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Front cover image: Palm trees, Singapore.

Back cover image: Waterfall, Khao Lak, Phang-nga, Thailand.

Key Terms and Abbreviations

ACR American Carbon Registry

ART Architecture for REDD+ Transactions

CA Corresponding Adjustments
CAR Climate Action Reserve

CCBS Climate Community and Biodiversity Standards

CDM Clean Development Mechanism

ER Emission Reductions

ERPA Emission Reductions Payment Agreement

ESMF Environmental and Social

Management Framework

FCPF Environmental and Social Safeguard
FCPF Forest Carbon Partnership Facility
FREL Forest Reference Emission Level

FRL Forest Reference Level
GCF Green Climate Fund
GHG Greenhouse gas
GS Gold Standard

HLFD High Forest Low Deforestation

ICAO International Civil Aviation Organization

IPCC Intergovernmental Panel on Climate Change

ISO International Organization

for Standardization

ITMOs Internationally transferred

mitigation outcomes

JCM Joint Crediting Mechanism
JNR Jurisdictional and Nested REDD+
NDC Nationally Determined Contribution
NGO Non-governmental organization
ODA Official development assistance

RBP Results-based payment

REDD+ Reducing Emissions from Deforestation

and forest Degradation

SESA Social and Environmental

Strategic Assessment

SIS Safeguard Information System
TFS California Tropical Forest Standard
TREES The Environmental Excellence Standard

UN United Nations

UNFCCC United Nations Framework

Convention on Climate Change

VCS Verified Carbon Standard



Executive Summary

REDD+ standards analyzed in this publication:

- Forest Carbon Partnership Facility's Carbon Fund (FCPF)
- Architecture for REDD+ Transactions' The REDD+ Environmental Excellence Standard (ART/TREES)
- Green Climate Fund (GCF)
- Joint Crediting Mechanism (JCM)
- Jurisdictional and Nested REDD+ (Verra's JNR)
- Verified Carbon Standard's project-scale REDD+ methodologies (Verra's VCS)

This paper provides an overview of six REDD+ standards, as well as the sources of finance for which they are eligible. Although there are additional carbon credit standards, we focus exclusively on standards with REDD+ methodologies and with an available source of finance. Currently not included are standards such as the American Carbon Registry (ACR), Climate Action Reserve (CAR), Gold Standard (GS), California Tropical Forest Standard (TFS), Clean Development Mechanism (CDM), REDD.plus, and Plan Vivo.

A variety of non-market funding and market incentives for REDD+ have emerged in the last decade, with different REDD+ standards that provide rules and criteria to ensure environmental and social integrity. In some cases, using one standard might allow access to multiple funding opportunities, while other standards may have been developed to access a specific type of funding. However, no single REDD+ approach qualifies for every source of funding or

market today. REDD+ implementers currently face a broad array of standards and financing options, some of which may be more appropriate to national or local circumstance than others.

By seeking to simplify the understanding of various standards, funding sources, and markets for REDD+, we hope to facilitate understanding and confidence in implementing REDD+ in line with specific standards and accessing REDD+ finance¹. Below is a high-level summary of options for REDD+ implementers. However, this paper is not intended to serve as an assessment of the quality of standards or a recommendation for which standards to use. Additionally, these resources will not provide a full overview of all criteria required by each standard, but rather highlight the main differences among REDD+ approaches. REDD+ implementers should use this paper as a starting point, but then reach out to standard bodies directly or read the full standard criteria for the latest requirements.

In the following sections, we provide:

- 1. An overview of REDD+
 - 2. A Summary of REDD+ Standards
- a. REDD+: Readiness, Implementation and Results
- b. Finance Flows fro REDD+ Results
- c. REDD+ Standards
- **3.** A Summary of finance sources for REDD+
- 4. A comparison of REDD+ standards

1. Overview of REDD+

Map 1 - REDD+ Countries (includes Readiness, Implementation and Results), based on the **UNFCCC Lima Resource Hub**.



In order to meet the Paris Agreement goals, global emissions need to effectively halve by 2030. Addressing tropical forest emissions will be critical to achieving this in the next decade.

"Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks" (REDD+) is a framework developed under the United Nations Framework Convention on Climate Change (UNFCCC) that creates an incentive for protecting, conserving and restoring forest ecosystems in developing countries by valuing their carbon sequestration, storage and other social and environmental services. This framework can apply to all types of forests, including mangroves, if they are recognized in the national definition of "forest."

REDD+ is enshrined in Article 5 of the Paris Agreement, which expressly encourages countries to implement and support approaches to REDD+. This short but impactful Article is the only Article of the Paris Agreement dedicated to a specific sector, demonstrating the political significance of forests and other ecosystems in addressing climate change. National tropical forest approaches to REDD+ are based on the Warsaw Framework, which established rules for results-based payments to national and subnational-scale (in the interim) REDD+ efforts, noting that REDD+ action must occur with "adequate and predictable support" to developing countries.



2a. REDD+: Readiness, Implementation and Results

There have been several different approaches to financing REDD+, which this paper will lay out in more detail. In general, the three phases of REDD+ finance are:

Phase 1: Readiness Phase 2: Results

Finance (grants, results-based payments (RBP), etc)

Phase 3: Results

Market and non-market payments (payments are often contingent on results)

REDD+ Readiness: Most finance to date has focused on supporting countries to get ready for REDD+ by providing funding for capacity-building for accounting, developing national and/or subnational strategies, designing safeguards systems and other pre-requisites to track and verify emissions reductions. REDD+ readiness has taken longer than expected and is

still ongoing in most countries, due to the scale and complexity of issues such as clarifying land ownership, implementing robust safeguards and lack of funding. Examples of REDD+ finance for readiness include the Forest Carbon Partnership Facility's Readiness Fund and the UN-REDD Programme, among others.

REDD+ Implementation: Realization of REDD+ at a national or subnational scale has been limited, but this is changing. Countries and jurisdictions often have implemented REDD+ as they received readiness funding and technical support; as such, REDD+ implementation timelines can overlap with those of REDD+ readiness. For countries seeking REDD+ results through a

market-based standard, implementation also includes verification by a third-party before a REDD+ credit is issued and payments are made. This process can take additional years; for example, Mozambique's first reference period was completed in December of 2019, but the first payments for these results are not expected until mid-2021.

REDD+ Results: To date, ten² countries have registered results under the **Lima REDD+ Information Hub** for progress made in the last decade, with more likely to come as additional implementation occurs. See end notes on page 27. Under Decisions 2/CP.17³ and 14/CP.19⁴ of the Warsaw Framework for REDD+, countries agreed

that results-based payments for REDD+ may come in the form of non-market- or market-based finance. However, payments for REDD+ are not guaranteed for any country; thus, many countries and jurisdictions seek to identify and secure commitments for non-market or market-based payments before generating results.

A. Non-Market-based Finance for REDD Results:

Most historical payments for REDD+ results came from bespoke agreements between countries, especially from bilateral deals with Norway. Because results were calculated outside of a third-party REDD+ standard, these carbon credits were not eligible in existing carbon markets. Recently, however, countries have begun to access REDD+ payments by meeting additional criteria developed by third-party standards. For example, while it has taken over a decade, the FCPF's Carbon Fund⁵ has now signed Emission Reductions Payment Agreements (ERPAs) with fourteen countries for a total contract value of USD 700 million and initial payments for results are expected in 20216. Additionally, by end of 2020, the Green Climate Fund exhausted its \$500 million fund which was expected to run from 2017-2022 (two years ahead of schedule) due to countries' increased demand for results-based payments7.

B. Market-based Finance for REDD+ Results:

There is also increasing interest and opportunity for funding from carbon markets. To date, most carbon credits have been sold to corporations in either domestic compliance markets or international voluntary carbon markets, although individuals, government agencies, and nonprofits have purchased credits in smaller amounts. While jurisdictional REDD+ credits have historically not been allowed in compliance markets, nor were transacted on voluntary carbon markets, there is evidence that this is changing such as with CORSIA and the newly-launched Lowering Emissions by Accelerating Forest finance (LEAF) initiative.



2b. Finance Flows for REDD+ Results

Broadly speaking, REDD+ results can occur at three different scales:

Jurisdictional: refers to a governance level that covers an administrative area for which public authorities can take decisions, such as the national or federal level or subnational states.

Nested: refers to the coordinated and harmonized implementation of REDD+ programs and activities at multiple accounting scales and governance levels within a country.

Projects: refer to site-specific REDD+ activities. If this is a voluntary transaction, most sales currently occur outside of government knowledge or approval.

Finance for REDD+ results can flow:

Directly to a jurisdictional (i.e., national and/ or subnational) program:

In many national or subnational REDD+ programs, the government receives all credit for REDD+ and allocates the benefits (which can be monetary or non-monetary) to participating projects and other key stakeholder groups via a Benefits-Sharing Mechanism.

Directly to REDD+ projects and/or jurisdictional programs:

Under a nested REDD+ approach, key parameters for participation and benefit from REDD+ are determined at a national or subnational level, but projects may be directly credited. The specifics of the nesting approach, including which scale of activity is eligible and authorized to generate and transact credits or greenhouse gas (GHG), will be defined by each country to best address their national circumstances.

- Some REDD+ approaches may establish national and/or subnational rules around allocation of baselines and setting a reference level. Carbon accounting and crediting might only occur for projects and jurisdictional programs, if there is an absence of a national strategy.
- Separately, if there is a national REDD+ approach in line with the Warsaw Framework, then the country will establish key elements for if and/or when jurisdictional and project crediting can occur, including: carbon accounting and/or reporting approaches at the national level that incorporate site- and subnational-scale activities and agreement on the type and allocation of incentives to site- or subnational-scale actors.

Directly to REDD+ projects:

Project-based REDD+ is often carried out by a non-profit or for-profit project developer who sells credits directly to buyers. If this is a voluntary transaction, most sales occur outside of government knowledge or approval, leading to concerns about alignment with governments GHG accounting. However, project-based REDD+ transactions have historically been one of the more effective ways to stimulate private sector investment. Currently, some project-based standards have provided and/or are exploring pathways to 'nest' projects into a jurisdictional framework to facilitate aligned accounting and flow of benefits.

Figure 1 - Summary of the four simplified models.



Centralised

Key features:

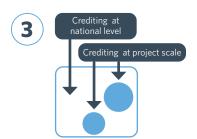
- ERs credited at national scale (only)
- No carbon projects
- Government operates ER program and distributes benefits



Centralised-nested

Key features:

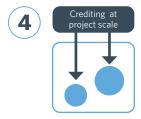
- ERs credited up to national scale performance (only)
- Projects are encouraged and receive rewards based on GHG performance (linked to national performance)
- Government control over ERs and distribution of carbon benefits via an agreed 'allocation method'



Decentralised-nested

Key features:

- ERs credited at national and project scale
- Projects authorised to generate and market ERs (delinked from national performance)
- Government generates ERs through public programs and on public lands



Decentralised

Key features:

- ERs credited at project scale (only)
- Projects are incentivised, may be regulated
- No RBF or sale of carbon credits by the government
- Government role is regulator, not ER program manager

Source: Nesting of REDD+ Initiatives: Manual for Policy Makers, 2020, Climate Focus.

Figure 2 - REDD+ Approaches at Various Scales.

National & Subnational REDD+ Projects REDD+ Programs Nested site-scale Standalone site -Jurisdictional-scale **REDD+** crediting **REDD+** crediting scale REDD+ crediting Once nested, National-level considered part or subnational-level interventions should of the national on an interim basis be designed with the and subnational REDD+ programs. intention and goal of REDD+ program. nesting at the earliest opportunity.





2c. REDD+ Standards

Forest Carbon Partnership Facility - Carbon Fund

The FCPF is one of the world's largest multilateral pay-for-performance carbon funds, with a total investment capital of USD \$1.3 billion across its Readiness and Carbon Funds. Countries must first advance through the Readiness Fund to show they have a minimum framework to implement a REDD+ program: a national strategy, a safeguards framework, laws and/or regulations in place, and Measurement, Reporting and Verification (MRV) capacity. Out of nearly 60 countries participating in the Readiness Fund, 18 were accepted into the Carbon Fund pipeline.

The Carbon Fund is focussed on REDD+ implementation and set up to pilot payments for emission reductions under a contract known by Emission Reduction Payment Agreement. Fourteen of those Carbon Fund countries have signed ERPAs as of May 20218 for a total contract value of USD \$700 million. Initial emissions reductions results are expected in 2021 with payments resulting thereafter. The FCPF Carbon Fund includes both market and non-market finance from both public and private donors: Tranche B, comprising approximately 95% of the contributions, consists of public donors that have agreed to retransfer emission reduction credits back to REDD+ host countries. These credits will not be sold on the market but may be used for REDD+ host countries' Nationally Determined Contributions (NDC) compliance. Tranche A, on the other hand, consists of public, private and non-profit participants who may use emission reduction credits as they wish, including for market purposes.

Secretariat: World Bank's Forest Carbon Partnership Facility	Program Launch Date: 2008	Standard: Methodological Framework v2.0	Who gets credited? National or subnational governments	Barriers to new participation? FCPF ends in 2025 and it is not accepting new countries	Type of Finance: Tranche A - market; Tranche B - non-market
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Green Climate Fund

Beginning October 2017, GCF started to pilot REDD+ results-based payments, consistent with the Warsaw Framework for REDD+. Countries that have completed the requirements of the UNFCCC REDD+ rules and have submitted their results to the REDD+ Info Hub (https://redd.unfccc.int/info-hub.html) are eligible to apply through this pilot programme. This request for proposals opened at the end of 2017 and runs until the last GCF Board meeting in 2022. https://www.greenclimate.fund/redd

Secretariat: Green Climate Fund	Program Launch Date: 2017	Standard: Terms of reference for the pilot programme for REDD+ results-based payments	Who gets credited? National or subnational governments	Barriers to new participation? GCF has currently committed all of its existing funding for REDD+. This may be renewed in 2022.	Type of Finance: Non-market
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Architecture for REDD+ Transactions

ART and The REDD+ Environmental Excellence Standard (TREES) have been designed to help accelerate progress toward national scale accounting and implementation to achieve emissions reductions at scale and to achieve Paris Agreement goals. Under TREES, countries and eligible subnational jurisdictions can generate verified emissions reduction credits by reducing their deforestation and degradation emissions and meeting precise and comprehensive requirements under the TREES standard for accounting and crediting; monitoring, reporting and independent verification; mitigation of leakage and reversal risks; avoidance of double counting; assurance of robust environmental and social safeguards; and the transparent issuance of serialized units on a public registry.

https://www.artredd.org/

Secretariat: Architecture for REDD+ Transactions (ART) (ART) Program Launch Da ART Secret launched ir 2018; TREE 1.0 publishe 2020	ariat Environmental Excellence Standard	Who gets credited? National, or subnational (in the interim) governments	Barriers to new participation? Open for participation	Type of Finance: Market
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Verra's Jurisdictional and Nested REDD+

The JNR framework serves as a comprehensive carbon accounting and crediting platform for governments to guide development of their REDD+ programs and help nest REDD+ projects and subnational jurisdictions within these programs. JNR was specifically designed to facilitate private investment in REDD+ at multiple scales, and is therefore well-aligned with the Paris Agreement's objectives of engaging the private sector, while linking to national efforts, as well as providing emission reductions to emerging compliance and voluntary markets. The most recent update to this standard, JNR Version 4, was released in April 2021. Further updates such as applying increasing trends in the construction of jurisdictional Forest Reference Emissions Level (FRELs)/ Forest Reference Emissions Level/Forest Reference Level (FRLs), widening the scope of jurisdictional programs (e.g., enhancement activities) and development of a consolidated methodology for standalone REDD projects are expected to be ready later in 2021. https://verra.org/project/jurisdictional-and-nested-redd-framework/rulesrequirements/jnr-version-4/

Secretariat: Verra	Program Launch Date: 2012	Standard: Jurisdictional and Nested REDD+ Note: To ensure safeguards are aligned with UNFCCC requirements, JNR programs may apply to the REDD+ Social & Environmental Standards (REDD+ SES) which verifies additional safeguards and non-carbon benefits.	Who gets credited? National or sub-national governments and project developers	Barriers to new participation? Open for participation	Type of Finance: Market
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2c. REDD+ Standards Summary (continued)

Verra's Verified Carbon Standard (VCS) Project-Scale REDD+ Methodologies

Verra was founded in 2005 by environmental and business leaders who saw the need for greater quality assurance in voluntary carbon markets. The VCS Program is the world's most widely used voluntary GHG program.

Secretariat: Verra	Program Launch Date: 2006* * VCS version 1 was published jointly in March 2006, and the VCS 2007.1 added protocols for project implementation with agriculture, forestry, and other land use (AFOLU) sectors, projects to be included in November 2008.	Standard: Verified Carbon Standard Note: VCS projects are often co-developed under the Verified Carbon Standard and the Climate, Community and Biodiversity Standard (CCBS) which verifies additional safeguards and non-carbon benefits.	Who gets credited? Project developers	Barriers to new participation? Open for participation	Type of Finance: Market
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Joint Crediting Mechanism

The Japanese government created the JCM to help achieve Japan's emissions reduction target. Japan and the partner country will first decide what projects to implement, and create appropriate methodologies for those projects. Japan will then provide leading low carbon technologies, products, systems, services, and infrastructure; implementation of mitigation actions; and/or contribute to sustainable development in partner countries. Any emissions reductions or removals from the JCM projects are then allocated between the partner country and Japan.

Secretariat: The Government of Japan	Program Launch Date: 2013	Standard: Rules, guidelines and methodologies are developed jointly with each participating country	Who gets credited? Allocation of credits is dependent on each bilateral agreement. Generally, credits are allocated to the project developers, project investors and the partner country in case of REDD+.	Barriers to new participation? Open to participation	Type of Finance: Market
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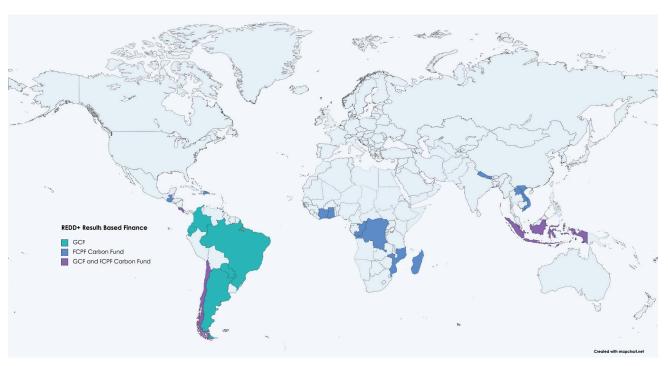


3. A Summary of Finance Sources for REDD+

Under the COP Decision from Paris (1/CP.21), "adequate and predictable financial resources" are needed to support forest mitigation and adaptation activities, including "support from, inter alia, public and private, bilateral and multilateral sources (...) and alternative sources in accordance with relevant decisions by the

Conference of the Parties." Article 5 sends an important signal to countries to prioritize actions in the forest sector; however, it is not, in and of itself, a vehicle for delivering financial support. Therefore, it is essential to obtain significant carbon finance from all potential sources, both market and non-market.

Public Sector Finance for REDD+ Results



Map 2 - Results-based Payments for REDD+ Countries.

Forest Carbon Partnership Facility at the World Bank

As of April 2021, the World Bank has signed ERPAs with fourteen countries for a total contract value of over USD \$700 million and initial payments for emissions reductions are expected in 2021. Each ERPA outlines commercial terms for the sale of carbon credits between the World Bank and the REDD+ country once results are verified. The FCPF Carbon Fund includes both market and non-market finance from both public and private donors: Tranche B, comprising approximately 95% of the contributions, consists of public donors that have agreed to retransfer emission reduction credits back to REDD+ host countries. These credits will not be sold on the market but may be used for REDD+ host countries' Nationally Determined Contributions (NDC) compliance. Tranche A, on the other hand, consists of public, private and non-profit participants who may use emission reduction credits as they wish, including for market purposes.

GCF REDD+ RBP

Implemented in 2017, with a budget of USD \$500 million, the GCF's Pilot Programme for REDD+ has provided results-based payments for verified results generated between 31 December 2013-2018. To date, the GCF has approved results-based payments for Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Indonesia and Paraguay⁹. The GCF is a non-market mechanism, so host countries may use the REDD+ results toward the achievement of their NDCs targets and these results may not be transferred to the GCF or other entities.

Private Sector Finance for REDD+ Results

Forest Carbon Partnership Facility at the World Bank

Around 5% of the total FCPF contributions (USD \$47 million) come from Tranche A, which consists of public, private and non-profit donors who may use emission reductions credits as they wish, including for market purposes. For more information on FCPF please see the section above on "Public Sector Finance".

Voluntary Market

In 2019, the issuance of credits almost doubled from 2018, from 75.7 to 140 MtCO2e¹⁰. The VCS project-scale REDD+ methodologies have produced the biggest share of the voluntary carbon market, representing 73% of the global voluntary market credits¹¹.

There are no globally agreed rules governing the voluntary carbon market. While it is unlikely there will be any official, global rules for what companies can claim, corporate norms or other guidance may emerge that set the bar for what is deemed appropriate or credible. The private sector has a recognized role to play in supporting NDC achievement and exceeding what countries have committed in their NDCs, as we know current commitments are insufficient and the private sector can have a role in increasing ambition. Both are important forms of voluntary action; however, certain characteristics of the credits and what constitutes an appropriate claim will differ.

As countries begin to explore how to meet their NDCs, there may be additional guidance regarding how investments meeting voluntary commitments are accounted for, claimed, and treated at the national level.



3. A Summary of Finance Sources for REDD+ (continued)

International Market Mechanisms

Article 6 of the Paris Agreement

Article 6 of the Paris Agreement reaffirms that countries can cooperate to meet their mitigation goals as efficiently as possible, including through transferring emissions reductions between countries (known as "internationally transferred mitigation outcomes" or ITMOs). The process for how countries will transfer emissions reductions under the Paris Agreement and the rules for what activities will be eligible are under development in the UNFCCC climate negotiations and should be finalized in November 2021.

Before any emissions reductions (from REDD+ or another sector) can be transferred, the host country will need to consider whether the emissions reductions proposed for trading are needed to meet their NDC or if they have achieved (or are projected to achieve) an excess of emissions reductions and can transfer "extra" reductions. In practice, this will mean that all emission transfers will need to be approved or authorized by the host country before they can be transferred to another country. This accounting step is known as a "corresponding adjustment." These requirements are not specific to REDD+.

Airlines under CORSIA

In March 2020, the United Nations' International Civil Aviation Organization (ICAO) approved the first set of carbon offset standards deemed eligible for airlines to purchase in meeting their climate goals. In November 2020, ICAO fully approved two REDD+ programs — the Verra's JNR standard and ART TREES. REDD+ units from these two programs are now eligible for airlines to purchase in meeting their climate goals¹². This decision makes ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) the first global market to accept REDD+ credits.

Few credits from standalone REDD+ projects are eligible under CORSIA, with a few exceptions¹³. Therefore, nearly all REDD+ projects must be nested under a national or subnational REDD+ program and verified against one of the approved offset standards, like Verra's JNR or ART TREES. The World Bank's Forest Carbon Partnership Facility has also applied for recognition under CORSIA but has not yet fulfilled all of the specific conditions outlined by ICAO in March 2020. The FCPF is expected to be approved in 2021 upon meeting these conditions.



National and Subnational **Market Mechanisms**

The majority of carbon pricing mechanisms are either markets, taxes, or a hybrid system. These mechanisms are designed to shift consumption away from fossil fuels through mechanisms that result in pricing of carbon. In countries with significant natural assets, there is a tremendous opportunity to incentivize investments in natural climate solutions while simultaneously achieving core climate and conservation promoting livelihoods and supporting economic growth. By doing so, these countries reap a double benefit (economic and environmental) from carbon pricing.

Examples of NCS in National and Subnational Carbon Pricing Instruments

Carbon Tax: Colombia

As part of its strategy to achieve the goals the country has set under the Paris Agreement, Colombia has implemented a carbon tax. The Colombian national carbon tax is levied on all fossil fuels used in the country, including oil derivatives and natural gas used for energy purposes, provided they are used for combustion (except for coal and natural gas use in power plants). Offsets, including from REDD+ projects, can be used in order to reduce the tax burden; additionally a portion of the collected revenues from the carbon tax are earmarked for conservation.

Cap-and-Trade: Companies covered under California's Assembly Bill 32

Under the California Cap and Trade system, covered sectors may use offsets to fulfil a small portion of their emission reduction requirements, including through forest carbon offsets. To date, nearly 165 million forest credits have been traded,4 with over 41 million offset credits issued to projects implemented in partnership with indigenous Native American tribes.5 Approximately USD \$432 million of the revenue from forest credits has gone to Native American communities, which has enabled the Yurok tribe to purchase over 22,000 hectares of their ancestral land.6

${\bf 3.\,A\,Summary\,of\,Finance\,Sources\,for\,REDD} +$ (continued)

Which REDD+ Standards are eligible for existing sources of public, private and/or market-based finance?

Potential Buyer or Source of Finance	FCPF	ART TREES	GCF RBP Pilot	JCM	Verra's JNR	Verra's VCS Project Scale	Other National Forest Standards (Not Reviewed)	
Public Sector Finance								
World Bank Carbon Fund								
GCF REDD+ RBP								
Private Sector Fina	ance							
Voluntary Carbon Market	(Limited)							
Japanese Companies participating in Joint Crediting Mechanism								
International Mar	ket Mechanis	sms						
Countries participating via Article 6 of the Paris Agreement	(Limited)					Theoretically, if it meets Art. 6 guidance		
Airlines under CORSIA	Likely (Future) Conditionally Approved as of March 2020							



4. A comparison of REDD + standards

Standards Information

FCPF	ART TREES	GCF RBP Pilot	JCM	Verra's JNR	Verra's VCS Project-Scale
Criteria - Requirement	s for inclusion of forestr	y and land use sector in	NDC		
No requirements	Forests must be included as part of the overall NDC target, but a specific NDC target for forests is not required.	No requirements	No requirements	No requirements	No requirements
Criteria - Geographica	l Scope				
National or subnational programs are allowed.	The participation of a subnational government is allowed as an interim measure though 2030, but only with national government approval. Additionally, only subnational areas no more than one level down from national level are permitted.	National or subnational governments are allowed, depending on scale of country's FREL/FRL.	Project level activities are allowed.	A jurisdictional program may cover an entire country or a subnational jurisdiction. Geographical boundaries may follow existing administrative (i.e., politically defined) boundaries or may be based on ecosystems (e.g., ecoregions).	No requirements
	uirements (such as seques of forest carbon stocks, or				
All REDD+ activities may be included. If deforestation and degradation is more than 10% of forest-related emissions, the REDD+ program must include those activities. There are no similar requirements around the use of removals activities.	In version 1.0, only reducing deforestation and forest degradation activities are permitted. However, ART/TREES has included removals in a consultation version of TREES version 2.0.	All REDD+ activities are accepted as long as they are included in the country FREL/FRL.	REDD+ guidelines are developed and approved by the government of Japan and each host country government, since the JCM is a bi-lateral mechanism. In the case of countries like Cambodia and Laos, where REDD+ guidelines have already been approved, all five activities are included.	Jurisdictional proponents may decide which REDD+ activities, as defined by the UNFCCC, to include as part of their jurisdictional program. Currently, only activities that reduce emissions from deforestation, and reduce emissions from forest degradation are included. Requirements for carbon stock enhancement activities (e.g., ARR and IFM) will be included in a future update.	All REDD+ activities ma be included, including removals. A project can include multiple activities, as long as that is supported by the specific VCS REDD+ methodology/ies.
Criteria - Reference Le	vel				
Requires a 10 year historical average with possibility for adjustment up to 0.1%/year of carbon stocks for high forest low deforestation (HFLD) countries where deforestation is expected to increase. The enddate for the Reference Period is the most recent date prior to 2013 for which forest-cover data is available to enable Intergovernmental Panel on Climate Change (IPCC) Approach 3.	to determine the initial crediting level, with no gaps between the end of the reference period and	Requires historical average of emissions across a 5-20-year reference period. Countries must use their (FREL/FRL) submitted to UNFCCC.	The baseline must be determined based on the requirements of the applied methodology. Bilateral REDD+ guidelines define requirements for reference period and frequency for updating the baseline. Currently REDD+ guidelines have been developed only in Cambodia and Laos, and in the both cases, the reference period must be longer than 10 years and reassessed within five years.	The jurisdictional FREL shall remain fixed for a period of 4 to 6 years, as defined by the jurisdictional proponent. As a default, the jurisdictional FREL shall be calculated as the historical annual average GHG emissions over a period of 4 to 6 years (ending within two years of the start of the jurisdictional FREL validity period).	The baseline must be determined based on the requirements of the applied methodology and must be reassessed every 10 years and validated at the same time as the subsequent verification. The latest approved version of the methodology or its replacement shall be applied.

Standards Information

FCPF	ART TREES	GCF RBP Pilot	JCM	Verra's JNR	Verra's Project Scale
Criteria - Permanence I	Deductions				
10-40%: Following FCPF's Emission Reduction Program Buffer Guidelines, emissions reductions are deposited in a Program-specific buffer that is managed by the Program or by the FCPF. The amount of credits to a buffer is based on a reversal risk assessment, and typically results with 10-40% of emissions reductions being placed in the buffer.	0-25%: A starting level of 25% ERs are deposited in a pooled buffer managed by ART, which can be reduced by 5% if Legislation or executive decrees actively implemented and demonstrably supporting REDD+; reduced by 10% if Demonstrated interannual variability of less than 15% in annual forest emissions over the prior 10 years used in TREES Reporting; and reduced by 5% if Demonstrated national reversal mitigation actions, plan or strategy developed in alignment with Cancun Safeguard F.	Requires countries to meet all requirements of the Warsaw REDD+ Framework, including Cancun safeguard, "Actions to address the risks of reversals", but there are no specific reductions for permanence. Countries can use any methodology to meet this requirement, such as FCPF's Emission Reduction Program Buffer Guidelines.	20-30%: The default values for Cambodia and Laos are 20% and 30%, respectively, but these are calculated on a bi-lateral basis using a discount factor.	Programs must use the JNR Non-Permanence Risk Tool, and renew the use of this tool at every verification event. If a loss occurs, programs must notify Verra within 6 months and submit a report within 2 years, further actions are then taken in subsequent verifications.	10-60%: Projects need a risk analysis that will be reviewed by VERRA periodically, and must use the AFOLU Non-Permanence Risk Tool to estimate the buffer. The tool helps to estimate the credits to be deposited in the "AFOLU pooled buffer account". If a project calculates putting more than 60% of credits into the buffer, then the project fails the entire risk analysis and is not "eligible for crediting until such time when risks are adequately addressed or sufficient mitigation measures are implemented". When reversal is catastrophic, the baseline may be reassessed and validated at the next verification event.
Criteria - Uncertainty					
15-100%+: If there is 15-30% uncertainty, then 4% of the emissions reductions must be deposited in a buffer; if there is 30-60%, then 8% of emissions reductions must be placed in the buffer; if 60-100%, then 12% is put in a buffer. Finally, if the program has more than 100% uncertainty, then 15% of emissions reductions must be given to the buffer.	15%-100%: If a program has more than 15% uncertainty, with a 90% confidence interval, in either the crediting level or annual emissions quantification, then a deduction must be taken in accordance with a formula provided by TREES. An updated approach, which applies conservative deductions associated with the risk of over-crediting of emission reductions at all uncertainty levels appears in the TREES 2.0 consultation version.	0-50%: If the REDD+ program fails to provide information about uncertainty or has a greater than 50% uncertainty, then it receives a score of 0 within the GCF framework. If there is <50% uncertainty, the program receives 1 point. A program with <30% uncertainty receives the highest score of 2 points.	n/a: There are no thresholds or requirements on uncertainty, and therefore theoretically uncertainty can be more than 50%.	Jurisdictional programs shall undertake an analysis of uncertainty in estimating GHG emissions and GHG emission reductions. JNR Requirements contain not only rules of the estimation of uncertainty but also on uncertainty discounts.	n/a: Projects should estimate uncertainties by applying requirements specified by the methodology. Deductions to crediting are made when there is uncertainty >20% with a 90% confidence interval or >30% with a 95% confidence interval.
Criteria - Leakage					
Requires ER Programs to identify displacement risks outside the Accounting Area (domestic and international) and demonstrate that they have implemented mitigation strategies for each risk. No accounting deduction is required.	It applies specific leakage deductions for subnational areas only, not national areas. Participants are classified as high, medium, or low leakage risk and are assigned a deduction of 20%, 10%, or 5%, respectively, depending on the percent of national forest in the account area.	Requires countries to provide information about what actions were implemented to reduce the displacement of emissions, demonstrating their fulfilment of the relevant Cancun safeguard (g) Actions to reduce displacement of emissions.	Methodologies will determine how leakage is measured. No tool exists to address the risk of leakage.	Requires REDD+ programs to consider the potential of activity shifting, market leakage and ecological leakage. There is a Jurisdictional and Nested REDD+ (JNR) Leakage Tool that programs can use, or REDD+ programs may develop their own methods to account for such leakage.	Methodologies shall establish criteria and procedures for quantifying leakage. Three types of leakage to consider: market leakage, activity-shifting and ecological leakage. Depending on the project activities, different tools to estimate leakage and discount factors are must be applied.

4. A comparison of REDD+ standards (continued)

Standards Information

FCPF	ART TREES	GCF RBP Pilot	JCM	Verra's JNR	Verra's Project Scale
Criteria - Double Coun	ting				
Tranche A requires that countries must transfer their ERs to the FCPF and may no longer use them for any other purpose, such as claiming.	To avoid double issuance, TREES requires disclosure and deduction of any issued ERs and checks/disclosure/cancellation of duplicate registration under other programs.	To avoid double payment for the same results, the GCF REDD+ RBP requires units paid for by the GCF to be retired without being transferred to the Fund. These emission reductions will "no longer be eligible for RBPs under the GCF or in any other arrangement." However, countries may use the emission reductions toward the achievement of their nationally determined contributions.	Bilateral MOUs prohibit a JCM project being registered under other international climate mitigation mechanisms. There is no specific requirement for corresponding adjustments.	Verified Carbon Units (VCUs) used in the context of Paris Agreement Article 6 mechanisms and international Paris related Programs (such as CORSIA) must be labelled to demonstrate that they adhere to the requirements of these mechanisms or programs. These credits will require a corresponding adjustment to ensure that the same mitigation outcome, or unit, is not used for more than one international purpose under the Paris Agreement or CORSIA. By contrast, such labels are optional for transacting VCUs in the voluntary carbon market, and no CA is necessary for such credits.	Verified Carbon Units (VCUs) used in the context of Paris Agreement Article 6 mechanisms and international Parisrelated programs (such as CORSIA) must be labeled to demonstrate that they adhere to the requirements of these mechanisms or programs. These credits will require a corresponding adjustment to ensure that the same mitigation outcome, or unit, is not used for more than one international purpose under the Paris Agreement or CORSIA. By contrast, such labels are optional for transacting VCUs in the voluntary carbon market, and no CA is necessary for such credits.
Criteria - Double Claim	ing				
Tranche A requires that countries must transfer their ERs to the FCPF and may no longer use them for any other purpose, such as claiming. Tranche B requires that countries must transfer their ERs to the FCPF, but may receive them back. The FCPF will thus not count them and countries may.	Provides registry infrastructure to label units with a corresponding adjustment in cases where they are required or preferred. For example, for credits sold to another country for use towards their NDC for use under CORSIA. A letter of authorization is required from the host country.	Allows for countries to use the emissions reductions toward the achievement of their NDC and be paid for results through the GCF.	Currently considering a revision to ensure no double claiming by requiring a corresponding adjustment be made.	There is no differentiation between double counting and double claiming under Verra's JNR. Please see "double counting" criteria.	There is no differentiation between double counting and double claiming under Verra's VCS Project Scale. Please see "double counting" criteria.
Criteria - Third Party V	erification and Validatio	n			
Program documentation and results must be reviewed by a Technical Advisory Panel and through World Bank supervision reporting to the Carbon Fund participants (the donors to the fund).	Validation of registration documentation and verification of monitoring reports is required following years 1, 3, and 5 of each crediting period. Validation and Verification Bodies must be accredited by a member of the International Accreditation Forum and approved by ART.	Only requires that any emissions reductions have been reported to the UNFCCC but does not require independent verification or validation of these results outside of the country's assessment.	There is a validation and verification requirement in JCM guidelines. The project design document (PDD) is validated and the monitoring report is verified by an accredited third-party entity under JCM. The methodology and safeguard plan/report are reviewed by a Joint Committee consisting of representatives from two governments without third party validation/verification.	Monitoring shall be carried out at least every two years and verification shall be conducted at least once per FREL validity period (i.e., every 4 to 6 years, as applicable, starting from the program star date or the end of the last FREL validity period).	Third-party verification is required, and verifiers must be accredited with International Organization (ISO) 14064-3:2006 and ISO 14065:2013. Validation/verification bodies should follow the guidance provided in the VCS Validation and Verification Manual. Validation may occur before the first verification or at the same time as the first verification.

Standards Information

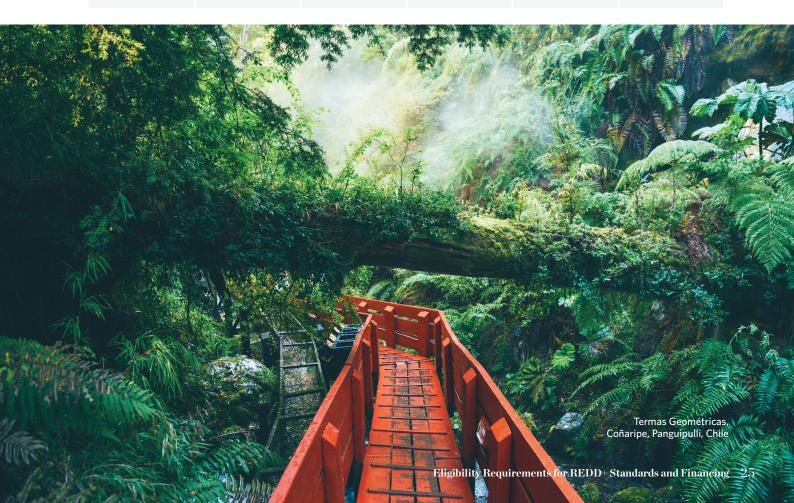
annexed to each

monitoring report.

ART TREES GCF RBP Pilot Verra's JNR Criteria - HFLD Adjustments TREES 1.0 recognizes and As HFLD applies to Allows the Reference HFLD countries can There is no particular Verra is exploring labels credits generated adjust the FREL, but consideration for a HFLD methodologically countries, rules for Level to be adjusted slightly upward above by HFLD jurisdictions, but cannot exceed 0.1% of country. robust and credible such adjustments are not included in the VCS average annual historical does not provide a unique the carbon stock over options to establish crediting level approach for them. TREES 2.0 iurisdictional FRELs that emissions for HFLD the eligibility period and Standard. cannot exceed 10% of the countries. include increasing GHG proposes a unique FREL/FRL to reflect these emissions where they can crediting level for HFLD be justified by national changes. jurisdictions. circumstances (e.g. high forest low deforestation countries). Criteria - Safeguards Requires REDD+ Requires completion of a Jurisdictional programs Requires a safeguards There is a safeguards Project proponents are shall comply with all UNFCCC decisions on social and environmental requirement in JCM programs to meet information system required to identify (SIS) to inform how and address negative requirements that closely guidelines, and strategic assessment (SESA), development of follow the Cancun safeguards are addressed safeguards criteria is safeguards for REDD+, environmental and environmental and social Safeguards. Additionally, and respected. For defined. A Safeguards and any relevant socio-economic impacts management framework when implementing activities undertaken Implementation Plan jurisdictional (national and shall engage with (ESMF) and other and reporting on the in the past, countries and Safeguards Activity and subnational) local stakeholders during frameworks (including Cancun Safeguards, must also share due Progress Report are safeguards requirements project development and REDD+ programs must implementation. Projects Indigenous Peoples developed and submitted otherwise established diligence report(s) provide information as Planning Framework, describing the activities with the PDD and in by any law, statue or can ensure positive required by TREES on the benefits and safeguards Resettlement Policy taken according to the Monitoring Report, regulatory framework Framework, Process indicators (structures, GCF Environmental and respectively. (e.g., including those by applying the CCBS. Framework). Additionally, processes and outcomes) Social Safeguard (ESS) that are not specific for REDD+ programs must establish safeguards Standards and Gender Policy and Interim Policy REDD+). Additionally, the use of REDD+ SES, for each theme to show continuous progress and plans through application on Prohibited Practices. CCBS, policies of the conformance. Green Climate Fund, the of these frameworks Additionally, GCF will to meet World Bank assess how the country World Bank safeguards operational policies and addressed and respected policies, the World social and environmental the Cancun Safeguards. Bank Environment and standards. A report Social Framework, and the Forest Stewardship of implementation of the safeguards plans is Council (FSC)

certification may be used,

where appropriate.



REDD+ Comparison Tool

As a next step to this publication, we are developing a REDD+ Comparison tool to help policy makers and REDD+ implementers visualize the differences between six REDD+ standards. It is being designed to provide an interactive experience for REDD+ implementers to better understand how one approach may differ from and overlap with another. The tool will be part of a second iteration of this white paper to be published later in 2021.

Conclusion

As the FCPF and GCF have committed over USD \$1.7 billion in the last few years, there is rekindled interest by REDD+ implementers in scaling and accessing this finance. This interest is further augmented by the emergence of national and international carbon markets that accept REDD+ credits as well as the current upward trend in voluntary carbon market prices. However, requirements of available standards, and how those standards link to various funds and markets, can be confusing to understand. We hope that this paper and forthcoming tool will help demystify the options currently available. Because our focus was on providing a high-level overview, this paper and forthcoming tool are meant to provide a starting place for REDD+ implementers to learn more. Before choosing a standard or type of finance to receive, implementers should conduct full due diligence.





- 1 It is important to note that some REDD+ standards were created to access specific sources of finance, which may no longer be accepting new applicants. More information can be found in the "Summary of REDD+ Standards" section of this document.
- 2 The FCPF countries have not yet been accounted for in the UNFCCC Lima Resource Hub because Emission Reduction Credits are still having results verified under a third party
- COP Decision 2/CP.17, Paragraph 66 states in full: "Considers that, in the light of the experience gained from current and future demonstration activities, appropriate market-based approaches could be developed by the Conference of the Parties to support the results-based actions by developing country Parties referred to in decision 1/CP.16, paragraph 73, ensuring that environmental integrity is preserved, that the provisions of decision 1/CP.16, appendices I and II, are fully respected, and should be consistent with the relevant provisions of decisions 1/CP.16 and 12/CP.17 and any future decision by the Conference of the Parties on these matters."
- COP Decision 14/CP.19, Paragraph 15 states in full: "Also agrees that results-based actions that may be eligible to appropriate market-based approaches that could be developed by the Conference of the Parties, as per decision 2/CP.17, paragraph 66, may be subject to any further specific modalities for verification consistent with any relevant decision of the Conference of the Parties."
- Tranche B, comprising approximately 95% of the contributions, consists of public donors that have agreed to retransfer emission reduction credits back to REDD+ host countries. These credits will not be sold on the market but may be used for REDD+ host countries' Nationally Determined Contributions compliance. Tranche A, on the other hand, consists of public, private and non-profit participants (or contributors?) who may use emission reduction credits as they wish, including for market purposes.
- ERPA values and contract volumes can be found at the FCPF website, under each country page: https://www.forestcarbonpartnership. org/countries
- Please see more information at: https://www.greenclimate.fund/redd
- The World Bank signed ERPAs with the Democratic Republic of Congo, Chile, Costa Rica, Ghana, Mozambique, Vietnam, Laos, Madagascar, Nepal, Côte D'Ivoire, Fiji, Indonesia and Dominican Republic.
- See more information at: https://www.greenclimate.fund/redd#reddresults-based-payments-pilot
- 10 Forest Trends, 2020. Voluntary Carbon and the Post-Pandemic Recovery. at: https://www.forest-trends.org/publications/state-ofvoluntary-carbon-markets-2020-voluntary-carbon-and-the-postpandemic-recovery/
- 11 Forest Trends, 2019. Financing Emissions Reductions for the Future State of the Voluntary Carbon Markets 2019. Available at: https://www.forest-trends.org/publications/state-of-voluntarycarbon-markets-2019-market-overview/
- 12 Only for REDD+ programs with a start date after January 2016 and only for crediting through December 31, 2020.
- 13 Exceptions include avoiding deforestation projects in developed countries, "micro-scale activities" that generate fewer than 7,000 tCO2e per annum, and other select methodologies like the Climate Action Reserve's Mexico Forest Protocol

