fee from off-take companies] has had significant interest from a range of stakeholders and offers a further approach that could be explored in relation to Forest Landscape Restoration and sustainable forest economies.

Trillion Trees is working with Finance Earth to develop a system of bespoke support, that moves projects through a sequence of milestones towards investment. Projects will transition from grant support to outcomes-based payments over the period of Catalyst support. We have pre-screened an initial cohort of landscape programmes for investment across Latin America, East Africa and SE Asia, and are now seeking support for the next phase of financial design and pilot development for these landscapes. The projects chosen for this initial phase will be those from the project pipeline where rapid advancement is possible towards private sector investment.

Finance Earth has recent experience designing and launching a similar programme through its [UK Nature Accelerator](#) which, having launched in November 2023, has received significant interest, and will begin to deliver in January 2024.

INVESTMENT PORTFOLIO EXAMPLES

The Forest Restoration Catalyst will support landscape initiatives with high potential for forest restoration at scale. Combined these have the potential to make a globally significant climate contribution and support these landscape partnerships with measurable progress towards financial autonomy and sustainable growth. The selection of landscapes for the Forest Restoration Catalyst portfolio is informed by recent analysis of the global potential for forest restoration. In particular, where this can contribute to securing greater ecological integrity of the world's remaining forests[8]. This analysis also highlighted the climate and biodiversity benefits of restoring degraded areas that are contiguous with high integrity forest.

All landscape partnerships selected are located where the Trillion Trees partner organisations already have a long-term presence on the ground, a deep understanding of the local context, the challenges and opportunities, and landscape level partners that are committed to forest restoration at scale. To be eligible for Catalyst support, programmes must be able to demonstrate:

- Significant potential for scaling forest landscape restoration [FLR] (e.g., approx. 10,000 ha of forest restoration potential, ability to sequester at least 1 million tCO₂ over 30 years at full scale implementation -OR- equivalent value in other ecosystem services).
- Demonstrable stakeholder support, including from relevant government agencies for scaling FLR across the landscape, and the potential for continued, active participation of local landowners and communities.
- A clear pathway to achieving financial viability (e.g., potential to deliver verifiable high-quality carbon credits, measurable biodiversity enhancements, water management benefits with an interested buyer, or opportunities to achieve FLR at scale through sustainable commodity production)



FOREST RESTORATION OPPORTUNITY

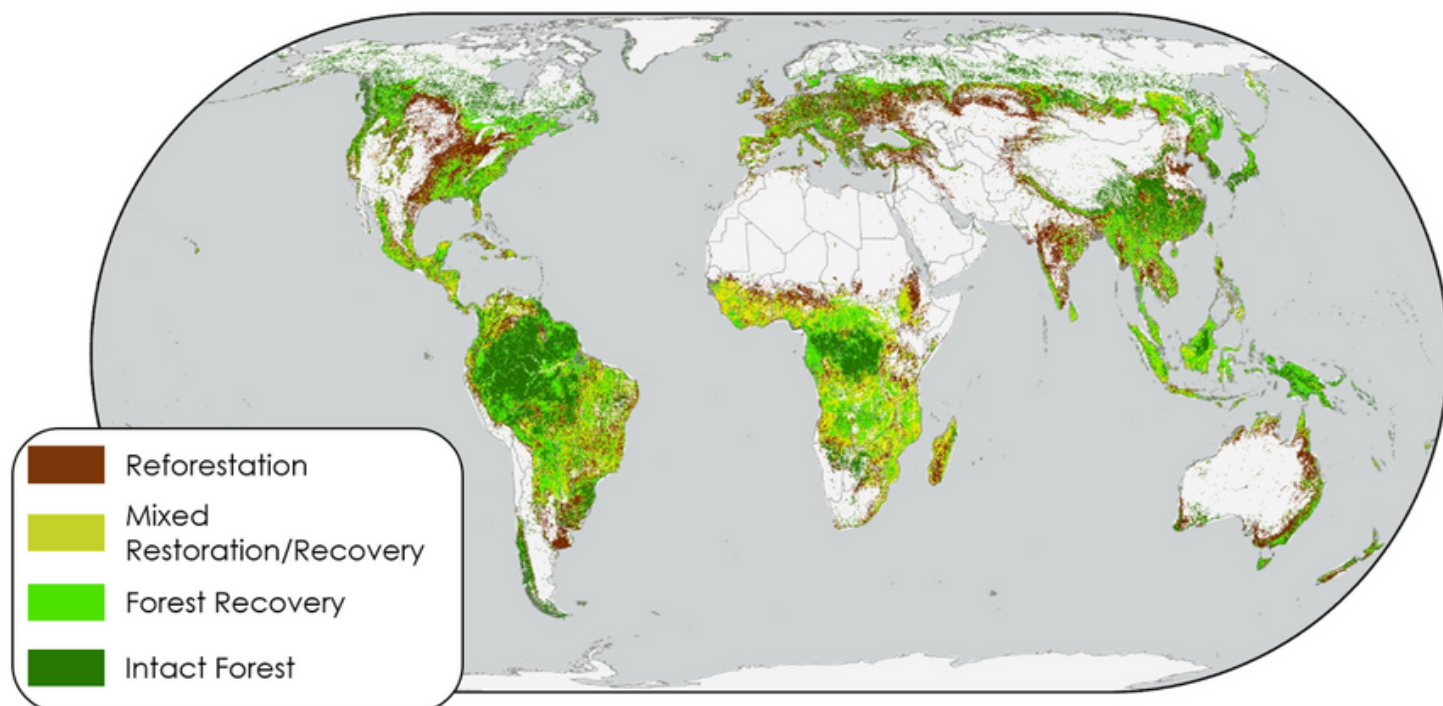
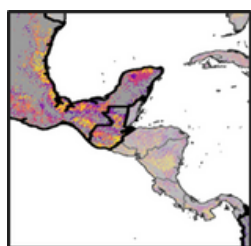
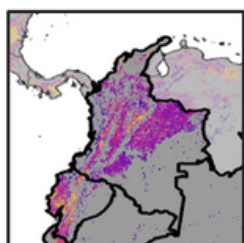
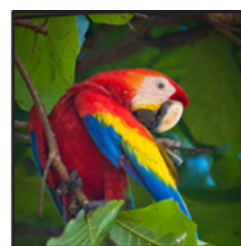


Figure 2. Map of global, biophysical potential for forest restoration broken out into three categories according to the level of remaining natural biomass[7].



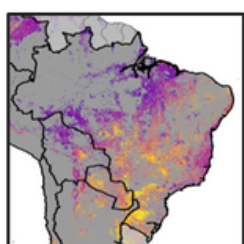
Maya Biosphere Reserve

Leveraging climate finance to restore illegally deforested pasture land in local community management reserves. Enhancing carbon storage and habitat for endangered jaguar, scarlet macaw.



Western Andes

Leveraging Payment for Ecosystem Services to restore forest in critical water catchments, improving connectivity for wildlife, including the Andean bear and the brown spider monkey



Upper Parana, Atlantic Forest

Leveraging Payment for Ecosystem Services and reversing perverse subsidies to support riparian forest restoration, increasing connectivity with Iguacu National Park and habitat for the black-fronted piping guan



Figure 3. Landscape partnership examples in South and Central America with significant potential for forest restoration at scale, sustained through payments for nature-based outcomes.

PILOT LANDSCAPE: ATLANTIC FOREST

The Atlantic Forest covers 142 million hectares across Brazil, Argentina, and Paraguay. It remains one of the top five global biodiversity hotspots: containing 7% of the Earth's plant species and 5% of fauna species. An estimated 154 million people - a third of South America's population - rely on forest ecosystem services in the landscape.

Almost 90% of the Atlantic Forest has been lost to agriculture, particularly soy cultivation, pasture lands, and human development. Between 2000-2019, 14.4 million hectares of this native cover were deforested ([MapBiomas 2020](#)). The new Brazilian government has pledged to ensure illegally deforested lands are restored to forest cover, but municipalities and state governments need support to create appropriate incentive packages for reforestation.

Trillion Trees and Finance Earth are exploring potential investment models where nature-based investment could help cover the upfront costs of the incentive payments with revenues/ repayment based on the value of the environmental services the restoration can provide [e.g improved water quality] and/or sustainable production of agricultural commodities [e.g. yerba mate]. Similar models have already been demonstrated in other parts of the Atlantic Forest region, including the Reflorestar programme in Espirito Santo[9], and the Mantiquera watershed management programme[10].

Situation in 2023

The framework for the Forest Restoration Catalyst was developed at COP 27 in Sharm El Sheik. In the last year, Trillion Trees has secured initial funding to permit a design phase consultancy with UK-based financial advisory Finance Earth, and the development of a 'proof of concept' investment case with the tri-national alliance partnership, in the Upper Parana, Brazilian Atlantic Forest. Trillion Trees is now seeking support for the next phase of the Forest Restoration Catalyst's development.



REFERENCES

1. <https://www.ipcc.ch/report/ar6/wg3/>
2. Griscom et al [2017] Natural Climate Solutions. PNAS 114 44 11645-11650
www.pnas.org/cgi/doi/10.1073/pnas.1710465114
3. UNEP, FAO, Strategy of the UN Decade on Ecosystem Restoration [2020]
4. State of Finance for Nature 2022. United Nations Environment Programme. ISBN: 978-92-807-3990-9
5. Using methods of Rayden, Jones, Radachowsky and Austin [2023] Improving climate and biodiversity outcomes through restoration of forest integrity. Conservation Biology
<https://doi.org/10.1111/cobi.14163>
6. [IUCN Guiding Principles for Forest Landscape Restoration](#)
7. <https://www.bcg.com/publications/2023/why-the-voluntary-carbon-market-is-thriving>
8. [Rayden T. Jones K. Radachowsky J. and Austin K. \(2023\) Improving climate and biodiversity outcomes through restoration of forest integrity. Conservation Biology.](#)
<https://doi.org/10.1111/cobi.14163>
9. <https://www.es.gov.br/programa-reflorestar>
10. <https://www.nature.org/en-us/about-us/where-we-work/latin-america/brazil/stories-in-brazil/mantiqueira-restoration-project/>