



INTERLINKAGES BETWEEN REDD+ AND FLR:

IDENTIFYING SYNERGIES FOR A COMBINED APPROACH

Acknowledgement

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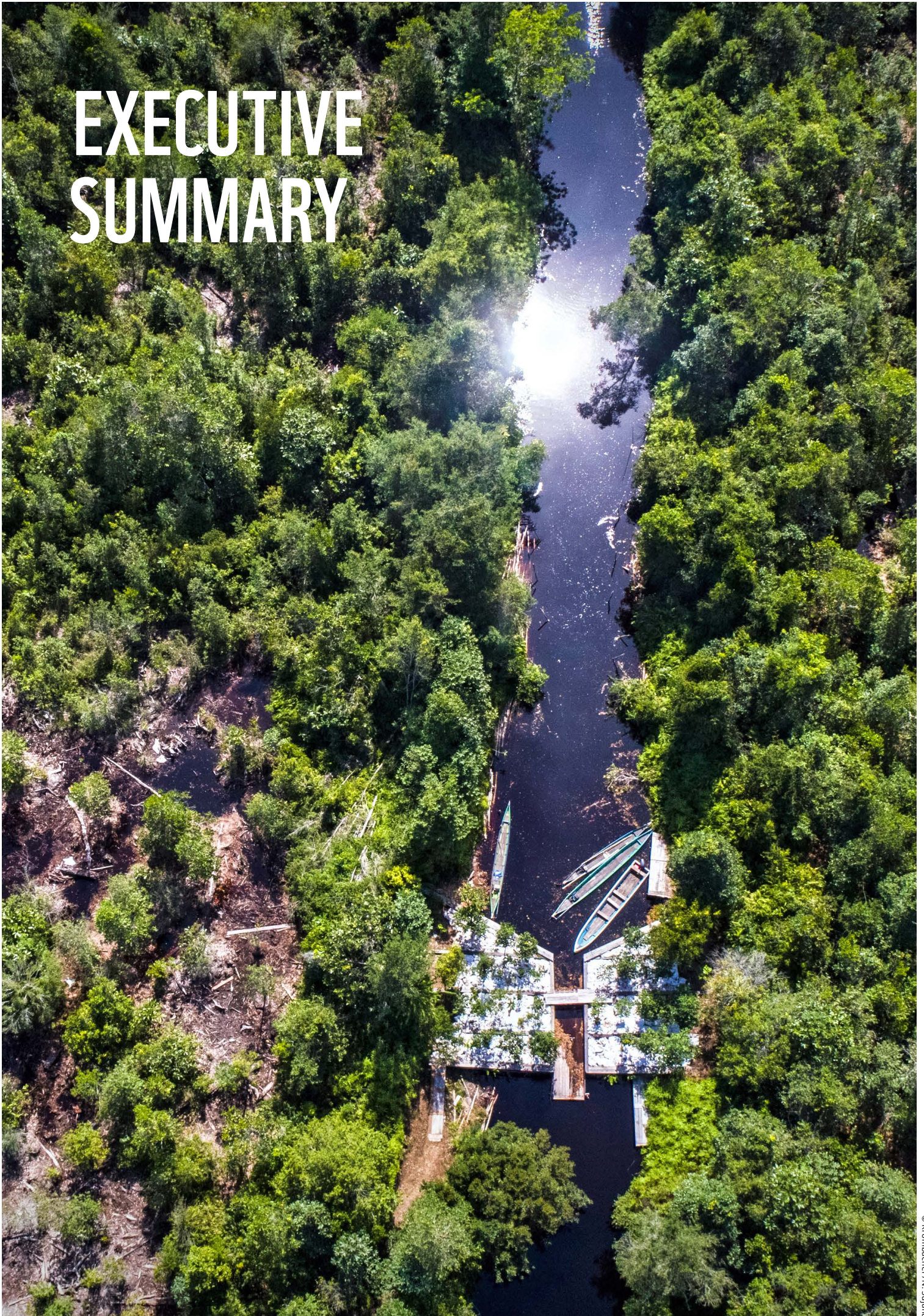
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List of abbreviations

Avoided Deforestation	AD
Afforestation Reforestation and Revegetation	ARR
Agriculture, Forestry and Other Land Uses	AFOLU
African Forest Landscape Restoration Initiative	AFR100
Bonn Challenge.	Bonn CH.
Benefit Sharing Mechanism.	BSM
Convention on Biological Diversity.	CBD
Conference of the Parties	COP
Corporate Social Responsibility.	CSR
Emissions Reductions and Removals	ERR
Environment, Social and Governance	ESG
Food and Agriculture Organization of the United Nations	FAO
Forest Carbon Partnership Facility	FCPF
Forest Landscape Restoration	FLR
Forest Stewardship Council	FSC
Forest Reference Emission Level / Forest Reference Level	FREL/FRL
Green Climate Fund	GCF
Global Environment Facility	GEF
Greenhouse Gas Emissions.	GHG
Deutsche Gesellschaft für Internationale Zusammenarbeit	GIZ
Global Partnership on Forest Landscape Restoration	GPFLR
International Finance Corporation	IFC
Intended Nationally Determined Contribution	INDC
Intergovernmental Panel on Climate Change	IPCC
International Union for Conservation of Nature	IUCN
International Union of Forest Research Organizations	IUFRO
Land Degradation Neutrality	LDN
Landscape Resilience Fund	LRF
Least Developed Countries	LDCs
Measurement, Reporting and Verification	MRV
National Forest Monitoring System	NFMS
Nationally Determined Contribution.	NDC
Non-Governmental Organization	NGO
New York Declaration on Forests	NYDF
Official Development Assistance	ODA
Payment for Ecosystem Services	PES
Reducing Emissions from Deforestation and Forest Degradation	REDD
Restoration Opportunities Assessment Methodology	ROAM
Safeguard Information System	SIS
Sustainable Development Goals	SDG
Sustainable Land Management	SLM
Strengths, Weaknesses, Opportunities and Threats	SWOT
United Nations	UN
United Nations Convention to Combat Desertification	UNCCD
United Nations Framework Convention on Climate Change	UNFCCC
United Nations Forum on Forests	UNFF
United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries.	UN-REDD

EXECUTIVE SUMMARY



To halt the current trend, we cannot afford to let our best instruments fail.

Forests are critical ecosystems for a healthy planet. Yet, despite international efforts of the last decades, they continue to disappear at an alarming rate. Two main international political instruments have emerged to tackle deforestation and support regeneration, particularly in tropical countries. Reducing Emissions from Deforestation and Forest Degradation (REDD+) and Forest Landscape Restoration (FLR) are different yet complementary approaches that have been developed to create a sustainable impact on forest ecosystems. Combining the two approaches – whenever makes sense - can exploit synergies to create a more effective and efficient response and help to close the funding gap for action on the ground. To halt the current trend, we cannot afford to let our best instruments fail.

This report aims to provide an initial assessment of interlinkages, overlaps and potential synergies between REDD+ and FLR. It is not meant to be comprehensive, but rather to draw attention to potentially complementary aspects of both approaches and examine the benefits that could be gained from combining them. Interlinkages between the instruments are examined at three levels:

- 1. international policy frameworks**
- 2. implementation, and**
- 3. financing, with a particular focus on enabling private sector impact investment in bankable projects.**

A comparison of the respective strengths, weaknesses, opportunities, and threats (SWOT) of each instrument further informs a set of recommendations for action at the three levels.

On the ground, REDD+ and FLR intersect where natural forests make up part of the restoration landscape. While it may not always be appropriate to combine approaches, in the right context it can enhance outcomes for both. Under a combined approach, REDD+ projects can benefit from being imbedded in their surrounding landscape of different land-use types and actors, while FLR can often benefit from applying REDD+ policies and structures, thereby ensuring restoration projects maintain high climate and conservation values.



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Key messages and recommendations of the report

• Policy frameworks

At the international level, the suitable framework conditions for a combined REDD+ and FLR approach should be discussed in high-level forums of the relevant conventions, in particular the UNFCCC and CBD. At the national level, REDD+ and FLR should be integrated into national-level development agendas and aligned with existing policies, to exploit synergies, create enabling conditions, and maintain a coordinated approach.

• Implementation

Combined REDD+ and FLR programs can be designed to achieve a range of mutually supportive objectives, with climate change mitigation and adaptation being especially compatible. Where areas of natural forest fall within an FLR landscape, the REDD+ framework can act as a safeguard, ensuring that FLR projects do not inadvertently incentivize deforestation. The wealth of existing REDD+ technical capacities, such as forest monitoring systems, should be further developed and adapted to FLR.

• Financing

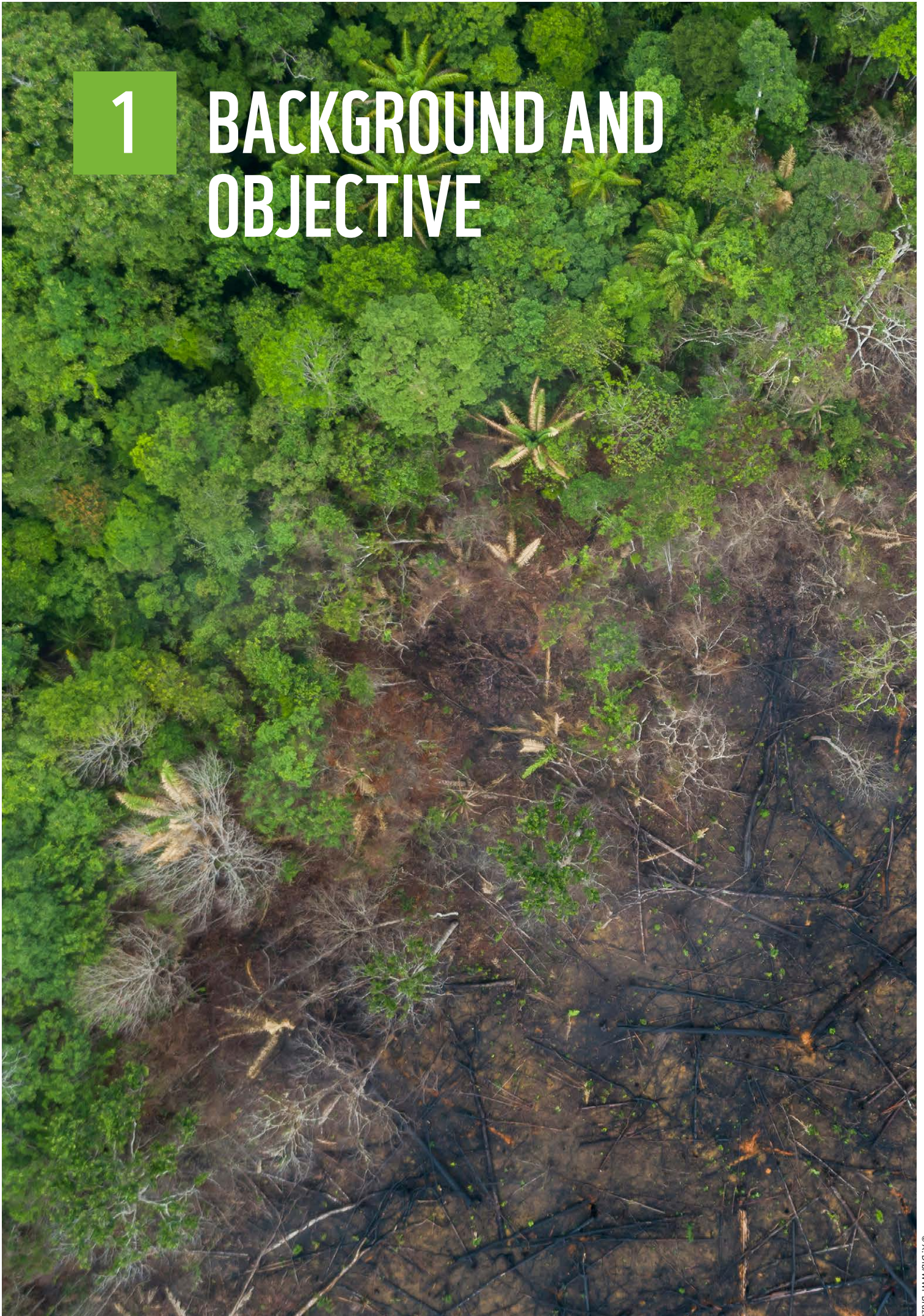
By combining REDD+ and FLR in the right way, project designers can build on synergies to mobilize shared grant funding from a range of sources. This can optimize public funding for common activities and reduce competition over limited funding streams. To secure long-term and scalable financing, public funding can be used to seed model sustainable businesses, enabling private impact investment in bankable projects. NGOs – such as WWF – can play a key role as a ‘conservation partner’, connecting policymakers, project developers and investors.

NGOs can play a key role as a conservation partner, connecting policymakers, project developers and investors.



1

BACKGROUND AND OBJECTIVE



Background

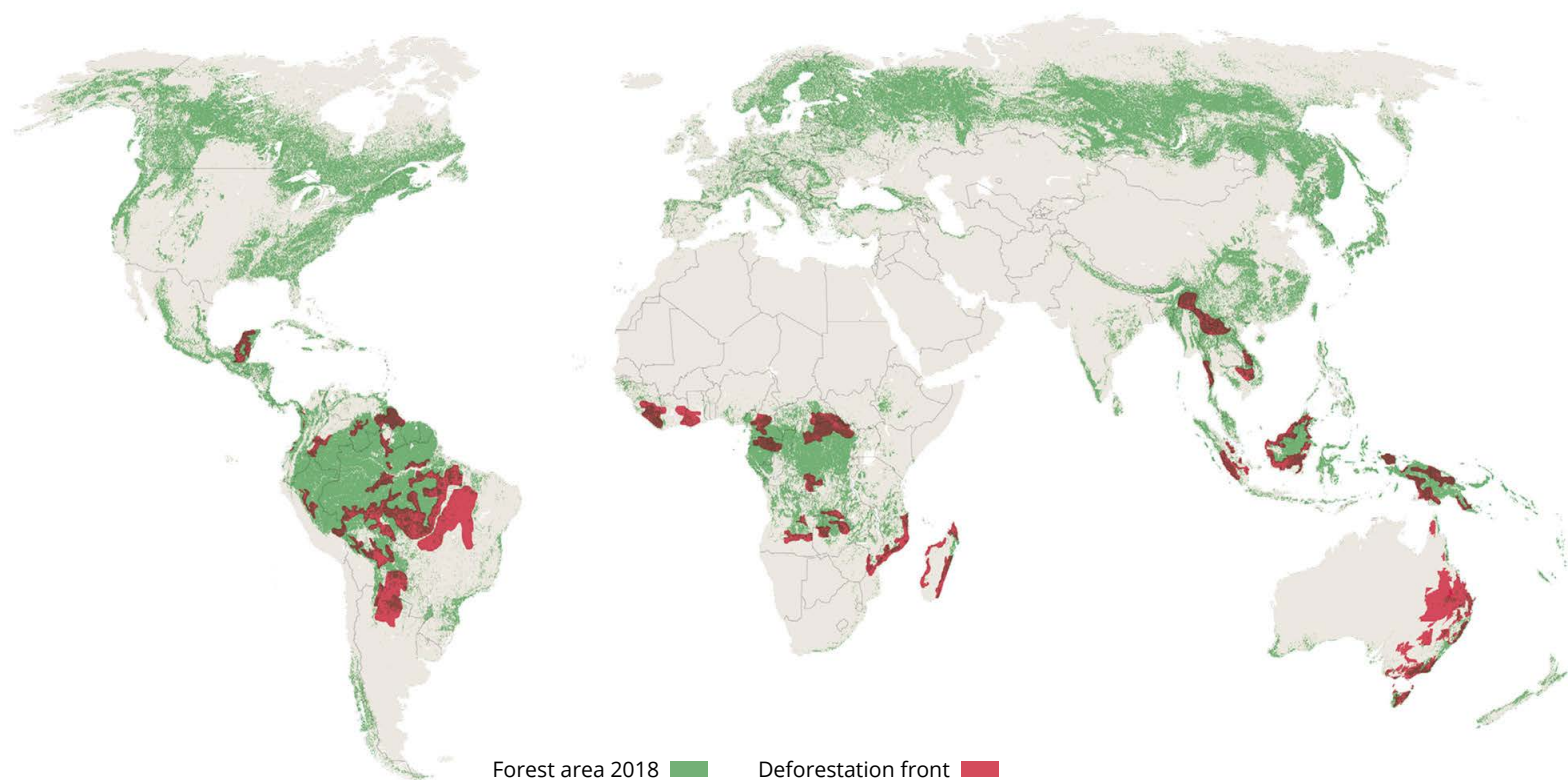
From the air we breathe to the wood we use, forests are essential to our lives. They are home to more than half of the world's land-based wildlife species, and globally more than 1 billion people live in and around forests and rely on them for food, shelter, and livelihoods. After oceans, forests are the largest storehouses of carbon — critical in the fight against the climate crisis.

But we are losing forests at an alarming rate. Two-thirds of global forest cover loss is occurring in the tropic and subtropic regions of the world, where vast clusters of deforestation hot spots —also known as “deforestation fronts” — are destroying the important ecosystem services forests provide. There are 24 of these hot spots that are spread across Latin America, sub-Saharan Africa, Southeast Asia, and Oceania, as illustrated by the map in Figure 1.

These deforestation fronts cover a forest area of 377 million hectares, about a fifth of the world's total forest area in the tropics and sub-tropics. According to a report from the World Wildlife Fund titled “Deforestation Fronts: Drivers and Responses in a Changing World”, over 10% of the forest area, about 43 million hectares, was lost within the boundaries of these deforestation fronts between 2004 and 2017, and nearly half of the standing forest — around 45% — suffered some type of fragmentation (Pacheco et al. 2021).

**43 Mio.
hectares was
lost between
2004 and 2017**

Figure 1:
Deforestation fronts
(Pacheco et al. 2021)



REDD+FLR are Nature-based Solutions

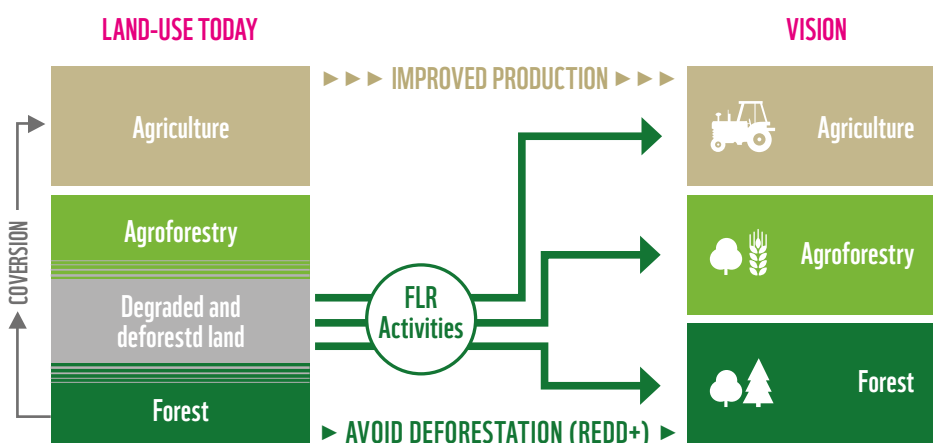
Political instruments

The main international political instruments to tackle deforestation are the approaches of Reducing Emissions from Deforestation and Forest Degradation (REDD+) and Forest Landscape Restoration (FLR). Both approaches have been developed to create a sustainable impact on forest-ecosystems. Both approaches are, at their core, Nature-based Solutions¹ to a range of intertwined environmental and social issues, from climate change to biodiversity, fresh water, and sustainable livelihoods. While REDD+ focuses more on conservation and climate change mitigation, FLR is focused on restoration and climate change adaptation. The approaches are two sides of the same coin and call for a holistic approach, in order to successfully fight deforestation, forest degradation, and their climate impacts.

Objective of the report

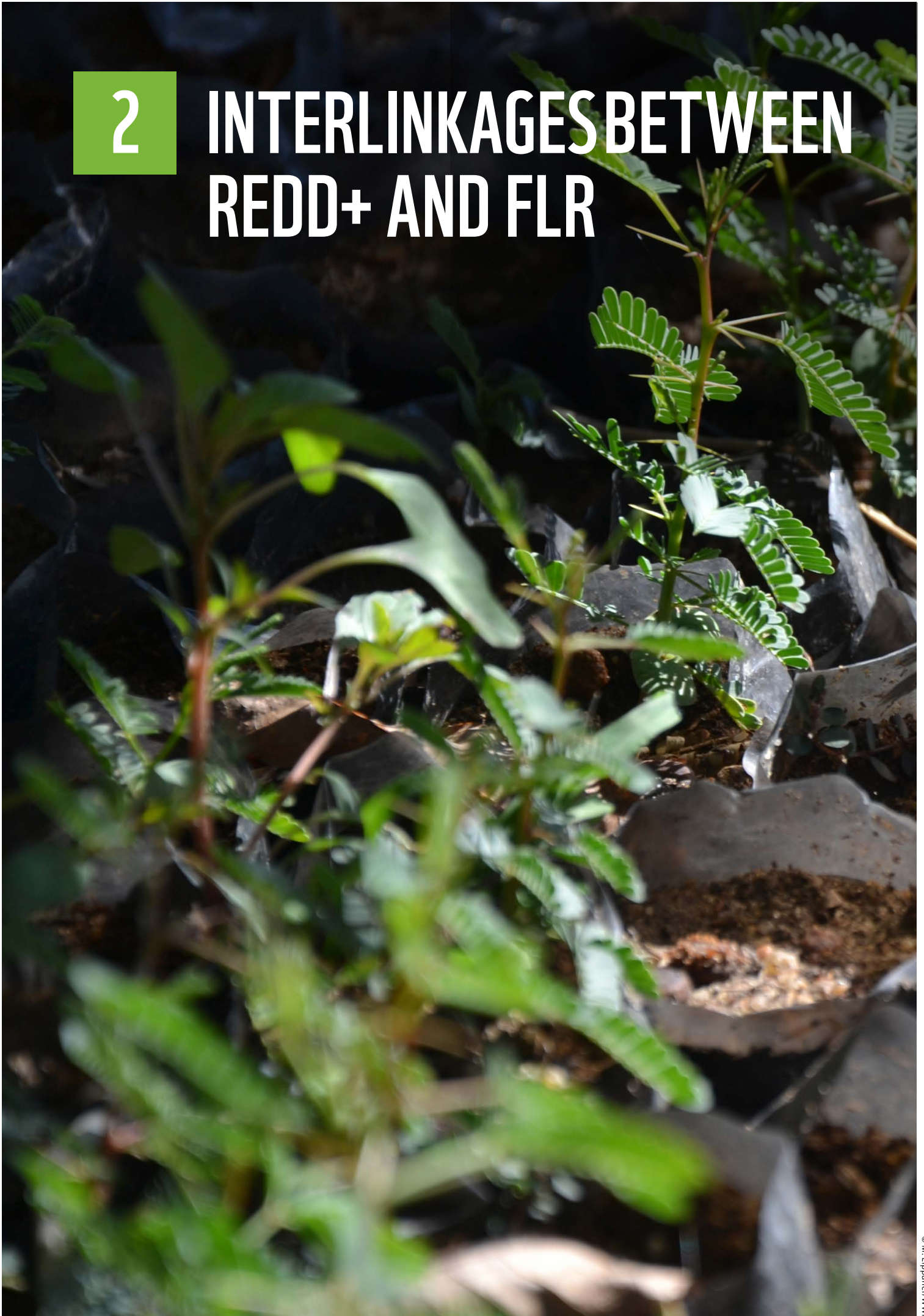
This report aims to give a high-level overview on the interlinkages between, REDD+ and FLR, at three levels: (1) policy frameworks, (2) implementation, and specifically at (3) financing, including WWF's initiative to catalyse private investments. The report is not intended to be exhaustive, but rather aims to provide an overview of and preliminary insights into some typical interlinkages that may be expected. The main findings are subsequently summarized and clustered into strengths, weaknesses, opportunities, and threats (SWOT Analysis), followed by recommendations and key messages. To emphasize: Deforestation puts human health and the health of our planet at risk. From policymakers to companies to consumers, urgent action is needed to halt this alarming trend of forest loss. We cannot afford for the available political instruments to miss their desired effect. As shown in Figure 2, combining and pursuing both approaches is necessary!

Figure 2:
Current land use and vision for sustainably managed landscapes. Box size does not indicate an actual areal ratio. Adapted and modified from Dewitt (2015) and IUCN & WRI (2014)



2

INTERLINKAGES BETWEEN REDD+ AND FLR



This section first provides the definition of REDD+ and FLR and the complementarity of both approaches including the main differences, before giving a high-level overview of the interlinkages at three levels: (2.1) policy frameworks, (2.2) implementation and (2.3) financing – followed by (2.4) the funding gap.

Definition of REDD+ and FLR

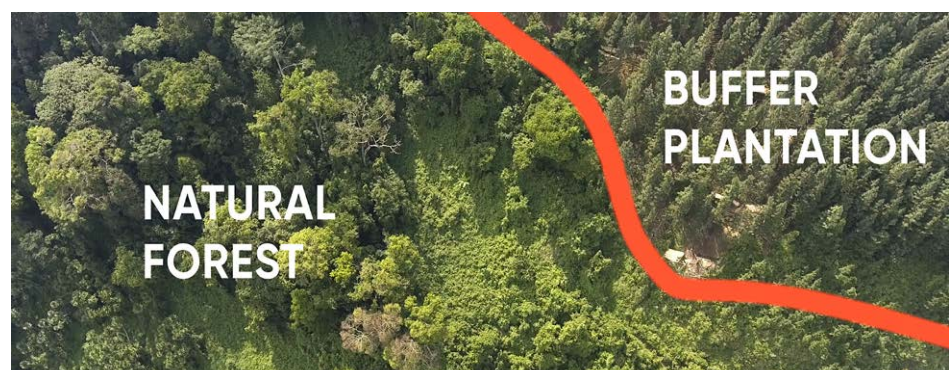
- **REDD+** stands for countries' efforts to **R**educe **E**missions from **D**eforestation and forest **D**egradation, and the role of forest conservation, sustainable management of forests, and enhancement of forest carbon stocks (Forest Carbon Partnership Facility, 2018), and has been running for over 15 years. The “plus” refers to the three points: conservation, management and enhancement, which encompass some of the broader benefits REDD+ aims to realize for people and the environment. At its core, REDD+ is a Payment for Ecosystem Services (PES) approach, focused on valuing the global climate regulation services of forest ecosystems. It enables results-based payments to be made for each ton of greenhouse gas emissions avoided.

- **FLR** stands for **f**orest **l**andscape **r**estoration and is “a planned process that aims to regain ecological integrity and enhance human well-being in deforested or degraded landscapes”². The definition only recently rose on political agendas with the Bonn Challenge in 2011 and 2015, followed by the New York Declaration in 2014. FLR is more than just planting trees – it is restoring a whole landscape “forward” to meet present and future needs and to offer multiple benefits and land uses over time, such as reforestation, natural regeneration, agroforestry, protected forests, sustainable forest management and agriculture (IUCN 2021a).

REDD+ and FLR as complementary approaches

REDD+ and FLR are two overarching approaches to forest conservation and restoration, respectively. They naturally intersect at the ‘plus’ where the objectives of conservation, sustainable management and enhancement of forest carbon stocks align with the re-/afforestation objectives of the FLR approach. A combined REDD+FLR approach acknowledges that the two are complementary and aims to realize synergies in policy design, structures, methods, information flows and financial sources.

*Natural Forest (=REDD+),
Buffer Plantation (=FLR)*



FLR activities support the REDD plus objectives; natural forest areas are part of the FLR landscape

On the one hand, where FLR activities support the REDD *plus* objectives of conservation, sustainable management, and enhancement of forest carbon stocks, the FLR approach can benefit from being integrated into the policy framework and from accessing the financial and technical resources of REDD+.

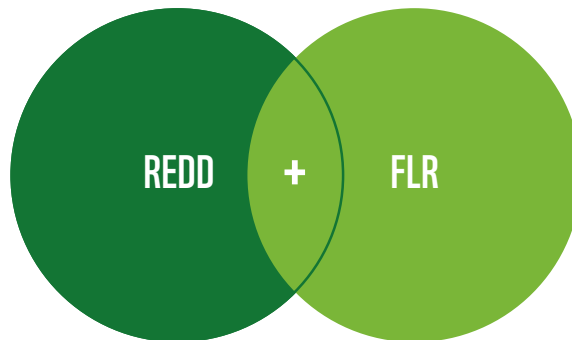


Figure 3:
REDD+ and FLR as complementary approaches

On the other hand, where natural forest areas are part of the FLR landscape, the reduction of emissions from deforestation and forest degradation should be the outcome of well-planned, managed and implemented FLR activities in REDD+ countries.

REDD+ might be specifically relevant for countries with a lot of remaining primary forests and high deforestation rates, while FLR might be the preferred approach for countries that have been highly deforested and degraded already. In practice, each project area will likely have a mix of land-uses, with some remaining natural and degraded forest as well as forestry plantations, agriculture and other land use types. The appropriate approach depends on the landscape characteristics and the objectives of each project. Where the approaches complement each other, there is opportunity for REDD+ and FLR to be combined, to tackle deforestation and support restoration in the most efficient and effective way possible. Table 1 (page 13) summarizes the key similarities and differences of REDD+ and FLR.

Figure 4:
FLR as part of REDD+ and REDD+ as part of FLR



2.1 Interlinkages of the political framework of REDD+ and FLR

For several decades, the protection of biodiversity and climate at the intersection of forests and land use change has gained importance and has become a major topic on the international political agenda (compare Figure 6 and Table 2).

Table 1:
Summary of key similarities
and differences of REDD+
and FLR

Key elements	REDD+	FLR
Climate Change Mitigation	Climate change mitigation is the main aim of REDD+, against which outcomes are measured.	Mitigation is usually not the main objective in FLR projects. Instead, FLR aims to provide multiple and diverse social and environmental benefits, of which mitigation through sequestration may be one.
Protection/conservation	Forest conservation is a central goal of REDD+, but can be a common objective of both REDD+ and FLR.	Under the landscape approach, natural forest will often make up part of an FLR project area. By incorporating conservation forests into their surrounding landscapes, FLR can potentially support biodiversity outcomes directly through habitat protection and restoration, or indirectly, for example, by generating alternative sources of materials and income for local communities.
Restoration	Restoration is pursued under the 'plus', whereby the 'enhancement of forest carbon stocks' includes activities to restore forest ecosystems and their capacity to sequester carbon.	Forest restoration is a central FLR activity, including re-/afforestation and sustainable agriculture and agroforestry. It includes both restoration of natural forests and the rehabilitation of degraded land for sustainable production.
Adaptation and other objectives	May be designed to achieve diverse objectives, yet these are often considered as secondary co-benefits to mitigation. However, achieving co-benefits also often underpins successful and lasting REDD+ mitigation outcomes, especially where activities build resilience and adaptive capacity in forest ecosystems and their local communities.	Objectives are typically broader and more aligned to Sustainable Development Goals, and may include climate change mitigation and adaptation, biodiversity protection, soil and water improvement, as well as fostering sustainable livelihoods and resilience. Opportunities for sustainable production also entail commercial objectives in FLR projects.
Implementation scale	Implemented both at the national level for policy development and at the project level for piloting.	The landscape approach of FLR is broader than the typical site-based REDD+ project, incorporating diverse land-use types and stakeholders from the local to regional scale. FLR landscapes may be of similar scale to REDD+ jurisdictions but are not tied to a single political territory.
Formal requirements – eligibility vs guiding principles	Operates under a formal framework of policies, structures, and procedures, and participating countries need to meet strict eligibility requirements for safeguard criteria and results-based payments. ³	Does not have eligibility requirements, but a set of guiding principles have been proposed by IUCN (See Annex 2).

While the policy approach REDD+ has been running for more than 15 years and has been included in Article 5 of the Paris Agreement under the UN Framework Convention on Climate Change (UNFCCC), FLR has more recently become one of the key topics with substantial political momentum at the international level.

Despite the cross-cutting objectives of REDD+ and FLR activities, the main international convention for these two approaches remains the UNFCCC. There are specific rules and modalities for REDD+, as well as relevant guidance and climate finance mechanisms for both mitigation and adaptation. FLR activities are also increasingly included in Nationally Determined Contributions (NDCs), with potential to scale up ambition (IUCN 2020). The other Rio Conventions of the United Nations, being the UN Convention on Biodiversity (CBD) and UN Convention on Combatting Desertification (UNCCD) are also relevant frameworks for forest conservation and restoration, as well as the UN Forum on Forests (UNFF) and the European Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan. While they do not deal directly with REDD+ and FLR, they have produced decisions and guidance relevant to both. The Sustainable Development Goals of the Agenda 2030 further incorporate the objectives of both REDD+ and FLR. Both REDD+ and FLR aim at the conservation and restoration of ‘ecosystem services’, which further aligns them with efforts to work with the private sector to develop ‘green economies’ that work to shift economic activity onto a sustainable pathway (Pistorious and Kiff, 2017).

The main political forums for FLR are the Bonn Challenge, the New York Declaration on Forests (NYDF), the 20x20 Initiative and the African Forest Landscape Restoration Initiative (AFR100). These high-level policy initiatives are driven by voluntary pledges and commitments from countries and private sector actors. They are considered non-technocratic and informal platforms. Although they lack the power or mandate to provide regulation or technical guidance, they play an important complementary role to the formal international negotiations. The voluntary initiatives provide flexibility for countries to make ambitious pledges, in line with a general concept and principles, while adapting their approach to national circumstances and priorities (Pistorious and Kiff, 2017).

Figure 5: Timeline of major political milestones in terms of forests and biodiversity between 1990 and 2030

Figure 6 and Table 2 provide an overview of the most important political milestones that paved the way for the development of REDD+ and FLR in international forest and climate policy. For more detailed information and definitions please refer to Annex 1.

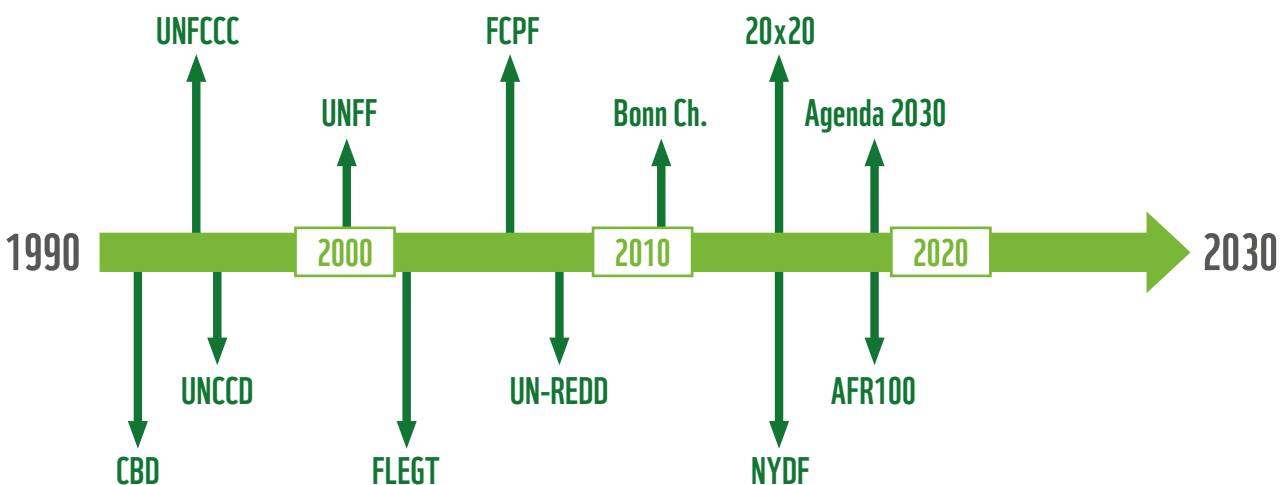


Table 2:
The political milestones that paved the way for REDD+ and FLR project implementation

Milestones	REDD+	FLR
CBD	Aichi targets 5, 7, 11 and 15 of the Strategic Plan for Biodiversity 2011-2020 contribute to reducing emissions from deforestation and forest degradation, to the sustainable management of forests, to the conservation and to the enhancement of forest carbon stocks. There is considerable scope for synergies at national and regional level in the pursuit of these targets, and of REDD+ ⁴ .	Although the work program of greatest relevance for FLR is on Forest Biodiversity, FLR is reflected in other work programs and many cross-cutting issues such as the 'ecosystem approach' and 'ecosystem restoration'. The Aichi Targets 14 and 15 have encouraged governments to develop their own strategies for ecosystem restoration, based on national circumstances, priorities and needs ⁷ .
UNFCCC & Paris Agreement	The UNFCCC COP adopted a decision, encouraging developing countries to contribute to GHG mitigation actions in the forest sector by undertaking REDD+ activities ⁴ . REDD+ is permanently incorporated in Article 5 of the Paris Agreement, providing a strong political signal to mobilize action around forests ⁵ .	At COP21 in 2015, the Parties to the UNFCCC successfully negotiated the Paris Agreement, which represents the global framework for cooperative action of all Parties on climate change beyond 2020. To reach their ambitious goals, countries increasingly include FLR in their NDCs ⁷ .
UNCCD	The UNCCD recognizes the importance and potential for REDD+ in drylands to contribute to land degradation neutrality, sustainable economic growth, and poverty eradication. Dryland forest countries are participating in REDD+ initiatives, although they face constraints because of the naturally low carbon storage potential in dry forests ⁶ .	FLR activities are highly relevant for the main objectives of the UNCCD, though generally referred to as Sustainable Land Management (SLM) ⁷ .
UNFF	The UNFF is less relevant, considering the increasing role of the UNFCCC and the CBD in determining forest-related objectives and instruments, such as REDD+ and the CBD Aichi targets ⁷ .	The UNFF Global Forest Goals include many aspects related to FLR. The UNFF could play a critical role in the further development and implementation of FLR activities ⁷ .
Agenda 2030	The two SDGs most compatible with REDD+ objectives are SDG 13 and 15. In practice, the many synergies between REDD+ and the SDGs indicate high potential for positive interactions ⁸ .	The implementation of FLR is among the most important approaches to make progress towards several SDGs, especially 1, 2, 8, 10, 12, 13 and 15 ⁷ .
Global initiatives REDD+FLR	Initiatives in building capacity and funding for REDD+ include the UN-REDD Program, CAFI, Forest Investment Program, FCPF (World Bank), EU REDD Facility, Global Climate Change Alliance+, and the GCF ⁹ .	Voluntary country-based initiatives such as the Bonn Challenge, the 20x20 Initiative, the AFR100 Initiative, ECCA30, and the NYDF have become important complementary approaches outside the formal international negotiations ⁷ .

2.2 Interlinkages of key elements in REDD+ and FLR implementation

REDD+ activities have built technical capacities such as monitoring and reporting, which are broadly transferable to other forest-based initiatives.

Over more than a decade of development, REDD+ has made significant progress in establishing a comprehensive framework of policies, structures, procedures, and guidance. Although this has taken time, the resulting framework has benefitted from critical assessments and international policy debate. REDD+ activities have built technical capacities and multiple REDD+ pilot programs have been successfully designed, planned, and implemented at both the policy and project levels. REDD+ strategies and policy frameworks are now in place in most key tropical forest countries. During this process, considerable in-country knowledge and institutional capacity have been built, networks of practitioners and experts have been formed, and broad awareness has been raised across key stakeholders, representing a wealth of local capacities. Many of these capacities (such as monitoring and reporting, policy development and safeguard tracking) are broadly transferable to other forest-based initiatives.

Work has also progressed on developing guidance, methods and structures for implementing FLR. In parallel, many FLR projects have already been implemented (WWF, 2018a; WWF, 2018b; WWF, 2019). Assessments of FLR to date therefore provide a further basis for identifying both gaps and synergies in the approaches.

We here highlight some key elements (see Figure 6) and lessons (see Table 3) related to implementation to be considered in a combined REDD+ and FLR approach. The list is not comprehensive, but rather aims to provide a starting point with an overview of some of the main overlaps in REDD+ and FLR implementation. This section helps identify key elements to be considered in project design and adapted to specific circumstances of project implementation.

Figure 6:
Key elements of REDD+ and FLR implementation

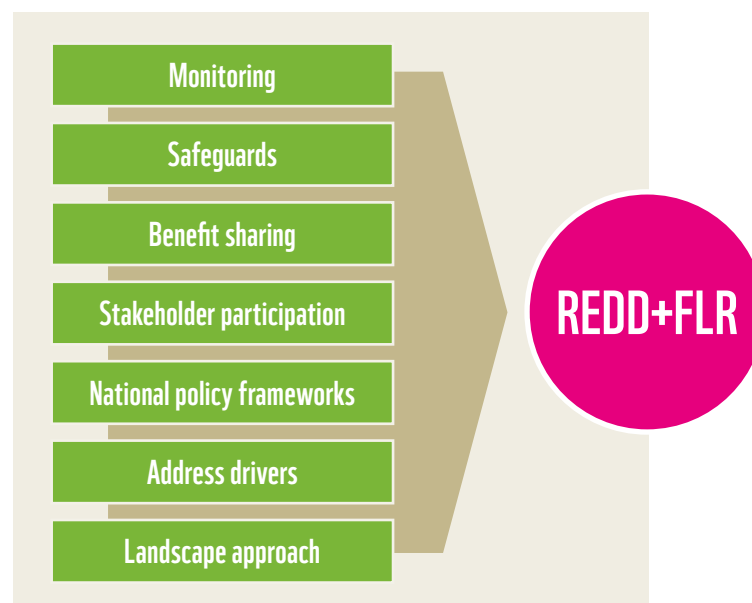


Table 3: Summary of key elements for implementation of REDD+ and FLR

REDD+	FLR	REDD+ and FLR
National policy frameworks		
Is embedded in national climate policy and linked to international agreements. Pursuing REDD+ at the national level, in line with international commitments under, for example, the UNFCCC and CBD, gives forest conservation and restoration a higher priority in national policy setting and enables the integration of REDD+ into national strategies for climate, biodiversity, and development, including in a country's NDC.	Activities can be facilitated by aligning national policy frameworks and planning processes with FLR objectives. Some countries (for example Chile) have set forest restoration targets in their NDCs, which may better enable FLR activities to be incorporated into national climate strategies.	Despite the administrative burden, there are advantages to embedding the governance of forest-based projects in the policy frameworks of national and sub-national jurisdictions. For example, it enables an overarching strategy with goals and principles to be developed, activates institutional capacity, and helps form the legal basis for activities (WWF, 2013). It also facilitates better outcomes, for example, through broader tracking of drivers, trends, and potential leakage effects (WRI, 2018).
Monitoring		
Has helped to advance monitoring of forest land use change, and significant capacity has been built at the national level. A National (or sub-national) Forest Monitoring System (NFMS) ¹⁰ is one of the key eligibility requirements for receiving REDD+ results-based payments or other carbon finance, and forms the basis for project-level MRV. Monitoring more than just carbon stocks, the system compiles geographic, environmental, and socio-economic information relevant to forests and their management. ¹¹	Monitoring methods and systems applied under REDD+ are often transferable to FLR. Existing tools for FLR, such as the Restoration Opportunities Assessment Methodology (ROAM) apply monitoring information to support FLR decision making and design (IUCN 2021c). However, an overarching framework with specific monitoring requirements, as for REDD+ projects, has not been established for FLR. ¹²	Monitoring systems are considered essential to the long-term success of both REDD+ and FLR approaches, as they allow outcomes to be measured and reported, can improve the efficiency and transparency of projects, and provide lessons for adaptive management. Robust monitoring can be both expensive and technically challenging. Monitoring costs have been shown to be a barrier in REDD+ projects (Köhl et al. 2020) and even more so for FLR projects, where project developers can be unwilling to invest in voluntary monitoring activities (Angelsen et al. 2018, pp 200).
Safeguards		
Interventions in forest land use systems entail social and environmental risks. Participating countries must report on 'safeguards', which are formal criteria designed to ensure that REDD+ activities are in line with national forest programs and international conventions, are transparent, respect sovereignty, engage stakeholders, respect the rights of indigenous and local communities, protect biodiversity, and address the issues of permanence and leakage (see Annex 3). To ensure that safeguards are implemented, REDD+ countries should develop a Safeguards Information System (SIS) to report on how the safeguards are addressed in REDD+ activities.	There are no formal requirements to identify or report on safeguard criteria for FLR projects. However, in practice, all of the major multilateral financing organizations involved in FLR initiatives have environmental and social safeguards or standards to mitigate risk and reduce harm related to their financing activities. ¹³ Responsible private sector investors will also use Environment, Social and Governance (ESG) safeguards, typically the IFC Performance Standards.	At the project-level, there are initiatives to establish standards to certify projects that deliver net positive benefits for mitigation, local communities and biodiversity. These standards could complement the REDD+ safeguards and enable project developers to integrate sustainable development criteria into their certification systems alongside MRV for carbon emissions and removals. ¹⁴
Stakeholder participation		
Stakeholder engagement is a core principle and eligibility requirement. In particular, the free, prior, and informed consent of indigenous communities needs to be demonstrated.	The need for inclusive and participatory processes is also one of the key FLR principles and shown to be an essential success factor.	Experience from both REDD+ and FLR demonstrates the crucial importance of engaging with local and indigenous communities through participatory processes. These groups play a front-line role in forest management, yet often lack a political voice.

REDD+	FLR	REDD+ and FLR
Benefit sharing		
<p>Through results-based payments, REDD+ aims to provide financial incentives conditional on meeting proven outcomes. A challenge is ensuring that payments and other benefits are distributed both effectively and fairly, from the national or subnational level through to the local level, so that they translate into real incentives for change, while also building support and legitimacy¹⁵.</p>	<p>Benefit sharing is also highlighted in the FLR guiding principles as an integral aspect of stakeholder participation. While results-based payments are not typically foreseen under the FLR approach, a range of financial and other benefits are otherwise generated, which need to be distributed fairly for lasting results. These may include profits from commercial activities, as well as other benefits such as employment opportunities, technology transfer, access to land and natural resources, and improved air and water quality.</p>	<p>Currently, the World Bank and the BioCarbon Fund are the multilateral agencies most actively developing and implementing benefit sharing for REDD+ and other forest-based climate initiatives including FLR. The Forest Carbon Partnership Facility (FCPF) of the World Bank has included benefit sharing criteria in its required approach to funding emissions reductions.¹⁶ Likewise, the Initiative for Sustainable Forest Landscapes (ISFL) of the BioCarbon Fund has recently incorporated benefit sharing criteria into its Emission Reductions Program Requirements (ISFL 2020).¹⁷</p>
Address drivers of deforestation and degradation		
<p>Information on locally relevant deforestation and degradation drivers must be gathered, assessed, and used to inform policy design and evaluation. Progress has been made in identifying direct and underlying drivers in diverse settings.</p>	<p>The drivers of forest degradation are often not systematically addressed under an FLR approach (Angelsen et al. 2018, pp 201).</p>	<p>Both REDD+ and FLR approaches have the potential to address drivers through different and complementary responses, for example regulatory changes, market-based initiatives, supply chain interventions, and multi-stakeholder dialogues (Pacheco et al. 2021).</p>
Landscape approach		
<p>Does not typically follow a landscape approach. At the jurisdictional level, REDD+ policy development may interact with other relevant land-use policies and strategies that deal with non-forest landscapes. At the project level, REDD+ scope is generally restricted to the forest area and surrounding lands under management.</p>	<p>With a landscape approach, FLR projects aim to integrate multiple objectives across a range of land-use types, to achieve mutually reinforcing outcomes. Forest restoration at the landscape level must consider the needs and demands for land-use and livelihoods of the people living both in and around forests. Implementing a landscape approach necessarily fosters collaboration across a broad range of stakeholders, from local and regional governments to community and indigenous groups, private businesses, and civil society organizations, setting a common vision and enabling agreement on interventions (Besseau et al. 2018).</p>	<p>By including the various land-uses present across a landscape, FLR is an effective approach to build resilience of both communities and ecosystems, as a strategy to foster climate change adaptation together with other objectives. This can in turn reinforce REDD+ mitigation outcomes in the long term, as greater resilience assures that emissions reductions are more likely to be sustainable and carbon storage to be permanent (CIFOR and CGIAR 2014).</p>

2.3 Interlinkage of financing instruments

This section outlines financing for REDD+ and FLR. Based on these findings, Section 2.4 describes the funding gap for both FLR and REDD+ and elaborates on how to partially close the funding gap by promoting the integration of the two and catalysing private investments.

2.3.1 REDD+ financing

Funding for REDD+ is split into three phases, as shown in Table 4.

Table 4:
Funding phases for REDD+

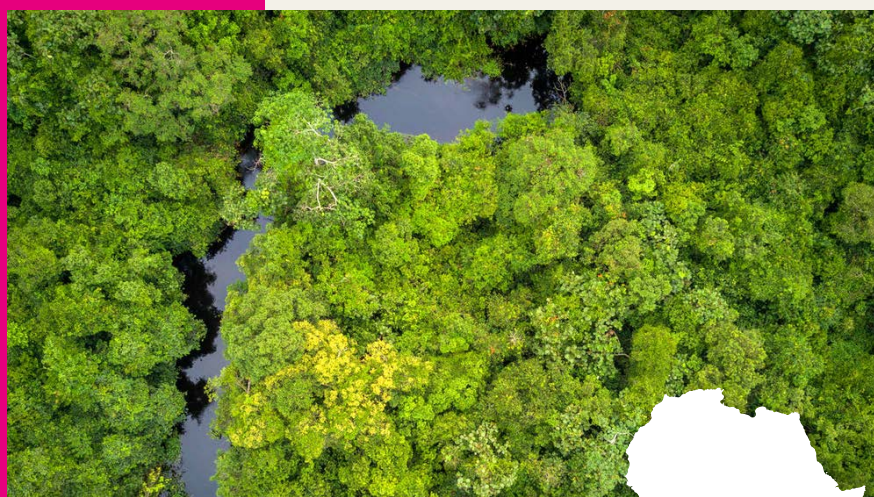
	Phase	Information
1	Capacity building and readiness	Funding mainly flows into the development of national REDD+ strategies and action plans, as well as into the design of policies and measures
2	Early implementation	National policies and measures are implemented, involving capacity building, technology development and result-based demonstration activities
3	Results-based payments	Compensation payments are made for reducing emissions and enhancing carbon stocks relative to agreed reference levels

\$ 20 Billion
roughly, has been
committed since
2010 to protecting
forests and miti-
gating emissions
from forests

Since 2010, roughly USD 20 billion has been committed to protecting forests and mitigating emissions from forests (green finance flow) (Climate Focus 2017). Funding sources range from multilateral and bilateral intergovernmental institutions to the private sector and NGOs. Public funds remain the primary source of finance for all three stages of REDD+ (Lujan and Silva-Chávez 2018).¹⁸ Of the 16.3 USD billion committed specifically to REDD+ activities by 2018, international bi- and multilateral finance made up more than USD 13 billion (for a list of main funding sources please refer to Annex 4 Table 8). To date, private sector finance accounts for USD 36 million for REDD+ strategies and USD 381 million for carbon offsets through voluntary carbon market (Lujan and Silva-Chávez 2018). These flows are relevant but have not reached their potential due to many factors, among them the absence of an international compliance market for REDD+ credits (see section 2.3.3).

Financial flows from the private sector are harder to track than those of bi- or multilateral institutions because they do not have public reporting obligations, and also invest in forest and land-use activities that are not labeled as REDD+. Thus, the actual total investment is likely higher than reported. Overall, through its multiple forms of engagement, the private sector can provide a substantial addition to public financing. While the private sector often focuses on more advanced stages of REDD+ implementation, private foundations and

Box 1:
Grant-funded jurisdictional
REDD+ project in the
Democratic Republic of
Congo (DRC)



© T. Nicolson/WWF-DRC

Project name and location:

Carbon Map and model REDD+ project ,
Democratic Republic of the Congo

Current status:

Mapping/modelling exercise completed

Short project description:

The project had two parts and consisted of the development of a national carbon map of the DRC, based on remote sensing techniques, benchmarking the distribution of carbon storage in live above-ground tree biomass of more than 150 million ha of forests in the DRC, as well as the implementation of a REDD+ model activities in preparation of the Emissions Reduction Program (ERP) Mai Ndombe. Here, the main goal was to build a provincially-based REDD+ program.

Funding source:

Public source: Initial funding through the International Climate Initiative (IKI) of the German Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) via the Kreditanstalt für Wiederaufbau (KfW) as principal applicant.

Financing model during and beyond project timeframe:

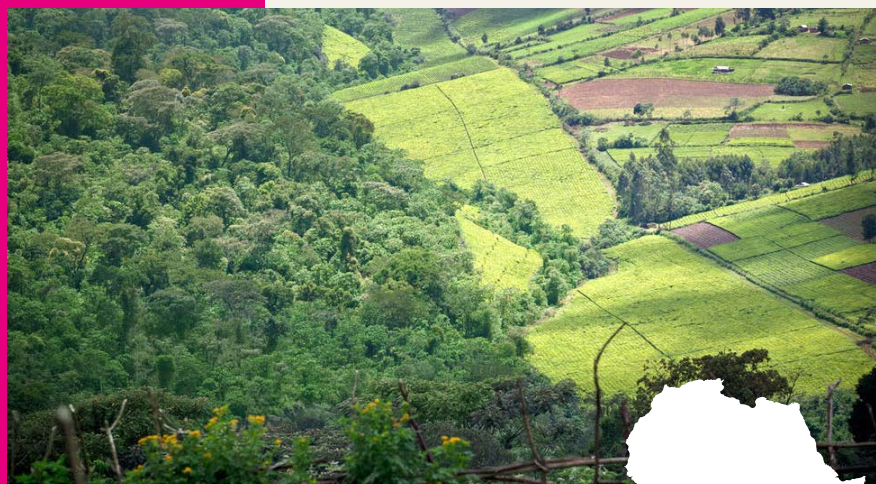
100% grant financing for the project was provided by BMU-IKI. The REDD+ program is currently supported by the Forest Carbon Partnership Facility (FCPF) and funded via the Carbon Fund.

NGOs engage at the initial stages for preparation activities (e.g., stakeholder consultations and pilot projects) and thus play a vital role to advance the projects and make them more attractive for other investors. Still, the contributions from both public and private sectors are well below REDD+ financing needs (see section 2.4).

2.3.2 FLR financing

Funding for FLR requires a broad mix of investors and financing instruments. Finance sources include bilateral development cooperation, multilateral environmental funds, climate finance, non-governmental funding, national budgets, private sector investment, payment for ecosystem service schemes and other non-traditional funding (for a list of main funding sources please refer to Annex 4 Table 9)¹⁹.

Box 2:
Two grant-funded projects in the Mau-Mara landscape in Kenya



© K. Holiv/WWF UK

Project name and location:

(I) FLR project in East Africa
Location: Kenya (also Tanzania & Zambia)
(II) Chepalungu forest restoration project
Location: Bomet-county, Kenya

Current status:

(I) Implementation stage; (II) Implementation stage

Short project description:

(I) The project will support the restoration of 500 hectares of degraded bamboo and mixed forests in the Kiburu (South Kinangop), North Kinangop and Geta forest blocks. In addition, 100 hectares of degraded farmland and 40 km of river shoreline will be restored by integrating bamboo and tree seedlings and transforming the areas into agroforestry systems. The bamboo and tree seedlings are procured by the project through local nurseries and distributed to farmers under the Plantation Establishment and Livelihood Improvement Scheme (PELIS) system. As part of the project, participating farmers will take care of the seedlings to eventually harvest and sell bamboo and other products. The restored bamboo forest areas offer opportunities to develop business models based on sustainable land-use in the long term. The project will support establishing partnerships between farmers and private sector in the region, for example, tee companies with a demand for bamboo pellets. Creating new income streams with bamboo products and connecting farmers to the supply chain offers opportunities for additional, project-independent plantings in the medium term. The activities will be finalized by the end of 2024. (However, due to Covid-19, implementation is currently delayed.)
(II) WWF Kenya together with several local partner organizations, including municipalities and schools are planting around 1,000 trees per hectare to allow for successful restoration. The aim is to gradually restore 5,000 hectares of forest with native tree species.

Funding source:

(I) Public source: Grant from Bengo funding programme, funded by the German Ministry for Economic Cooperation and Development (BMZ)
(II) Private source: Corporate philanthropy / sponsorship by EDEKA Südwest / EDEKA Minden-Hannover and Idealo, two German retailers for consumer goods, and supported by the "Sports for Future" initiative

Financing model during and beyond project timeframe:

(I) Grant based
(II) Phase one: corporate sponsorship for FLR and design of the certification; phase two: mid-term funding through carbon credits until trees are matured; phase three: revenues from sustainable forest management.

≈ 90%
of FLR funding
sources derive
from public funds

As of 2015, public funds from development cooperation, climate finance, national environmental funds and state budgets represented the largest share of FLR funding sources and accounted for approximately 90% of all funding (FAO & Global Mechanism of the UNCCD 2015). FLR contributes significantly to both climate change adaptation and mitigation and is thus eligible for both groups of climate finance instruments (Lujan and Silva-Chávez 2018).

The current FLR investment landscape with a focus on development cooperation, environmental funds and state budgets, is likely to shift in the coming years. Traditional investors as well as private impact funds, representing the first investment models for FLR-linked activities at large scale, are expected to gain increased importance in the FLR investment landscape and comprise 45% of all FLR investments by 2030 (FAO and Global Mechanism of the UNCCD 2015). Structural changes in legislation can support more investment into sustainable FLR-based businesses.²⁰ For instance, the 'EU taxonomy for sustainable activities' aims to re-orient investments towards more sustainable technologies and businesses. Private sector companies already voluntarily fund Corporate Social Responsibility (CSR) activities, as well as traditional investment or a combination of both (impact investment), but increased engagement of the private sector is needed to achieve the ambitious FLR targets. NGOs at the international level, for example WRI, CI, IUCN, TNC and WWF, are efficient in terms of outreach and public fundraising, while NGOs at the national and local level are important for the implementation of projects (FAO and Global Mechanism of the UNCCD 2015).

2.3.3 Carbon market finance

Financing afforestation/reforestation and forest protection through carbon markets, as considered here, is based on the monetization of GHG emissions reductions and removals (ERRs)²¹ through the generation of carbon credits. These are legal units representing a ton of CO₂-equivalents reductions or removals that may be owned, traded, and potentially used to meet compliance obligations or voluntary targets. Market-based carbon finance is (so far) separate and additional to the bi- and multi-lateral results-based payments made under REDD+.

Market-based
carbon finance is
separate and
additional to the bi-
and multi-lateral
results-based
payments made
under REDD+

Large-scale carbon market finance for forest-based mitigation has so far not been realized. REDD+, as determined by the Warsaw Framework, does not generate tradable carbon credits for REDD+ activities, and under the Paris Agreement there is no international market to trade forest-based mitigation outcomes (Streck 2020). After more than a decade of REDD+ implementation, expectations of an international REDD+ market under the UNFCCC have not yet been met, with the policy architecture still being decided. In the absence of an international market regime, carbon finance for avoided deforestation (AD) and a/reforestation and revegetation (ARR) activities has fallen into two mostly independent tracks – limited national/jurisdictional-level compliance markets and diverse project-based voluntary carbon markets. However, as most compliance markets only accept domestic offsets, most do not accept credits from

tropical forest projects, meaning that the voluntary market is currently the only significant source of carbon market finance for REDD+ or FLR projects. Hundreds of forest-based projects have applied certification standards to generate credits for the voluntary market. However, historically low and volatile prices have meant poor returns for many project developers and have not provided the incentives for forest protection and restoration at the scale needed.

Table 5 outlines the status and current developments in carbon finance in international climate negotiations, domestic compliance markets and voluntary carbon markets.

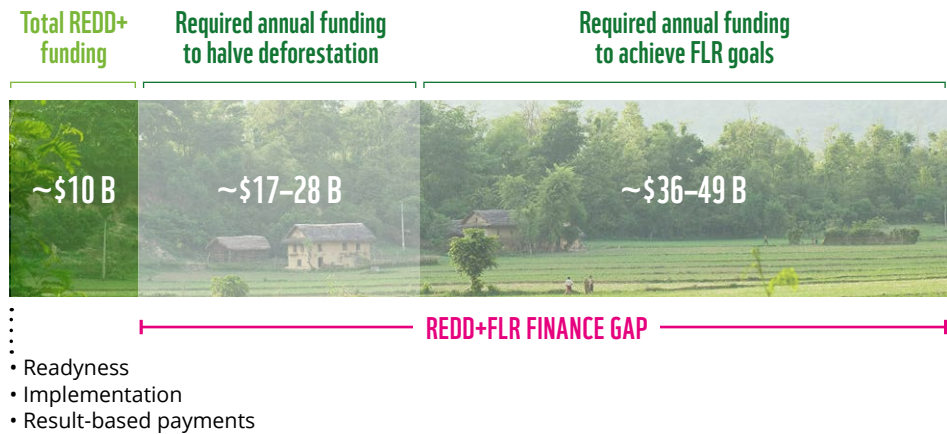
Table 5:
Sources of carbon
market finance

	Information
International compliance markets	<p>REDD+ has been included in the Paris Agreement Article 5, which acknowledges the Warsaw Framework and enables bi- and multilateral financing via results-based payments. Market-based carbon finance, however, will depend on the implementation of the Paris Agreement Article 6. Negotiating the 'rulebook' for Article 6²², as agreed during COP26 in Glasgow, was contentious²³, not least as it has the potential to undermine international climate goals (Carbon Brief 2019). Environmental integrity is a particular concern with forest-based mitigation, so any international system will need to have robust processes to address double counting, additionality, monitoring, baselines, permanence, leakage, and social and environmental impacts (Schneider et al. 2018).</p>
Domestic compliance markets	<p>Increasingly jurisdictions are implementing domestic carbon pricing instruments such as emissions trading systems and carbon taxes, which are potential sources of carbon finance for forest restoration activities. However, most jurisdictions do not accept land-based offset credits for compliance and very few engage in international carbon markets at all, reflecting a worldwide trend away from international offsetting for compliance.</p> <p>However, some jurisdictions show there is potential to change this trend. The Colombian Government, for example, will accept domestic offsets from forest restoration activities as compliance instruments under the national carbon tax (Verra, 2020). Their approach links project-based voluntary market credits to the national compliance system.</p>
Voluntary carbon markets	<p>The main near-term prospect for forest-based carbon finance comes from the voluntary market, with demand coming from firms striving to meet corporate social responsibility (CSR) targets. Recent market trends show that since 2017 voluntary offsetting in the private sector has become more popular, with a sharp increase in demand for afforestation, reforestation and revegetation (ARR) credits. In 2019, forest-based credits demanded a higher average price than other types and accounted for around USD 160 million (Ecosystem Marketplace 2020). The trend is set to continue, with renewed interest in Natural Climate Solutions (NCS) and an increasing number of companies setting carbon-neutrality targets.</p> <p>Currently, certification standards are increasingly focusing on developing high-integrity credits that incorporate environmental and social co-benefits. If implemented to a high standard, forest restoration activities under the REDD+ and FLR approaches have the potential to generate premium-quality credits with multiple benefits. Furthermore, several initiatives aim to 'nest' voluntary forest-based projects within broader jurisdictional approaches.²⁴ This could facilitate the integration of project-level voluntary crediting systems into jurisdictional-level compliance markets, increasing the potential to scale up. They also offer the possibility of designing and implementing landscape-scale projects that are fully integrated into national strategies and accounting systems from the start.</p>

2.4 Funding gap

Despite the REDD+ mechanism's initial success of mobilizing USD 10 billion between 2006 and 2014, USD 17-28 billion are still required annually to halve deforestation and no less than USD 36-49 billion annual funding must be provided to achieve the FLR goals that are underlying the Bonn Challenge and New York Declaration on Forests (see Figure 7) (FAO 2021). The funding gap becomes especially visible in the implementation phase, since the focus has largely been on the initial REDD+ readiness phase and the final result-based payments, which create a “missing middle” for implementation financing.

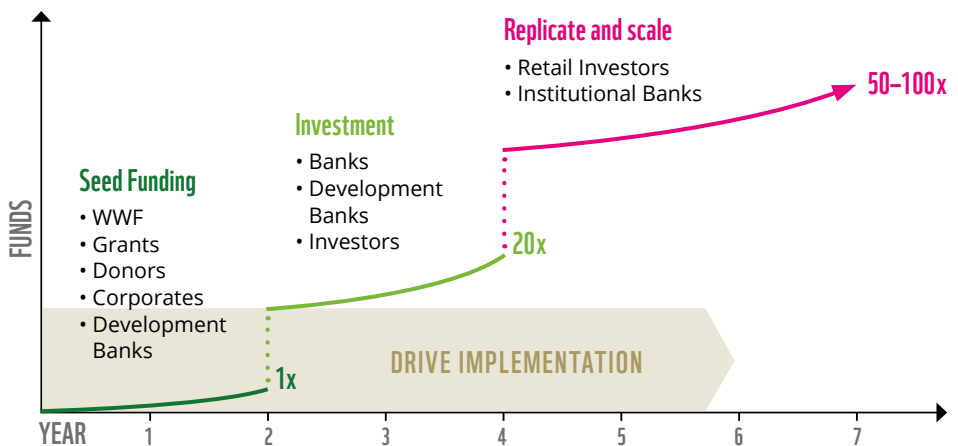
Figure 7:
Funding gap
(based on FAO 2021)



To close the funding gap, enabling conditions must be created for private investment.

To close the funding gap, enabling conditions must be created for private investments, which include providing financial and other incentives, scaling up sustainable investment models and identifying and supporting entrepreneurs, companies, and projects that contribute to forest protection and restoration. Capital can then be leveraged in a three-step process (see Figure 8): Firstly, initial seed funding from grants, donors and corporate investors can fund pilot projects and feasibility studies. Secondly, seed funding is complemented by investments from development banks and impact investors. Finally, large scale investments from commercial banks have the potential to replicate and upscale successful projects, remembering that for activities to be replicated, there need to be suitable private sector project developers on the ground.

Figure 8:
Leveraging capital



2.4.1 Carbon market finance

REDD+ and FLR pursue mutually supportive objectives, so that synergies in activities bring further synergies in financing, particularly from multilateral public sector sources targeting the initial stages of readiness and implementation. Possible synergies can be identified from different perspectives; by identifying complementary activities in the readiness and implementation stages, or by highlighting interlinkages in types of financing related to the broader environmental and social objectives of each approach.

Table 6 outlines some of the key potential funding synergies in the readiness and implementation phases of REDD+ and FLR.

Table 6:
Funding synergies in the readiness and implementation phases of REDD+ and FLR

Stages	Synergies: overlaps and complementarity
Preparatory / readiness	<ul style="list-style-type: none"> • Development of integrated national climate and forest strategies in line with countries' NDCs • Establishing National Forest Monitoring Systems (NFMS) • Setting baselines for forest reference levels and forest reference emission levels (FRLs and FRELs) • Design of Safeguard Information Systems and Benefit Sharing Mechanisms • Analysis of national and local circumstances, such as drivers of deforestation and degradation, barriers to sustainable forest management and agriculture, leakage effects and sustainable supply chains
Implementation	<ul style="list-style-type: none"> • REDD+ and FLR implementation activities include strengthening of land tenure and law enforcement, land-use zoning and planning, stakeholder engagement and capacity building. • Both REDD+ and FLR can profit from producing certified wood and non-wood forest products, carbon credits and biodiversity/landscape offsets.

REDD+ focuses mainly on mitigation, FLR encompasses both mitigation and adaptation.

Synergies can also be realized by designing projects that incorporate both climate change mitigation and adaptation strategies. Whereas REDD+ focuses mainly on mitigation, FLR encompasses both mitigation and adaptation components, including activities that increase resilience of both ecosystems and local communities. Both REDD+ and FLR can broaden their activities to combine these climate finance objectives in a way that is mutually supportive, both in outcomes and funding sources, ensuring a broader funding base and the longer-term viability of projects. Annex 4 Table 10 provides an overview of the main multilateral funding sources for forest and climate-related programs that could potentially finance combined REDD+ and FLR activities that target cross-cutting mitigation and adaptation outcomes.

Integrating an FLR component in REDD+ enables projects to be considered within a landscape, addressing local people's needs and demands for other land uses, and allowing broader adaptation objectives to be pursued. Several climate finance instruments initially designed for REDD+ or currently under develop-

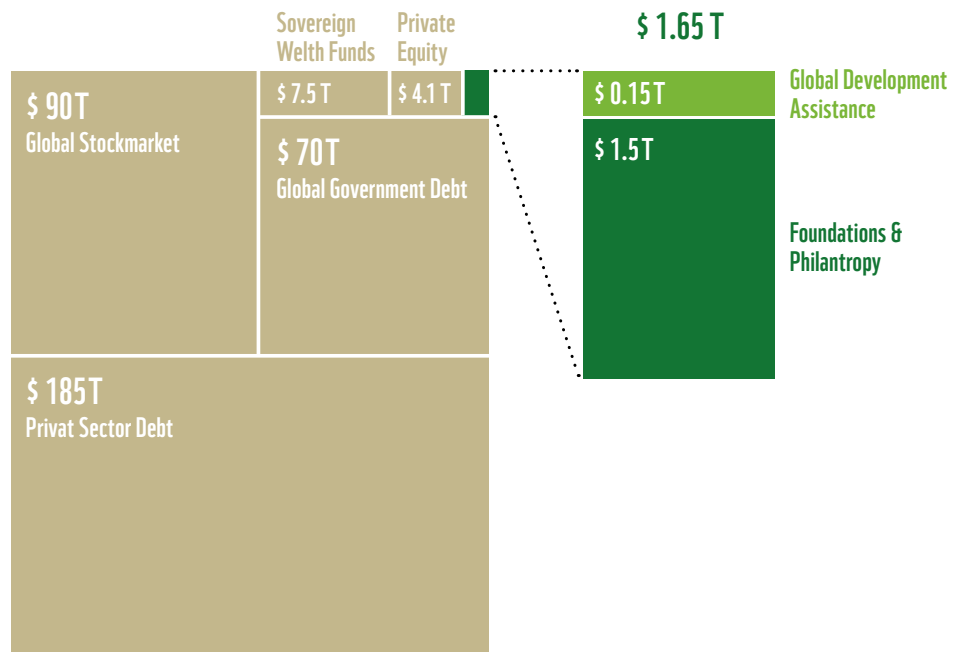
ment already have FLR components. Such ‘landscape finance’ includes, for instance, pilot programs at the jurisdictional/sub-national level under the Carbon Fund of the Forest Carbon Partnership Facility (FCPF) as well as bilateral Official Development Assistance (ODA) funding streams. While the Carbon Fund is seen as an interim finance instrument, the GCF is expected to become the main vehicle for channelling REDD+ funding. With its focus on adaptation and mitigation, the GCF is also already funding FLR projects and therefore could become a key agency for financing combined FLR and REDD+ activities.

2.4.2 WWF’s Bankable Nature Solutions Programme

The sections above primarily highlighted international ODA funding options, which currently represent the biggest funding pools for REDD+ and FLR activities. However, compared to the global financial capital available, global development assistance together with capital from foundations and philanthropy still comprises a small share (see Figure 9). Public financial institutions such as development banks are looking for ways to catalyse private investment in this field through their programs and are keen to support project proposals with business model development for sustainable forestry, agriculture and conservation.

Public financial institutions are looking for ways to catalyse private investments.

Figure 9: ODA and philanthropic funding relative to all the major global investor pools. Access to private capital markets will require the development of bankable projects.²⁵



In order to not exclusively depend on grant-based funding for REDD+ and FLR projects (from foundations, philanthropy and ODA), sustainable forestry and agriculture business models should be developed, which can contribute to protecting and restoring ecosystems alongside socio-economic development. By supporting entrepreneurs and enterprises, new opportunities can be realised to create shared value for communities, restore degraded and deforested land, and contribute to climate change mitigation and adaptation. Larger pools of private financing can be accessed by supporting businesses with sus-

tainable business models, which will bring us closer to the overarching goal of shifting financial flows from unsustainable to sustainable activities.

Private investors could close more than half of the funding gap.

Some asset managers and conservation experts have suggested that private investors could close more than half of the funding gap, and there is increasing demand for sustainable investment opportunities from investors, that also create environmental and social benefits (WWF 2020). Yet, the relatively new field of impact investments into projects and enterprises that generate not only financial returns, but also positive environmental and social impacts has its challenges. Return-seeking investments in forest conservation and restoration can be less attractive due to limited large-scale opportunities, non-transparent risks, relatively low returns, and long time horizons.

Table 7:
Key features of a good bankable project

What makes a good 'bankable project'?	
Bankable projects are private sector activities that provide positive environmental and social impacts, and a financial return on investment. Bankable projects are tailored to match local contexts, but there are some key features, as described in the following table:	
Environmental	<ul style="list-style-type: none"> • Use biodiversity-friendly agriculture/forestry practices, and typically have a sustainable production certification, e. g. Fair-trade or FSC • Maintain ecosystem integrity, and protect and enhance areas of high conservation value • Store carbon and reduce GHG emissions compared to business-as-usual approaches
Social	<ul style="list-style-type: none"> • Contribute to improved livelihoods for local communities, with increased resilience • Use appropriate Environmental, Social and Governance (ESG) safeguards and processes to ensure no negative impacts on food security, access to resources, etc., for local people • Promote gender equality and social inclusion from project design through to implementation • Be developed through effective stakeholder engagement processes
Landscape	<ul style="list-style-type: none"> • Be well integrated into the landscape, and support landscape environmental and social development aims • Improve landscape governance through participation in multi-stakeholder platforms
Commercial	<ul style="list-style-type: none"> • Be owned and operated by a suitable private sector operator. This can be for instance a small business, a large multi-national corporation, a farmer cooperative or a local financial institution. • Create shared positive financial returns, for farmers/employees and investors. • Business models which are financially sustainable can operate without relying on grants, and can continue to produce positive development impacts in the long-term. • Be designed to minimise/manage commercial risk

The Landscape Resilience Fund is a good example of blending public and private funding

WWF’s Bankable Nature Solutions (BNS) programme²⁶ has been established in order to catalyse private investments by using its expertise, network, and trusted relationships to support investors with a pipeline of private sector bankable projects that benefit landscapes, have a clear revenue model and provide an acceptable return on investment. This includes forestry, sustainable agriculture, water treatment and water supply, ecosystem restoration, and alternative energy options to large hydropower. Their bankability enables projects to accelerate scaling, realizing large-scale positive impacts on nature and communities.

Table 8:
Financing for bankable projects

Financing for bankable projects	
Financing needs	<ul style="list-style-type: none"> • Bankable projects are designed to mobilise return-seeking investment (loans/equity) • They will typically also need grant support for project development and technical assistance
Financing sources	<ul style="list-style-type: none"> • There are an increasing number of private sector impact investors that will invest in sustainable land use projects, e. g. the LDN Fund, eco.business Fund, Arbaro Fund • Development banks are a good source of financing, as they can accept higher risks, e. g. KfW, FMO, Finnfund, IFC • Traditional donors can provide grants to support project development, e. g. governments, foundations, GEF/GCF
WWF-linked financing options	<ul style="list-style-type: none"> • The Dutch Fund for Climate and Development: a partnership including FMO and WWF, provides grants and investment for bankable projects and sustainable landscapes • Landscape Resilience Fund is a public-private partnership and revolving fund co-developed by South Pole and WWF, that provides grants and investments for climate resilience-focused land use projects and landscapes (currently \$26.3m funding secured by Chanel & GEF, aiming at \$100m) • FLR Implementation Hub: a partnership with IUCN, WRI, and WWF, will provide grants to support private sector-led forest landscape restoration projects

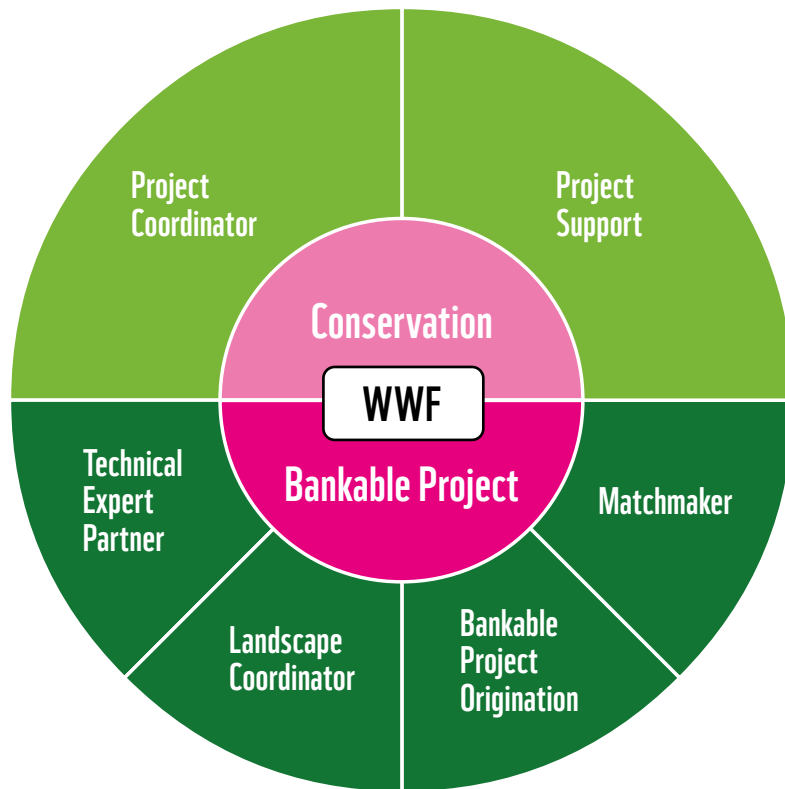
NGOs should act as conservation partner to public and private funders, and to private sector projects on the ground

2.4.3 FLR bankable project: role of NGOs

Non-government organisations such as WWF need to work with companies, financial institutions and local stakeholders to support the development of bankable projects building on existing or potential FLR-linked sustainable business activities. This way, we can deliver impacts that reduce pressure on ecosystems, drive resilience and sustainability for both people and nature, while generating positive financial returns for communities and investors.

To achieve FLR goals, WWF works across both classical conservation projects and bankable projects. However, the roles that WWF, and similar NGOs, play in these projects can vary widely depending on the needs of the project (See Figure 10). Both commercial and non-commercial activities are necessary at landscape level to maximise positive environmental and social impact, as well as positive financial returns.

Figure 10:
Bankable project
roles for WWF



As Figure 10 shows, the roles that WWF takes in both conservation projects and bankable projects can vary. Within classic conservation projects, WWF role is quite simple. It is usually as the project coordinator but in some cases WWF can operate as support for another lead organisation.

Within bankable projects, WWF's role includes project origination, technical expert partner, landscape coordinator, and matchmaker.

• Project origination:

WWF will often work with existing projects and new projects to identify potential for bankable solutions. By using our global network of country offices and landscape connections, we can identify potential bankable projects to support their development.

• Technical expert partner:

To support bankable projects, WWF can act as a technical expert partner. Often technical expertise is lacking in bankable projects. Especially in early-stage businesses. So, WWF can work with projects to provide expertise for environmental and social safeguards, ESG risk, monitoring and reporting, certification processes, and business/ investment readiness.

• Landscape coordinator:

WWF can take on a broader role in supporting bankable projects by working at the landscape level. This can include stakeholder engagement, monitoring and reporting, and facilitating landscape-level partnerships.

• **Matchmaker:**

Lastly, as a matchmaker, WWF can work with bankable projects to utilise our global network to find the right partners to suit their needs. This could include connecting bankable projects with appropriate investors, donors, government actors, local-landscape actors, relevant NGOs, and many others.

One of the roles that WWF can take is as a technical expert partner and landscape coordinator, as is the case with WWF Germany and the Landscape Resilience Fund. As such, WWF's role is to work with all bankable projects that the LRF engages with as well as working at the landscape level. Box 3, below, describes one of the LRF's first investments to promote climate resilience and improve smallholder income.



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Box 3:
Private sector led FLR
with commercially viable
outgrower program



© KO Photography

Project name and location:

Cocoa fruit pulp sourcing and processing project that provides farmers additional income and capacity building

Current status:

Project implementation phase

Short project description:

As a young social enterprise committed to sustainability and creating shared value, Koa has established a strong on-the-ground presence with 44 local employees working by Q2/2021 with farmers in 33 rural Ghanaian communities. The company trains farmers in sustainable agricultural practices and post-harvest processing and emphasizes the key role that environmental and social objectives play in its business model.

In 2020, 1,800 farmers were enrolled in Koa's farmer program to deliver cocoa fruits to mobile solar-powered processing units. At these processing units, Koa employees separate the fruit pulp from the cocoa beans, return the beans to the farmers, and process the fruit pulp. Koa is also looking for innovative uses of the cocoa husk (typically another unused waste product besides the fruit pulp), such as for biogas or organic fertilizer. Koa has secured offtake agreements with large corporate buyers (most notably Lindt & Sprüngli) and has acquired financing from the LRF and IDH Farmfit Fund to build a factory to process the cocoa fruit bunches and supply the contracted demand.

Koa Impact (Koa) produces juice and juice-related products (including liquid and crystalline concentrate) from typically unused cocoa fruit pulp in Ghana, thereby increasing farmer income by 20-30% and reducing food waste by 40%. Koa Pure (the cocoa juice) is marketable both nationally and internationally, with growing interest from the food industry and gastronomy due to its versatile use cases, including as natural, plant-based, minimally processed sweetener or as lemonade with a uniquely flavorful taste.

Funding source for developing the carbon project:

Total project funding is 307,000 EUR, of which:

- 2 million CHF: loan from the Landscape Resilience Fund to expand sourcing and build a new processing factory.
- 1.2 million CHF: loan from the IDH Farmfit Fund for the same purposes as the LRF loan.

Financing model during and beyond project timeframe:

The Landscape Resilience Fund, in partnership with the IDH Farmfit Fund, have agreed combined loan of CHF 3.2 million (USD 3.5 million). The funding is being used to increase sourcing of cocoa fruit bunches and to build a new factory. As such, Koa will benefit from increased revenue and offtake agreements with large corporate buyers.

One example of a commercial FLR led by private sector is on page 33. WWF provides technical assistance to the company, recently also under the Dutch Fund for Climate and Development (DFCD) Origination Facility.

Box 4:
Private sector led FLR with commercially viable outgrower program



Project name and location:

Carbon certification for smallholder forestry, and improved processing facilities by New Forests Company in Central Uganda

Current status:

Project development phase

Short project description:

The New Forests Company (NFC) is a forestry and timber processing company operating in East Africa since 2006, with a presence in Uganda, Tanzania and Rwanda. NFC Uganda currently manages 22,000 ha of FSC certified forests. The combined productive landscape spans over 25,000 ha, including 3,000 ha belonging to forestry out-growers. The company also operates a sawmill and a pole treatment plant. One-third of all managed land is preserved for conservation to protect crucial waterways and promote landscape restoration and biodiversity.

Through carbon financing, NFC aims to increase planted land by 10,000 ha. Carbon credits will generate finance for the company to better manage conservation areas, acquire more land for commercial planting, and promote value-added timber processing.

Carbon credits will further enable finance for the community to access seedlings and woodlot management tools, as well as pay school fees and medical costs, which may otherwise be covered by early harvesting in case of financial need, enabling them to grow trees to maturity and full value.

Funding source for developing the carbon project:

Total project funding is 307,000 EUR, of which:

- 199,000 EUR: grant from the Dutch Fund for Climate and Development (DFCD) and WWF technical assistance package to develop the final business investment proposal for carbon certification in Uganda, for sustainable smallholder growth and timber market diversification.
- 108,000 EUR: own funds of NFC.

Financing model during and beyond project timeframe:

Potential investment from DFCD Land Use Facility, increased revenue from operations, carbon credits that generate annual cashflows for out-growers and NFC.

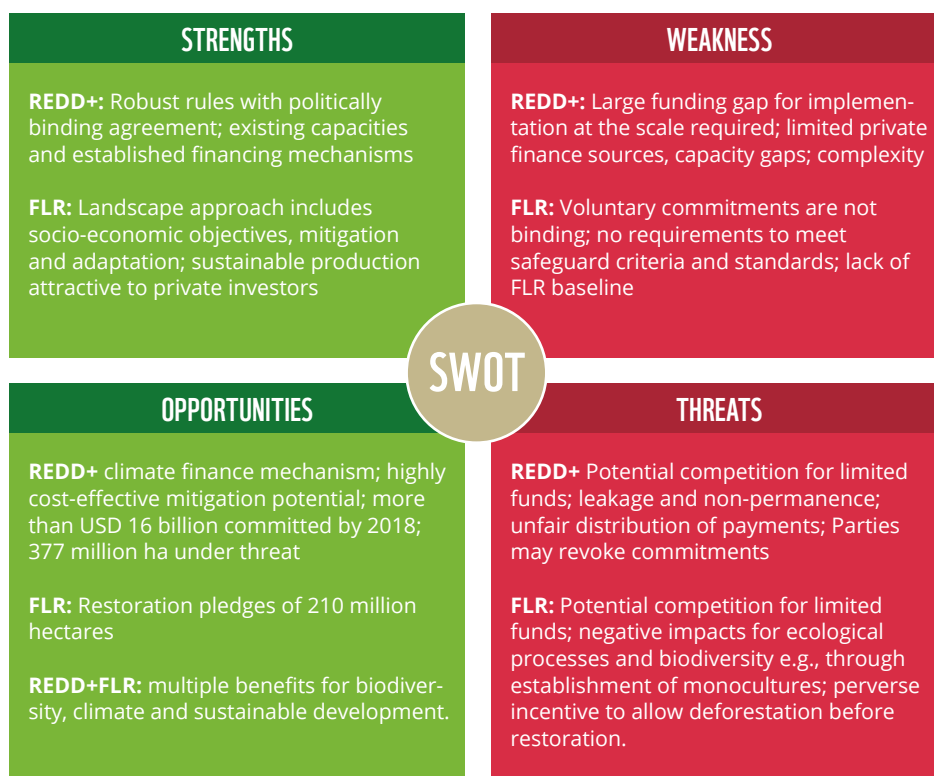
3

SWOT ANALYSIS



This section analyses the strengths, weaknesses, opportunities and threats (SWOT) of both REDD+ and FLR policies, implementation, and funding, building on the findings of the previous sections.²⁷ The aim is to highlight gaps, risks and possible synergies between the two approaches by using this tool and draw recommendations for future actions.

Figure 11:
SWOT Analysis
framework.



3.1 Strength

REDD+

The rules and modalities for REDD+ have been robustly negotiated under the UNFCCC, and critically discussed in the public for more than a decade, so that REDD+ has become a legitimate approach written into the Paris Agreement. A comprehensive set of definitions and standards have been developed, and through international agreements REDD+ has become a highly specific and legally binding framework approach to mitigate climate change. This includes obligations to conduct monitoring, apply safeguards and ensure benefit sharing.

REDD+ readiness activities have built up in-country capacities, knowledge, networks and institutions, both at the national level and locally, including national policy frameworks, practical knowledge from piloting, and systems for gathering and assessing information. Moreover, REDD+ financing mechanisms exist and climate mitigation and adaptation funding sources such as the GCF are available.

FLR

FLR is a flexible and adaptable approach that aligns well with national circumstances and development agendas, in contrast to other internationally regulated policy instruments.

Experience from piloting FLR projects shows that the concept can be successfully implemented on the ground, especially when guiding principles are followed.

FLR combines multiple objectives at the landscape level, and alongside biodiversity and socio-economic benefits it can achieve both climate change mitigation and adaptation outcomes. It promotes an integrated process, with a strong component of stakeholder engagement across a range of objectives.

Where FLR pursues productive activities, for example sustainable forest management, it can generate sustainable returns, making it attractive to private investment in bankable long-term projects. Such green investment opportunities generate not only financial returns, but also positive environmental and social impacts.

3.2 Weakness

REDD+

Despite considerable bi- and multilateral funding for REDD+ readiness and piloting, there is no immediate mechanism available to provide finance at the scale required to implement large-scale REDD+ activities on the ground.

Project developers and governments face barriers in accessing funding, including knowledge and capacity gaps, long and complex processes, and challenging bureaucratic procedures.

FLR

Initiatives are driven by voluntary country pledges without a binding commitment for their implementation. So far, no dedicated international finance mechanism exists for FLR.

Modalities and standards for FLR are elaborated in guidance documents and principles but are not agreed upon in policy, so carry no obligation. FLR projects therefore do not have requirements to meet commonly agreed criteria for environmental and social safeguards or ensure the equitable sharing of benefits. Unlike for REDD+, addressing the drivers of forest degradation is not an

integral part of the FLR approach and in practice is often not implemented at the project level.

Outcomes are not measured against a national FLR baseline and there are no requirements for activities to be additional. This makes it difficult to determine whether FLR pledges have been met and have resulted in more restoration than would have otherwise occurred.

3.3 Opportunities

REDD+

As a climate finance instrument, REDD+ can provide funding for highly cost-effective mitigation. Yet only about 1.5% of climate finance currently goes towards forest conservation. Tackling tropical deforestation and degradation has the potential to halt ‘deforestation fronts’ across 377 million hectares of critical tropical forests currently under threat (Pacheco et al 2021).

Article 6 of the Paris Agreement, and other international sectoral schemes such as CORSIA, could create new demand for forest-based mitigation projects. If the ‘rulebook’ is well implemented, Article 6 could enable carbon finance for REDD+ projects through bi-lateral transfers and new market-based initiatives.

FLR

So far, countries have pledged to restore more than 210 million ha of deforested or degraded lands under the Bonn Challenge and NYDF. Meeting these pledges would create around USD 84 billion per year in net benefits, for example from watershed protection, improved crop yields and forest products, and could sequester up to 1.7 gigatons of CO₂-equivalent annually, while also creating significant income opportunities for rural and indigenous communities (IUCN 2021d).

FLR could be designed to address local drivers of deforestation and degradation. Where FLR includes sustainable forestry, for example, it can potentially meet local demand for illegal and unsustainable timber harvesting and help to reduce pressure on standing forests.

REDD+ + FLR

Both REDD+ and FLR activities can generate multiple benefits of significant value, contributing to the objectives of the UNFCCC, CBD and UNCCD to address climate change, biodiversity and soil conservation, while enhancing val-

uable ecosystem services and fostering sustainable development. In particular, the dual objectives of climate change mitigation and adaptation are mutually supportive. Together REDD+ and FLR activities can enhance the resilience and adaptive capacity of forest ecosystems and the local communities that depend on them.

3.4 Threats

REDD+

As a climate finance mechanism, REDD+ currently depends on financial commitments from Parties to the Paris Agreement. As demonstrated by the USA, there is a threat that major Parties may decide to revoke their climate finance commitments, leaving a funding shortfall for bi- and multilateral REDD+ payments.

FLR

If the guiding principles of FLR are not applied, and environmental safeguard criteria are lacking, FLR activities may have a detrimental impact on other ecological processes. For example, the conversion of degraded forests or valuable non-forest habitats (e.g., grasslands and wetlands) into monocultural plantations may negatively impact local biodiversity.

A perverse incentive may occur under FLR, whereby natural areas are allowed to be deforested or degraded to make way for restoration activities.

REDD+ + FLR

Given the significant funding gap for both REDD+ and FLR, there are concerns about competition between the two approaches over limited financial resources.

With any forest-based intervention, there is a risk of non-permanence, whereby conservation and restoration progress can be undone by natural events or by policy changes. Climate change can exacerbate these risks and make some areas unsuitable for reforestation. The risk of non-permanence can be managed, for example, through setting aside funds or credits, carefully selecting sites and species for forestry activities, and by accessing affordable insurance.

Both REDD+ and FLR projects risk causing leakage, the displacement of deforestation and degradation activities to areas outside of the project scope. REDD+ safeguards require assessment of leakage. FLR programs, conducted at a broad landscape level, can potentially address some of the local leakage risk. However, leakage may still occur beyond the boundaries of FLR projects.

4

CONCLUSIONS AND RECOMMENDATIONS

Policy:

- REDD+ and FLR are the best international political approaches for protecting and restoring forest landscapes that we have available. While they each have their pros and cons, combining them appropriately can increase their effectiveness and achieve more action on the ground. Wherever complementary aspects can be identified, it is recommended to combine the REDD+ and FLR approaches, to tackle deforestation and degradation and support restoration in the most effective and efficient way possible.
- A combined REDD+ and FLR approach would benefit from high-level discussion on issues of policy alignment and integration of the two approaches across international conventions, particularly under the Rio Conventions of the UNFCCC, CBD and UNCCD, and other UN agencies, such as the UNFF and FAO.
- At the national-level, REDD+ and FLR should be integrated into national development agendas, standards, and strategies, in line with domestic objectives and international commitments. The two approaches should be aligned with existing policies, programs and instruments aimed at climate change mitigation and adaptation, biodiversity protection, and other sustainable development goals. Efforts should aim to:
 - identify REDD+ and FLR priorities and complementary activities,
 - create suitable enabling environments (e.g., policy frameworks, land tenure and land-use rights, multi-stakeholder platforms),
 - and facilitate coordination across sectors, ministries, and sub-national governments.

Implementation:

- Climate change mitigation and adaptation objectives are highly compatible in forest-based endeavors and should be pursued together in combined REDD+ and FLR approaches wherever possible. Applying the FLR approach to REDD+ can help to integrate natural forest areas into the surrounding landscape, better enabling REDD+ projects to build resilience and adaptive capacity, while further contributing to biodiversity protection and sustainable development goals.
- REDD+ provides a comprehensive approach to conserving and enhancing the values of natural forests, while respecting the rights of forest inhabitants. Whenever areas of natural forest comprise part of the FLR landscape, REDD+ should act as a safeguard, ensuring that FLR projects do not inadvertently incentivize deforestation and degradation to make way for restoration activities. Applying the REDD+ modalities to FLR where appropriate (e.g., applying safeguard criteria, stakeholder participation, benefit sharing mechanisms, and assessing the drivers of forest loss) can in turn also greatly enhance the long-term viability of FLR activities.

- REDD+ has an overarching framework of monitoring requirements, covering a range of forest-relevant indicators that are also highly relevant for FLR. At the national level, a similar monitoring system for FLR could form a basis for establishing FLR baselines, to track progress on meeting pledges and assess additionality. At the project level, both REDD+ and FLR would benefit from an integrated system of monitoring tools that can better assess sustainable development outcomes and enable adaptive management. Ideally a set of low-cost and flexible options should be developed that can be easily incorporated into project activities.

Financing:

- Both REDD+ and FLR have many activities that are in common or highly complementary, particularly at the readiness and implementation stages, for example, in terms of land-use planning, law enforcement and stakeholder engagement. By combining REDD+ and FLR approaches, project designers can build on these synergies to mobilize shared grant funding (i.e., from bi- and multilateral funds), which is usually limited. A combined approach can thereby enable REDD+ and FLR projects to tap into climate finance streams for both mitigation and adaptation, and to consider other non-climate related funding such as from rural development agendas.
- When combined with REDD+ as a safeguard, FLR should be highlighted as a key approach to the development of “green economies” that actively engages the private sector in sustainable business models and deforestation-free supply chains.
- WWF’s request to the public sector is to elaborate ‘blended finance models’, whereby public funds are used to support the development of sustainable private sector business models that can further leverage private investment. This would help to build self-sustaining projects and mitigate the risk that activities simply finish once short-term public funding stops. Combining public and private funding at the right stage in a project can help secure long-term financing. NGOs can play the role of conservation partners and matchmakers, facilitating knowledge exchange between public funders, project developers and investors.
- Steps should be taken to bridge the gap between project developers and investors, to better enable large-scale impact investors and institutions to engage in projects. Technical assistance is needed to: 1) support projects and businesses that apply sustainable business models 2) integrate them into their surrounding landscapes and address impacts outside of the project area, and 3) build capacity among local project developers and financial institutions to encourage lending to smallholder farmers and sustainable land-based businesses.

Annex 1 – International policy initiatives for REDD+ and FLR

Convention on Biological Diversity (CBD)

Signed by 150 government leaders at the 1992 Earth Summit in Rio de Janeiro, the Convention on Biological Diversity (CBD) is dedicated to promote “the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources.” (Secretariat of the Convention on Biological Diversity 2000)

REDD+

The CBD addresses deforestation and forest degradation in several ways, for instance in the program of work on forest biodiversity (CBD decision VI/22) and the program of work on protected areas (decision VII/28). REDD+ efforts can build on the implementation of the CBD, and activities at national level under the UNFCCC and CBD are often mutually supportive, for example, through ecosystem-based approaches to climate change adaptation. With the aim to enhance forest biodiversity, the targets of the new Strategic Plan for Biodiversity 2011-2020 state:

- » to at least halve, and where feasible bring close to zero, the rate of loss of all natural habitats, including forests, and to significantly reduce degradation and fragmentation (Target 5);
- » to manage areas under agriculture, aquaculture and forestry sustainably (Target 7);
- » to conserve at least 17 % of terrestrial and inland water areas (Target 11);
- » and to enhance the resilience and the contribution of biodiversity to carbon stocks through conservation and restoration, including restoration of at least 15 % of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification (Target 15). (CBD & GIZ 2011)

FLR

FLR is both directly and indirectly reflected in the CBD’s objectives as well as in many of the 26 cross-cutting issues and seven work programs such as climate change, the sustainable use of biodiversity, health, trade and protected areas. Although the work program with the highest relevance for FLR is the program on Forest Biodiversity, FLR is also included in other work programs such as Agricultural Biodiversity. The two cross-cutting issues of relevance for FLR are ‘ecosystem approach’²⁸ and ‘ecosystem restoration’.

The Aichi Targets²⁹ 14 and 15 have encouraged governments to develop their own strategies for ecosystem restoration, based on national circumstances, priorities and needs. Aichi target 15, with its focus on ecosystem services and human needs, symbolizes as a starting point for the Bonn Challenge and consequently for the entire international discourse on FLR. There is considerable momentum for discussing the topic further, particularly with a focus on balancing trade-offs. Different from other conventions, the CBD supports cross-cutting measures with synergies between international environmental processes and also provides technical guidance (e.g. informal or technical documents). (Pistorius and Kiff 2017)

United Nations Framework Convention on Climate Change (UNFCCC)

The UNFCCC is an international agreement, adopted in May 1992 in Rio de Janeiro and entered into force in March 1994, with 195 countries ratifying it. The objective is to prevent a dangerous anthropogenic interference with the climate system. (Federal Ministry for the Environment 2021)

In 2015, all (then) 196 parties to the UNFCCC came together for the COP 21 in Paris and adopted by consensus the Paris Agreement, aimed at limiting global warming to less than two degrees Celsius, and pursue efforts to limit the rise to 1.5 degrees Celsius (Paris Agreement 47, article 2). The Paris Agreement entered into force on November 4th, 2016.

The Paris Agreement requires all Parties to put forward their best efforts through NDCs and to strengthen these efforts in the years ahead. This includes requirements that all Parties regularly report on their GHG emissions and on their implementation efforts. (UNFCCC 2018)

REDD+

At its 16th session in Cancun, the UNFCCC COP adopted a decision, to encourage developing country Parties to contribute to greenhouse gas (GHG) mitigation actions in the forest sector by undertaking REDD+ activities, including the reduction of emissions from deforestation and forest degradation, the conservation of forest carbon stocks, a sustainable management of forests and the enhancement of forest carbon stocks. The implementation of REDD+ activities consists of three different phases:

1. Readiness: The development of national strategies or action plans, policies and measures, and capacity-building.
2. Their implementation, including technology development and transfer & results-based demonstration activities.
3. Results-based actions (e.g. payments) that should be fully measured, reported and verified (MRV).

The Paris Agreement sent a clear message that REDD+ is a critical part of the new global climate goal to achieve net-zero GHG emissions in the second half of this century. Now, REDD+ is permanently included in Article 5 of the Agreement, providing the necessary political signal to mobilize conservation measures around forests. One of the key requirements of the Paris Agreement is that signatory countries have to meet every five years to discuss and improve their climate actions. By including REDD+, countries are encouraged to measure forest conservation and management as a crucial element of their progress. (Harris and Stolle 2016)

FLR

The aim of the UNFCCC is to prevent dangerous human interference with the climate system. To reach its ambitious goal, each party must prepare, communicate and maintain successive NDCs, highlighting each country's actions to support climate change adaptation and mitigation. This includes activities in the land-use sector that either reduce GHG emissions or help to sequester significant amounts of CO₂, as is the case with FLR. Countries increasingly include FLR activities in their NDCs. (Pistorius and Kiff 2017)

United Nations Convention to Combat Desertification (UNCCD)

Established in 1994, the United Nations Convention to Combat Desertification (UNCCD) is the only legally binding international agreement linking environment and development to sustainable land management. The Convention addresses specifically the arid, semi-arid and dry sub-humid areas, where some of the most vulnerable ecosystems and peoples can be found. (UNCCD 2011)

REDD+

The UNCCD was established to reverse global land degradation and desertification. It recognizes the importance and potential for REDD+ in drylands to contribute to land degradation neutrality, sustainable economic growth, poverty eradication and other urgent goals that were pledged at the Rio+20 conference in 2012. Even though dryland forest countries are participating in REDD+ initiatives, they face several constraints, for example due to the naturally low carbon storage potential in dry forests. (UNCCD 2011)

FLR

The FLR approach is very important for the key objectives of the UNCCD, but so far referenced using different terminology, particularly 'sustainable land management' (SLM), a core element of the convention. While land degradation and desertification has developed considerable political attention in the last years, major challenges remain the mobilization of financial resources and supporting countries in reaching their national land degradation neutral (LDN) targets. The Global Mechanism (GM) of the UNCCD is a member of the Global Partnership on Forest Landscape Restoration (GPFLR) and contributes to discussions on how this partnership could evolve in the near future in order to best mobilize the knowledge and expertise of its members in support of forest and landscape restoration activities on the ground. (UNCCD 2015)

United Nations Forum on Forests (UNFF)

The Economic and Social Council of the United Nations (ECOSOC) established the United Nations Forum on Forests (UNFF) in 2000. It is a subsidiary body with the main objective to promote "... the management, conservation and sustainable development of all types of forests and to strengthen long-term political commitment to this end..." based on the Rio Declaration, the Forest Principles, Chapter 11 of Agenda 21 and other key milestones of international forest policy. The Forum has universal membership and is composed of all Member States of the United Nations and specialized agencies. (UNFF 2018)

REDD+

The UNFF does not have the same legal status as the Rio Conventions and has not been able to create legally binding instruments for forests. With the increasing role of the UNFCCC and the CBD in deciding on relevant forest-related objectives and instruments (e.g. REDD+, CBD Aichi targets) the UNFF is now considered of limited relevance for REDD+. (Pistorius and Kiff 2017)

FLR

The UNFF set a strategic plan in 2015, including Global Forest Goals and a work program for implementation. The goals carry over several aspects of FLR as conceptualized under the Bonn Challenge. Given its declining status and lack of financial resources, the UNFF still needs to find its role among the other more relevant conventions. (Pistorius and Kiff 2017)

Agenda 2030 for sustainable development

On January 1st, 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, adopted by world leaders in September 2015 at a historic UN Summit, officially came into force. Over the next fifteen years, with these new Goals that universally apply to all, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. The SDGs build on the success of the Millennium Development Goals (UN 2018)

REDD+

Numerous similarities make interactions between REDD+ and the SDGs likely. Despite having emerged from distinct institution-building processes, both initiatives aim, either as a whole (REDD+) or in part (SDGs) at the sustainable management of forests and the mitigation of climate change impacts. SDG 13 calling for "urgent action to combat climate change and its impacts" and SDG 15 calling to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss" are most compatible with the REDD+ objective (Bastos Lima et al. 2017)

FLR

The implementation of FLR is considered to be among the most important and concrete approaches towards achieving a range of sustainable development goals (SDGs). The SDGs of most relevance to FLR include SDG 2 'Zero Hunger', SDG 13 'Climate Action' and SDG 15 'Life on Land'. Given the focus on rural investments, sustainable business models, and private sector inclusion, FLR at scale can also contribute to the overarching goal of SDG 1 'poverty alleviation'. The focus on rural

development can further reduce the inequalities within countries (SDG 10) and help to promote sustainable economic growth and employment (SDG 8). Furthermore, FLR activities, together with deforestation-free supply chains, can support the transition towards sustainable consumption (SDG 12). (Pistorius and Kiff 2017)

REDD+ in global initiatives

The two main multilateral initiatives on REDD+ are the World Bank's Forest Carbon Partnership Facility (FCPF) and the UN-REDD Programme. These programs provide 'readiness' support, which helps countries build the capacities, institutions and knowledge to establish national REDD+ strategies. The FCPF has also established a separate funding mechanism called the FCPF Carbon Fund. During the period 2015-2020, this fund will support a small number of countries to pilot results-based REDD+ payments on a large-scale. Other major bi- or multilateral channels for REDD+ finance include the BioCarbon Fund Initiative for Sustainable Forest Landscapes, the Central African Forest Initiative (CAFI), the Forest Investment Program, the EU REDD Facility, the Global Climate Change Alliance+ and the Green Climate Fund. (EU REDD Facility 2018)

The EU is one of the largest consumers of timber products in the world. EU companies and governments that buy timber and timber products from suppliers in Africa, Asia or South America have a significant impact on illegal logging. If they unwittingly buy illegal timber, they create profitable markets for illegal loggers and undermine efforts to enforce forest law in timber-exporting countries. Therefore, the EU published the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan in 2003. The Action Plan sets out a range of measures available to the EU and its member states to tackle illegal logging in the world's forests. The EU FLEGT Facility assesses linkages and strengthens synergies between initiatives from the EU FLEGT Action Plan and REDD+. They work closely with the EU REDD Facility. (EU REDD Facility 2018)

FLR in global initiatives

Bonn Challenge

The Bonn Challenge is not a formal negotiation process, but rather an informal, decentralized high-level policy forum for countries that see FLR as a key opportunity for sustainable development (Pistorius and Kiff 2017). It promotes the implementation of internationally agreed policy objectives into practice, especially those of the CBD Aichi target 15, the UNCCD targets, REDD+ and the SDGs. The Bonn Challenge encourages private sector participation and contributions, explicitly considering the vast level of investment required. (Pistorius and Kiff 2017). The initial target agreed in 2011 was to restore 150 million ha of degraded and deforested land by 2020. By November 2018, 56 commitments had been made, pledging to restore more than 168 million ha by 2020, corresponding to mitigation potential of more than 15 GtCO₂ (IUCN 2018a).

New York Declaration on Forests (NYDF)

The NYDF is a voluntary, non-binding declaration that emerged from the UN Secretary-General Climate Summit in New York in 2014. The NYDF calls for action to effectively limit global deforestation, foster the restoration of degraded forest landscapes and develop deforestation-free supply chains. Extending the Bonn Challenge, its target is to restore an additional 200 million ha of degraded and deforested land by the year 2030. (Pistorius and Kiff 2017). The NYDF is currently endorsed by over 190 entities including more than 50 governments, more than 50 of the world's biggest companies, and more than 50 influential civil society and indigenous organizations (NYDF Global Platform 2018).

20x20 Initiative

Initiative 20x20 is a country-led effort to bring 20 million hectares of land in Latin America and the Caribbean into restoration by 2020. The initiative—launched formally at COP 20 in Lima—supports the Bonn Challenge and the New York Declaration on Forests. So far, 17 Latin American and Caribbean countries and three regional programs have committed to begin restoring 53.2 million hectares of degraded land by 2020 through the Initiative 20x20. The initiative is supported by more than 40 technical organizations and institutions and a coalition of impact investors and private funds. (WRI 2018)

African Forest Landscape Restoration Initiative (AFR100)

The AFR100 initiative is a country-led effort to bring 100 million hectares of land in Africa into restoration by 2030. AFR100 contributes to the Bonn Challenge, the African Resilient Landscapes Initiative (ARLI), the African Union Agenda 2063 and the Sustainable Development Goals. So far, 27 African countries have committed to the initiative. (AFR100 202)

Annex 2 – FLR Guiding Principles

To develop a common understanding of what can count as FLR, the IUCN developed the following set of principles (IUCN 2021a):

Focus on landscapes – FLR takes place within and across entire landscapes, not individual sites, representing mosaics of interacting land uses and management practices under various tenure and governance systems. It is at this scale that ecological, social, and economic priorities can be balanced.

Maintain and enhance natural ecosystems within landscapes – FLR does not lead to the conversion or destruction of natural forests or other ecosystems. It enhances the conservation, recovery, and sustainable management of forests and other ecosystems.

Engage stakeholders and support participatory governance – FLR actively engages stakeholders at different scales, including vulnerable groups, in planning and decision making regarding land use, restoration goals and strategies, implementation methods, benefit sharing, monitoring and review processes.

Tailor to the local context using a variety of approaches – FLR uses a variety of approaches that are adapted to the local social, cultural, economic, and ecological values, needs, and landscape history. It draws on latest science and best practice, and traditional and indigenous knowledge, and applies that information in the context of local capacities and existing or new governance structures.

Restore multiple functions for multiple benefits – FLR interventions aim to restore multiple ecological, social and economic functions across a landscape and generate a range of ecosystem goods and services that benefit multiple stakeholder groups.

Manage adaptively for long-term resilience – FLR seeks to enhance the resilience of the landscape and its stakeholders over the medium and long-term. Restoration approaches should enhance species and genetic diversity and be adjusted over time to reflect changes in climate and other environmental conditions, knowledge, capacities, stakeholder needs, and societal values. As restoration progresses, information from monitoring activities, research, and stakeholder guidance should be integrated into management plans.

Annex 3 – REDD+ Safeguards

During the UNFCCC climate negotiations in Cancún 2010, the Parties agreed on seven safeguards to ensure that REDD+ would be implemented by countries in a socially and environmentally responsible manner. Their purpose is to ensure that REDD+ actions are in accordance with a set of principles that attempt to set minimum requirements, and lead to social and environmental benefits. Those safeguards say (United Nations 2011):

1. That actions complement or are consistent with the objectives of national forest programs and relevant international conventions and agreements.
2. Transparent and effective national forest governance structures, considering national legislation and sovereignty.
3. Respect for the knowledge and rights of indigenous peoples and members of local communities, by considering relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples.
4. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities.
5. That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits.
6. Actions to address the risks of reversals (permanence).
7. Actions to reduce displacement of emissions (leakage).

Annex 4 – Overview of existing funding sources for REDD+ and FLR

Table 8: Overview of existing REDD+ funding sources. Based on Lujan and Silva-Chávez, 2018

Type of funding	Sources	Financial pledge/investment reported
Multilateral finance	Multilateral investment institutions: UN REDD, together with FCPF Readiness Fund and Forest Investment Program (FIP) by the World Bank, are the largest multilateral funds for phase 1;	Over USD 4 billion pledged to multilateral climate funds since 2008 and USD 2.4 billion approved so far (as of 2018) (Watson and Schalatek 2019) Additional USD 4.4 billion pledged for result-based payments
Bilateral finance	Norway, Germany, the United Kingdom (GNU), United States Agency for International Development (USAID)	USD 5 billion between 2015 and 2020 pledged from GNU USD 200 million between 2015 and 2016 from USAID (Lujan and Silva- Chávez 2018)
Domestic investments	REDD Countries	USD 1.7 billion (Silva-Chávez, Schaap & Breitfeller, 2015)
Private sector	Private companies (CSR activities, carbon market) Banks, investment and pension funds, carbon offset funds High-net-worth individuals	USD 36 million for REDD+ strategies, USD 381 million for carbon offsets through voluntary carbon market (Lujan and Silva- Chávez
Private foundations	International and domestic foundations, e. g. Moore, Climate Works, Ford, Packard Foundations.	USD 166 million (Silva-Chávez et al. 2015)
NGOs	International and domestic NGOs	USD 500 million (Silva-Chávez et al. 2015)
		Total: USD 16.36 billion

Table 9: Overview of FLR funding sources

Type of funding	Sources	Examples
Development cooperation	Development finance institutions	<p>Loans: sovereign loan by the French Development Agency providing USD 34.3 million to restoration projects in China</p> <p>Grants: GEF Small Grants Program</p> <p>Guarantees: Multilateral Investment Guarantee Agency providing >USD 50 million to EcoPlanet Bamboo (FAO & Global Mechanism of the UNCCD 2015)</p>
Environmental funds	Extrabudgetary funding; private, public, national, international sources	<p>Multilateral public funding: Global Environmental Facility (GEF)</p> <p>Bilateral public funding: French Facility for Global Environment (FFEM)</p> <p>Regional scope: Congo Basin Forest Fund</p> <p>National scope: national forest funds (NFFs) such as the national Forest Financing Fund (FONAFIFO) in Costa Rica</p>
Climate finance	Mitigation-based and adaptation-based opportunities for FLR	FLR contributes to climate change adaptation and mitigation, thus being eligible for climate finance instruments; many types of instruments applicable for FLR investments: e.g. compliance and voluntary carbon markets, REDD+ funds, Adaptation Fund, CBR+, and the GCF
National budgets and resources	FLR integrated in budgeting system; budgetary aid; public incentives	<p>(Sub)national budgets for FLR: Collaborative Forest Landscape Restoration Program in the United States; Canada's National Conservation Plan</p> <p>Incentive schemes: e.g. compensation mechanism for forest regeneration in Morocco</p>
Non-governmental funding	International, national and local NGOs and foundations	<p>International NGOs: Conservation International (CI); International Union for the Conservation of Nature (IUCN); The Nature Conservancy (TNC), World Resources Institute (WRI), World Wide Fund for Nature (WWF)</p>
Private sector	Corporate social responsibility; private impact funds; institutional investors	<p>Sustainability returns (CSR approach): Green philanthropy and sponsoring, PSA Peugeot Citroen and Nokia Carbon Sink in the Amazon; Citibank's collaboration with WWF</p> <p>Impact investment for financial returns: Private equity impact funds Moringa Fund (USD 5-10 million per project); Livelihoods Carbon Fund; EcoBusiness Fund (GLS Banks, KfW, BMZ); EcoEnterprises II (e.g. Oikocredit, TNC)</p> <p>Traditional investment: from timber investment management organizations (TIMOs)</p> <p>The bank sector: e.g. GLS bank; microfinance institutions: e.g. Oikocredit</p>
Non-traditional funding	Crowdfunding; green bank cards	Crowdfunding platforms significant for supporting readiness phases; green business cards efficient in raising funds; more citizen-to-citizen financing approaches needed for FLR

Table 10: Largest multilateral funding sources for both REDD+ and FLR activities

Multilateral funding sources	Funding scope for both REDD+ and FLR activities	Approx. amount of money channeled or committed
Forest Carbon Partnership Facility (FCPF) Readiness Fund	Specific REDD+ relevant activities, such as the development of national strategies, but also activities where the FLR agenda can be incorporated, e.g. establishing National Forest Monitoring Systems, as well as designing safeguards and benefit sharing mechanisms	USD 187 million as of 2017; all pledged funds were committed
UN-REDD	Majority of funding supports readiness activities (e.g. development of national strategies and monitoring systems), but also provides implementation support for both REDD+ and FLR	Nearly USD 300 million as of 2020 (RECOFTC 2021)
Forest Investment Program (FIP)	Focus on securing co-benefits from sustainable forest management and helping reduce GHG emissions from deforestation and degradation	USD 603 million as of 2016
The Global Environmental Facility (GEF)	Substantial funding targeted at forests, of which significant amount goes to forest landscape management and restoration (e.g. to generate sustainable flows of forest ecosystem services); Funds adaptation to climate change in developing countries through the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF)	Of the USD250 million provided for forests, USD70 million for FLR (RECOFTC 2021)
Green Climate Fund	Next to support for reducing GHG emissions, GCF identifies and funds interventions in previously forested lands to reduce pressure on forests by enhancing carbon stocks through reforestation, agroforestry and forest restoration; Financing for activities to enhance resilience and foster climate change adaptation.	USD 991 million related to REDD+, of which USD 236 million related to forestry and land use
BioCarbon Fund	Main fund for performance-based payments; Incentivizes sustainable land-use interventions	Data incomplete
Community-based REDD+ Grants (CBR+)	Grants used by communities to address drivers of deforestation, improve land use rights, build capacity for local participation,	Up to USD 50,000 for local communities
Amazon Fund and Congo Basin Forest Fund	REDD+ readiness, afforestation, stakeholder participation (multilateral and bilateral cooperation)	USD 529 million from the Amazon Fund (Amazon Fund 2021)

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Endnotes

- 1) Nature-based Solutions protect, sustainably manage, and restore natural and modified ecosystems to address societal challenges. (IUCN 2021b)
- 2) This definition was developed at a scientific workshop hosted by WWF and IUCN in 1999 (WWF and IUCN 2000)
- 3) Under the UNFCCC, countries need to demonstrate the following five systems to be eligible for REDD+ results-based payments: 1) A national strategy or action plan; 2) a national forest monitoring system (NFMS); 3) a forest reference emission level and/or forest reference level (FREL/FRL); 4) a Safeguard Information System (SIS); and 5) the results-based actions should be measured, reported, and verified (MRV). Participants are also encouraged to implement a Benefit Sharing Mechanism.
- 4) CBD and GIZ 2011
- 5) Harris and Stolle 2016
- 6) UNCCD 2011
- 7) Pistorius and Kiff 2017
- 8) Bastos Lima et al. 2017
- 9) EU REDD Facility 2020
- 10) Participating countries must demonstrate an NFMS that is transparent, consistent, and suitable for MRV of GHG emissions and removals resulting from REDD+ projects and other activities, with methods in line with IPCC guidelines (UN-REDD 2018; FAO 2013). At the national level, an NFMS should include information on historical emissions used to generate Forest Reference Emission Levels and/or Forest Reference Levels (FRELs/FRLs), which are baselines for measuring the results of REDD+ activities.
- 11) The FAO has published guidelines for the development of forest monitoring systems, and their specific application in REDD+ (FAO 2017).
- 12) FLR monitoring guidelines have been developed, such as the AFR100 Guiding Principles for Measuring and Monitoring Progress on Forest and Landscape Restoration in Africa (AFR100 2019). As part of its 'Forest and Landscape Restoration Mechanism', the FAO is coordinating the 'collaborative roadmap for FLR monitoring' partnership to compile and make available monitoring methods and tools for FLR (FAO 2021).
- 13) Examples include the Green Climate Fund (GCF) Environmental and Social Management System, including Environmental and Indigenous Peoples policies (GCF 2018). Also, the World Bank Group, including the International Finance Corporation (IFC) applies a set of ten Environmental and Social Standards to their investment financing - particularly relevant for forest restoration projects, is standard number 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources (World Bank 2017).

- 14) An example of project-level standards, the Climate, Community and Biodiversity Alliance (CCBA), together with Verra, has developed a set of Climate, Community and Biodiversity (CCB) Standards to assess land management projects against a set of criteria. To support the implementation of the CCB Standards, the CCBA has also developed a Social and Biodiversity Impact Assessment Manual for REDD+ Projects (CCBA, 2018).
- 15) A broad assessment of Benefits Sharing Mechanisms (BSMs) identifies several key success factors (Bertzky et al. 2021). While BSMs need to be carefully tailored to the local context, successful BSMs address institutional arrangements, legal aspects, financial frameworks, equity (especially with local and indigenous communities), adaptive management, and up-scaling approaches. Under REDD+, it is up to countries and implementing agencies to determine an appropriate BSM
- 16) Program criteria ensure that activities funded by the FCPF use clear, effective and transparent benefit-sharing mechanisms with broad support of the community and other relevant stakeholders. The sharing of both monetary and other benefits must be assessed in a Benefit Sharing Plan, to be designed in a consultative, transparent, and participatory manner appropriate to the country context (FCPF 2016).
- 17) The FCPF and the BioCarbon Fund have established an online platform "Designing Benefit Sharing Arrangements: A Resource for Countries" that provides a set of tools, resources and case studies for the design and implementation of benefit sharing arrangements applicable to both REDD+ and FLR projects.
- 18) An example of a successful grant-funded jurisdictional REDD+ project can be found in Box 1
- 19) Examples of a grant-based and a privately funded project are shown in Box 2 and Box 3 respectively.
- 20) https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
- 21) ERRs are the reduction in GHG emissions and increase of carbon absorption by biologic sinks calculated against a reference scenario and monitored using standardized measurement, reporting and verification (MRV) rules (Streck 2020).
- 22) Article 6.2 would enable voluntary country-to-country transfers of mitigation outcomes (ITMOs), while Article 6.4 would be a centrally-managed mechanism with sustainable development objectives, building on the principles of the CDM. These mechanisms have the potential to facilitate carbon finance flows to REDD+ and FLR activities, for example, by enabling countries to generate and trade credits to meet their NDC targets (Streck et al. 2017). For a discussion on REDD+ and the Article 6 Rulebook, following COP26 in Glasgow, please see the following policy note from Carbon Mechanisms: https://www.carbon-mechanisms.de/fileadmin/media/dokumente/Publikationen/Policy_Paper/REDDplus_Art6.pdf
- 23) Article 6 negotiations face major challenges in designing robust accounting rules and ensuring the environmental integrity of any transfers. To avoid double counting, international transfers will need to be accounted for at the national scale, with a 'corresponding adjustment' to each country's NDC. Furthermore, aligning the different rules, standards and certification systems across international, jurisdictional, and project-based mechanisms will be needed to ensure accounting consistency and integrity (Carbon Brief 2019).
- 24) Examples include the Architecture for REDD+ Transactions Program REDD+ Environmental Excellence Standard (ART-TREES) (ART 2020); and the Jurisdictional and Nested REDD+ Framework (JNR Framework) of Verra.
- 25) Derived from various sources and analysed by WWF (2020): Global debt and gov debt (2019), Global stock (2019), SWF (2018), Philanthropy (2018 figure), ODA (2019)
- 26) https://wwf.panda.org/discover/our_focus/finance/bankable_nature_solutions/
- 27) SWOT analysis is a basic analytical framework typically used to evaluate an entity by identifying its strengths, weaknesses, opportunities and threats. SWOT analysis assesses what an entity can and cannot achieve, accounting for factors both internal and external (Investopedia, 2018).
- 28) 'The 'ecosystem approach' describes a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. According to the 'ecosystem restoration' approach, the future of the world population will strongly depend on conservation and restoration of ecosystems to maintain and enhance biodiversity and ecosystem services, thereby contributing to sustainable development while reducing environment-related risks. (CBD 2019)
- 29) The Strategic Plan for Biodiversity 2011-2020 is comprised of a shared vision, a mission, strategic goals and 20 targets, collectively known as the Aichi Targets. The Strategic Plan serves as a flexible framework for the establishment of national and regional targets and it promotes the coherent and effective implementation of the three objectives of the Convention on Biological Diversity. (CBD Secretariat 2018)



Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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