POLLINATION

Financing for Forests:

From Commitment to Action

POLICYMAKING TO ACCELERATE FOREST FINANCE IN EMERGING MARKETS & DEVELOPING ECONOMIES

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Forewords

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Forests are a cornerstone of sustainable development. They are indispensable for addressing the triple planetary crisis—climate change, biodiversity loss, pollution and waste—while also supporting people's livelihoods and strengthening national economies. Despite their significance, forests are at great risk. Deforestation, forest degradation and forest loss continue at an alarming pace, undermining global efforts to secure a sustainable future for people and the planet. A central challenge is the chronic shortfall in financing for sustainable forest management. Without significant and sustained investment, the full potential of forests to deliver climate, biodiversity, and development benefits will remain unrealized.

The UN Strategic Plan for Forests, which is the first ever globally agreed framework for action on forests, sets out six Global Forest Goals designed to unlock the full potential of forests. Achieving these goals, together with the global objectives on climate change, biodiversity preservation, and land degradation neutrality, will require a major scale-up in financing. According to an estimate by FAO, forest funding must be tripled by 2030 and quadrupled by 2050, surpassing USD 200 billion annually for forest establishment and management alone. This will require significant mobilization of all sources of finance, in particular funding from the private sector.

The private sector can mobilize significant, long-term capital for sustainable forest management, helping to close the financing gap alongside public resources. However, most private finance is profit-oriented and risk-sensitive. To attract the required level of engagement by the private sector, there should be clear regulations, enabling policies, risk-sharing instruments, and other supportive measures in place to create the conditions for private capital to follow.

This publication offers a diagnosis of the barriers that hinder private sector investment in forest-related activities, and highlights government policy interventions and actions that can unlock new streams of private finance. These measures can contribute to further facilitating private investment in forestry and foster long-term partnerships between the public and private sectors.

It is my hope that this report will inform and inspire policymakers, the private sector, and other stakeholders to work together with renewed ambition and urgency. Only through collective action and shared responsibility can we ensure sustainability of the world's forests and continuation of their vital services for people and the planet.

1 The views expressed herein are those of the author and do not necessarily reflect the views of the United Nations.

Forewords

MR THOMAS M. CLARK
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At COP30 in Belém, the global community will convene at the heart of the Amazon—where forests and finance will take center stage.

Forests are indispensable to environmental stability, biodiversity, and economic resilience. Yet financing for forests remains critically insufficient. Less than 20% of the capital needed to meet global forest targets is currently mobilized, and only 9% originates from private sources. This is not simply a funding shortfall; it reflects a systemic failure to value what sustains humanity.

Public budgets alone cannot close this gap. Mobilizing private capital at scale is essential. Private finance brings more than resources—it introduces innovation, efficiency, and market-based solutions that create enduring incentives for conservation, restoration, and sustainable management. These approaches complement public investment and transcend political cycles, transforming forests from vulnerable assets into engines of resilience and inclusive growth.

Governments have a pivotal role to play. By creating enabling conditions—through clear policies, risk-sharing mechanisms, and targeted incentives—they can unlock billions in private investment for conservation, restoration, and sustainable forest management. For example, blended finance approaches, forest funds, green investment banks, public–private partnerships, sovereign debt instruments, and environmental markets can catalyze private sector participation and channel capital toward nature-positive outcomes.

Legal frameworks must also evolve to provide the legislative foundation for policy interventions and forest finance mechanisms. To assist law and policymakers worldwide in updating national forest laws, the Model Forest Act Initiative —led by a global alliance—is developing the General Part of the Model Forest Act, a legal blueprint for modernizing forest legislation to meet 21st century challenges. A key chapter on forest finance outlines a legislative framework for attracting diverse private investment in forests.

Emerging markets and developing economies have a unique opportunity to lead. By leveraging natural capital into long-term economic strength, they can define a new development pathway—one that safeguards forests while driving prosperity. Achieving this vision requires urgent, coordinated action across ministries, markets, and borders.

The Asian Development Bank (ADB), through its Law and Policy Reform Program,[3] is proud to contribute to this timely knowledge resource for policymakers in emerging markets and developing economies help drive innovations in forest finance. By enabling policies and legal frameworks, scaling innovative finance, and forging partnerships, we can unlock private capital for forests and accelerate the transition to an inclusive, resilient and sustainable future.

2 The views expressed herein are those of the author and do not necessarily reflect the views of ADB.
3 Asian Development Bank, Law and Policy Reform (n.d.).

Executive Summary

Forests are vital to achieving the global climate, biodiversity, and desertification goals agreed under the United Nations Framework Convention on Climate Change (**UNFCCC**), the United Nations Convention on Biological Diversity (**CBD**), the United Nations Convention to Combat Desertification (**UNCCD**) (collectively the **Rio Targets**), and the UN Strategic Plan for Forests (**UNSPF**).[4] Despite this, forests still face severe threats from deforestation, unsustainable land use, the impacts of climate change, and underinvestment. Funding and enabling support from both the public and private sectors are crucial to meet the Rio Targets; however, a significant financing gap remains. See **Section 1** for a detailed explanation of this financing gap.

This report examines the role of government policy in expanding private finance for forest conservation, restoration, and sustainable management. This report focuses on the need to enhance the role of private finance for forests, not only because public funding for forests is insufficient,[5] but because the private sector can support and scale the solutions that create enduring economic incentives for forests beyond political and government budgetary cycles. A growing number of voluntary commitments are being made to boost private investment in forests, as demonstrated by the public-private initiative Brazil Restoration and Bioeconomy Finance Coalition's $4.5 billion pledge during New York Climate Week in September 2025, which includes specific targets for forest restoration and investment in Indigenous communities. This demonstrates that private sector action can complement and amplify the impact of public investment and deliver long-term results for forests.

This report serves as a practical guide for policymakers in emerging markets and developing economies (**EMDEs**), outlining actionable steps to create an enabling environment for private investment in forests. As a threshold matter, foundational enabling interventions are vital to ensure the success of targeted financing, regulating and incentivizing interventions. These measures can include, for example, the translation of international and national commitments into clear domestic policy, measures to provide clarity in land tenure and legal rights in forest ecosystems, and measures to enhance market transparency, public data systems, and enforcement. See **Section 4** for a detailed explanation of these interventions.

Beyond these foundational interventions to create an enabling environment for private investment in forests, this report recommends that EMDE policymakers consider a strategic mix of targeted interventions in three key areas:[6]

1. Financing: public finance allocation through blended finance mechanisms, green investment banks, forest funds, public-private partnerships and sovereign debt instruments. See **Section 5.1** for further detail on these interventions.

2. Regulating: regulatory measures which introduce mandatory requirements through spatial planning, permitting, environmental standards and codes, and compliance environmental markets. See **Section 5.2** for further detail on these interventions.

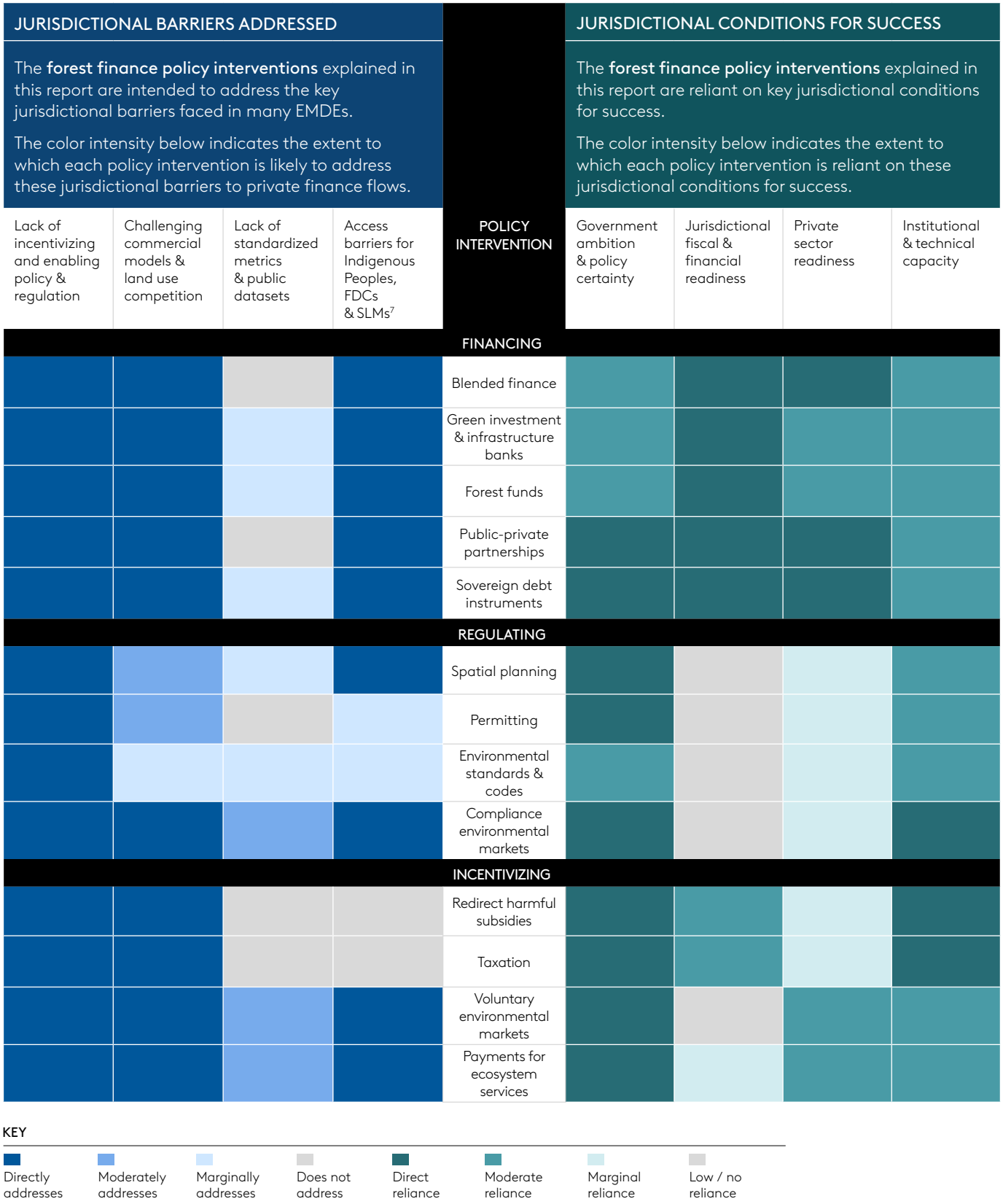
3. Incentivizing: economic or fiscal measures that incentivize investment through redirecting harmful subsidies, taxation regimes, voluntary environmental markets, and payment for ecosystem services. See **Section 5.3** for further detail on these interventions.

Not all of these possible interventions will be relevant to every jurisdiction and policymakers will need to consider which policy interventions are best suited to overcome key barriers and leverage existing jurisdictional factors for success in their country. **Figure 1** below demonstrates, at a high level, how these factors can be thought about by policymakers for alignment with the needs and strengths of their jurisdiction. Each of these jurisdictional barriers and conditions for success are explained in detail in **Section 2** below.

Ultimately, it is intended that this report will serve to inform EMDE policymakers on the broad range of potential policy interventions available to support private finance flows into the conservation, restoration and sustainable management of forest ecosystems, and give them a decision-making framework to determine those most appropriate to their jurisdictional context. If implemented, these targeted policy reforms have the potential to be transformative for EMDEs, delivering economic benefits alongside critical outcomes for forest ecosystems and the people that rely upon them.

4 In this report, 'forests' is defined to include terrestrial and coastal forests, including mangroves, but does not include marine forests such as kelp forests.
5 UNEP, State of Finance for Nature (2023).
6 See **Appendix A** for definitions of forest finance mechanisms.

Figure 1. Forest finance policy interventions: Barriers addressed and jurisdictional conditions for success



7 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'. Note that all interventions have been rated on the assumption that the policy interventions are specifically designed and implemented in a manner that addresses barriers experienced by Indigenous Peoples, forest-dependent communities and smallholder land managers in accessing forest-related finance.

1. Background

Cát Bà Island, Trân Châu,
Cát Hai, Hai Phong, Vietnam

THE VITAL ROLE OF FORESTS

Forests play a vital role in creating a planet that enables human societies to thrive, but they exist in a delicate balance that is not guaranteed. Forests are biodiversity hotspots, home to a significant portion of the world's terrestrial species and ecosystems. They contain 60,000 different tree species and provide habitats for approximately 80% of amphibian species, 75% of bird species, and 68% of mammal species.[8] Crucially, nearly 58% of all tree species are single-country endemics, meaning they are found nowhere else in the world.[9] In addition, forests provide essential ecosystem services, including global climate regulation, that underpin the global economy, businesses, and communities. Estimates indicate that 55% of global GDP (equivalent to an estimated $58 trillion) is highly or moderately dependent on nature and the ecosystem services it provides.[10]

However, high-biodiversity tropical forests, many situated in EMDEs, continue to decline.[11] Across much of the highly biodiverse tropics, 83 million hectares of primary forests were lost between 2001 and 2024, with losses reaching record highs in 2024.[12] Since 1960, more than half of all tropical forests have disappeared.[13] Alarming results of a recent study also suggest that trees, plants, and soils absorbed almost no carbon dioxide in 2023,[14] and forests across Southeast Asia have become a net source of carbon dioxide emissions due to clearing, fires, and peat soil drainage.[15] Agriculture, forestry, and urbanization are the primary drivers of deforestation, including the loss of old-growth or primary tropical forests.[16]

FORESTS IN INTERNATIONAL POLICY

The crucial role of forests is recognized at both the international and national levels. At the international level, forests are most prominently recognized in the following conventions:

- **UNFCCC:** The Paris Agreement, agreed under the auspices of the UNFCCC, establishes the overarching climate goal to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.[17] As part of efforts to achieve this goal, Article 5.1 of the Paris Agreement states that countries should take action to conserve and enhance sinks and reservoirs, including forests.[18] Similarly, Article 5.2 recognizes the importance of policy approaches and positive incentives for activities that reduce emissions from deforestation and forest degradation, and emphasizes the important role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries.[19]
- **CBD:** The Kunming-Montreal Global Biodiversity Framework (**GBF**),[20] signed under the auspices of the CBD by 196 countries in 2022, has the overarching goal to halt and reverse biodiversity loss. This is supported by a number of quantified targets relevant to the conservation, restoration, and sustainable management of forests. Target 2 aims to restore at least 30% of degraded ecosystems by 2030, and Target 3 aims to ensure that at least 30% of terrestrial, inland water, and coastal and marine areas are under effective conservation by 2030. Target 10 commits countries to aim to ensure that areas used for agriculture, aquaculture, fisheries, and forestry are managed sustainably.
- **UNCCD:** The UNCCD set strategic objectives and targets aimed at addressing land degradation and desertification by 2030. This includes Strategic Objective 1, which seeks to improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management, and contribute to land degradation neutrality.[21]
- **UNSPF:** Adopted by the UN General Assembly in 2017, the UNSPF sets out six Global Forest Goals and 26 associated targets to be achieved by 2030. Together, they provide a universal framework for promoting sustainable forest management worldwide and for strengthening the contribution of forests to the 2030 Agenda for Sustainable Development, as well as to the objectives of the UNFCCC, CBD, UNCCD, and other international forest-related instruments, processes, commitments, and goals.

To adhere to these international agreements, governments set and report on their national commitments and overarching approaches through Nationally Determined Contributions (**NDCs**), National Biodiversity Strategies and Action Plans (**NBSAPs**), and National Action Programmes to Combat Desertification. These commitments are also consolidated and reflected in sectoral strategies, most notably national forest action plans that guide countries' approaches to sustainable forest management.

8 UNEP-WCMC, Earth's biodiversity depends on the world's forests (2020).
9 Botanic Gardens Conservation International, et al., State of the World's Trees (2021).
10 PwC, Centre for Nature Positive Business (2023), building on analysis published in World Economic Forum, Nature Risk Rising (2020).
11 IPBES, The Global Assessment Report on Biodiversity and Ecosystem Services (2019); WRI, Fires Drove Record-breaking Tropical Forest Loss in 2024 (2025).
12 WRI, Primary Forest Loss (2025).
13 IUCN, Issues Brief: Deforestation and Forest Degradation (2021).
14 Ke, P., et al., Low latency carbon budget analysis reveals a large decline of the land carbon sink in 2023, Oxford University Press (2024); Greenfield, P., Trees and land absorbed almost no CO2 last year. Is nature's carbon sink failing? The Guardian (online) (14 October 2024).
15 World Resources Institute, Forests Absorb Twice As Much Carbon As They Emit Each Year (2021).
16 IPBES, The Global Assessment Report on Biodiversity and Ecosystem Services (2019).
17 UNFCCC, Paris Agreement (2015), FCCC/CP/2015/L.9/Rev/1.
18 UNFCCC, Paris Agreement (2015), FCCC/CP/2015/L.9/Rev/1.
19 UNFCCC, Paris Agreement (2015), FCCC/CP/2015/L.9/Rev/1.
20 CBD, Kunming-Montreal Post-2020 Global Biodiversity Framework (2022), CBD/COP/DEC/15/4.
21 UNCCD, Strategic Framework (2017), ICCD/COP(13)/21/Add.1.

APPROACHES FOR ACTION

The approaches outlined in various national action plans and contributions could include a well-established suite of nature-based solutions designed to conserve, restore, and sustainably manage forests in a way that meets both environmental and economic needs. Importantly, natural climate solutions, a subset of nature-based solutions that include forest conservation and restoration, can provide 37% of the cost-effective climate mitigation needed between now and 2030 to stabilize warming to below 2°C in line with the Paris Agreement.[22]

These nature-based solutions include approaches and methodologies to avoid deforestation, integrate cover cropping, and enhance agroforestry and reforestation, amongst others.[23] To meet the Rio Targets collectively, initiatives should include efforts to reinforce the adaptation and resilience of forests, such as diversifying and adjusting tree species composition and managing risks from pests, diseases, and wildfires.[24] There is also a significant body of research that emphasizes the role of integrated landscape approaches to harmonize the needs of people and the environment, including the need to mitigate climate change, biodiversity loss, and desertification, while ensuring sustainable development, in a holistic way.[25]

Crucially, landscape approaches must be made in cooperation with key stakeholders, including through inclusive decision-making with and by Indigenous Peoples, forest-dependent communities and smallholder land managers as part of effective governance models. Crucially, the rights of Indigenous Peoples, forest-dependent communities and smallholder land managers must be recognized, formalized, and enforced.

THE FOREST FINANCING GAP

However, there is a dramatic financing gap between the current finance available for forests and the finance needed to reduce deforestation and implement restoration and sustainable forest management (see **Figure 2**). The latest Forest 500 – Finance report found that 150 financial institutions with the greatest exposure to deforestation risk provided US$8.9 trillion to the deforestation economy through the Forest 500 companies[26] as of 2024.[27] Meanwhile, investments in forest-risk sectors have risen 7% since September 2023.[28]

Figure 2. Estimated forest finance needs[29]

$84 billion	$300 billion
Current domestic and international finance flows to forests, equating to <20% of what is needed to meet the global forest goals by 2050, with only 9% flowing from private finance.	Needed per year to reach global forest goals by 2030.

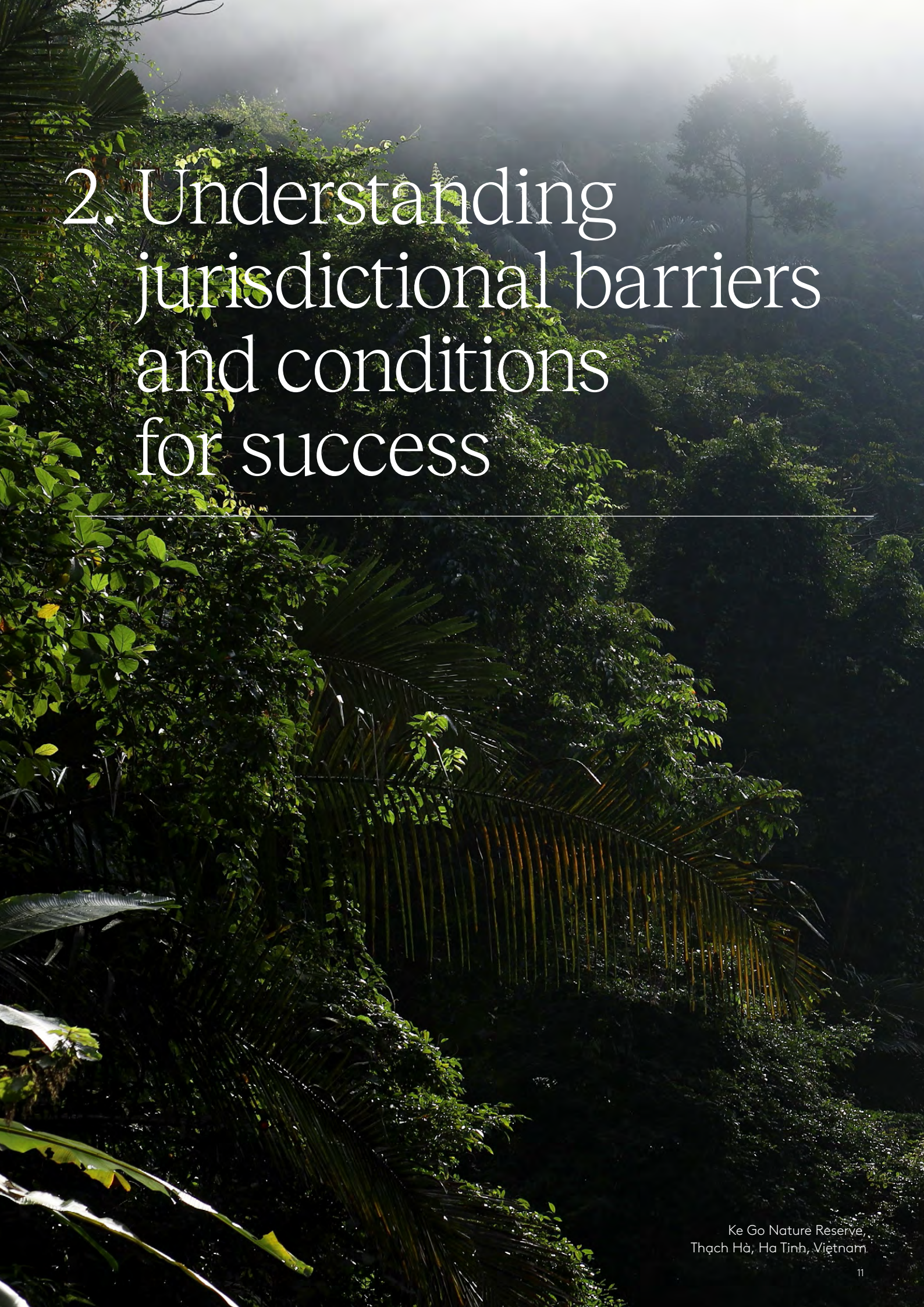
There is also a dramatic financing gap for solutions led by Indigenous Peoples, forest-dependent communities and smallholder land managers, including with respect to securing land tenure and other rights which are essential for sustainable forest management (see **Figure 3**).

Figure 3. Land tenure and forest management financing gap for Indigenous Peoples, forest-dependent communities and smallholder land managers[30]

<1%	17%	10.6%
Less than 1% of climate funding currently reaches Indigenous Peoples, forest-dependent communities and smallholder land managers to secure tenure rights and manage forests in tropical countries.	Only 17% of funds allocated in the last 10 years to support tenure rights and forest management actually included an organization led by one of these groups.	Of the funds distributed to date to fulfil the US$1.7 billion COP26 IPLC Forest Tenure Pledge, only 10.6% have directly reached these groups.

22 Griscom, B. W., et al., Natural climate solutions, P Natl Acad Sci, 114 (44) (2017).
23 UNEP, State of Finance for Nature (2023).
24 IPCC, Summary for Policymakers Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (2022).
25 Reed, J., et al., Integrated landscape approaches in the tropics: A brief stock-take, Land Use Policy 99 (2020); von Jeetze, P. J., et al., Projected landscape-scale repercussions of global action for climate and biodiversity protection, Nature Communications 14 (2023).
26 These 500 companies are identified by Global Canopy as those having the greatest exposure to deforestation risk.
27 Global Canopy, Forest 500 – Finance report: Deforestation is a bad investment (2025).
28 Forests & Finance, Banking on Biodiversity Collapse: Tracking the Banks and Investors Driving Tropical Forest Destruction 2024 (2024).
29 UNEP, State of Finance for Forests 2025: Unlock. Unleash. Realizing forest potential requires tripling investments in forests by 2030 (2025).
30 Rainforest Foundation Norway, Falling short: Donor funding for Indigenous Peoples and local communities to secure tenure rights and manage forests in tropical countries (2011–2020) (2021); Rainforest Foundation Norway & Rights and Resources, Funding with Purpose: A study to inform donor support for Indigenous and local community rights, climate, and conservation (2022); Forest Tenure Funders Group, Indigenous Peoples and Local Communities Forest Tenure Pledge: Annual Report 2023–2024 (2024). Note that these reports refer to Indigenous Peoples and local communities. For consistency, this report refers to Indigenous Peoples, forest-dependent communities and smallholder land managers.

2. Understanding jurisdictional barriers and conditions for success



Ke Go Nature Reserve,
Thạch Hà, Ha Tinh, Vietnam

2.1 BARRIERS TO PRIVATE FINANCE FLOWS FOR FORESTS

A complex interplay of policy, financial, and informational barriers collectively hinders private sector investment in forests at scale. These can be summarized as follows:

Lack of incentivizing and enabling policy and regulation

*See **Section 4** for policy interventions to address these barriers*

In many jurisdictions, there is a lack of incentivizing and enabling policy and regulation.

Current policies in many countries do not enable and incentivize the conservation, restoration, and sustainable management of forests, but rather are geared to support traditional and often extractive forest uses.[31] This can be observed through a number of policy domains:

- **Lack of clarity in government ambition and strategy regarding forests:** Many countries do not have clearly articulated policies and strategies regarding forest management and forest finance, and have not translated the GBF targets into domestic policies and legislation or national investment plans.[32]
- **Misaligned subsidies and policies:** In many jurisdictions, existing subsidies and policies incentivize activities that drive deforestation rather than forest conservation, restoration, or sustainable management. Public funding of environmentally harmful activities through subsidies has continued to increase, reaching $2.6 trillion in 2023.[33] For example, agricultural subsidies drive around 2.2 million hectares of forest loss annually, equal to 14% of all global deforestation.[34]
- **Complex or unclear land tenure regimes:** The flow of finance, and particularly private finance, to forests is contingent on investor certainty in the legal regimes that govern tenure and ownership of forest assets, including carbon and biodiversity rights. Many countries do not have clear tenure and asset ownership regimes, nor policy certainty regarding the key components of environmental markets.[35]

Impacts for Indigenous Peoples

This lack of clarity particularly impacts Indigenous Peoples, and a lack of legal recognition of land tenure and other rights is often a primary barrier to Indigenous Peoples accessing financial and environmental markets.[36] There is therefore a critical need to formalize and strengthen land tenure and management arrangements,[37] as well as to pursue rights-based approaches that safeguard, empower, and reward Indigenous Peoples, forest-dependent communities and smallholder land managers who provide global and local ecosystem services as the primary forest stewards in many parts of the world.

- **Lack of awareness of the value of forests and the suite of potentially relevant financing instruments:** In many jurisdictions, there is a lack of policies to enable whole-of-government and private sector recognition of the full economic value of forests and their critical role in supporting climate resilience, biodiversity and livelihoods, and the financial and physical risks that arise from their loss and degradation.[38] This is exacerbated by a lack of awareness about the various financing instruments and business models available for forest-related investments, limiting private sector engagement.[39]

31 UNEP, State of Finance for Nature (2023); WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024).
32 World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025)
33 Earth Track, Protecting Nature by Reforming Environmentally Harmful Subsidies: An Update (2024).
34 World Bank, Detox Development: Repurposing Environmentally Harmful Subsidies (2023).
35 This includes, for example, land tenure, ownership of carbon and biodiversity rights, policies regarding jurisdictional REDD+ and nesting, government approvals and permitting, consent and benefit sharing requirements, and Article 6 frameworks, including approvals processes for authorization of carbon mitigation outcomes for international transfer.
36 Indigenous Peoples Global Dialogue on Climate Finance, Summary Report of the Global Dialogue (2023); World Resources Institute, Enhancing climate finance access for Indigenous peoples and local communities Insights from payments for ecosystem services (2025).
37 UK Department for International Development, Legitimate land tenure and property rights: Fostering compliance and development outcomes (2015); Food and Agriculture Organization of the United Nations (**FAO**), Climate change and land tenure: The implications of climate change for land tenure and land policy (2008).
38 TNFD, Recommendations of the Taskforce on Nature-related Financial Disclosures (2023).
39 PwC, Accelerating Finance for Nature: Barriers and Recommendations for Scaling Private Sector Investment (2023); Forest Declaration Assessment, Emerging forest finance instruments (2024).

Challenging commercial models and competition with other land uses *See **Section 5** for policy interventions to address these barriers*	**Projects and enterprises focused on the conservation, restoration and sustainable management of forests often face commercial challenges.** Forest conservation, restoration or sustainable management activities are generally perceived by the private sector as high-risk investments,[40] both in developed countries and EMDE contexts. This perception is caused by the fact that these activities in many cases rely on innovative new revenue streams and may require complex financing structures;[41] high upfront capital requirements, delivery risk and delayed revenue generation;[42] and long-term investment horizons.[43] Though there are mechanisms, such as insurance,[44] available to manage and/or mitigate many key risks – including project delivery risks, political risk and credit risk[45] – investors are assessing forest-related investment opportunities against other opportunities with lower risk profiles and more certain, short-term commercial returns.[46] **Often, these business models must compete with profitable, but unsustainable, existing or alternative land uses.** Investments and activities that extract resources from forested areas, such as unsustainable logging and slash and burn agricultural expansion, often produce more immediate financial returns than the conservation, restoration and sustainable management of forests.[47] The environmental harms caused by these activities, being negative externalities, are not currently factored into market prices, making them more financially appealing than sustainable management.
Lack of standardized metrics and publicly available datasets *See **Section 4** for policy interventions to address these barriers*	**There is a lack of standardized metrics and publicly available datasets to support the translation of forest-related ecosystem data into investment and business insights.**[48] • Lack of standardization of metrics across nature-based projects and ecosystem services,[49] which makes it challenging to evaluate and compare different investment opportunities.[50] Further, there is a lack of universal or standardized taxonomies for forest/nature-based investments, making it challenging to identify and assess nature-based investment opportunities.[51] • Difficulty and expense of monitoring nature at scale.[52] Though there have been continued advances in monitoring, reporting and verification (MRV) and other nature technologies, including those that apply geospatial solutions (i.e., remote sensing) and automation, accurate monitoring of natural ecosystems at scale remains expensive and labor-intensive.[53] • Ongoing maturation of national natural capital accounting and limited uptake of corporate natural capital accounting.[54] • Challenges in accessing and applying tools for measuring and valuing ecosystem services.[55]
Access barriers for Indigenous Peoples, forest-dependent communities and smallholder land managers *See **Sections 4 & 5** for policy interventions to address these barriers*	**Indigenous Peoples, forest-dependent communities and smallholder land managers who manage or own forests may lack sufficient access to sources of finance to support the conservation, protection, or sustainable management.**[56] Indigenous Peoples, forest-dependent communities and smallholder land managers often face barriers to engaging in – and accessing finance for – nature-based projects, including a lack of recognition of land tenure and other rights.[57]

40 WWF & Terranomics, Nature Based Solutions – a Review of Current Financing Barriers and How to Overcome These (2022).
41 Young, D., et al., Financing Nature Recovery UK: Scaling Up High-Integrity Environmental Markets Across the UK (2022).
42 UNEP, State of Finance for Nature (2023).
43 UNEP, State of Finance for Nature (2023).
44 Howden & Pollination, Through the Wilderness: The Role of Insurance in Unlocking Nature Finance (2024).
45 The World Economic Forum has also identified additional barriers to investment in nature more broadly, particularly in emerging markets, including e.g., hard currency constraints and volatile market conditions. WEF, Finance Solutions for Nature (2025).
46 Global Center on Adaptation & Resilient Planet Finance Lab, Financing Nature-Based Solutions for Adaptation at Scale: Learning from Specialised Investment Managers and Nature Funds (2023).
47 Nhiuane, O., et al., Quantifying the costs and benefits of forest conversion through slash-and-burn cultivation and conventional logging, *Trees, Forests and People 15* (2024).
48 Paulson Institute, The Nature Conservancy, Cornell Atkinson Center for Sustainability, Financing Nature: Closing the Global Biodiversity Financing Gap (2020).
49 There are a significant number of potential metrics that could be adopted including, for instance, species richness, species diversity, presence of threatened and/or endangered species, invasive species or apex species, soil health indicators, water quality indicators, carbon sequestration and socio-economic metrics. There is also significant diversity in the methods by which these metrics are assessed, adding further complexity to the interpretation of results.
50 Paulson Institute, The Nature Conservancy, Cornell Atkinson Center for Sustainability, Financing Nature: Closing the Global Biodiversity Financing Gap (2020).
51 UNEP, State of Finance for Nature (2023).
52 PwC, Accelerating Finance for Nature: Barriers and Recommendations for Scaling Private Sector Investment (2023).
53 Nature4Climate, The State of Nature Tech (2023);Nature4Climate, the Nature Tech Collective, KPMG, the Climate Collective, and Serena, Integrating nature tech: A guide for businesses (2024).
54 Dasgupta, P., The Economics of Biodiversity: The Dasgupta Review (2021).
55 Dasgupta, P., The Economics of Biodiversity: The Dasgupta Review (2021).
56 Indigenous Peoples Global Dialogue on Climate Finance, Summary Report of the Global Dialogue (2023).
57 Indigenous Peoples Global Dialogue on Climate Finance, Summary Report of the Global Dialogue(2023); Rights and Resources Initiative and McGill University, The Carbon Rights of Indigenous Peoples, Afro-descendant Peoples, and Local Communities in Tropical and Subtropical Lands and Forests: A systematic analysis of 33 countries (2025).

2.2 JURISDICTIONAL CONDITIONS FOR SUCCESS

There are a number of jurisdictional conditions for the success of the policy interventions described in this report to support private finance flows into the conservation, restoration and sustainable management of forest ecosystems. EMDE policymakers should seek to identify and leverage existing areas of jurisdictional strength, while pursuing the policy measures that will serve to bolster conditions that are currently less strong in their jurisdiction.

Government ambition & policy certainty	Clear and consistent messaging on government ambition regarding forest-related matters is an important foundation for private sector engagement. Policy certainty and effective coordination between ministries serve as the bedrock for all forest finance policy interventions and have a significant influence on the private sector's assessment of risk and willingness to invest. An unclear, unstable, or convoluted legal and regulatory environment can significantly increase transaction risks, undermining private sector investment. Ideally, national ambition will be articulated through clear, coherent, predictable, and enforceable forest-related legal and regulatory frameworks, which include clear consideration of opportunities to unlock the barriers faced by Indigenous Peoples, forest-dependent communities and smallholder land managers, in particular, in financing and implementing forest-related projects and businesses.
Jurisdictional fiscal & financial readiness	The 'Financing' policy interventions unpacked at **Section 5.1** below, in particular, will benefit from a relatively strong and stable fiscal environment (i.e., a strong sovereign credit rating and track record of public financial management) that serves to underpin investor confidence. EMDE policymakers should be aware that incremental improvements in a jurisdiction's fiscal environment can serve to enhance the attractiveness of potential forest-related investments to the private sector.
Private sector readiness	Private capital flows for forests in a jurisdiction will be shaped by its market and investor readiness. Functioning capital markets, strong reporting and disclosure frameworks, and mature private intermediaries (including insurers and brokers) support private sector confidence and, in turn, investment.
Institutional & technical capacity	A country's finance and forest-related institutional and technical capacity serve as a bedrock for policy interventions. This includes the depth of and access to technical expertise, the competency of public agencies and the extent and reliability of public data systems, including data published under entity-level disclosure regimes. Strong institutional and technical capacity supports investor confidence that interventions will be implemented with integrity and transparency and will be durable.

Kantang District, Provincia de Trang, Thailand

3. Considerations for the manner of operationalizing policy interventions

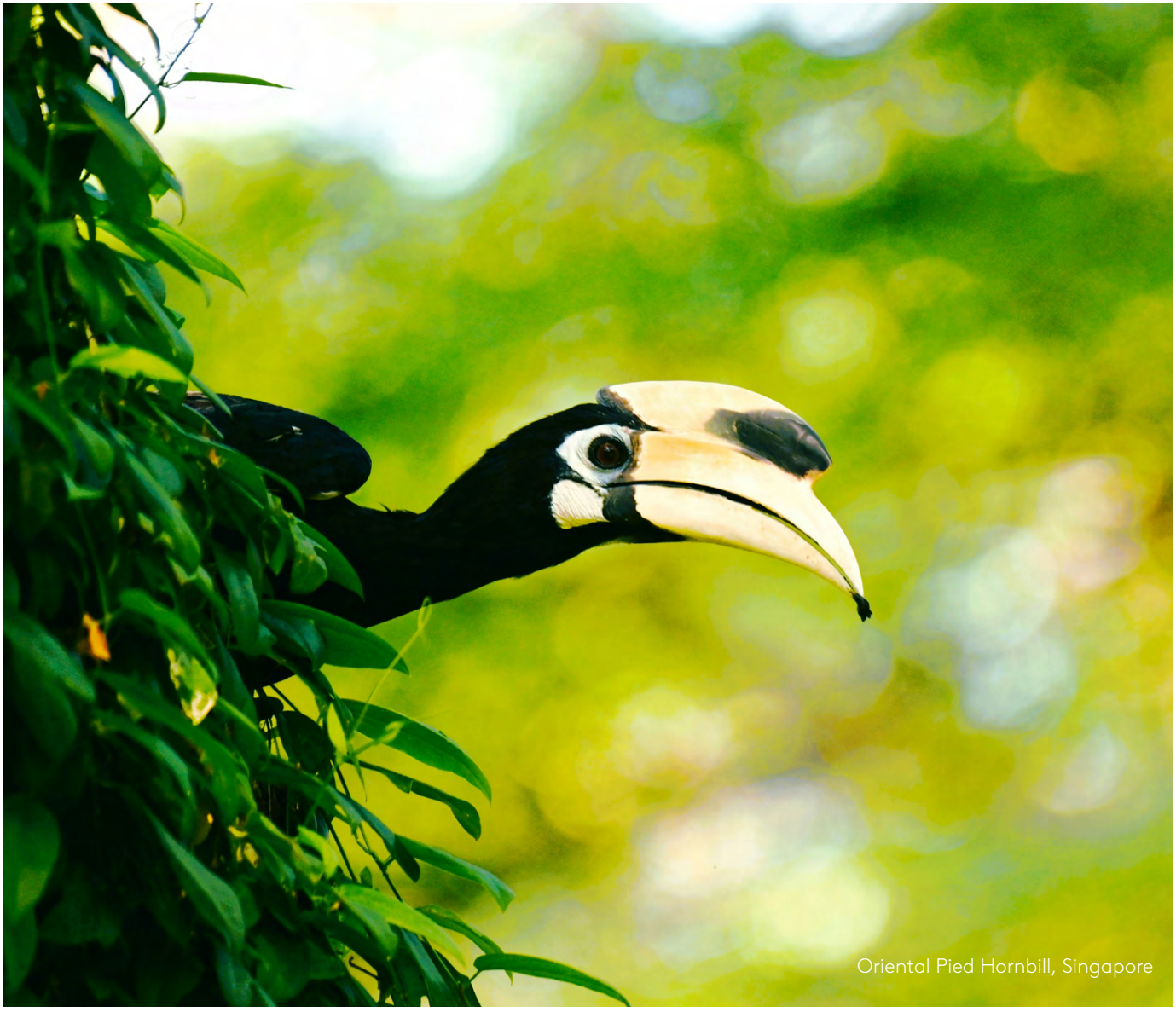
Ke Go Nature Reserve,
Thạch Hà, Ha Tinh, Vietnam

The policy interventions outlined in this report can be implemented through a range of mechanisms, including government strategies or policies; primary and subordinate legislation; and technical codes or standards.* Each mechanism offers distinct advantages in terms of legal certainty, flexibility, and suitability for different reform contexts and stages, as outlined below. The most appropriate approach for the implementation of each mechanism will depend significantly on a jurisdiction's legal system, governance environment, policy objectives, and practical circumstances. In many cases, full operationalization of a policy intervention will require a combination of these mechanisms, with each serving a complementary role as discussed below.

OPERATIONAL MECHANISM		GUIDANCE ON WHEN THIS MECHANISM MIGHT BE USED
Policy / strategy	Strategies, policies, and action plans are non-binding statements of intent, priorities, or processes adopted by governments or government agencies.	Policies and strategies are usually developed early in a reform process to set overarching objectives and guide the design of subsequent legislative, regulatory, and programmatic measures. They help coordinate action across ministries and sectors and align multiple initiatives under a shared vision. Unlike primary or subordinate legislation, they are not legally binding, offering greater flexibility to adapt as circumstances change. Policymakers may use them to establish strategic direction, build consensus, or test new approaches before formalizing them in law. In some EMDEs, policies and strategies may also serve as a practical means of implementing interventions where legislative or enforcement capacity is limited.
Primary legislation	Primary legislation consists of formal laws passed by a parliament or other legislative body, depending on the structure of the political system of the relevant country.	Primary legislation provides the highest level of legal certainty and durability. Because it is often more difficult to amend (although this can depend on the political system of the relevant country), it is best suited to circumstances where long-term policy certainty, investor and stakeholder clarity, public accountability, or foundational reforms are required. It is therefore typically used to establish the foundational legal framework for a policy intervention, enshrine key targets, safeguards and rights, establish new agencies, bodies, or powers, and introduce significant regulatory obligations. These same qualities also make primary legislation relatively inflexible. Policymakers in EMDEs should therefore consider placing the more detailed or technical operational elements of a policy intervention in subordinate legislation, as discussed below.
Subordinate legislation (e.g., regulations)	Subordinate legislative instruments are legally binding measures (e.g., regulations) made under the authority of primary legislation, typically by ministers, agencies, or other designated bodies.	These instruments are typically implemented once the foundational legal framework for a policy intervention has been established by primary legislation. Because these instruments are generally developed by ministers, agencies, or other designated bodies they may be amended more easily and frequently than primary legislation, allowing adaptation to changing circumstances or more nuanced rule-making. They are therefore particularly appropriate for setting the detailed operational rules of a policy intervention. However, this flexibility also means they provide less legal certainty and durability. They should therefore not be used by EMDE policymakers to establish foundational policy interventions, create new legal rights or obligations, or enshrine long-term commitments where stability and investor or stakeholder confidence are essential.

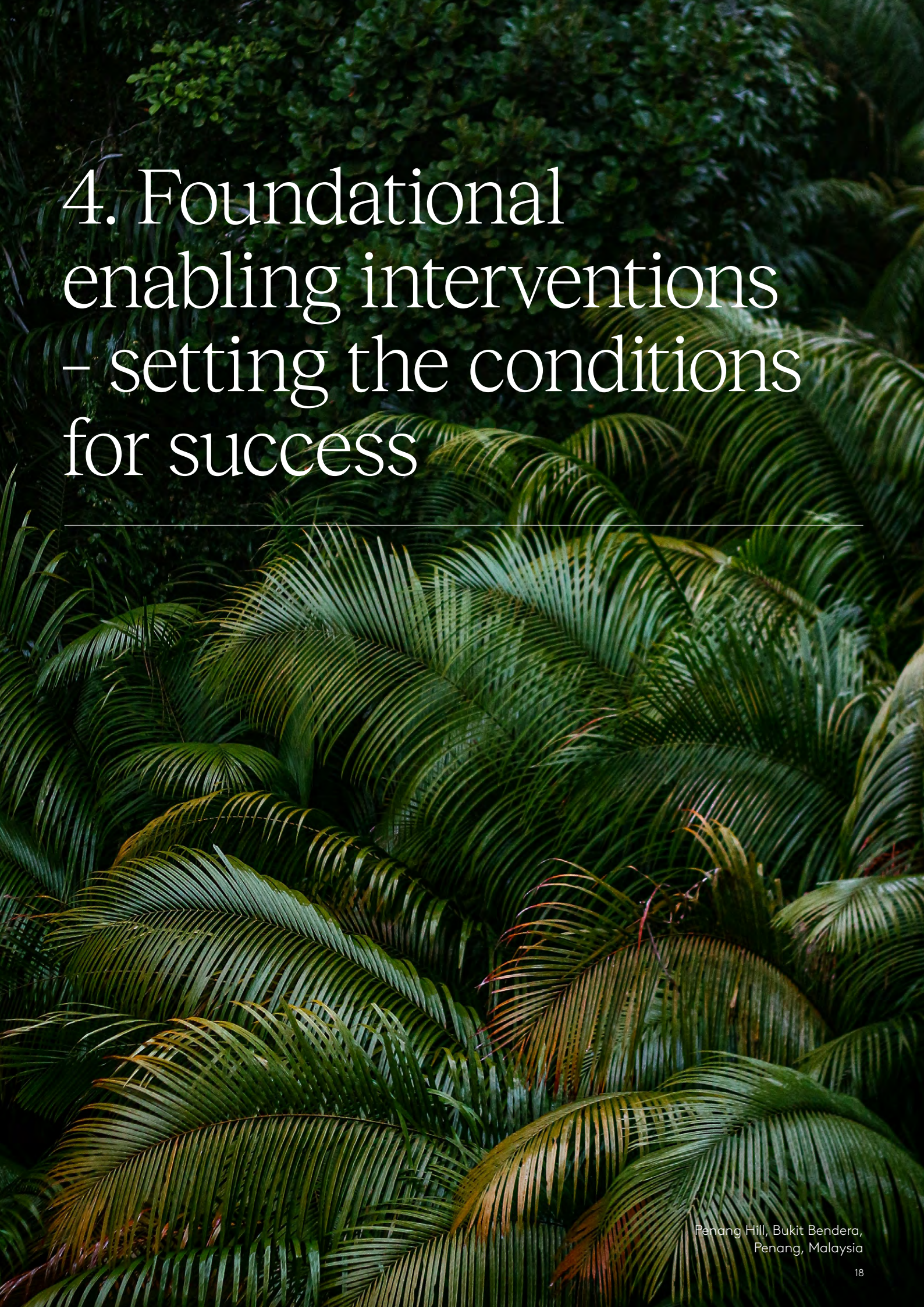
* This section is adapted from: UNEP and King's College London, Climate Finance Law: Legal Readiness for Climate Change (2018)

OPERATIONAL MECHANISM		GUIDANCE ON WHEN THIS MECHANISM MIGHT BE USED
Technical codes and standards	Technical codes and standards provide detailed methodologies, specifications, and best practices for compliance with laws or regulations. They are often developed by expert bodies or government departments.	Technical codes and standards are typically used for defining technical or operational requirements, ensuring consistency, and providing practical compliance guidance alongside regulations. Unlike primary or subordinate legislation, they do not typically impose legal obligations directly but serve as detailed reference documents that support implementation. Policymakers may use these instruments when a policy intervention requires precise, consistent technical guidance that must be updated frequently or adapted to sector-specific contexts. Policymakers can also refer to or draw on international codes and standards, which can help align EMDEs with global best practice. However, EMDE policymakers should carefully consider the country's technical capacity before incorporating international standards into legislation to ensure they are practical and achievable.



Oriental Pied Hornbill, Singapore

4. Foundational enabling interventions – setting the conditions for success



Penang Hill, Bukit Bendera, Penang, Malaysia

This suite of enabling policy interventions sets the fundamental foundations upon which policy interventions can be established to stimulate private sector finance flows into forest conservation, restoration and sustainable management. These interventions serve to provide certainty to forest-related actors and investors on domestic policy, support transparency and access to reliable data and, importantly, set the foundations for positive engagement in, and leadership of, forest finance mechanisms by Indigenous Peoples, forest-dependent communities and smallholder land managers. These interventions are available to all EMDE policymakers and, in the sequencing of interventions, should be prioritized.

4.1.1 TRANSLATING INTERNATIONAL AND NATIONAL COMMITMENTS INTO DOMESTIC POLICY

A supportive and predictable policy environment anchored in both international and national commitments can reduce investment risk by signaling durable political will, creating a framework for cross-sector government coordination and action, and aligning long-term incentives for public and private actors.[58] This is particularly important in the context of forest investments that, as discussed above, can have higher perceived political, financial, and other investment-related risks.

There are several ways that policymakers can create this enabling environment, for example:

- Embedding international commitments directly in domestic legislation, e.g., by amending forest or land-use laws to reflect Target 3 of the GBF (the 30x30 conservation target).
- Including references to international agreements, targets, and/or commitments in the purpose and guiding principles of legislation, ensuring consistency across legal and regulatory frameworks.
- Developing up-to-date national planning documents to meet international commitments (e.g., NDCs, NBSAPs, National Adaptation Plans and National Forest Finance Strategies) and reflecting these in sectoral laws and planning instruments.[59] A national forest financing strategy is a document that strategically sets the stage for the mobilization of financing for sustainable forest management and improvements in the effectiveness of resource use, within a given national or sub-national (jurisdictional) perimeter.[60]
- Establishing cross-sector coordination mechanisms to facilitate implementation of these targets and commitments.

4.1.2 LAND TENURE AND RIGHTS

Establishing clear land tenure systems is one of the most important foundational policy interventions to support private finance flows for forest conservation, restoration and sustainable management. Investors require certainty that rights to own, manage, and derive financial benefit from forest-related activities are legally recognized and enforceable over the long term. Without this clarity, risks of disputes, contested ownership, or policy reversals can undermine the bankability of projects and deter private finance. Policymakers in EMDEs can seek to provide this policy clarity by ensuring that tenure regimes are clearly defined for forest areas, there is clarity in the governance of these ecosystems (including between levels of government and between government authorities), fit-for-purpose programmes are in place to support Indigenous Peoples, forest-dependent communities and smallholder land managers to formalize informal and customary tenure, and there is clarity in the ownership of assets such as carbon and biodiversity credits generated from these areas.

4.1.3 TARGETED POLICY INTERVENTIONS TO UNLOCK FOREST SOLUTIONS LED BY INDIGENOUS PEOPLES, FOREST-DEPENDENT COMMUNITIES AND SMALLHOLDER LAND MANAGERS

Evidence shows that when the rights of Indigenous Peoples are recognized, secured, and protected, rates of deforestation are generally lower and carbon stocks higher than in forests managed by non-Indigenous actors.[61] For forest finance flows to result in meaningful and durable on-ground outcomes, it is critical that EMDE policymakers have particular regard to enabling and incentivizing solutions led by Indigenous Peoples, forest-dependent communities and smallholder land managers across all policy interventions described in this report. Governments can do so through a range of targeted policy interventions including land tenure initiatives, aligning laws and regulations with the rights of Indigenous Peoples, forest-dependent communities and smallholder land managers, ensuring free, prior, and informed consent (FPIC) and full and effective involvement in decision-making, supporting capacity building, and providing access to start-up finance through targeted grant programmes and blended finance facilities.[62] This can support Indigenous Peoples, forest-dependent communities and smallholder land managers to obtain direct access to sources of climate and nature finance, ensure appropriate representation and participation in decision-making processes, and overcome barriers to inclusion in environmental markets,[63] which remains a major source of private finance for forests.

58 World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025).
59 Forest Declaration Assessment, 2030 Global Forest Vision: Priority actions for Governments in 2025 (2025).
60 The Global Forest Financing Facilitation Network (GFFFN), established by the United Nations Forum on Forests (UNFF) in 2014, assists UNFF members in the design of national forest financing strategies to mobilize resources for sustainable forest management. See further, Global Forest Financing Facilitation Network (Jürgen Blaser, Astrid Zabel and Markus Pfannkuch), Generic guide and modular training package to assist countries in developing national forest financing strategies (2019).
61 UN Climate Champions, Indigenous Peoples (2024), citing World Resources Institute, Securing Rights, Combating Climate Change (2014).
62 Pollination Foundation, Leading for Nature (2023).
63 Indigenous Peoples Global Dialogue on Climate Finance, Summary Report of the Global Dialogue (2023).

EXTENDED CASE STUDY:

THE BUJANG RABA COMMUNITY PROJECT

How does the Bujang Raba Community Project support forests?

The Bujang Raba Community project (**Project**) conserves over 5,339 ha of endangered primary rainforest in Sumatra's Bukti Barisan forest through a REDD+[64] intervention programme that generates carbon credits under the Plan Vivo Standard. The Project involves 5 Indigenous communities in protecting an area of tropical mountainous forests, rich in biodiversity and of high conservation value.[65] The area is under threat from legal palm oil expansion, industrial timber plantations and coal mining, as well as illegal activities such as gold mining. The Project has significantly reduced deforestation rates, while generating adaptation and ecological benefits, creating additional sustainable revenue streams (e.g., through ecotourism and non-timber forest products), and supporting women and marginalized groups in active participation and decision-making.[66]

"As this project proves, when communities are granted rights over their resources, they can effectively halt forest loss and deliver tangible benefits to their communities."

Emmy Primadona
Project Coordinator for Climate, KKI Warsi

HOW IS THE PROJECT STRUCTURED?

PROJECT COORDINATOR

The project is registered under the Plan Vivo Standard, with KKI WARSI, a local NGO, as the project coordinator. KKI WARSI works closely with the 5 participating communities, providing technical measurement, monitoring, and reporting capability, as well as training and administrative support. KKI WARSI also serves as the bridge between communities and buyers of carbon credits from the Project.

COMMUNITY INVOLVEMENT

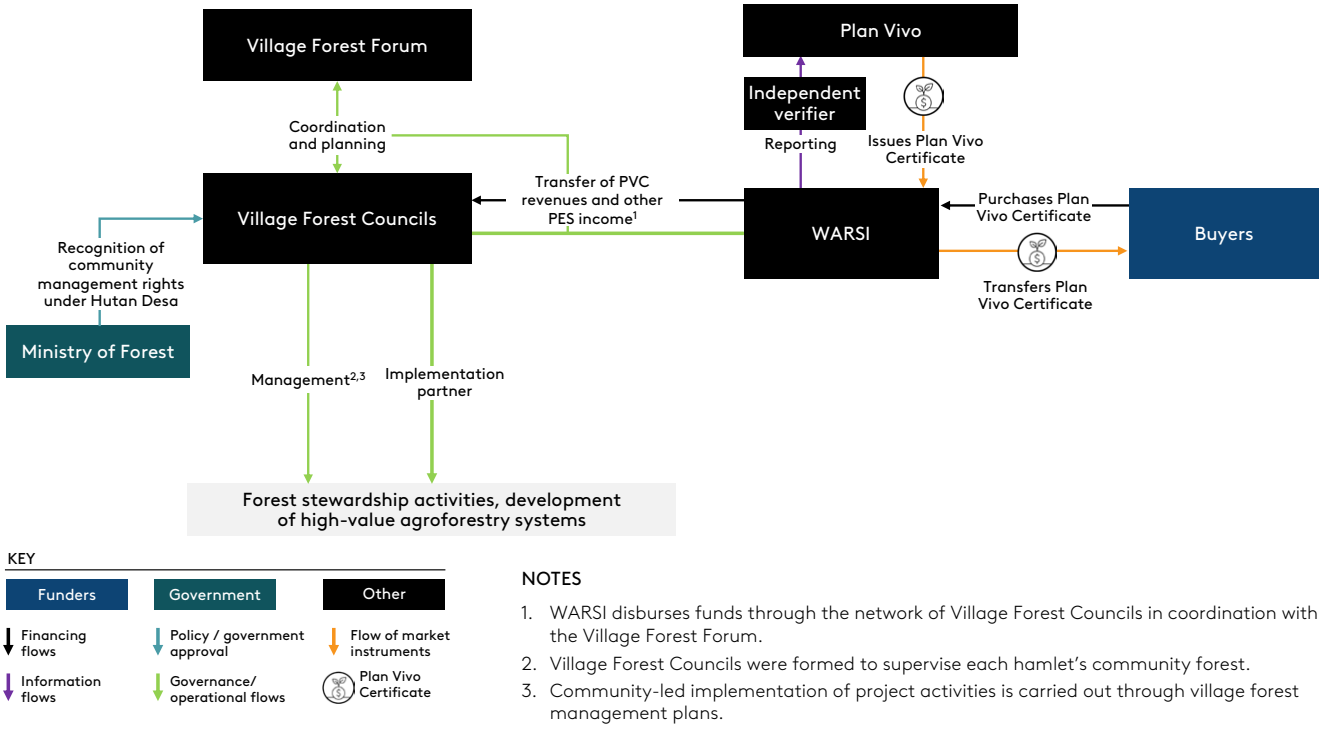
Each of the five communities holds a forest license through Indonesia's Hutan Desa programme, which secures land tenure and enables them to undertake sustainable forest management.[67] Newly established Village Forest Councils are responsible for developing and executing village forest management plans for each area and leading project implementation activities.[68] Implementation and monitoring of project outcomes is a participatory, community-driven process, with both women and young people playing an important role (e.g., in the latter case, in the implementation of new technologies such as GPS). A newly established Village Forest Forum serves as a coordination body for cross-village planning and implementation, collaborative leadership, dispute resolution, and knowledge-sharing.

BENEFIT SHARING MODEL[69]

The Project's benefit-sharing mechanism was designed through a participatory process with each community, with holistic community support central to the model. At least 60% of revenues from the sale of carbon credits from the Project go to the five participating communities, with up to 40% retained by KKI WARSI for project management, training, monitoring, and transaction costs. Each Village Forest Council develops a work plan and budget, which are presented and refined collectively in the Village Forest Forum before being finalized, ensuring transparency and local input. Each village has its own bank account, into which KKI WARSI transfers the larger portion of the village's allocated funds upfront, with the remaining amount transferred after monitoring and verification of project outcomes have been undertaken.

64 REDD+ is a UNFCCC framework. The acronym stands for: "Reducing Emissions from Deforestation and forest Degradation, plus the role of conservation, sustainable management of forests and enhancement of forest carbon stocks."
65 Plan Vivo, Bujang Raba Community PES project.
66 KKI WARSI, Annual report: 2020 – 2021 (2023); Mutu International, Plan Vivo Verification Report: The Bujang Raba Community PES Project (2023); KKI WARSI, The Bujang Raba Community PES Project: Project Design Document (n.d.).
67 This programme allows villages to manage forest sustainably for 35 years, with the possibility of extension. KKI WARSI, The Bujang Raba Community PES Project: Project Design Document (n.d.).
68 KKI WARSI, The Bujang Raba Community PES Project: Project Design Document (n.d.).
69 KKI WARSI, The Bujang Raba Community PES Project: Project Design Document (n.d.).

Figure 4: Structure of Bujang Raba Community Project



NOTES

1. WARSI disburses funds through the network of Village Forest Councils in coordination with the Village Forest Forum.
2. Village Forest Councils were formed to supervise each hamlet's community forest.
3. Community-led implementation of project activities is carried out through village forest management plans.

KEY INSIGHTS FOR POLICYMAKERS

Key innovations	• **Proof of model:** One of the first community-managed forests in Indonesia to issue verified carbon credits, proving smallholder-led REDD+ projects can lead to measurable reductions in deforestation and a suite of social benefits. • **Participatory governance:** Established clear benefit-sharing protocols, equal distribution across the five participating villages, with forums deciding allocations collectively. This was a key factor in attracting private sector investment in the Project.
Enabling conditions	• **Community ownership and management:** Indonesia's Hutan Desa program supports community rights to forest management through the provision of licenses delegating management of certain state forests to village institutions.[70] This program was key to enabling this project by providing clarity in relation to communities' forest management rights.
Advice for policymakers	• **Recognize the multiple values of forests:** When governments are weighing granting concessions for industrial forestry against granting rights to communities, the multiple values derived from community-led management (e.g., economic, social and environmental) should be considered. • **Seek to provide policy consistency:** Where possible, avoid sudden policy changes impacting participation in voluntary carbon markets (e.g., the moratorium on Article 6 transactions in Indonesia over recent years[71]) as uncertainty can deter investment and make projects economically unviable. • **Support community-led carbon projects:** Significant work is required to build community capacity before starting a REDD+ project and, once registered, projects must be funded for multiple years prior to generating any credit revenue. In the absence of philanthropic funding, governments can play an important role in providing initial funding for project establishment.

70 The Hutan Desa (Village Forest) program in Indonesia was introduced through Minister of Forestry Decree No. P. 49/Menhut-II/2008, granting local village institutions the right to manage state forest areas for 35 years (with the option of extension). Moeliono M et al, Village forests (hutan desa): empowerment, business or burden? (2015).

71 Note that a presidential decree was recently issued in Indonesia that will allow the international trade of carbon credits to re-commence. Reuters, Indonesia allows resumption of international carbon trade after four years (2025).

4.1.4 PUBLIC DATA SYSTEMS

There are a number of ways that public data systems can support private investment in forests by enhancing the availability of information and improving market transparency. In order to be effective, informational policies should be cohesive and tailored to meet broader environmental and development objectives. Examples include:

- **Emissions inventories and natural capital accounts:** Many governments maintain comprehensive, publicly accessible greenhouse gas inventories that provide sector-specific emissions data, regional emissions factors, and land use information. Governments can also introduce laws and regulations to support natural capital accounting systems to properly record measures of wealth in a broad sense beyond GDP.[72] Both emissions inventories and natural capital accounts can be used to inform government decision-makers about the economic and social implications of ineffective forest management and the true cost of deforestation, which can in turn inform spatial planning and permitting of activities that provide investment opportunities for the private sector aligned to national objectives.
- **Land use mapping:** National public data systems can be used to provide information on land uses, including forest cover, deforestation rates, forest management practices, and enforcement action taken to deter illegal deforestation or non-compliance with environmental standards.[73]
- **Green taxonomies:** Harmonizing green taxonomies across jurisdictions while allowing for local contextual factors can also support standardization and enable investment by providing easier identification of nature-negative, positive, or neutral investments.[74] Importantly, green taxonomies should explicitly include forest projects and other nature-based investments.[75]

4.1.5 ENTITY-LEVEL SUSTAINABILITY DISCLOSURES AND PRUDENTIAL SUPERVISORY GUIDANCE

Entity-level sustainability disclosures can play a significant role in supporting private sector investment in forests by increasing transparency and directing capital towards sustainable forestry practices. There are a growing number of jurisdictions introducing laws and regulations to mandate climate and nature disclosures by certain prescribed entities,[76] including those aligned to the recommendations of the Taskforces on Climate-related Financial Disclosures (**TCFD**) and Nature-related Financial Disclosures (**TNFD**),[77] as well as international efforts to harmonize sustainability reporting frameworks such as the International Sustainability Standards Board (**ISSB**) and EU Corporate Sustainability Reporting Directive (**CSRD**).[78] Sustainability disclosures can compel companies to provide more comprehensive disclosures about their forest-related impacts and dependencies. Disclosures enable investors to make more informed decisions about their investments and can enable companies to attract investors who are looking to align their portfolios with net-zero, nature-positive, and resilient outcomes.

Prudential supervisory guidance from central banks and financial regulators can further reinforce the importance of forest-related investments by incorporating considerations related to forest- and other nature-related impacts and dependencies into risk assessment frameworks.[79] As supervisory bodies begin to view deforestation and forest degradation as material risks to financial stability,[80] they may issue guidance that facilitates or requires financial institutions to assess and, in some cases, disclose their exposure to these risks,[81] or require financial institutions to develop and disclose deforestation-free-related targets.[82] This can lead to increased due diligence on forest-related investments and potentially create preferential conditions for sustainable forest projects. Additionally, supervisory guidance can help to standardize the evaluation of forest-related risks across the financial sector, making it easier for investors to compare and prioritize investments.

4.1.6 ENFORCEMENT

Enforcement of environmental regulations is essential for protecting forests, attracting finance, and supporting innovation in forest management.[83] EMDE governments should, to the greatest extent possible, establish clear policy, legal, and regulatory approaches that prohibit illegal deforestation and regulate land use change (such as through effective planning and permitting systems).[84] Importantly, these frameworks should include "strong land and forest governance, an appropriate legal framework and related law enforcement, and complementary measures such as strongly supported protected-area systems and value chains that distribute benefits fairly."[85] A key pillar of effective forest governance is the protection and enforcement of land tenure and the rights of Indigenous Peoples, forest-dependent communities and smallholder land managers to enhance territorial integrity and reduce asset- and project-level risks to sustainable forest management activities.[86]

72 UN Department of Economic and Social Affairs, How Natural Capital Accounting Contributes To Integrated Policies For Sustainability (2020).
73 FAO, Towards open and transparency forest data for climate action: Experiences and lessons learned (2022); Gardner, T. A., et al., Transparency and sustainability in global commodity supply chains, World Development 121.
74 UNEP, Common Framework of Sustainable Finance Taxonomies (2023); UNEP, State of Finance for Nature (2023).
75 Lack of standardization of metrics across different financing instruments is also a challenge for monitoring and assessing outcomes. While governments can play a role in supporting the harmonization of metrics and reporting, this will need to be addressed by international standards bodies to ensure consistency across jurisdictions and markets.
76 Jurisdictions will need to determine the criteria for entities to be subject to reporting requirements. Many jurisdictions take a phased approach, with large corporates and financial institutions generally being the first to be subject to reporting requirements.
77 TCFD, Recommendations of the Taskforce on Climate-related Financial Disclosures (2017); TNFD, Recommendations of the Taskforce on Nature-related Financial Disclosures (2023).
78 IFRS Foundation, Inaugural Jurisdictional Guide for the adoption or other use of ISSB Standards (2024); European Commission, Corporate sustainability reporting (2024).
79 World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025).
80 See, for example, World Bank and Bank Negara Malaysia (Central Bank of Malaysia), An Exploration of Nature-Related Financial Risks in Malaysia (2022).
81 Network for Greening the Financial System, Nature-related Financial Risks: a Conceptual Framework to guide Action by Central Banks and Supervisors (2023).
82 Forest Declaration Assessment, 2030 Global Forest Vision: Priority actions for governments in 2025 (2025).
83 FAO, The State of the World's Forests – Chapter 3 (2024).
84 FAO, The State of the World's Forests – Chapter 3 (2022).
85 FAO, The State of the World's Forests – Chapter 3 (2022).
86 International Institute of Environment and Development and FAO, Improving governance of forest tenure: A practical guide (2013); World Bank, Opportunity Assessment to Strengthen Collective Land Tenure Rights in FCPF Countries (2021).

Effective enforcement of environmental regulation can reduce investment risks associated with deforestation and forest degradation, making forest conservation projects more attractive to both public and private financiers by providing assurance regarding the stability of the assets under management.

4.1.7 CAPACITY BUILDING AND SUPPORT FOR PRIVATE SECTOR INVESTMENT READINESS

Many investors, banks, and corporates globally are unfamiliar with the financial structures, risk profiles, and revenue models of forest-related investments. This creates a threshold barrier to private sector engagement in forest-related financial instruments. EMDE policymakers can play a valuable role in bridging this gap by promoting financial literacy on nature-based investments, supporting demonstration projects, and facilitating dialogue between international and local financiers, project developers, and forest-dependent communities.

There is a particular opportunity for policymakers in EMDEs to support their local industries to connect to upstream regulation and commitments regarding deforestation-free supply chains. Globally, there have recently been significant legal developments that seek to curb deforestation and promote sustainable practices in international supply chains.[87] Some large global companies are also making voluntary deforestation-free supply chain pledges.[88] In addition to efforts to strengthen and enforce environmental laws and secure land tenure systems and use rights and provide public data systems, governments can provide capacity building and technical assistance to limit commodity-linked deforestation. This could include: training on sustainable land management; financial support to upgrade production methods; promotion of agroforestry systems; training to enhance access to carbon and biodiversity finance through environmental markets (e.g., jurisdictional and nested REDD+ programs); facilitating group certification for smallholder farmers and cooperatives; and, building accessible national databases for land use and forest cover and investing in GPS and tracking technologies.[89]

Ernakulam, Kerala, India

87 The European Union's (**EU**) Deforestation Regulation (**EUDR**) covers seven key deforestation-linked commodities: cattle, cocoa, coffee, oil palm, rubber, soya, and wood, as well as many derived products. It requires that from 30 December 2025 (unless a proposed one year delay is adopted), companies must demonstrate that products entering the EU market are deforestation-free (not produced on land deforested after 2020), produced in accordance with relevant laws of the country of production, and covered by a due diligence statement indicating a negligible risk of non-compliance. European Commission, Regulation on Deforestation-free Products (2025). This is accompanied by forthcoming obligations under the Corporate Sustainability Due Diligence Directive (**CSDDD**), which includes a duty for large companies to identify and address actual or potential adverse environmental and human rights impacts in their own operations, those of their subsidiaries, and in their supply chains. European Commission, Corporate Sustainability Due Diligence (2024).

88 Global Canopy (Forest 500), Time for change: delivering deforestation-free supply chains (2021).

89 For example, Côte d'Ivoire has introduced a GPS tracking system to improve data on cocoa bean origins and has been distributing electronic tracking cards to farmers since February 2023 in response to the EUDR: S&P Global, Global impact of the EU's anti-deforestation law (2023).

5. Policy interventions to increase private finance for forests

Khao Sok National Park, 62 Khlong Sok, Amphoe Phanom, Surat Thani, Thailand

Building on the foundations set by the enabling interventions explained above, EMDE policymakers have a range of potential policy interventions available to them to specifically increase private sector finance flows into the conservation, restoration and sustainable management of forests. These policy interventions can be understood to fall into three key categories: financing, regulating and incentivizing.

Figure 5. Potential policy interventions to increase private sector finance for forests[90]

FINANCING	REGULATING	INCENTIVIZING
Public finance allocation & sovereign-led establishment of financial institutions and instruments	**Mandatory requirements and land use parameters**	**Economic or fiscal measures that incentivize investment**
• Blended finance (e.g., concessional / catalytic capital) • Green investment banks & national infrastructure banks • Forest funds • Public-private partnerships • Sovereign debt instruments	• Spatial planning • Permitting • Environmental standards & codes • Compliance environmental markets (e.g., carbon & biodiversity)	• Redirect harmful subsides • Taxation • Voluntary environmental markets frameworks (e.g., carbon & biodiversity) • Payments for ecosystem services

While some levers may fit into more than one category, this framework is designed to help conceptualize the various roles governments can play to catalyze private finance for forests. As explained above in **Section 3**, these can be implemented through a combination of government strategies or policies; primary and subordinate legislation; and technical codes or standards.[91]

The appropriateness of different policy interventions for EMDE policymakers will depend on their jurisdictionally specific context. Each of the policy intervention sections below contains a heatmap which provides guidance on the jurisdictional barriers the intervention addresses (per **Section 2.1** above) and the jurisdictional conditions for success that the intervention relies upon (per **Section 2.2** above).

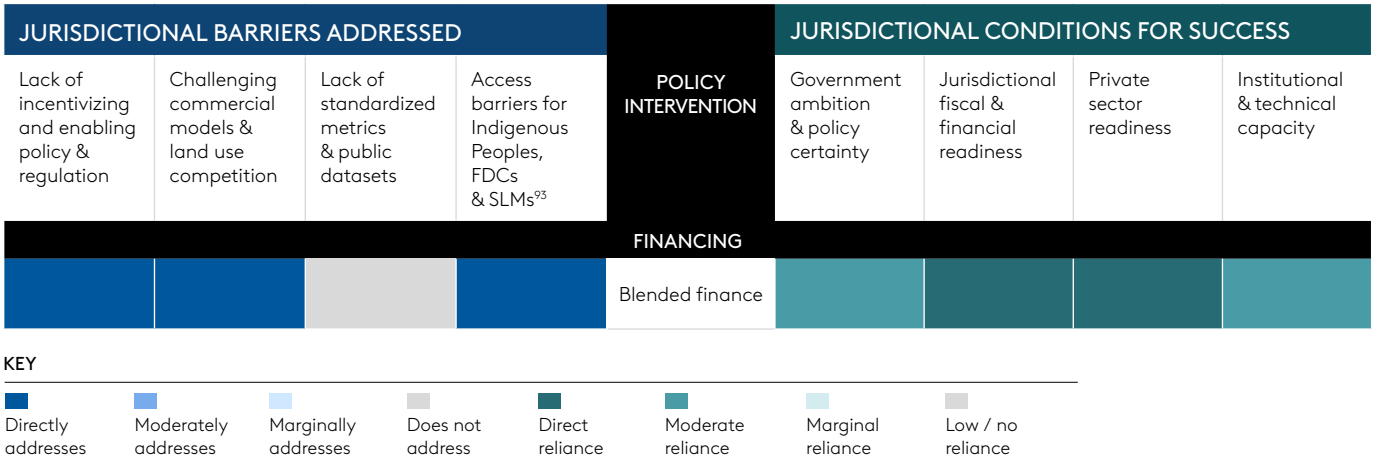
Note that the Asian Development Bank, through its Law and Policy Reform Program,[92] and its partners are currently developing the General Part of the Model Forest Act (legal blueprint for designing or enhancing national forest laws) and an accompanying legislative guide. The Model Forest Act and legislative guide have a strong focus on forest finance instruments, given the need for EMDEs to attract greater forest finance, particularly private finance. It is intended that these documents will provide law and policymakers in EMDEs with the guidance they need to confidently and strategically establish the legal infrastructure to implement the forest finance instruments and mechanisms described in this report.

90 Adapted from Climate Transparency, Financing the Transition from Brown to Green: How to Track Country Performance Towards Low Carbon, Climate-resilient Economies (2017); UNEP and King's College London, Climate Finance Law: Legal Readiness for Climate Finance (2018); World Resources Institute, What is the Paris Agreement's Article 2.1(c) on Climate Finance (2024).
91 UNEP and King's College London, Climate Finance Law: Legal Readiness for Climate Finance (2018).
92 Asian Development Bank, Law and Policy Program (n.d.).

5.1 FINANCING – PUBLIC FINANCE ALLOCATION AND SOVEREIGN-LED ESTABLISHMENT OF FINANCIAL INSTITUTIONS AND INSTRUMENTS

Where governments have the capacity to do so, they can play a powerful role in establishing financial institutions and instruments that directly catalyze private sector finance flows into forest restoration, conservation, and sustainable management in EMDEs. Where available, public finance can be leveraged to directly de-risk investments. Though these interventions do require government effort and resources, a particular advantage they offer is the degree of control government retains to stimulate private sector investment in areas aligned with government policy priorities (such as its NDC and NBSAP), including directing finance to Indigenous Peoples, forest-dependent communities and smallholder land managers. These policy interventions will be best suited to EMDE jurisdictions where capital markets are reasonably mature, sovereign fiscal credibility is strong, and there is sufficient political stability to foster investor confidence.

5.1.1 BLENDED FINANCE



As noted above, forest-related activities often face high risks due to factors including complex land tenure, vulnerabilities to climate change, and new or evolving business models. Blended finance can play a transformative role by utilizing public and/or philanthropic capital to redistribute risks, create more favorable investment conditions, and catalyze greater private sector investment in forests. While blended finance has a strong track record across energy, infrastructure, and financial services, it is estimated that only 5% of the total blended finance vehicles in the market seek to drive protection or restoration of nature and ecosystem services.[94] Yet, as demonstrated by the case study below on the Tropical Asia Forest Fund 2, blended approaches have significant potential to catalyze commercial private investment in nature-based solutions in EMDEs, including specifically forest-focused activities.

Governments can leverage blended finance approaches to mobilize private capital for forests in several ways, including:

- **Concessional finance:** By offering capital on below-market terms, governments can improve project bankability and lower costs, making it more attractive for private investors to participate in forest investments that would otherwise be deemed too risky. Governments in EMDEs may wish to partner with Development Finance Institutions (DFIs) and donors to design and capitalize concessional finance facilities, including those described in this report.
- **Credit enhancement:** Through instruments like guarantees and insurance,[95] governments can absorb certain risks that often deter private investors, such as political or environmental risks. This role is particularly valuable in forest-rich but high-risk regions where the majority of private investors require strong assurance before committing capital.
- **Co-investment and first-loss capital:** Governments can use public funds to take first-loss positions and/or co-invest alongside private investors, reducing risk for the private sector participants in a transaction while signaling government support for the project receiving investment.
- **Grant support and technical assistance:** Governments can provide grant funding to support the early development of forest-related projects (e.g., through feasibility studies, environmental and social impact assessments, capacity building for local stakeholders). This early-stage funding can help reduce project risks and ensure readiness for private sector investment.

To ensure public finance catalyzes rather than replaces private capital, governments should apply clear screening criteria that prioritize projects with strong additionality and demonstrable biodiversity benefits.[96]

93 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
94 Earth Security, The Blended Finance Playbook for Nature-Based Solutions (2021).
95 Howden and Pollination, Through the Wilderness: The Role of Insurance in Unlocking Nature Finance (2024).
96 OECD, Scaling Up Biodiversity-Positive Incentives: Delivering on Target 18 of the Global Biodiversity Framework (2025).

EXTENDED CASE STUDY:

TROPICAL ASIA FOREST FUND 2

How does the fund support forests?

New Forests' Tropical Asia Forest Fund 2 (**TAFF2** or the **Fund**) seeks to mobilize capital into high-impact, sustainable forestry investments in Southeast Asia, aiming to demonstrate that sustainable business models can deliver strong investor returns while generating climate, community, and biodiversity benefits. Specifically, TAFF2 is designed to maximize the value of Southeast Asian forestry assets by creating value in forestry landscapes through disciplined and strategic management of forestry assets throughout each step of the value chain; strengthening timber product distribution and marketing, including through third-party forest certification schemes; and implementing sustainable forestry and silvicultural practices that deliver for local communities and are aligned with responsible investment principles.

TAFF2 utilizes a blended finance model to catalyze both commercial returns and certain prescribed impact-focused activities that deliver climate, biodiversity and/or livelihoods outcomes but may not generate revenue. These impact activities include, for example, village forest projects; peatland and wetland protection and restoration; developing conservation corridors; the optimization of harvest regimes for biodiversity and supporting Forest Stewardship Council certification for smallholders. TAFF2 reached a first close in March 2022 with US$120 million in capital commitments.[97] The fund held an interim second close in October 2022, raising the committed capital to US$130 million.[98]

Demonstrating the important role of multilateral development banks and foreign governments in capitalizing forest-related initiatives in EMDEs, in March 2022 the Asian Development Bank made a US$15 million investment into TAFF2, comprising of US$5 million from ADB's ordinary capital resources and a US$10 million investment into Class B, concessional shares from the Australian Climate Finance Partnership (**ACFP**), funded by the Australian Department of Foreign Affairs and Trade.[99] Other investors include the David and Lucile Packard Foundation, the Hempel Foundation, Sumitomo Mitsui Trust Bank (SuMi TRUST), Temasek and TotalEnergies.[100]

TAFF2 has made a number of investments to date, including in the Lao People's Democratic Republic[101], Thailand[102] and Vietnam[103] across the sustainable forestry value chain and adjacent sectors such as nature-based climate projects. Each of these investments has been carefully assessed by the TAFF2 team for alignment with the fund's thesis, including with environmental and social safeguards. The enabling conditions noted below formed part of decisions to pursue TAFF2 investments in these jurisdictions.

"With TAFF2's unique blended finance structure, we are seeking to integrate investment in impact activities focused on climate action, livelihoods, and biodiversity into TAFF2's plantation forestry portfolio to generate commercial returns to our investors. New Forests' objective is to demonstrate that asset management integrating commercial forestry investments with activities such as ecosystem restoration, reforestation, and community forestry will lead to better returns, long-term sustainability outcomes, and operational resilience."

Geoffrey Seeto,
Senior Managing Director, Head of Emerging Markets, New Forests

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"TAFF2 represents a pioneering approach for ADB in private equity, uniquely blending commercial capital with catalytic development finance to unlock sustainable investment opportunities in the forestry sector. As an anchor investor, ADB plays a critical role in mobilizing additional private sector resources, demonstrating leadership and commitment to sustainable, climate-positive growth. The fund's innovative structure not only attracts private capital but also delivers measurable climate and social impact, aligning with ADB's mission for inclusive and environmentally responsible development."

Janette Hall,
Director, ADB Private Sector Operations Department

"Australia has been proud to support the Tropical Asia Forest Fund 2 (TAFF2). By providing concessional capital, we are helping to catalyze private sector investment in sustainable forestry across Southeast Asia. TAFF2 demonstrates how blended finance can deliver both commercial returns and measurable climate, biodiversity, and community benefits. Our partnership with ADB and other investors reflects Australia's commitment to supporting innovative, scalable solutions for forest conservation and sustainable development in the region."

Will Nankervis,
Australian Ambassador for Climate Change

97 Convergence, Tropical Asia Forest Fund 2 (TAFF2) Case Study (2023).
98 Convergence, Tropical Asia Forest Fund 2 (TAFF2) Case Study (2023).
99 ACFP is a concessional blended financing facility managed by ADB and funded by the Government of Australia that is designed to catalyze financing for private sector climate adaptation and mitigation projects in the Pacific and Southeast Asia by de-risking high demonstration impact projects (Asian Development Bank, ADB Invests in Tropical Asia Forest Fund 2 to Promote Sustainable Forestry, Enhance Biodiversity (2022); Asian Development Bank, Initial Poverty and Social Analysis, Regional: Investment in New Forests Tropical Asia Forest Fund 2 L.P (2021); Asian Development Bank, Australian Climate Finance Partnership.
100 New Forests, New Forests announces first close of Tropical Asia Forest Fund 2 raising US$120 million (2022); Convergence, Tropical Asia Forest Fund 2 (TAFF2) (2023).
101 New Forests, New Forests' Tropical Asia Forest Fund 2 continues to expand portfolio in Southeast Asia through investment in Burapha Agro-Forestry (2025).
102 New Forests, New Forests' Tropical Asia Forest Fund 2 to invest in Kuan Kreng Landscape Peatland Conservation and Restoration Project in Thailand (2024).
103 New Forests, New Forests makes first foray into Vietnam with the Tropical Asia Forest Fund 2 investing in Tavico Group (2025).

HOW IS THE FUND STRUCTURED?[104]

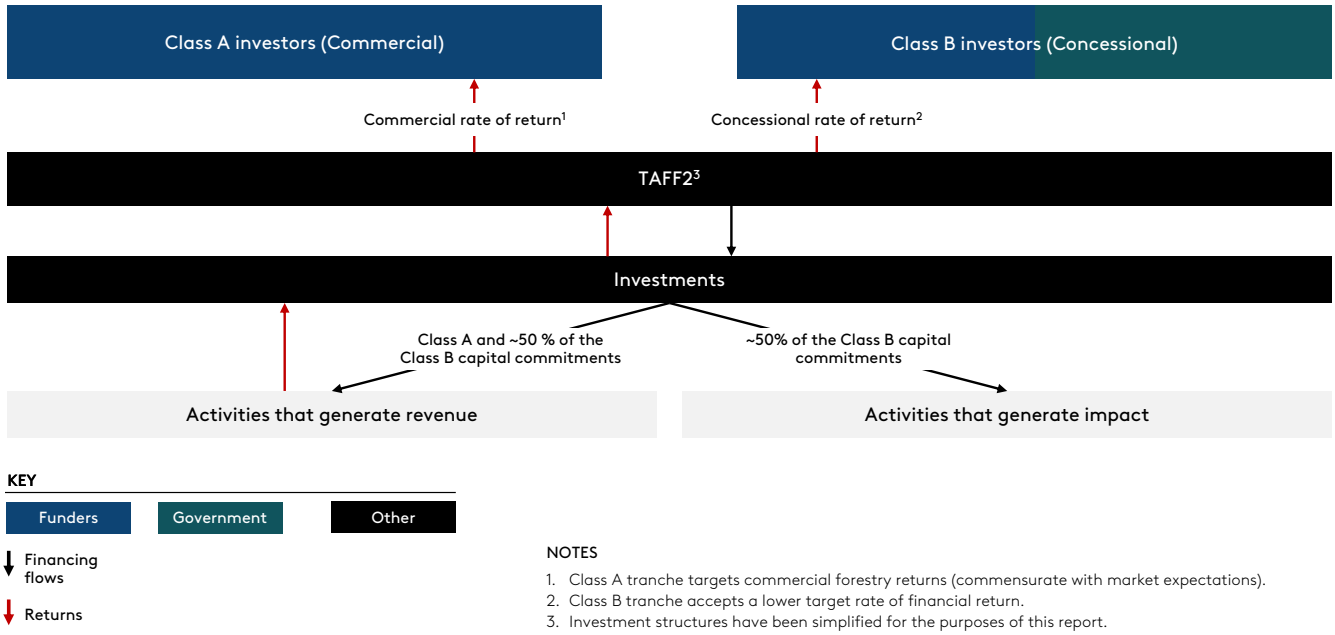
TAFF2 is structured so that it has both a commercial tranche (Class A shares) and a concessional impact tranche (Class B shares):

Class A investors seek market-competitive returns.

Class B investors accept lower returns in exchange for driving impact activities.[105]

TAFF2 utilizes an innovative distribution waterfall designed to meet Class A investors' return requirements, meet Class B investors' impact expectations and allow both classes of investors to benefit from the scale and impact delivered by the blended approach.

Figure 6: TAFF2 Structure



NOTES

1. Class A tranche targets commercial forestry returns (commensurate with market expectations).
2. Class B tranche accepts a lower target rate of financial return.
3. Investment structures have been simplified for the purposes of this report.

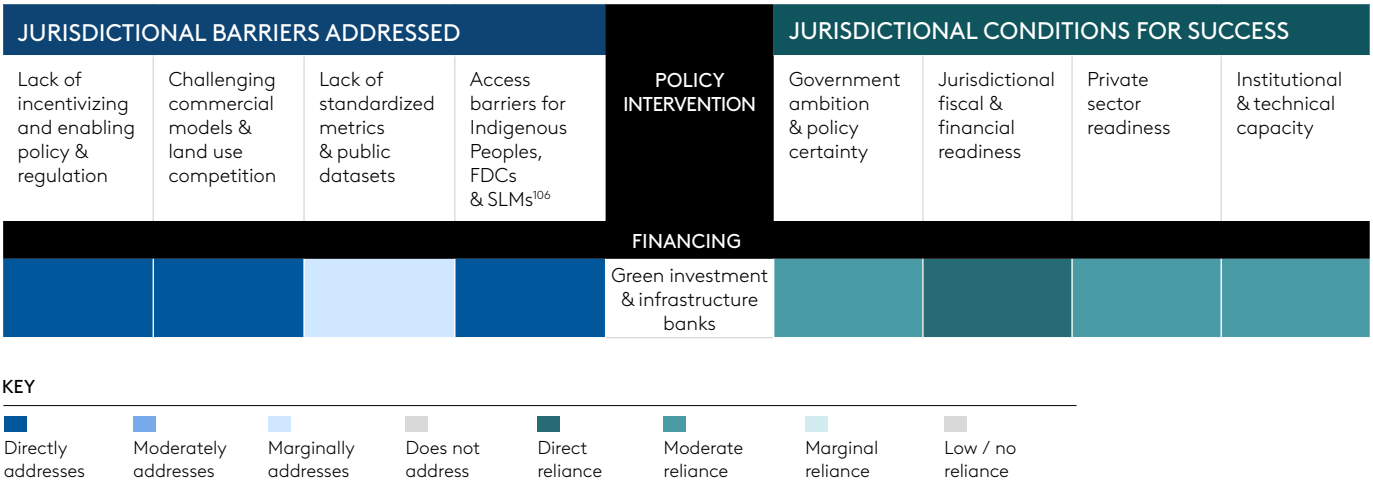
KEY INSIGHTS FOR POLICYMAKERS

Key innovations	• **Innovative distribution waterfall:** The concessional impact investment (via Class B shares) enabled the TAFF2 to fund non-revenue generating impact activities, while still generating commercial-grade returns for mainstream investors (via Class A shares). The unique distribution waterfall also means that if the Fund performs well, the concessional impact investors will share in the upside. • **Diversification of revenue sources:** While revenue-generating investments are still dominated by forestry, TAFF2 is positioned to also generate revenue from carbon and biodiversity projects, preparing to capture upside as those markets mature.

104 Convergence, Tropical Asia Forest Fund 2 (TAFF2) (2023); Green Finance Institute, Tropical Asia Forest Fund 2 (n.d.).
105 The TAFF2 has been established with a defined set of eligible impact activities across climate, biodiversity and livelihoods. Up to 50% of the aggregate financial commitments by Class B investors may be invested in impact activities, and it is intended that 50% of those impact investments be targeted to climate impact activities.

Enabling conditions	• **Policy certainty:** Clarity in forestry, land-use and carbon market policy/regulations (including exporting mitigation outcomes under Article 6 of the Paris Agreement), land tenure and carbon rights, and tax regimes sets the conditions to crowd in private capital to help finance forest conservation, restoration and sustainable management projects or initiatives. Investors can price in taxes or regulation, but they struggle to price uncertainty. Relevant enabling policy measures are explained above in **Section 4**. • **Strong growth signals:** Projected growth in timber demand in correlation to growth in GDP is considered to support a business case for investment in sustainable practices and positive impact to transform the forestry sector in Southeast Asia. • **Technology tailwinds:** Advances in remote sensing and biomass measurement in Southeast Asia are expected to improve investor confidence in nature-based carbon projects and investments.
Advice for policymakers	• **Leverage existing carbon markets infrastructure for harmonization:** Leveraging existing international carbon market methodologies for harmonization, where appropriate to the jurisdictional context and landscape, can fast track the development of carbon projects and carbon finance flows to countries to help achieve their NDCs. • **Align impact metrics with international standards:** TAFF2 provides detailed reporting on impact outcomes aligned with the EU Taxonomy and Sustainable Finance Disclosure Regulation for Article 9 Funds.

5.1.2 GREEN INVESTMENT BANKS AND NATIONAL INFRASTRUCTURE BANKS

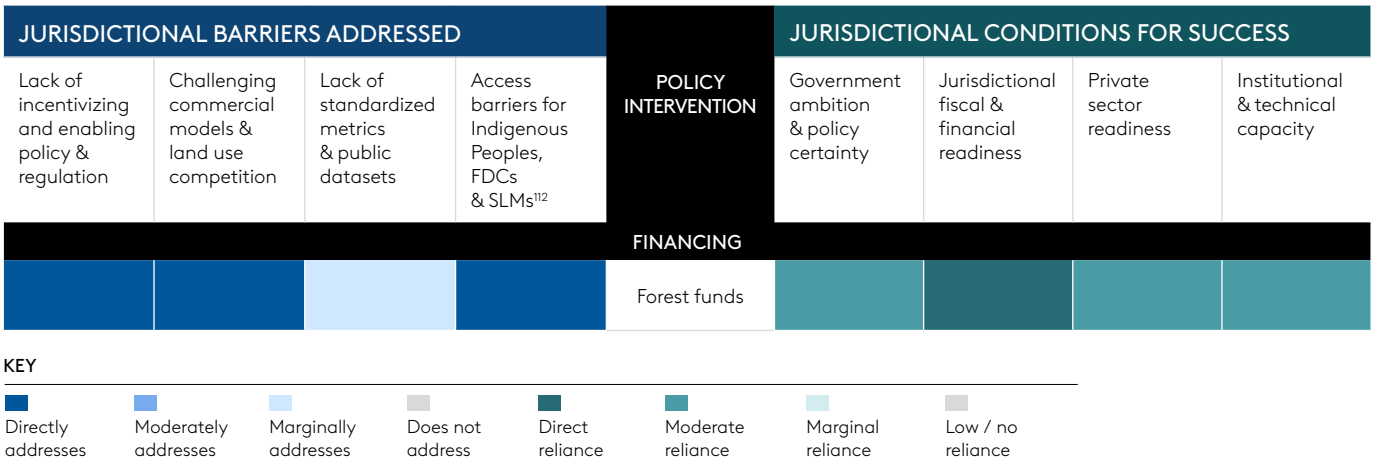


Governments can establish green investment banks (**GIBs**) or national infrastructure banks (**NIBs**) with mandates to invest in natural capital such as forests and mobilize private sector investment. GIBs and NIBs can offer a compelling policy option for policymakers in EMDEs as they provide a strong avenue to mobilize private finance for natural capital projects, such as commercial finance, philanthropy, investment by companies dependent on relevant ecosystem services, social impact investment, and sources of concessionary capital.[107] GIBs and NIBs can mitigate private sector risk by acting as the vehicle through which derisking instruments are issued, standardize financial products and contracts, aggregate smaller projects to achieve scale and attract institutional investors, advise the government on policy to support investment, and develop project pipelines.[108] For example, Brazil's Banco Nacional de Desenvolvimento Econômico e Social is a state-owned development bank that serves as the central government vehicle for financing a range of development activities, including dedicated green lending and climate investment platforms.[109]

106 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
107 Norfolk Water Strategy Programme, Investing in Nature for Norfolk's Water Security (2024).
108 ADB, Green Investment Banks: Unleashing the Potential of National Development Banks to Finance a Green and Just Transition (2024); OECD, Green Investment Banks: Scaling up Private Investment in Low-carbon, Climate-resilient Infrastructure (2016).
109 Banco Nacional de Desenvolvimento Econômico e Social, Financial Support (n.d.).

Green infrastructure solutions can bolster and, indeed, sometimes be more effective, economic and resilient than engineered or 'grey' infrastructure systems used to reduce, mitigate, and adapt to nature and climate-related hazards.[110] There is a strong rationale for these to be explicitly included within the institutional arrangements and mandate of GIBs and NIBs to assist with mainstreaming green infrastructure. In 2023, the UK Infrastructure Bank announced its first natural capital transaction with a £12 million commitment to support a nature restoration project in Scotland with the aim of stimulating environmental markets and tackling climate change, boosting biodiversity, and delivering community impacts.[111]

5.1.3 FOREST FUNDS



Explicitly forest-focused funds can provide a useful mechanism for EMDE governments to ring-fence public finance for forest-related investments and establish the conditions to crowd in private sector finance, while maintaining a high degree of control over how capital is invested to meet national forest goals, including regarding solutions led by Indigenous Peoples, forest-dependent communities and smallholder land managers. Forest funds can make use of a wide array of financial instruments (e.g., equity, loans, and bonds).[113]

These funds can be particularly effective when there is a stable source of revenue (e.g., drawn from taxes or fees comprised in the national budget, official development assistance, international climate and biodiversity finance, or philanthropy) that is able to be earmarked for forest-related investment.[114] For example, Costa Rica's National Forestry Financing Fund (**FONAFIFO**) created under Article 46 of the Forest Law No 7575 is funded primarily through a national tax on fossil fuels. It channels revenue,[115] including through payments for ecosystem services and a forest credit program, to small and medium-sized producers who engage in forest management, afforestation, reforestation, agroforestry and forest nursery activities.[116] Similarly, international forest funds can also be a means through which to scale international climate and nature finance (see **Box 1**).

Beyond sovereign-led funds, Governments can also establish programs to support and facilitate private sector investment or co-investment in non-government-led funds, including, importantly, funds led by Indigenous Peoples, forest-dependent communities and smallholder land managers. These funds can provide the financial means for Indigenous Peoples, forest-dependent communities and smallholder land managers to pursue nature-related priorities in their capacity as stewards.[117] Governments can support these funds by facilitating public data systems (see further **Section 4.1.4** above) and capacity building, as well as by making direct investments. EMDE governments may also seek to create the policy architecture to access or enable finance flows from international forest funds (see, for example, **Box 1**).

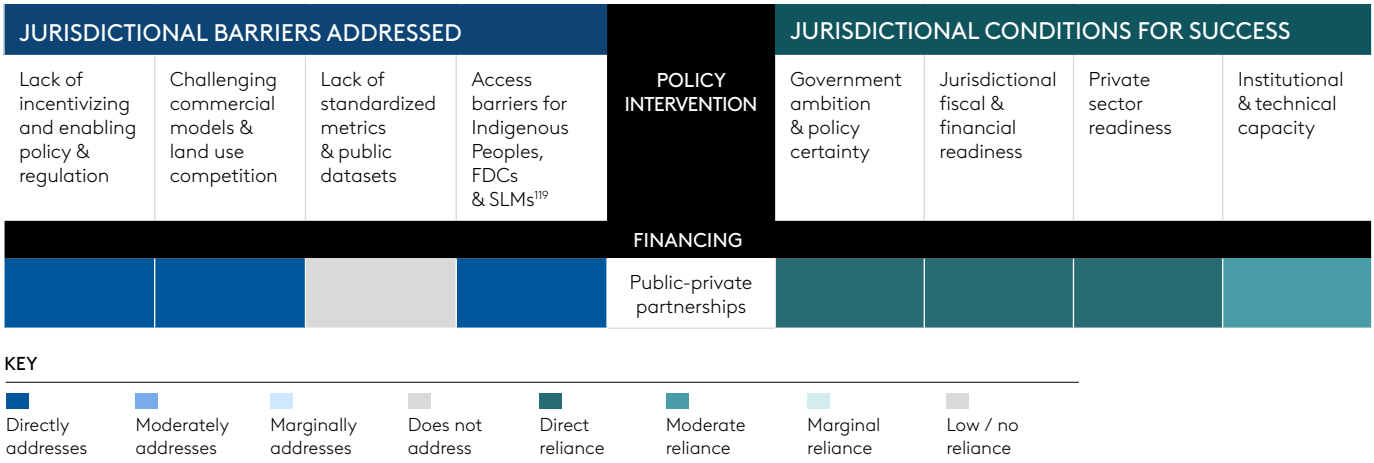
110 Vicarelli, M., et al., On the cost-effectiveness of Nature-based Solutions for reducing disaster risk, Science of the Total Environment (2024) 947; The White House, Opportunities to Accelerate Nature-based Solutions (2022).
111 UKIB, UK Infrastructure Bank announces first natural capital transaction (2023).
112 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
113 Global Center on Adaptation and Resilient Planet Finance Lab, Financing Nature-Based Solutions for Adaptation at Scale: Learning from Specialised Investment Managers and Nature Funds (2023).
114 Forest Declaration Assessment, Finance for forests (2023); Forest Declaration Assessment, Emerging forest finance instruments (2024).
115 Forest Declaration Assessment, Finance for forests (2023); Forest Declaration Assessment, Emerging forest finance instruments (2024).
116 FONAFINO, Objectives (2024).
117 Forest Declaration Assessment, Finance for forests (2023).

Box 1. Tropical Forests Forever Facility (**TFFF**)[118]

The TFFF is an international fund which aims to raise $125 billion to mitigate the effects of climate change by conserving 1 billion hectares of tropical forests worldwide. The TFFF will be formally launched at COP30, where global partners will announce further funding commitments, and tropical forest countries will formalize their commitment to participating in the TFFF.

The TFFF will be structured as an umbrella facility composed of two entities: the Tropical Forest Investment Fund (**TFIF**), responsible for mobilizing and managing financial resources, and the Tropical Forest Forever Facility ("the Facility"), which will oversee the forest cover rewards system, including eligibility criteria, monitoring methodologies, and disbursement rules. The fund will combine 20% of its resources from long-term loans, investment, guarantees, and/or outright grants from developed countries and philanthropic entities with 80% from institutional and retail investors through debt securities. It plans to borrow resources from developed countries, multilateral organizations, and institutional investors to invest in a higher-yield portfolio and use the income to compensate countries with tropical forests for their conservation efforts. Up to $4 per hectare may be paid annually to eligible countries that maintain low deforestation rates of less than 0.5% per year. Notably, at least 20% of payments made to eligible countries must be channeled to Indigenous Peoples and local communities. The TFFF seeks to employ a sophisticated satellite monitoring system to ensure transparency in measuring deforestation and distributing resources, focusing on direct conservation of vegetation cover rather than more complex approaches to carbon calculations.

5.1.4 PUBLIC-PRIVATE PARTNERSHIPS

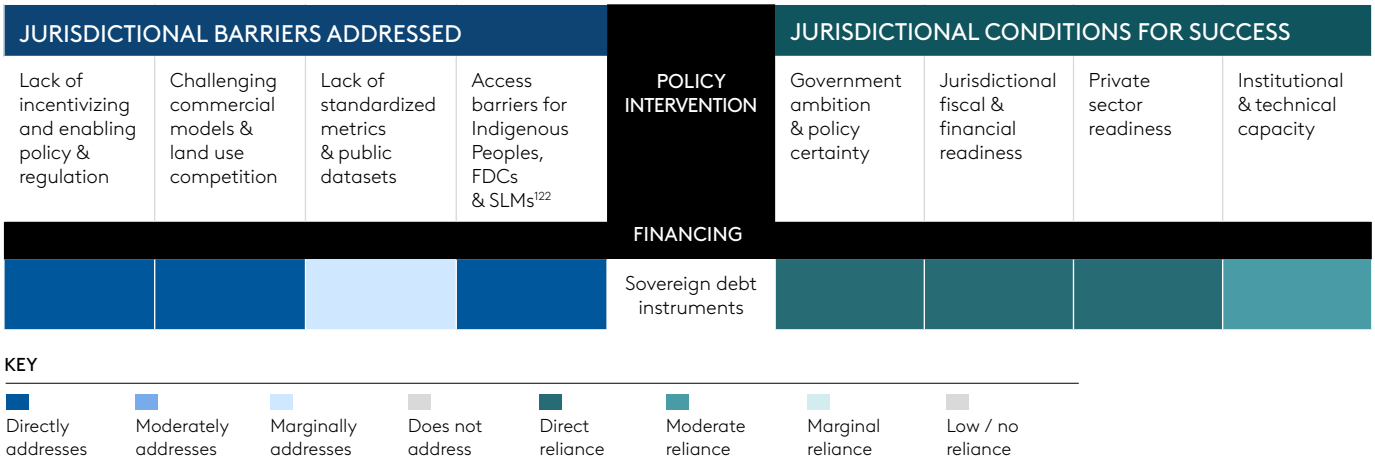


Public-private partnerships (**PPP**) can be valuable financing structures for policymakers in EMDEs to leverage where there are investment opportunities that are attractive to private investors that also deliver clear public benefits. Public-private partnerships can be used for different categories of assets and services, such as infrastructure, insurance, and land management and, though less common, can be suitable for natural assets and associated ecosystem services. The key advantages offered by well-designed PPPs are their capacity to mobilize private capital directly into projects aligned with government policy priorities; to allow government to effectively manage and share risk with private partners; and to leverage private sector expertise, innovation and management skills.

For PPPs to successfully attract private sector interest, they must provide access to a compelling investment opportunity or pipeline of opportunities, structured to provide fair risk allocation and established within a clear and relatively stable policy environment.[120] For some EMDEs, it may be important to seek support from development partners to develop a pipeline of investible projects and ensure that forest-focused PPPs are structured in a manner that will meet private sector partners' needs.[121] It is important to note that not all PPPs include a for-profit private sector partner. Depending on the commerciality of the forest-related activities an EMDE is seeking to deploy a PPP for, it may be valuable to consider the range of potential impact-aligned private sector investors that could be targeted under a PPP structure.

118 Forest Declaration Assessment, Finance for forests (2023); Tropical Forest Forever Facility, Concept Note 3.0 (2025); Carbon Pulse, Brazil's TFFF boosts IPLCs role, tightens eligibility rules in new update (2025).
119 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
120 See further, Asian Development Bank, Public-Private Partnerships in Asia and the Pacific: Your Questions Answered (n.d.); Asian Forest Cooperation Organization, Public-Private Partnerships in the Forest and Forestry Sector (2022).
121 For example, ADB provides both downstream and upstream support to developing member countries (DMCs) to both create a conducive enabling environment for PPPs and secure private investment. Asian Development Bank, Public-Private Partnerships in Asia and the Pacific: Your Questions Answered (n.d.).

5.1.5 SOVEREIGN DEBT INSTRUMENTS



Governments can issue a range of debt instruments, including green bonds and sustainability bonds (both 'use-of-proceeds' bonds), and sustainability-linked bonds to raise capital for forest-related projects. The issuance of either forest-focused use-of-proceeds or sustainability-linked bonds will be most appropriate for jurisdictions with strong forest-focused policy commitments and architecture to provide investor assurance of the durability of national ambition, a favorable credit rating and sufficient capacity to service the debt under normal conditions, and the legal, regulatory and institutional architecture to support credible bond issuance and implementation. A country's jurisdictional context and priorities will determine which bond type is most appropriate.

Green bonds and sustainability bonds (use-of-proceeds bonds)	These are debt securities that have a defined use of proceeds to finance or refinance projects with positive environmental or sustainability impacts.[123] They could be used to support a range of forest project types, including nature-based infrastructure, sustainable forestry, agroforestry, and environmental markets projects. The presence of a strong pipeline of eligible projects is important for the issuance of a bond of this type to be appropriate. In addition to raising capital from private sector sources that might not otherwise invest in green projects without the government investment channel, sovereign green bonds have been found to create a range of further benefits: stimulating private green bond markets both in number and size of transactions, improved quality of green verification standards, increased liquidity, and diminished yield spreads of corporate green bonds within the same jurisdiction.[124]
Sustainability-linked bonds	Sustainability-linked bonds are debt securities with conditions that are structurally linked to the issuer's achievement of climate or broader sustainable development goals, such as through a covenant linking the coupon of a bond.[125] As the case study below on Uruguay's sustainability-linked bond demonstrates, sovereign sustainability-linked bonds can be an effective mechanism to attract private finance and create compelling incentives for a whole of government approach to achieve national climate and nature-related targets, including for forests. Cross-ministerial governance architecture will likely be required to support this whole-of-government approach. As can be seen in Uruguay's sustainability-linked bond, both 'step-down' and 'step-up' mechanisms were integrated into the bond design to create strong incentives for achievement of the targets.

122 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
123 'Green bonds' are debt securities with a defined use of proceeds issued explicitly to finance or refinance projects or activities with positive environmental impacts, whereas 'Sustainability bonds' may be directed to a combination of green and social projects. Global Center on Adaptation and Resilient Planet Finance Lab, Financing Nature-Based Solutions for Adaptation at Scale: Learning from Specialised Investment Managers and Nature Funds (2023).
124 International Monetary Fund, Sovereign Green Bonds: A Catalyst for Sustainable Debt Market Development? (2024); World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025).
125 Global Center on Adaptation and Resilient Planet Finance Lab, Financing Nature-Based Solutions for Adaptation at Scale: Learning from Specialised Investment Managers and Nature Funds (2023).

It is important to note that the effectiveness of sustainability-linked bonds in achieving material and *additional* on-ground outcomes for forests will be contingent on the Key Performance Indicators (**KPIs**) embedded in the bond structure being well-structured and ambitious.[126] Careful modeling is required to provide confidence that KPIs are achievable[127] but *sufficiently ambitious* to be compelling to investors, and that the financial benefits from bond incentives are not outweighed by implementation costs. As can be seen in the case study below, Uruguay took the approach of linking the coupon to compliance with the climate targets in its NDC.

EXTENDED CASE STUDY:

URUGUAY'S SOVEREIGN SUSTAINABILITY-LINKED BOND

In 2022, Uruguay issued a US$1.5 billion sovereign sustainability-linked bond (**SSLB**) with technical assistance provided by the Inter-American Development Bank (**IDB**) and the United Nations Development Programme (**UNDP**). IDB worked with Uruguay's Ministry of Economy and Finance to prepare the framework for issuing the bond and UNDP has provided an external independent review of the performance indicators.[128]

This innovative SSLB has both a step-down and step-up coupon rate mechanism to incentivize achievement of two KPIs,one of which targets forest outcomes.[129]

As set out below, the forest-related KPI has two Sustainability Performance Targets (**SPTs**), which are based on quantitative goals set for 2025 and are aligned with Uruguay's first Nationally Determined Contribution (**NDC**) under the Paris Agreement.[130] Achievement or non-achievement of the SPTs triggers either the step-down or step up mechanism.[131]

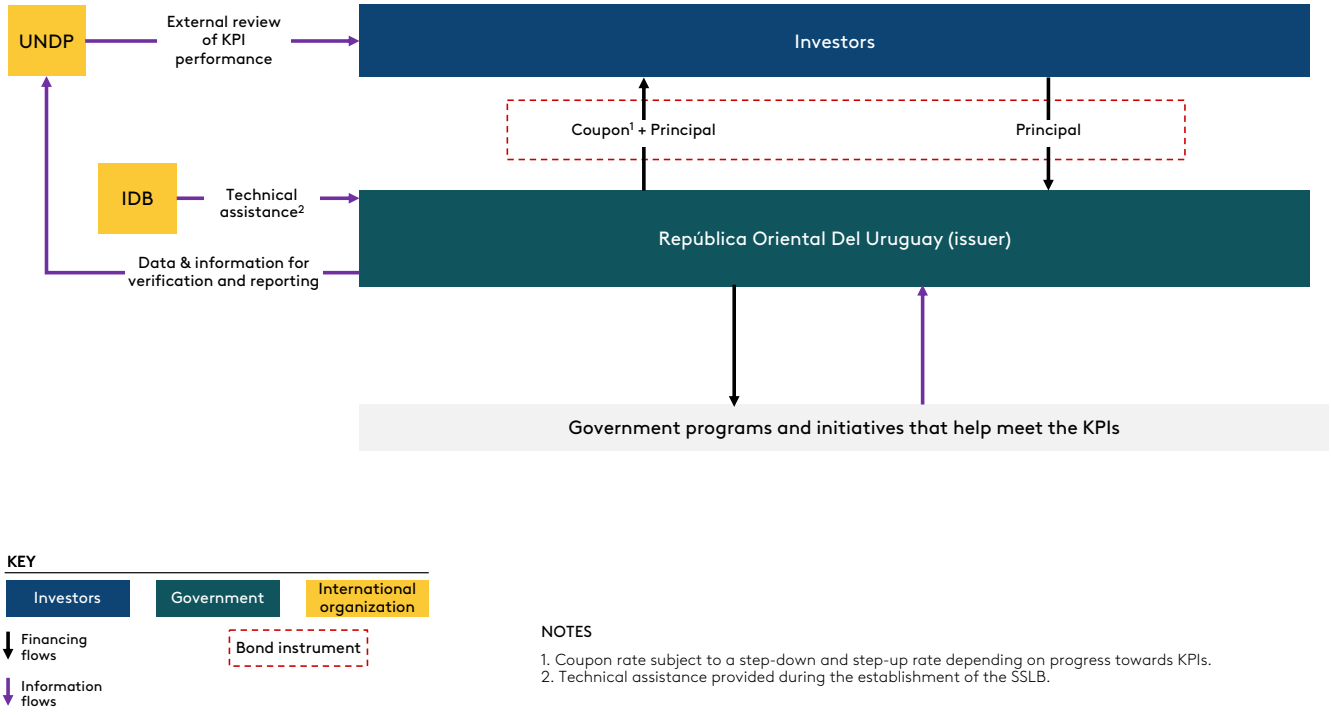
KPI-2 KPI	Maintenance of native forest area (in hectares), with respect to reference year 2012 (in %)[132]	
SPT 2.1 Uruguay's NDC1 commitment	Maintain at least 100% of the native forest area by 2025, compared to reference year 2012.[133]	Annual coupon rate payable to be increased by 15 basis points if SPT 2.1 is not achieved by 2025.[134]
SPT 2.2 Outperform Uruguay's NDC1 commitment	Achieve an increase of more than 3% of the native forest area by 2025, compared to the reference year 2012.[135]	Annual coupon rate payable to be decreased by 15 basis points if SPT 2.2 is achieved by 2025.[136]

HOW IS THE SSLB STRUCTURED?[137]

Parties	Uruguay's Ministry of Economy and Finance Inter-American Development Bank	**Issuance:**	First issuance: USD 1.5 billion (Oct 2022) Reopening: USD 700 million (Nov 2023)
Issuer:	República Oriental del Uruguay	**Amortization:**	3 equal principal payments for the last 3 years
Currency:	US dollar-denominated	**Governing law:**	State of New York, United States
Annual Coupon:	5.75%	**Maturity:**	October 2034

126 Note that there has been some criticism of sovereign sustainability-linked bonds' KPIs not being sufficiently ambitious to ensure additional impact is financed through bond issuance. See for example: Alex Lehmann and Catarina Martins, The potential of sovereign sustainability-linked bonds in the drive for net-zero (2023).
127 Note that it is important that consideration is given to how climate vulnerabilities may impact the pathway to achievement of KPIs
128 Inter-American Development Bank, Uruguay Issues Global Sustainability-Linked Bond, with IDB Support (2022); United Nations Development Programme, Uruguay publishes the first Annual Report of the Sovereign Sustainability-Linked Bond (2023).
129 KPI-1 is as follows, "Reduction in aggregate gross GHG emissions (in CO2eq) per real GDP unit, with respect to reference year 1990 (in %)". KPI-1 also has two Sustainability Performance Targets. Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
130 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
131 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
132 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
133 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
134 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
135 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
136 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).
137 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2025).

Figure 7: Structure of Uruguay's SSLB[138]



Additionally, EMDE governments can use bond structures as part of debt-for-nature transactions, whereby a country reduces its debt burden in exchange for guaranteed finance for nature (see **Box 2**). The United Nations Development Programme (**UNDP**) has identified that both debt and environmental sustainability is at risk in the Asia-Pacific region, with debt reorganization having significant potential to address the urgency of the climate and biodiversity crises, as well as provide relief for debt-distressed countries.[139] While debt-for-nature transactions have existed since the late 1980s, interest in these mechanisms has been growing in recent years, including from finance ministers in the Asia-Pacific region, in recognition of the high levels of sovereign debt distress, as well as the need to enhance economic and environmental resilience.[140] While debt-for-nature transactions have also faced criticism in part due to the potential impact on debt sustainability, high transaction costs and lack of scale (compared to countries' debt burden), when used appropriately, they can provide an important avenue to finance forest conservation and restoration.[141]


Sandakan, Sabah, Malaysia

138 Uruguay Ministry of Economy and Finance, Uruguay's Sovereign Sustainability-Linked Bond (SSLB) Annual Report (2023).
139 UNDP, (Re)orienting Sovereign Debt to Support Nature and the SDGs: Instruments and their Application in Asia-Pacific Developing Economies (2023).
140 UNDP, (Re)orienting Sovereign Debt to Support Nature and the SDGs: Instruments and their Application in Asia-Pacific Developing Economies (2023).
141 World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025); Forest Declaration Assessment, Transforming Forest Finance (2025).

Box 2. Case study: Peru's debt-for-nature swaps[142]

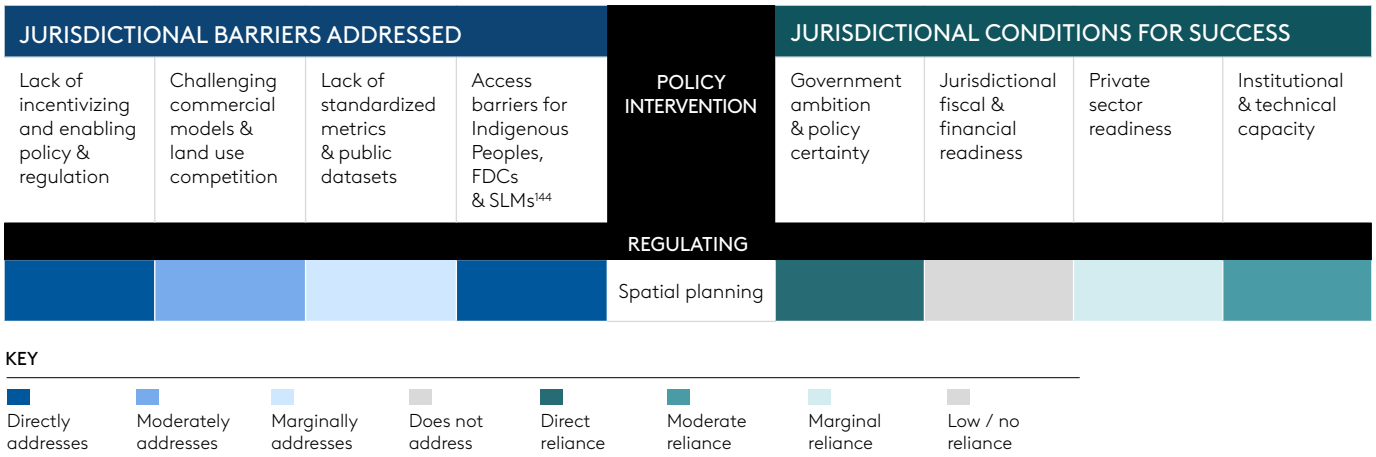
Peru has completed several rounds of debt-for-nature swaps with the United States, with savings directed into the conservation and sustainable management of forests (and particularly, the Peruvian Amazon). In June 2002, Peru and the US entered into the first $14 million debt-for-nature swap, in exchange for funding to protect 27.5 million acres of Amazon rainforest. The agreement was supported by additional financial contributions from the World Wildlife Fund, The Nature Conservancy, and Conservation International.

In 2023, Peru and the United States entered into another bilateral agreement, again supported by The Nature Conservancy, the Wildlife Conservation Society, and Conservation International, to cut over $20 million in Peru's debt service costs to the US. The savings are directed into a conservation fund that provides grants for conservation, restoration, management, and sustainable use activities to protect the Peruvian Amazon rainforest.[143]

5.2 REGULATING – MANDATORY REQUIREMENTS AND LAND-USE PARAMETERS

The establishment of foundational regulatory measures which set the conditions for the conservation of standing forests (especially primary forests and old growth forests) and incentivize forest restoration and sustainable management are core interventions available to policymakers. These regulatory measures set market conditions that prohibit / minimize key drivers of forest loss, level the playing field for responsible actors and reduce regulatory uncertainty, a common barrier to private sector investment. When well-designed, these interventions can deliver against multiple policy objectives. These interventions are available to all jurisdictions, but will be most effective when paired with strong and consistent monitoring and enforcement mechanisms.

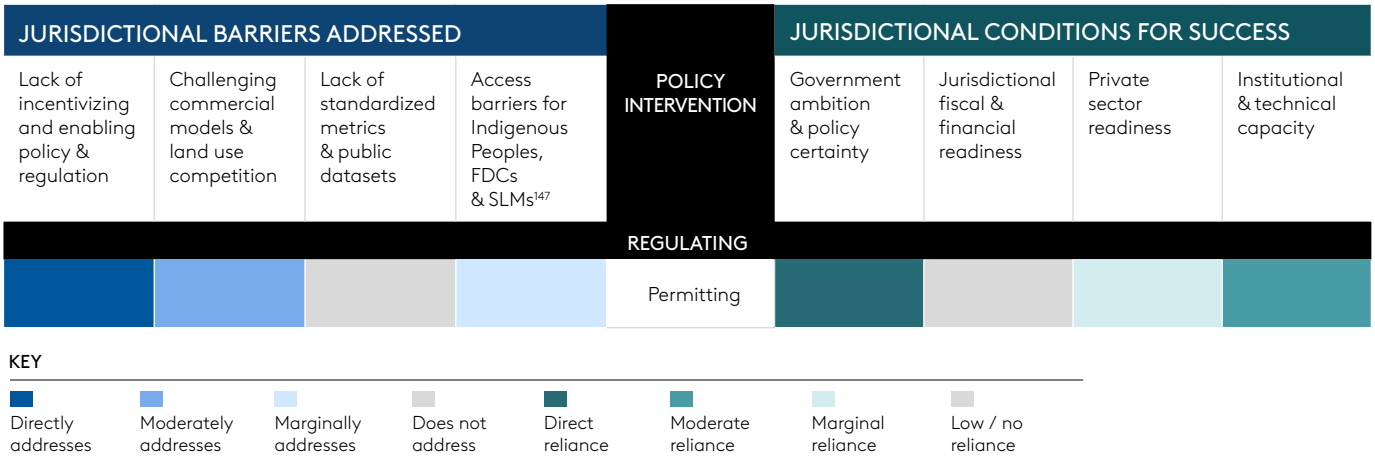
5.2.1 SPATIAL PLANNING



National and subnational governments can incorporate consideration of forests into economic and environmental spatial planning to help ensure outcomes at the landscape scale.[145] This can enable an integrated landscape approach to decision-making that considers various interacting land uses and management, balances environmental, social and economic priorities, involves effective stakeholder engagement, and facilitates strategic site selection for major infrastructure or developments. Outcomes of integrated spatial planning could include zoning regulations to designate development and forest conversion 'no-go zones' for areas with high biodiversity value and prioritization of alternative locations for projects that minimize threats to forests. This can in turn attract private finance for forests through informing strategic decisions to designate certain forest areas as eligible for tax incentives or projects eligible for finance through GIBs and NIBs, public-private partnerships, environmental markets, or payments for ecosystem services. Additionally, clear planning frameworks support the private sector to identify investment opportunities in nature-based infrastructure, sustainable forestry and environmental markets. Strategic spatial planning should also be designed with the mitigation hierarchy as a core objective to ensure harm to nature is first avoided, then minimized, before being restored, and offset as a last resort.[146]

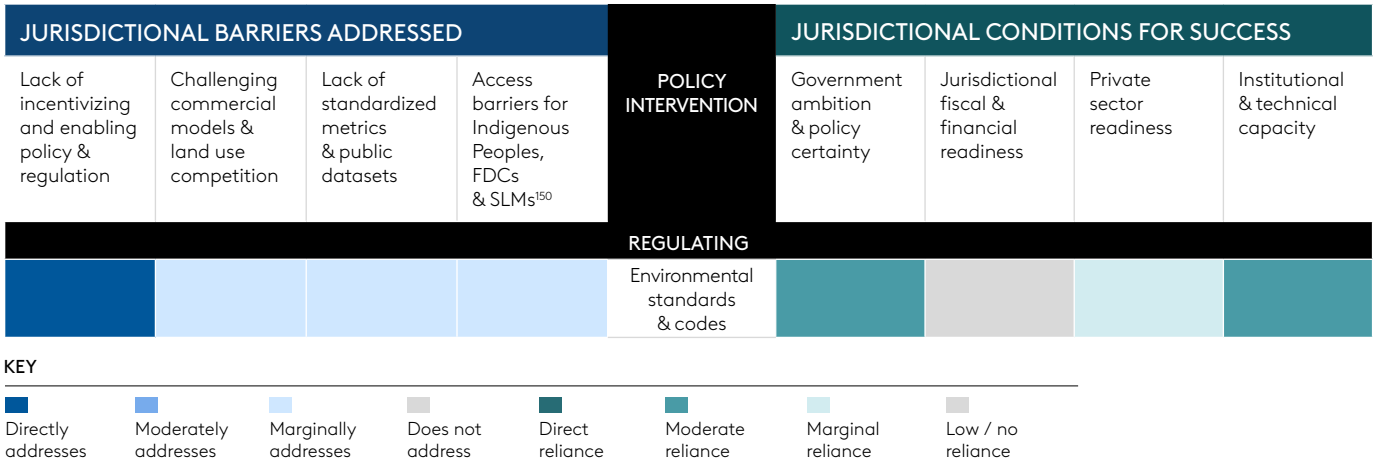
142 WWF, How debt-for-nature swaps have protected the world's tropical forests for 25 years (2024); Kilbane Gockel, C., & Gray, L. C., Debt-for-Nature Swaps in Action: Two Case Studies in Peru, Ecology and Society (2011) 16(3); Forest Declaration Assessment, Emerging forest finance instruments (2024).
143 Forest Declaration Assessment, Emerging forest finance instruments (2024).
144 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
145 Paulson Institute, Financing Nature: Closing the Global Biodiversity financing Gap (2020).
146 Paulson Institute, Financing Nature: Closing the Global Biodiversity financing Gap (2020); Arlidge, W., et al., A Global Mitigation Hierarchy for Nature Conservation, Bioscience 68(5) (2018).

5.2.2 PERMITTING



Related to spatial planning, governments can introduce, strengthen, and enforce permitting requirements to minimize threats to forests and actively incentivize land uses that are positive for forests. Clear and streamlined permitting processes can help to make activities to conserve, restore and sustainably manage forests more accessible and reduce costs for the project and for private investors. Additionally, permitting processes can be used to ensure proponents of activities and developments demonstrate adherence to certain criteria, such as comprehensive environmental and social impact assessments, FPIC of Indigenous Peoples, forest-dependent communities and smallholder land managers, proof of land tenure, and demonstrated alignment with sustainable forest management practices and principles.[148] Approvals processes must be clear and unambiguous to send clear signals regarding what activities and developments are and are not permitted. Capacity building for government authorities and supporting technologies may be required to enhance permit review processes and improve monitoring and enforcement.[149]

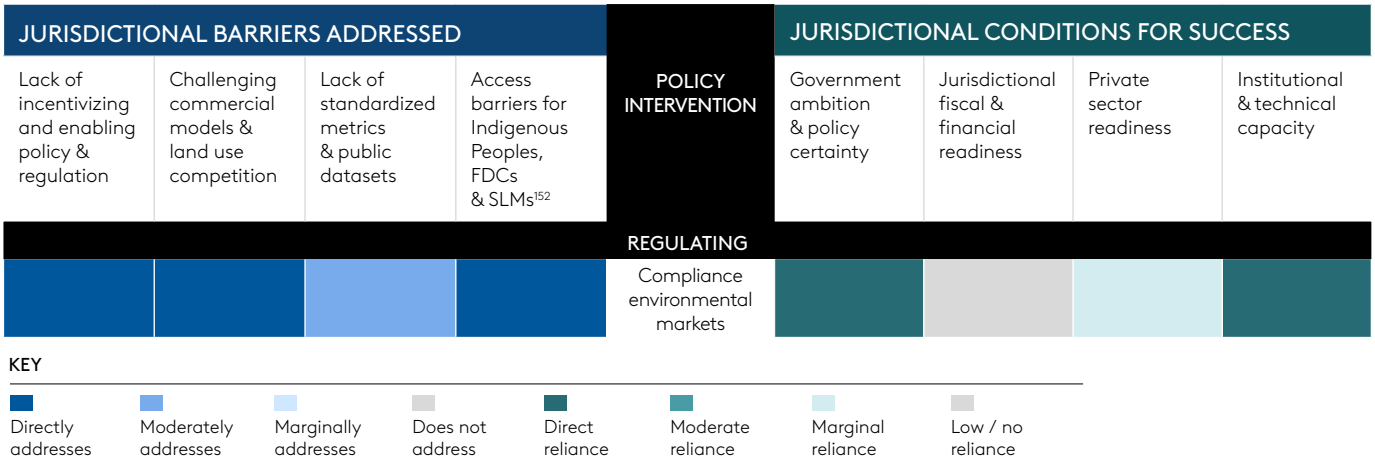
5.2.3 ENVIRONMENTAL STANDARDS & CODES



Environmental standards and building code requirements can be used as levers to enhance sustainable forest management and also create demand for sustainably sourced wood products. Timber standards and certification requirements can be updated to ensure sustainable production of forest products and require detailed documentation of wood origin, thereby encouraging supply chain transparency and discouraging illegal logging. Building codes can mandate use of certified sustainably-produced wood products to reduce the environmental impact of building and create a source of demand.[151] These can also be linked to government procurement policies. Governments should be mindful that there is a risk that environmental standards and codes may increase costs and inadvertently discourage private investment, and consider combining them with incentives (such as subsidies and green certification that unlocks access to new markets) to encourage private investment.

147 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
148 ClientEarth, Legal toolkit: Clearing forested land – the need for a permit (2018).
149 ClientEarth, Legal toolkit: Clearing forested land – the need for a permit (2018).
150 FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
151 Espinoza, O., et al., Forest certification and green building standards: overview and use in the U.S. hardwood industry, Journal of Cleaner Production 33; World Economic Forum, 5 reasons why sustainable timber must become a core global building material (2023).

5.2.4 COMPLIANCE ENVIRONMENTAL MARKETS



Compliance environmental markets are regulated systems where entities are required to meet environmental obligations and can meet these obligations by generating or purchasing verified credits, units or certificates representing a positive environmental outcome. Compliance environmental markets can incentivize investment into forests in a number of ways, depending on the design of the mechanism. Generally speaking, when designed in a manner that facilitates forest finance flows, these markets firstly serve to create a valuable, tradable asset for the ecosystem services provided by forests, and secondly create demand drivers for private sector investment in these assets. These markets can take a number of forms.

- **International compliance carbon markets**, where parties may use carbon credits, representing a tonne of carbon dioxide equivalent reduced or removed from the atmosphere, as offsets to meet their commitments to reduce emissions made under international treaties or agreements. These carbon credits can be generated from various project types, including forest-based projects.[153]
- **Domestic carbon pricing and compliance markets**, such as carbon taxes and emissions trading schemes, which are increasingly adopted by countries to drive investment in climate change mitigation activities. In some jurisdictions, regulated entities may be able to elect to offset their emissions wholly or partially by purchasing and retiring carbon credits.[154] Policymakers may design compliance carbon schemes to direct private sector demand into particular priority forms of emissions reduction and removal including, for instance, those generated from the reduction or removal of emissions from forest conservation, restoration, or sustainable management. Some jurisdictions allow for the use of carbon credits generated internationally to discharge obligations under domestic compliance carbon schemes.[155]
- **Compliance biodiversity markets**, where environment and planning approvals require project proponents to 'offset' or compensate for the negative impacts on biodiversity caused by a development. Obligations are met by purchasing biodiversity units, in some cases generated from forest-based projects, intended to represent an equivalent positive impact on biodiversity in another location,[156] often to a "no net loss" or a "net gain" standard.[157] There are varying degrees of government involvement, which may be more or less appropriate depending on the country context. This could range from introducing the legislative requirements all the way through to developing statutory banks of units, registers of approved methodologies, and setting prices.

152 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
153 For example, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) creates an industry-specific international compliance market for the airline industry, with some forest-based crediting methodologies approved for use for Phase 1.
154 World Bank, State and Trends of Carbon Pricing (2025).
155 Note that, in order for these carbon credits to be eligible to be counted towards that country's NDC, they must have been authorized for international transfer by the relevant host country under Article 6 of the Paris Agreement.
156 Nature Finance and Pollination, Biodiversity Credit Markets: The role of law, regulation and policy (2023).
157 Droste, N., et al., A global overview of biodiversity offsetting governance, Journal of Environmental Management 316 (2022).

Compliance environmental market schemes can be complex and will generally require the introduction of bespoke primary and subordinate legislation. They will be most appropriate for jurisdictions with the capacity to develop relatively stable climate and nature-related policy architecture and strong technical and institutional capacity to support monitoring, reporting, verification and enforcement. To be effective in facilitating investment into forest-related projects, clarity in land tenure and rights to own and transact carbon and biodiversity credits are also required.

UNDERSTANDING THE RELATIONSHIP BETWEEN COMPLIANCE & VOLUNTARY ENVIRONMENTAL MARKETS

The policy architecture established for compliance environmental markets could also be leveraged for voluntary environmental markets (see **Section 5.3.3** below). As the case study below demonstrates, in some jurisdictions a single market will serve both compliance and voluntary market purposes.

In July 2025 the Asian Development Bank published a ***Legal Blueprint for Developing and Regulating Carbon Markets*** which provides practical guidance for law and policymakers on the foundational and strategic elements of developing and regulating carbon markets whether a country is looking to establish a domestic carbon crediting scheme and/or leverage the existing architecture of international carbon markets. It also covers Article 6 requirements which can be codified in the national legal and regulatory framework.

EXTENDED CASE STUDY:

THE AUSTRALIAN GOVERNMENT'S SAFEGUARD MECHANISM

HOW DOES THE SAFEGUARD MECHANISM SUPPORT FORESTS?

The Safeguard Mechanism (**SGM**) is the Australian Government's policy framework to limit greenhouse gas emissions from the country's largest industrial facilities. Under the SGM, one of the options available to facilities to meet their obligations under the SGM is to use Australian Carbon Credit Units (**ACCUs**) generated under the ACCU Scheme, Australia's government-administered carbon market.

The ACCU Scheme supports the generation of ACCUs from a number of forest-related project types. For the financial year 2023 – 24 compliance period, over 50% of the ACCUs surrendered for compliance under the SGM were generated through forest-related activities, demonstrating the relevance of this type of mechanism to stimulate financing flows into forests.[159]

The environmental market architecture developed in Australia over the past two decades can serve as a helpful reference point for policymakers in EMDEs seeking to leverage environmental markets to direct finance into forests, specifically in relation to aligning carbon and biodiversity markets mechanisms.[160] While this architecture has evolved incrementally in Australia, policymakers in EMDEs are well placed to leverage this example in developing their approach to environmental markets (see further, the *Advice for policymakers* provided below). Further, the legislative clarity in Australia on key enabling factors - such as, for example, the legal nature of carbon credit units and their intersection with tenure regimes - could provide a valuable reference point for policymakers in EMDEs who are commencing this legislative process.

158 Asian Development Bank, Legal Blueprint for Developing and Regulating Carbon Markets: Guidance for Law and Policymakers (2025).
159 CER, Quarterly Carbon Market Report March Quarter 2025 (2025).
160 Australia has separate, though connected, carbon and biodiversity markets, the ACCU Scheme and the Nature Repair Market respectively. The design of both the Safeguard Mechanism and the ACCU Scheme have evolved significantly over time.

HOW IS THE SAFEGUARD MECHANISM STRUCTURED?

SGM[161]

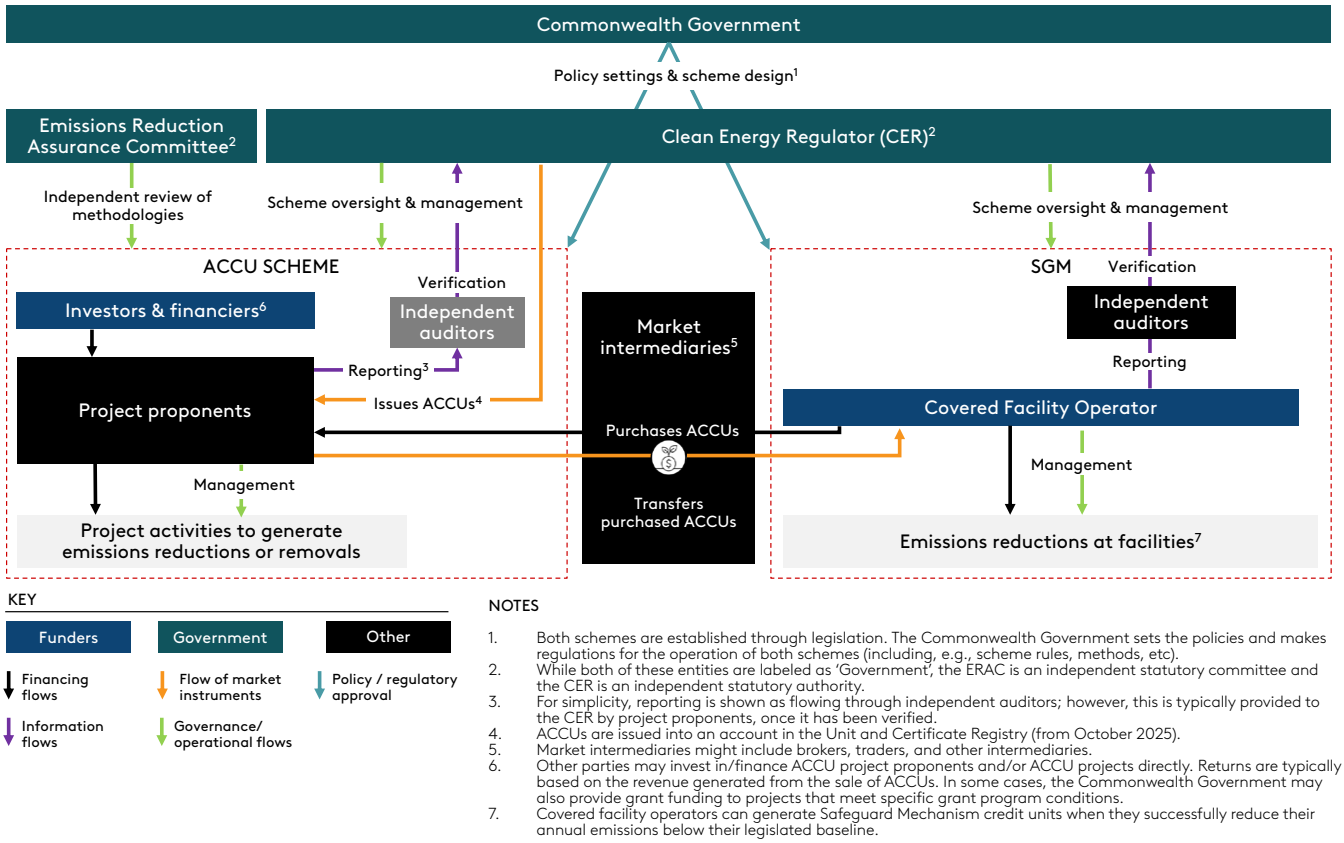
Under the SGM, facilities emitting more than 100,000 tonnes of carbon dioxide equivalent (CO_2-e) per year must measure, report, and manage their emissions in accordance with legislated obligations.[162] Each covered facility is assigned an emissions baseline, serving as the annual limit against which net emissions are assessed. Beginning in financial year 2023–24, these baselines are set to decline by a default rate of 4.9% per year, aligning industrial emissions with Australia's national emissions reduction targets.[163] Most relevantly, facilities that are unable to keep their on-site emissions under the declining baseline can comply by surrendering ACCUs.[164]

ACCU SCHEME[165]

Under the ACCU Scheme, proponents can register a carbon project with the Clean Energy Regulator (**CER**), an independent government regulator. Projects must use an approved method and meet other eligibility and project design requirements. There are several approved methods that focus on forests and vegetation management, such as afforestation, reforestation, improved forest management, and plantation forestry.[166] Once projects have achieved verified abatement, they are eligible to be issued with ACCUs by the CER.

Companies and organizations may use ACCUs to help meet a voluntary climate target, or (as discussed above) if they are a facility covered by the SGM, they can use ACCUs to help meet their compliance obligations.

Figure 8: SGM and ACCU Scheme structure



NOTES

1. Both schemes are established through legislation. The Commonwealth Government sets the policies and makes regulations for the operation of both schemes (including, e.g., scheme rules, methods, etc).
2. While both of these entities are labeled as 'Government', the ERAC is an independent statutory committee and the CER is an independent statutory authority.
3. For simplicity, reporting is shown as flowing through independent auditors; however, this is typically provided to the CER by project proponents, once it has been verified.
4. ACCUs are issued into an account in the Unit and Certificate Registry (from October 2025).
5. Market intermediaries might include brokers, traders, and other intermediaries.
6. Other parties may invest in/finance ACCU project proponents and/or ACCU projects directly. Returns are typically based on the revenue generated from the sale of ACCUs. In some cases, the Commonwealth Government may also provide grant funding to projects that meet specific grant program conditions.
7. Covered facility operators can generate Safeguard Mechanism credit units when they successfully reduce their annual emissions below their legislated baseline.

161 CER, Safeguard baselines (2025); CER, Managing excess emissions (2025).
162 CER, Safeguard Mechanism (2025).
163 Emissions-intensive, trade-exposed facilities may be eligible for alternative baseline arrangements, ensuring economic competitiveness while maintaining environmental ambition.
164 Covered facilities can also use Safeguard Mechanism Credits (**SMCs**), which are tradeable units issued to facilities under the SGM when they successfully reduce their annual emissions below their legislated baseline. SMCs can be transferred, sold, or used to offset excess emissions by other covered facilities. SMCs differ from ACCUs because they are generated only via reductions within regulated facility boundaries, not through external ACCU projects.
165 CER, Australian Carbon Credit Units (2024); CER, How to participate in the ACCU Scheme (2025).
166 An independent statutory committee, reviews proposed methods against a set of offset integrity criteria and makes recommendations to the Minister prior to their approval. Based on the outcomes of an independent review of the ACCCU Scheme, this committee will be re-established as the Carbon Abatement Integrity Committee. DCCEEW, Developing New ACCU Scheme methods (2024).

KEY INSIGHTS FOR POLICYMAKERS

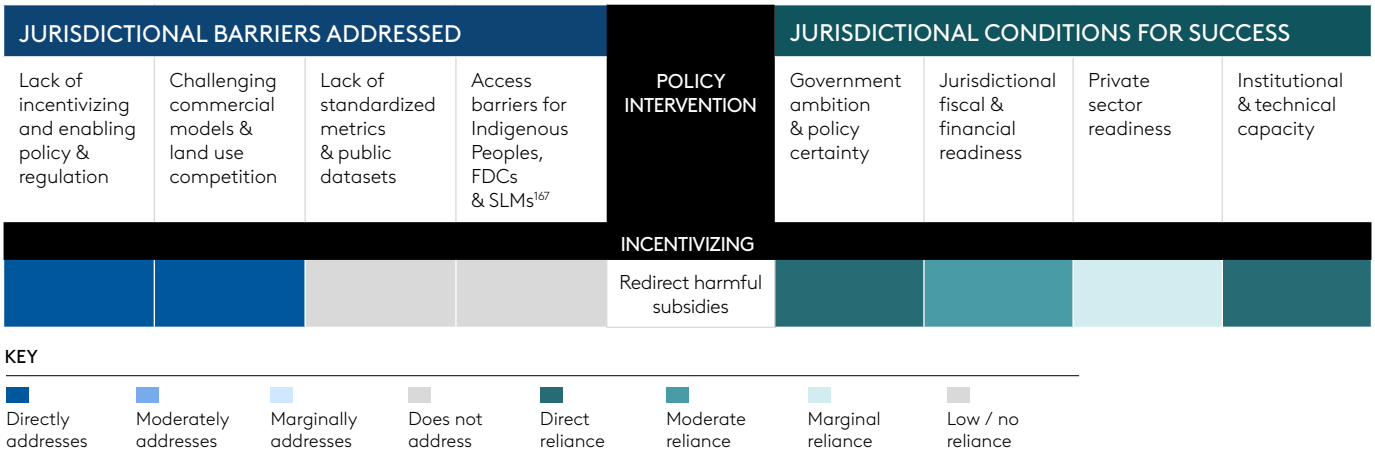
Key innovations	• Approval of forest-related methods for the generation of ACCUs that can be used by covered facilities to meet their SGM obligations, creating a reliable source of demand for ACCUs from forest ecosystems.
Enabling conditions	• Legislative clarity on the legal ownership of carbon and intersection of the ACCU Scheme with land rights in Australia. • National emissions reduction targets which the SGM is required to help deliver. • Leveraging existing emissions reporting and carbon market architecture: ***"The Safeguard Mechanism is built upon the solid foundation of the ACCU Scheme and the long-standing National Greenhouse and Energy Reporting Scheme (since 2008–09). Leveraging existing reporting frameworks has reduced the regulatory burden for covered facilities."*** ***Jane Wardlaw,*** *General Manager, NGER and Safeguard Branch, Clean Energy Regulator*
Advice for policy makers	• Integrate and align environmental markets: ***"If it's appropriate to the jurisdictional context, policymakers who are considering developing carbon markets could consider opportunities to align environmental market frameworks, as this reduces the complexity of participation across initiatives."*** ***Michelle Crosbie,*** *General Manager, ACCU (Vegetation), Nature Repair and Analytics Branch, Clean Energy Regulator* • **Ensure transparency:** Detailed public reporting builds trust and supports covered-facilities in making claims regarding carbon credit units with compelling characteristics (including from forest-based methods). • **Provide upfront support:** Grants or low-cost finance can unlock target project types where establishment costs are prohibitive.


Kerala, India

5.3 INCENTIVIZING – ECONOMIC OR FISCAL MEASURES THAT INCENTIVIZE INVESTMENT

There is a suite of interventions available to policymakers that can fundamentally realign economic signals to disincentivize activities harmful to forest ecosystems and set the economic conditions to drive private finance into forest protection, conservation and sustainable management. Some of these policy interventions, especially subsidy reform and the introduction / reform of taxes and duties, can be politically contentious and strong private sector engagement prior to their introduction will be required to ensure that the policy interventions have sufficient support to be durable.

5.3.1 REDIRECT HARMFUL SUBSIDIES



Repurposing environmentally harmful subsidies offers significant opportunity to halt and reverse the loss of forests,[168] as recognized in GBF Target 18. Subsidies can include direct transfer of funds, indirect transfers through income or price incentives, fiscal incentives based on impacts, outputs or factors of production (such as "exemptions, deductions, rate reductions, rebates, credits and deferrals that reduce costs"), and other foregone government revenues.[169] Examples of environmentally harmful subsidies that can negatively impact forests include agricultural, forestry, transport, energy, and water subsidies aimed at increasing production and use which cause species loss, freshwater and soil pollution or scarcity, and land conversion (see **Box 3**).[170] Instead, these can be strategically redirected towards activities that conserve, restore, or sustainably manage forests. Doing so both supports the development of more resilient and sustainable economies,[171] and creates incentives for private sector investment into aligned projects. Redirected subsidies can be used to finance targeted incentives such as tax exemptions for sustainable forestry or conservation easements.[172] For subsidy reform to be successful, it is critical for policymakers "to understand the trade-offs, opportunities and risks by analyzing potential socioeconomic impacts, assessing political opportunities for actions, identifying potential supporters, and aligning plans with national priorities."[173]

There are a number of global initiatives, such as the UNDP and European Commission-led BIOFIN, working to promote and support the repurposing of harmful subsidies and developing helpful guidance for policymakers.[174]

167 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
168 WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024).
169 BIOFIN, The Nature of Subsidies (2024).
170 BIOFIN, The Nature of Subsidies (2024).
171 BIOFIN, The Nature of Subsidies (2024).
172 The Nature Conservancy, Tax Policy for Nature (2020); Gaarder, C., No Time to Ease Up on Easements, *Georgetown Environmental Law Review* (2023); UK HM Revenue and Customs, Extension of Inheritance Tax Agricultural Property Relief to environmental land management agreements (2024).
173 WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024).
174 BIOFIN, The Nature of Subsidies (2024). BIOFIN recommends a five stage approach: (1) identify government support that is likely to be harmful to nature (including to forests); (2) define multiple redesign options by weighing social, gender, environmental, economic, and political concerns; (3) develop action plans; (4) implement the action plans; and (5) identify institutional gaps to be overcome.

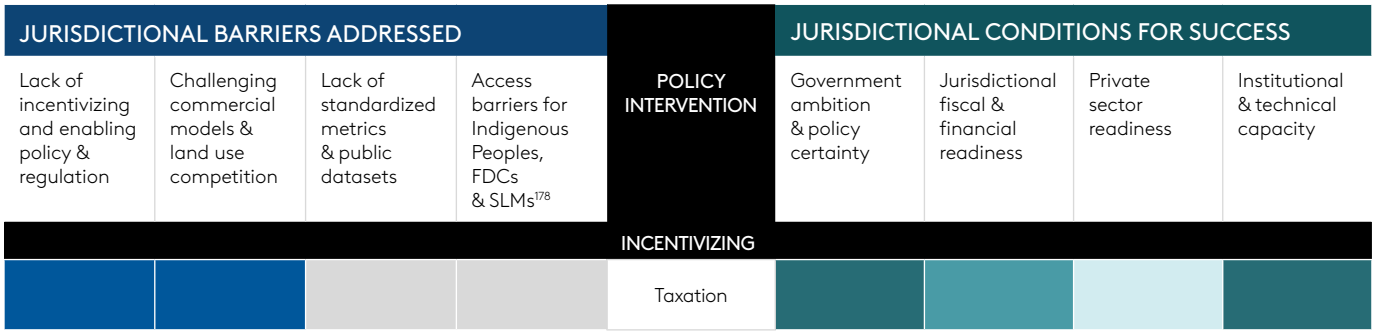
Box 3. Rural Credit and Subsidy Reform in Brazil[175]

Public financing plays a significant role in supporting Brazilian agriculture. While the influence of subsidized public credit is difficult to separate from other drivers of deforestation and land conversion in Brazil, the support this public financing provides for agricultural and cattle production expansion may indirectly increase pressure on forests by facilitating land conversion.[176]

Recent research indicates the potential for policy reform targeting rural credit lines in Brazil to support sustainable agriculture practices, for example, by making rural credit conditional upon compliance with environmental standards.

There is some evidence to suggest that similar policy approaches adopted in Brazil have led to a reduction in deforestation rates, particularly in areas used for cattle ranching. Other potential repurposing measures that could be adopted include reallocating agricultural subsidies to support livestock-forest integration, scale agroforestry systems, finance forest restoration, provide direct compensation to farmers through PES and/or deploy financing instruments such as credit guarantees to support higher-risk projects like smaller-scale, sustainable agriculture and forest management.[177]

5.3.2 TAXATION

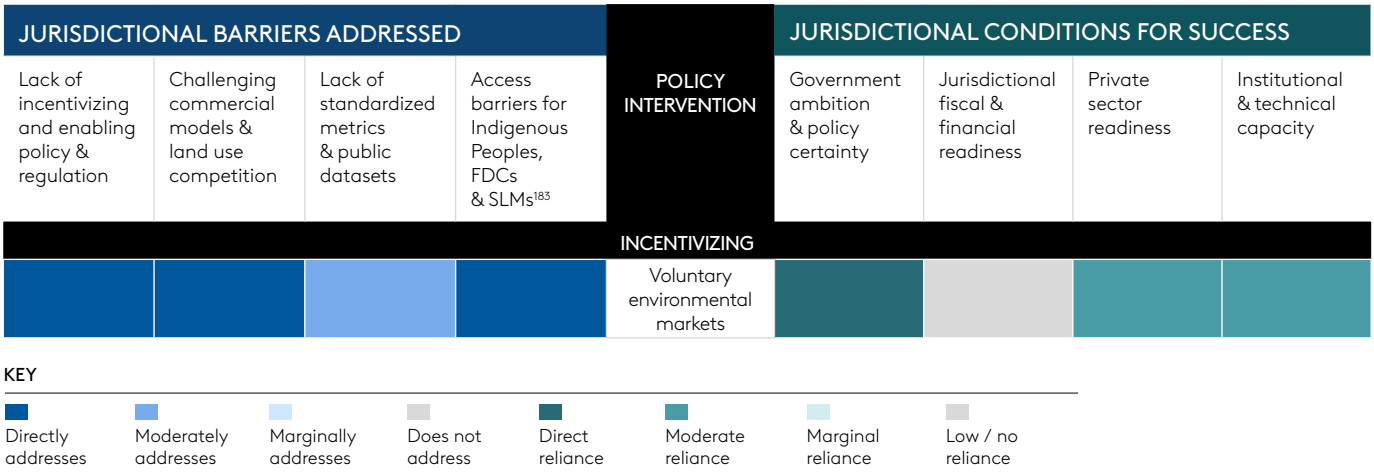


Taxation regimes can be a powerful tool for policymakers to direct private capital flows away from activities that have a negative impact on forest ecosystems, and unlock private capital flows into forest conservation, restoration, and sustainable management.[179] Carefully structured taxation regimes – such as levies on deforestation-linked commodities, taxes on the overuse of pesticides and fertilizers, or penalties for unsustainable land conversion – can provide strong disincentives for investment in forest-destructive practices.[180] For example, in Costa Rica a 3% levy is applied on the market value of timber transactions under the General Forest Tax (Impuesto General Forestal).[181]

By using targeted incentives – such as tax credits for reforestation investments and reduced tariffs on sustainable inputs – governments can also improve the risk–return profile of forest-positive projects and stimulate private investment.[182] For forest-aligned taxation regimes to be successful, they must be simple, transparent and cost-effective to administer; eligibility criteria must be clear and aligned with recognized environmental standards; fiscal authorities must have the capacity to enforce compliance and prevent abuse; and sunset clauses or periodic reviews should be part of their design to ensure that incentives remain targeted and do not create long-term market distortions.

175 WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024); Climate Policy Initiative, Credit Where It's Due: Unearthing the Relationship between Rural Credit Subsidies and Deforestation (2024); Climate Policy Initiative, The Effect of Rural Credit on Deforestation: Evidence from the Brazilian Amazon (2016).
176 WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024); Climate Policy Initiative, Credit Where It's Due: Unearthing the Relationship between Rural Credit Subsidies and Deforestation (2024).
177 WWF, Turning Harm into Opportunity: Repurposing Agricultural Subsidies that Destroy Forests and Non-Forest Natural Ecosystems (2024).
178 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
179 World Bank, Designing Fiscal Instruments for Sustainable Forests (2021).
180 OECD, Tracking Economic Instruments and Finance for Biodiversity 2024 (2024); OECD, Scaling Up Biodiversity-Positive Incentives (2025).
181 OECD, Scaling Up Biodiversity-Positive Incentives (2025).
182 The Nature Conservancy, Tax Policy for Nature (2020); Gaarder, C., *No Time to Ease Up on Easements*, Georgetown Environmental Law Review (2023); UK HM Revenue and Customs, Extension of Inheritance Tax Agricultural Property Relief to environmental land management agreements (2024).

5.3.3 VOLUNTARY ENVIRONMENTAL MARKETS



'Voluntary' environmental markets are market-based mechanisms through which entities can purchase verified credits on a voluntary basis to meet a target or support broader climate and nature objectives. Governments can introduce or enable voluntary environmental markets to attract private investment into forest management on a voluntary basis. The most established types of environmental markets relevant for the conservation, restoration, and sustainable management of forests include:

- **Voluntary carbon markets**, under which entities buy and retire carbon credits to offset emissions for the purpose of meeting voluntary climate targets or contribute to efforts focused on beyond value chain mitigation of climate change. Depending on the level of desired involvement, governments can introduce frameworks to support and enable domestic voluntary carbon market activity, such as establishing domestic carbon crediting schemes, designating approved crediting methodologies, establishing registries, exchanges and other market infrastructure to facilitate transactions, and setting requirements for voluntary carbon market claims.[184] Depending on the standard, carbon credits can be generated from project activities including conservation (such as REDD+), afforestation/reforestation (both for terrestrial and coastal forests), improved forest management, agroforestry and others.[185]
- **Voluntary biodiversity credit markets**, are an emerging mechanism through which entities can purchase biodiversity credits, being certificates that measure positive biodiversity outcomes,[186] to voluntarily mitigate exposure to nature-related risk or contribute nature targets set either at the global or corporate level.[187] Again, depending on the standard, biodiversity credits can be generated from projects that focus on forest conservation, restoration, improved management and avoided loss.[188]

Policymakers can perform a significant role in voluntary environmental markets, either by leading market design and performing the role of market administrator,[189] or by establishing the legal and regulatory conditions that enable private environmental market activity. EMDE policymakers seeking to perform a market administration role should be aware that, as noted above at **Section 5.2.4**, the policy architecture established for *compliance* environmental markets can often also be leveraged to enable *voluntary* environmental markets. The appropriateness of taking a market *administration* or market *enablement* role will depend on the government's technical and institutional capacity and the role the government intends voluntary environmental markets to play in achievement of its NDCs, NBSAPs and other national priorities. It is important for policymakers to note that even in jurisdictional contexts where it is not practicable for the government to perform a market administrator role, with the right enabling policy conditions, they can still exert significant influence in directing private investment into priority landscapes and activities. This could include, for example, the designation of priority zones with fast-tracked permitting for environmental market projects, tax or foreign investment concessions for priority project types and the designation of priority carbon project types as eligible for international transfer under Article 6 of the Paris Agreement.

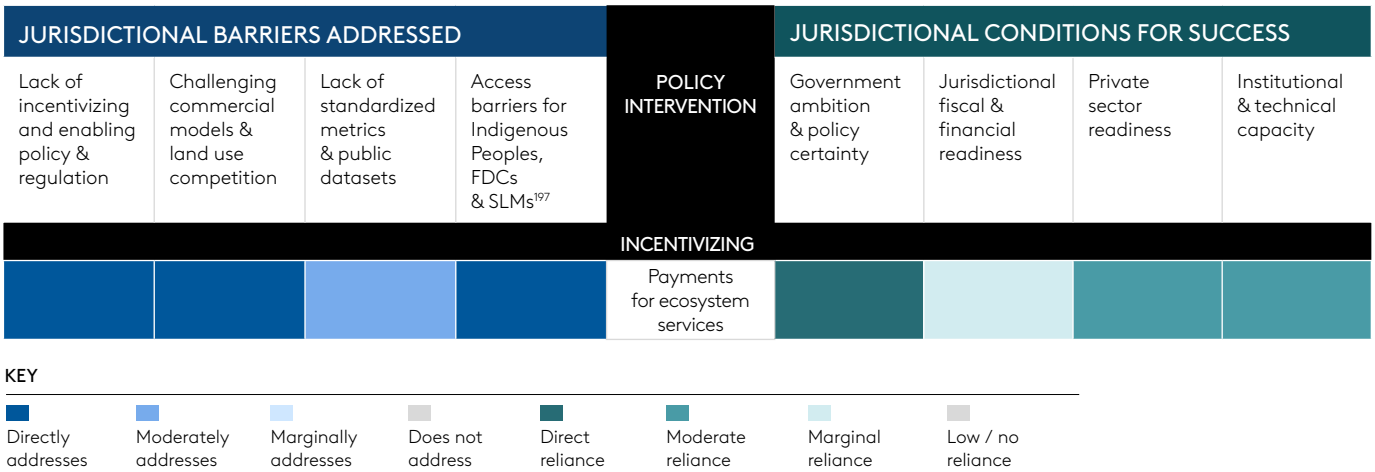
Integrity is critical both to environmental market function – with demand being contingent on purchasers and their stakeholders having confidence in credit and market integrity – and environmental markets delivering real, measurable and additional improvements for forest ecosystems. The integrity of environmental markets is determined by both supply and demand factors.

183 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'.
184 As noted above, in July 2025 the Asian Development Bank published a Legal Blueprint for Developing and Regulating Carbon Markets which provides practical guidance for law and policymakers on the foundational and strategic elements of developing and regulating carbon markets. EMDE policymakers may find this Blueprint helpful in determining the approach taken to market design. Asian Development Bank, Legal Blueprint for Developing and Regulating Carbon Markets: Guidance for Law and Policymakers (2025).
185 Ecosystem Marketplace, State of the Voluntary Carbon Market: Meeting the Moment, Renewing Trust in Carbon Finance (2025).
186 Biodiversity Credit Alliance, Definition of a Biodiversity Credit (2024).
187 Pollination, State of Voluntary Biodiversity Credit Markets (2024).
188 IAPB, Landscape analysis of biodiversity credits projects (2024).
189 See further, for example, the case study at **Section 5.2.4** regarding the Australian Government's role in administering the ACCU Scheme and Nature Repair Market.

- **Supply factors** include market design elements such as the robustness of the accounting metrics that underpin credit generation, transparency in market processes including issuance and retirement, and processes to ensure full and effective FPIC, decision-making and leadership of Indigenous Peoples, forest-dependent communities and smallholder land managers,[190] and best practice benefit sharing or other mechanisms that reward Indigenous Peoples, forest-dependent communities and smallholder land managers.[191] The work of the Integrity Council for the Voluntary Carbon Market (**ICVCM**) in developing Core Carbon Principles seeks to improve supply-side integrity in carbon markets,[192] and the work of the International Advisory Panel on Biodiversity Credits (**IAPB**), the Biodiversity Credit Alliance and others, has sought to ensure voluntary biodiversity markets are established from the outset with a strong supply-side integrity foundation.[193]
- **Demand factors** include market design elements such as transparency in reporting on credit use, the appropriateness of claims made and marketed by purchasers, and the role that the environmental credits play in a purchaser's journey to mitigate climate and nature impacts, including alignment with the mitigation hierarchy. The work of the Voluntary Carbon Market Integrity Initiative (**VCMI**) in developing its Claims Code of Practice seeks to elevate demand-side integrity in carbon markets,[194] and again the work of the IAPB,[195] BCA and others has had a similar intention for biodiversity credit markets, albeit acknowledging that biodiversity credit markets are still in an early phase of development.[196]


Sandakan, Sabah, Malaysia

5.3.4 PAYMENTS FOR ECOSYSTEM SERVICES



190 Pollination Foundation, Leading for Nature (2023).
191 Pollination Foundation, Leading for Nature (2023).
192 ICVCM, Core Carbon Principles (2024).
193 IAPB, Framework for high integrity biodiversity credit markets (2024).
194 VCMI, Claims Code of Practice (2024).
195 IAPB, Framework for high integrity biodiversity credit markets (2024).
196 World Economic Forum, Biodiversity Credits: A Guide to Support Early Use with High Integrity (2023); adapted from Forest Trends, Business and Biodiversity Offsets Programme (BBOP), The Mitigation Hierarchy (n.d.).
197 'FDCs and SLMs' refers to 'forest-dependent communities and smallholder land managers'

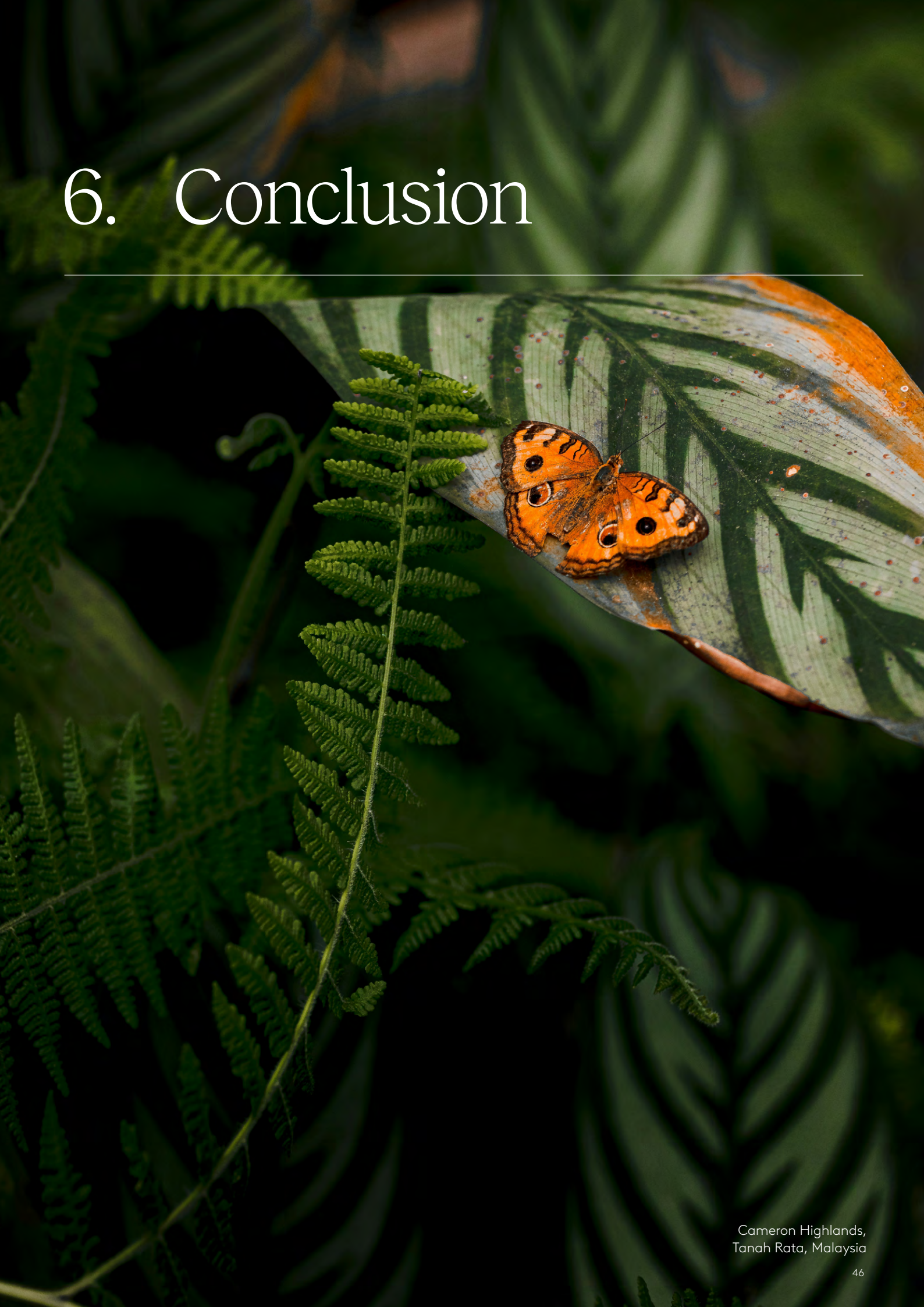
Payment for Ecosystem Services (**PES**) programs are a market-based mechanism that can operate at local, regional and national levels,[198] and can be deployed to incentivize and facilitate financial flows for forest-based activities and the ecosystem services they provide. PES programs provide economic incentives, often in the form of direct cash payments, for sustainable land management activities that provide or ensure ecosystem services.[199] PES programs can be designed to integrate several different sources of public and private investment, including from 'users' of the ecosystem services.[200] Governments can introduce legislative or policy frameworks under which they themselves provide payment for ecosystem services,[201] or they enable and incentivize private users of ecosystem services to pay. Environmental markets are a type of PES, but PES programs can encompass a wider range of ecosystem services that are not necessarily quantified, unitized, and traded (as is the case with carbon markets, for example) and involve various payment methods such as direct public or private payments or indirect methods such as tax incentives.[202] As of 2023, there are an estimated 23 active forest PES programs around the globe, 10 of which are financed by government.[203]

The effectiveness of PES programs depends on initial planning and stakeholder participation to ensure suitability to local conditions,[204] as well as strong governance, equitable benefit sharing and robust MRV.[205] Benefits of PES programs include high flexibility, job creation, education on the value of ecosystem services, and potential to reverse overexploitation and land-use conversion. However, PES may be less effective where land or resource tenure and rights are not well defined or enforced.[206] In determining whether to introduce or enable a PES program vis-à-vis an environmental market scheme, it will be important for policymakers to undertake demand analysis and modeling to assess anticipated finance flows and their alignment with policy objectives.


Bali, Indonesia

198 Salzman, j., et al., The global status and trends of Payments for Ecosystem Services, Nature Sustainability 1 (2018).
199 Salzman, j., et al., The global status and trends of Payments for Ecosystem Services, Nature Sustainability 1 (2018).
200 Salzman, j., et al., The global status and trends of Payments for Ecosystem Services, *Nature Sustainability* 1 (2018).
201 Asian Development Bank, Key Provisions of the People's Republic of China's Ecological Protection Compensation Regulation (2025).
202 Ecosystem Marketplace, Payments for Ecosystem Services (n.d.).
203 UNEP, State of Finance for Forests 2025: Unlock. Unleash. Realizing forest potential requires tripling investments in forests by 2030 (2025) drawing upon OECD, Policy Instruments for the Environment (PINE) database (2024).
204 IPBES, Policy Instrument: Payment for Ecosystem Services (2019).
205 World Economic Forum, Finance Solutions for Nature: Pathways to Returns and Outcomes (2025).
206 IPBES, Policy Instrument: Payment for Ecosystem Services (2019).

6. Conclusion



Cameron Highlands,
Tanah Rata, Malaysia

EMDE governments have a unique opportunity to drive economic growth through policies that attract private finance into conserving, restoring, and sustainably managing forests. This report underscores that successful implementation of financing, incentivizing, regulating policy interventions requires first establishing the enabling conditions that underpin investor confidence, including clear and coherent policy and legal frameworks, secure land tenure and rights, transparent public data systems, and institutional and technical capacity. These foundational measures create the certainty needed for private sector investment.

Building on these enabling conditions, policymakers in EMDEs can implement a strategic mix of three complementary types of policy interventions to unlock private finance for forests:

- **Financing** measures that mobilize and blend public and private capital, such as green investment banks, forest funds, and sovereign debt instruments, to reduce investment risk and crowd in private finance.
- **Regulating** measures, such as spatial planning, permitting requirements, environmental standards and building code requirements, and compliance environmental markets, that set market conditions to prohibit / minimize key drivers of forest lost, level the playing field for responsible actors and reduce regulatory uncertainty.
- **Incentivizing** measures that realign economic signals through subsidy reform, targeted tax incentives, voluntary environmental markets, and payments for ecosystem services.

In implementing these interventions, EMDE policymakers should seek to address jurisdictional barriers and leverage jurisdictional strengths to determine the appropriate mix and sequencing of these policy measures for implementation in their jurisdiction, in order to maximize their contribution to the country's climate, nature, and development objectives.

If executed correctly, well-designed domestic policy measures can catalyze a paradigm shift to economies that properly understand, value, and monetize the services that forests provide, and prioritize participation by Indigenous Peoples, forest-dependent communities and smallholder land managers.

Royal Belum State Park, Perak, Malaysia

Appendix A.

Bukit Beruang,
Ayer Keroh, Malaysia

APPENDIX A. FOREST FINANCE MECHANISM DEFINITIONS

FOREST FINANCE MECHANISM	DEFINITION
Blended finance	Blended finance is when public or philanthropic funds are combined with private (commercial) capital[207] to make forest-related investments more attractive and less risky for private investors.
Green investment and infrastructure banks	Green investment and infrastructure banks are government-backed banks (meaning they are established, owned, or capitalized in whole or in part by the government) with a specific green investment mandate e.g., investment in low carbon, climate resilient infrastructure[208] and/or forest conservation, restoration and ecologically sustainable management and use of forest resources.
Forest funds	Forest funds are dedicated national or regional mechanisms that collect, manage, and distribute financial resources for forest conservation, restoration, and sustainable management.[209] They can be funded by money from collected taxes, fees or levies or by NGOs, donor, international development organizations or other actors[210] and use instruments such as loans, grants, or equity to support projects and attract private co-investment.
Public-private partnerships (PPPs)	PPPs are contractual agreements (typically long-term) between governments and private entities that share the financing, risks, and management of forest-related projects.[211]
Sovereign debt instrument	A sovereign debt instrument is a financial security issued by a national government that represents the government's promise to repay borrowed funds with interest at a specified future date[212] and includes green and sustainability bonds or sustainability-linked bonds.[213] Bond structures can form part of debt-for-nature transactions, which are financial arrangements through which a country's creditor agrees to cancel or reduce some of the country's existing sovereign debt and the government spends those savings on nature (and forest)-related programs and activities.
Compliance environmental markets	Compliance environmental markets are regulated systems where entities are required to meet environmental obligations and can meet these obligations by generating or purchasing verified credits, units or certificates representing a positive environmental outcome. These include international compliance carbon markets[214], domestic carbon pricing and compliance markets such as emissions trading schemes,[215] and biodiversity offset schemes.[216]
Voluntary environmental markets	Voluntary environmental markets are market-based mechanisms through which entities can purchase verified credits on a voluntary basis to meet a target or support broader climate and nature objectives. These include both voluntary carbon markets[217] and voluntary biodiversity markets.[218]
Payments for ecosystem services (PES)	PES programs are market-based mechanisms that provide economic incentives, often in the form of direct cash payments, for sustainable land management activities that provide or ensure ecosystem services.[219]

207 Convergence, Blended Finance (n.d.).
208 OECD, Green Investment Banks: Scaling up private investment in low-carbon, climate resilient infrastructure (2016).
209 Forest Declaration Assessment, Emerging forest finance instruments (2024).
210 Forest Declaration Assessment, Emerging forest finance instruments (2024).
211 ADB, Public-Private Partnerships (2008); Asian Development Bank, Public-Private Partnerships in Asia and the Pacific: Your Questions Answered (n.d.); Asian Forest Cooperation Organization, Public-Private Partnerships in the Forest and Forestry Sector (2022).
212 International Monetary Fund, What is Sovereign Debt? (2022).
213 Green bonds are debt securities with a defined use of proceeds issued explicitly to finance or refinance projects or activities with positive environmental impacts, whereas 'Sustainability bonds' may be directed to a combination of green and social projects. Global Center on Adaptation and Resilient Planet Finance Lab, Financing Nature-Based Solutions for Adaptation at Scale: Learning from Specialised Investment Managers and Nature Funds (2023).
214 Mechanisms where parties may use carbon credits, representing a tonne of carbon dioxide equivalent reduced or removed from the atmosphere, as offsets to meet their commitments to reduce emissions made under international treaties or agreements.
215 These are mechanisms that set compliance obligations for covered entities and may require them to purchase and retire carbon credits or other certificates or units to offset their carbon emissions generated as a result of their commercial activities, and any similar mechanisms, including baseline and credit mechanisms, and carbon tax and credit mechanisms.
216 These are mechanisms that set compliance obligations for covered entities to purchase and retire biodiversity credits to offset their negative impact on biodiversity as a result of their commercial activities, and any similar mechanisms.
217 Market-based mechanisms under which entities buy and retire carbon credits to offset emissions for the purpose of meeting voluntary climate targets or contribute to efforts focused on beyond value chain mitigation of climate change.
218 Market-based mechanisms through which entities can purchase biodiversity credits to voluntarily mitigate exposure to nature-related risk or contribute nature targets set either at the global or corporate level.
219 Salzman, j., et al., The global status and trends of Payments for Ecosystem Services, Nature Sustainability 1 (2018).

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