



# HIGH FOREST, LOW DEFORESTATION AREAS: POTENTIAL INCENTIVE STRUCTURES AND BUSINESS MODELS

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## ACRONYMS

AFOLU	Agriculture, Forestry and Other Land Use	JNR	Jurisdictional and Nested REDD+ (Verra)
ART	Architecture for REDD+ Transactions	LEAF	Lowering Emissions by Accelerating Forest finance
ART-TREES	Architecture for REDD+ Transactions – The REDD+ Environmental Excellence Standard	LoI	Letter of Intent
BAU	Business as Usual	MoU	Memorandum of Understanding
BUR	Biennial Update Report	MRV	Measurement, Reporting and Verification
CAFI	Central African Forest Initiative	NbS	Nature-based Solutions
CBD	Convention on Biological Diversity	NCS	Natural Climate Solutions
CLARA	Climate Land Ambition and Rights Alliance	NMA	Non-Market Approaches
COP	Conference of the Parties	PES	Payment for Ecosystem Services
EFT	Ecological Fiscal Transfer	RbP	Results-based Payments
ERPA	Emission Reductions Payment Agreement	REDD+	Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
ERRs	Emission reductions and removals	RoC	Republic of Congo
FCPF	Forest Carbon Partnership Facility	TNC	The Nature Conservancy
FREL/FRL	Forest Reference Emissions Level/Forest Reference Level	UNFCCC	United Nations Framework Convention on Climate Change
GCF	Green Climate Fund	VCS	Voluntary Carbon Standard (Verra)
GEF	Global Environment Facility	VCM	Voluntary Carbon Market
GHG	Greenhouse Gas	VCMI	Voluntary Carbon Markets Integrity Initiative
HFLD	High Forest, Low Deforestation	VVB	Validation and Verification Body
HIFOR	High-Integrity Forests	WFR	Warsaw Framework for REDD+
IPLC	Indigenous Peoples and Local Communities		
ITMO	Internationally Transferred Mitigation Outcome		

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A photograph of a fire brigade in a forest. Five firefighters are visible, wearing yellow jackets and helmets. They are using tools like chainsaws and hand axes to clear brush and small trees. The forest is dense with green foliage and tall trees. The scene is brightly lit, suggesting a sunny day.

# 1 OVERVIEW AND CONTEXT

## 1.1 WHAT WE UNDERSTAND ABOUT HFLD

Forests, globally, provide a “carbon sink” that absorbs a net 7.6 billion metric tons of CO<sub>2</sub> per year. This is 1.5 times more carbon than the United States of America emits annually<sup>1</sup>. Several of these forests that provide a carbon sink can be found in “High-Forest, Low Deforestation” (HFLD) countries or jurisdictions (sub-national) – in other words, areas that have maintained a high forest cover and low deforestation rate historically.

But how can actions to reduce, stabilize and reverse emissions in the forest sector be funded (especially for HFLD countries or jurisdictions), and what does that funding look like?

In our collective efforts to reduce climate change, promote adaptation to the impacts that are already occurring and to build resilience, financial resources and sound investments are needed. These types of finance and investments are collectively known as “climate finance”. Climate finance finances climate action and can be public or private finance, or a combination of both. “Carbon finance”, on the other hand, is the revenue realized by projects or programs through the sale of carbon credits earned.

In the forest sector, climate finance and carbon finance have mainly been directed to reducing emissions from deforestation and forest degradation, resulting in few dedicated finance opportunities for HFLD countries and jurisdictions. This means that HFLD countries or jurisdictions that stock and conserve vast amounts of carbon face significant barriers in accessing this finance. The difficulty of obtaining HFLD finance creates a perverse incentive: if the world rewards actors for stopping deforestation, there is a perverse incentive to start deforesting in the first place. It is therefore critical that HFLD countries and jurisdictions are rewarded for not starting or increasing unplanned deforestation. Furthermore, although forests in

these HFLD areas make up a small proportion of the world’s remaining forests, their impact on climate regulation is disproportionate: they have accumulated large amounts of “irrecoverable carbon”<sup>2</sup> stocks over centuries, comprise a majority of the global terrestrial sink that absorbs 30% of human global emissions each year (mostly in the tropics) and provide a strong biophysical cooling effect<sup>3</sup>.

Aware of both the danger posed by the perverse incentive that is currently in place and the crucial climate services provided by forests in HFLD countries and jurisdictions, an internally commissioned report by The Nature Conservancy (TNC) asked how actions to reduce, stabilize and reverse emissions in HFLD countries or jurisdictions can be funded and incentivized. A focused analysis was done on Gabon and the Republic of Congo (RoC) as the two HFLD countries in the Congo Basin. The report was based on extensive literature review and discussions with experts within and outside TNC, including an online survey (consisting of 24 respondents).

The objective of this technical summary report is to briefly present the key findings of the full internal TNC report regarding potential incentive structures and business models for HFLD countries and sub-national jurisdictions that could create more equitable flows of finance. The end of this report also briefly touches upon three HFLD countries that are all at different stages and approaches to accessing climate and carbon finance: Guyana, Gabon and the Republic of Congo (RoC).



# 1.1 WHAT WE UNDERSTAND ABOUT HFLD

The report shows that there is no universally accepted definition of “HFLD” (Box 1), and that different concepts and metrics are used to try to measure forest intactness, integrity, and stability (in general for forests worldwide, but also specifically for HFLD countries and jurisdictions) with the aim to better protect these forests and landscapes. These forests are important in the context of natural climate solutions (ncs) and nature-based solutions (nbs). Importantly, Indigenous Peoples and Local Communities (IPLC) are the stewards of many of the world’s remaining intact places, including forests worldwide and forests in HFLD countries and jurisdictions.

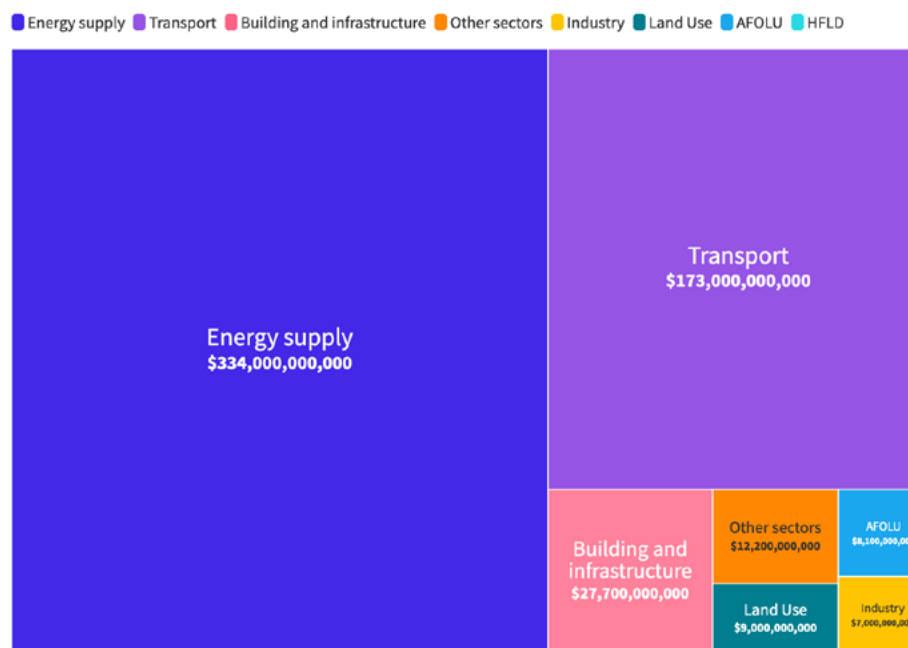
In the international policy domain, the report finds that issues around HFLD have mainly gained attention in the context of climate change mitigation and more specifically in the context of REDD+ (Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries). Three contexts are explored: (1) the Paris Agreement as part of the United Nations Framework Convention on Climate Change (UNFCCC); (2) the Voluntary Carbon Market (VCM), and (3) contexts that do not necessarily fit within the Paris Agreement or VCM.

Existing climate finance and carbon finance have mainly focused on reducing emissions from areas which have seen high historical rates of deforestation.

Climate finance for 2019/2020 reached \$632 billion, \$571 billion of which was focused on climate change mitigation. More than 75% of the 2019/2020 tracked climate investments flowed domestically. \$14 billion flowed into the land-use sector (which includes forests as well as agriculture and other land uses) for mitigation, adaptation, and multiple objectives<sup>4</sup>. Of the \$8 billion that went to mitigation in Agriculture, Forestry and Other Land Uses (AFOLU) and the fishery sectors, at least \$3.4 billion helped finance projects<sup>5</sup>. On average in 2019/2020, \$78 billion flowed from OECD to non-OECD countries<sup>6</sup>. It is unclear

how much of this finance flowed to the AFOLU or forest sector. Of this finance, most will have gone to reducing emissions from deforestation under REDD+, followed by reducing emissions from forest degradation. The other three activities, and the conservation of forest carbon stocks in particular, have only received a small portion of climate finance. It is very difficult to understand how much climate and carbon finance is going specifically to HFLD countries and jurisdictions. Since 2007, HFLDs have received under \$2 billion in climate finance (data from 2019)<sup>7</sup>, in other words a very small portion of climate finance<sup>8</sup> (Figure 1).

**Mitigation finance 2019-2020**  
Total mitigation finance \$571 billion



Source: Adapted from Climate Policy Initiative (2021) Global Landscape of Climate Finance 2021

Figure 1. Climate mitigation finance 2019-2020. Adapted from Climate Policy Initiative (2021) [Global Landscape of Climate Finance 2021](#). Note that the estimated amount of funding received by HFLD countries from 2007-2019 (i.e. \$2 billion) was divided by the total years of this period (i.e. 14) in order to have an indication of average yearly funding to represent graphically (thereby totaling approximately \$143 million for 2019-2020 for HFLD countries).

## BOX 1 WHAT IS AN HFLD COUNTRY OR JURISDICTION AND WHERE ARE THEY?

Identifying what constitutes an HFLD country or jurisdiction depends on the definition used. Some of these definitions were developed and accepted by countries (e.g. the Krutu of Paramaribo) while others were developed by voluntary standards and/or experts.

An approach that is frequently used, however, from da Fonseca *et al.* (2007)<sup>9</sup> applies the term HFLD to countries that have forest cover greater than 50% and an average annual deforestation rate lower than the global average during the 10-year reference period (initially set at 0.22% forest loss per year).

Signed in 2019, the Krutu of Paramaribo Joint Declaration on HFLD Climate Finance Mobilization builds on da Fonseca's approach and defines HFLDs as countries (i.e. national level) having very extensive, ecologically intact forests, low historical rates of deforestation, more than 50% forest cover and a deforestation rate under 0.22%<sup>10</sup>. It is important to note that this definition was agreed upon and adopted by sovereign states. The Krutu does not make specific reference to Indigenous peoples' territories.

Based on FAO's Forest Resources Assessment (2020) 30 countries<sup>11</sup> meet this definition; this is three countries less than based on FAO's Forest Resources Assessment of 2015<sup>10</sup>. Many of these countries are small island developing states; others are located in large forest massifs.

The Architecture for REDD+ Transactions the REDD+ Environmental Excellence Standard (ART-TREES), a VCM standard, has developed its own approach to define an HFLD country or jurisdiction by including an "HFLD score" threshold that jurisdictions must meet to qualify as HFLD and be permitted to use the optional HFLD Crediting

Approach. The HFLD Score is based on the percentage of forest cover and the rate of deforestation in the accounting area. Jurisdictions calculate their HFLD Score for each year of the 5-year historical reference period, and if it is higher than 0.5 for each year, the jurisdiction qualifies as HFLD for the entire crediting (results) period.

It is noteworthy that Indigenous Territories (including those that qualify as HFLD) can submit a sub-national proposal under ART-TREES (until 31 December 2030).

A provisional estimate of potential HFLD geographies was produced by WCS<sup>12</sup> using the definition of HFLD in ART-TREES 2.0. As of 2020, there were 12 HFLD countries, 9 countries with HFLD subnational jurisdictions, and 39 HFLD subnational jurisdictions. Together, these jurisdictions contain 498 million ha of forest.



Madagascar. Photo by Danae Maniatis ©



HFLD countries and jurisdictions currently have access to several types of climate and carbon finance, which are mainly related to the Paris Agreement, the VCM and finance that is not necessarily related to either the Paris Agreement or the VCM. Based on this, it appears that conditions for HFLD countries and jurisdictions under non-market or VCM processes are conservative in rewarding countries and jurisdictions for keeping their forests standing, although currently there appear to be more options for HFLDs through non-market finance. Climate finance (mainly through Results-based Payments - RbPs) and carbon finance (through VCM credits) for the REDD+ “emergency room” activities of deforestation and forest degradation are

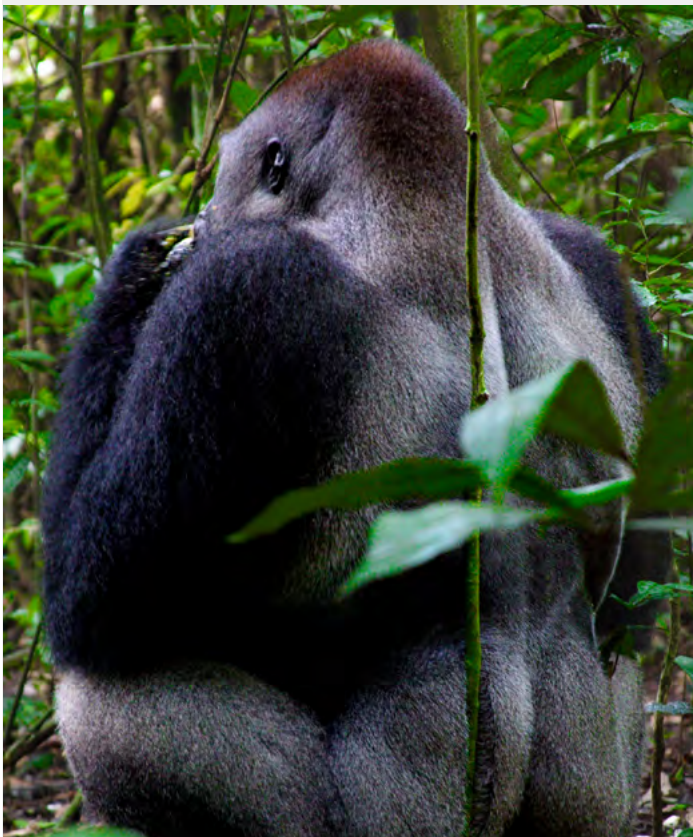
just about becoming operational. This rewards countries, jurisdictions and projects that have high emissions from their forests, but HFLD countries and jurisdictions are left struggling to access climate or carbon finance and to be equitably rewarded for the climate change mitigation actions they contribute to. Nonetheless, the recent issuance of credits by ART-TREES for Guyana, with the optional HFLD module, indicates that this is an operational avenue for HFLD countries and jurisdictions.

Although it is difficult to find exact numbers on climate and carbon finance for HFLD countries and jurisdictions, it is positive and promising to see that the ART-TREES HFLD optional module can attract carbon finance. Yet, this is but a

fraction of the carbon finance in the land and forest sector.

The next section explores ideas on potential HFLD incentive structures and business models to increase the flow of climate and carbon finance to HFLD countries and jurisdictions.

A future analysis would be needed to economically assess the portion of climate and carbon finance that would be “equitable” for HFLD countries and jurisdictions to receive. Based on the current information, the existing finance is insufficient in terms of recognizing the efforts made by HFLD countries and jurisdictions and all the climate and NbS benefits they generate.



Gabon. Photo by Kathryn Jeffery ©



Amerindian children, Guyana. Photo by David Stanley



Gabon. Photo by Kathryn Jeffery ©



# 2

## POTENTIAL INCENTIVE STRUCTURES AND BUSINESS MODELS

2.1 PARIS AGREEMENT OPTIONS

2.2 VCM AND STANDARDS OPTIONS

2.3 OTHER APPROACH OPTIONS

Throughout the process of developing this analysis, we identified a total of 14 potential HFLD incentive structures and business models (with several additional sub-options). These options are grouped in three broad categories: (1) finance modalities under the Paris Agreement, (2) the VCM, and (3) other approaches. They can be summarized as follows:

- Paris Agreement options: these include the following three options: (1) evolving from REDD+ to reversing emissions, (2) Article 6 options and (3) interim approaches for pre-2021 UNFCCC results.

- VCM and standards: these are options that could be considered under the VCM, by either tweaking existing standards or expanding and improving existing concepts. These options include: (4) HFLD credits and leakage, (5) changes to the ART-TREES HFLD approach, (6) levying a mandatory HFLD fund contribution on all REDD+ carbon credit sales, (7) maintaining and expanding protected areas and Indigenous reserves, (8) rewarding CO<sub>2</sub> removals through the REDD+ conservation of carbon stocks activity, and (9) historical emissions and race to net zero.

- Other approaches: these are options that do not necessarily fit within the first two categories. They are the following: (10) conservation credits, (11) high integrity forest removal units, (12) overseas development assistance, (13) philanthropy and lastly (14) nature bonds, also referred to as debt-for-nature swaps and debt-for-climate swaps.

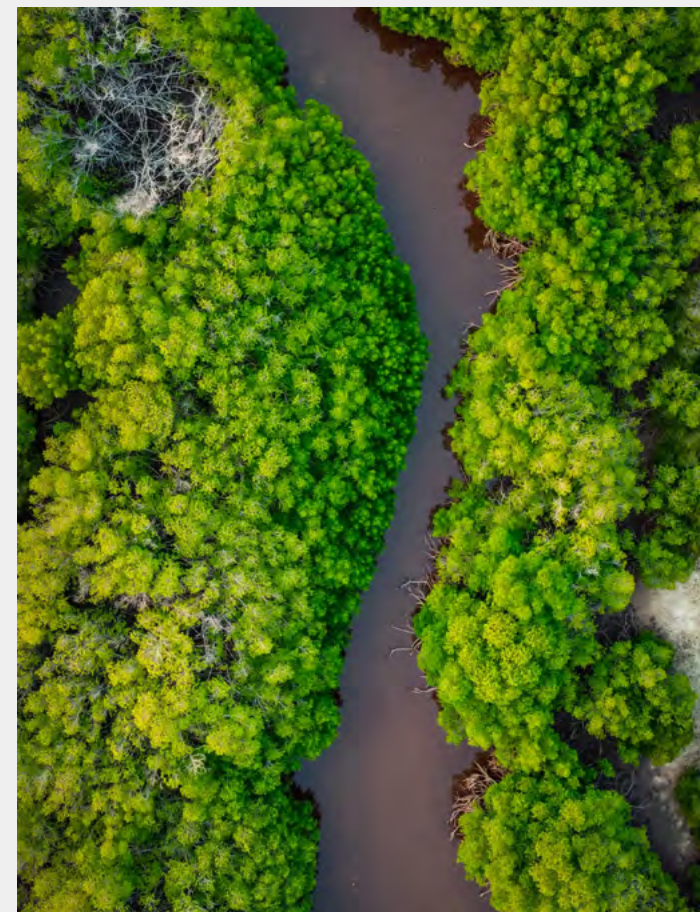
These options and their respective sub-options are described below. Options are not listed by preference; these numbers simply represent a way to order the following potential solutions.



Gabon. Photo by Danae Maniatis ©



Guinea. Photo by Danae Maniatis ©



Kandoofa, Maldives. Photo by Mohmed Nazeeh on Unsplash

## 2.1 PARIS AGREEMENT OPTIONS

### 2.1.1 Option 1 - From REDD+ to reversing emissions

Under the UNFCCC, the goals should be to first reduce emissions, then stabilize forest cover and finally to reverse forest carbon losses. REDD+ could focus on **stabilizing** and finally **reversing** emissions from deforestation and degradation and thereby creating more HFLD countries and jurisdictions. However, to do so, there must be a financial incentive to make becoming an HFLD country or jurisdiction more attractive for non-HFLD countries and jurisdictions. Such a process would incentivize the transition to an economic model that does not depend on cutting down forests, but rather one that depends on keeping the forests standing. One option is to support discussions under the UNFCCC to envisage several steps in the process of transitioning from REDD+ to **stabilizing** emissions from deforestation and degradation to **reversing** emissions from deforestation and degradation:

1. For countries with limited capacity to develop systems across their entire country, a sub-national approach could be considered as an interim solution, with reductions in emissions and removals rewarded through the REDD+ process at a price of \$5/tCO<sub>2</sub>. To a certain extent, this could be seen as “beginners REDD+”;
2. While Measurement, Reporting and Verification (MRV) systems are being improved and more complex, country specific and accurate methods are being used, reduced emissions and removals could be rewarded at a higher rate of \$10/tCO<sub>2</sub>;



3. Once operational national MRV systems have been developed, implemented and accounting is done at the national level, reduced emissions and removals could be rewarded at a higher rate of \$25/tCO<sub>2</sub>;
4. Countries whose forest sectors are, or become, net CO<sub>2</sub> absorbers could be rewarded at a higher price for net forest absorptions - for example \$35/tCO<sub>2</sub> (stabilizing emissions);
5. Countries that are net CO<sub>2</sub> absorbers across all sectors could then be able to sell net sequestration credits/ITMOs at a higher price - for example ≥\$50/tCO<sub>2</sub> for what would be “Article 6 compliant REDD+ credits” (reversing emissions);
6. Countries that are net absorbers across all sectors and also take nature into account (e.g. biodiversity/nature indicators) could then be able to sell nature+ net sequestration credits/ITMOs - for example ≥\$75/tCO<sub>2</sub>.

The pricing of the Emissions Reductions and Removals (ERRs) would not be set by Article 6, rather it would be agreed upon by the parties involved.

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## 2.1.2 Option 2 - Article 6

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### Option 2.1 Full net removal accounting under Article 6.2 for ITMOs

Article 6 of the Paris Agreement allows countries to trade ERRs with one another through bilateral or multilateral agreements. These traded credits are called Internationally Transferred Mitigation Outcomes (ITMOs) and are measured in CO<sub>2</sub>e. ITMOs count towards countries' Nationally Determined Contributions, support overall mitigation in global emissions (for Article 6.4) and involve more substantial government participation than under the Clean Development Mechanism of the Kyoto Protocol<sup>13</sup>.

In terms of post-2021 mitigation and recognizing that we need to move to net zero emissions targets, full net removal accounting for ITMOs could be considered as a finance option and would be particularly interesting for HFLDs. In line with the full GHG accounting under the Paris Agreement and aggregated emissions and removals as well as the guidance on ITMOs which includes ERRs ([Decision 2/CMA.3](#)), this approach includes two options. The first option would be net accounting for the forest sector in line with "stabilizing emissions" (countries whose forest sectors are, or become, net CO<sub>2</sub> absorbers, i.e. step 4 in option 1) while the second option would be in line with "reversing emissions" (countries that are net CO<sub>2</sub> absorbers across all sectors, i.e. step 5 in option 1). The difference would be that rather than selling these net results through Article 6.4, they would be used as ITMOs under Article 6.2

This option does not require a specific methodological approach to be adopted under Article 6.2. Rather, it would be negotiated between an HFLD country and another

country that would be interested in acquiring its ITMOs while contributing not only to the reduction, but also stabilizing and eventually reversing emissions.

### Option 2.2 Article 6.4 GHG mitigation and sustainable development

Article 6.4 creates a global carbon market overseen by the Article 6.4 Supervisory Body. The idea behind this potential option is that project developers would request to register their projects with the Supervisory Body. Unlike the Clean Development Mechanism, the project must be approved by both the country where it is implemented and the Supervisory Body before it can start issuing Article 6.4 credits (known as A6.4ERRs). These credits can be bought by countries, companies, or individuals.

This means that, in theory, projects or jurisdictions (i.e. subnational programs) that include an HFLD component (or are entirely HFLD) could apply for Article 6.4 registration. This is likely to create significant challenges in terms of baseline fitting, nesting, and consistent reporting for the HFLD country or jurisdiction. Furthermore, the technical challenges with integrating various methodologies in broader accounting processes could make it challenging for some projects or jurisdictions to gain approval from the Supervisory Body.

Furthermore, options for removal<sup>14</sup> under Article 6.4 are being considered by the Supervisory Body. Including options for removals from forests (including standing forests) through A6.4ERRs would recognize the important contribution of standing forests in HFLD countries and jurisdictions. After several meetings and a first round of public consultation, no decision was reached at COP27 regarding the issue of removals under Article 6.4 and this decision was postponed to COP28. The Supervisory Body has held several rounds

of consultation in 2023 "on activities involving removals, including appropriate monitoring, reporting, accounting for removals and crediting periods, addressing reversals, avoidance of leakage, and avoidance of other negative environmental and social impacts"<sup>15</sup>.

The COP27 outcome does not in any way stop or delay the implementation of carbon removal projects or trading in the VCM. However, once this is in place, VCM standards aligned with the future rules could get their methodologies approved (in this case, our interest is specifically on those that include HFLDs and removals). The potential option of A6.4ERRs that include removals from standing forests could be interesting to explore for HFLD jurisdictions.

*The potential option of A6.4ERRs that include removals from standing forests could be interesting to explore for HFLD jurisdictions*

### Option 2.3 Article 6.8 - Non-market approaches

Article 6.8 recognizes Non-Market Approaches (NMAs) among governments to promote climate change mitigation, adaptation, sustainable development, and the development of clean energy resources<sup>16</sup>. It excludes trading of ERRs, transactions or quid pro quo operations, but introduces cooperation through finance, technology transfer and capacity building. NMAs are not transactions and are not regulated under the rules of the A6.2 or the A6.4 mechanisms.

Through Article 6.8, HFLD forests could be financed through grants and results-based finance, rather than via carbon credits. The COP27 Article 6.8 decision stipulates a timeline for implementation in 2025-26 by asking experts to start identifying NMAs in 2023-24<sup>17</sup>.

Once implemented, A6.8 could be a way of regulating international investments to preserve ecosystems announced annually, including those under the Glasgow Forest Declaration<sup>18</sup>.

For example, the Climate Land Ambition and Rights Alliance (CLARA) network of conservation and land rights groups proposes to price emissions associated with luxury consumption. It includes levies on: international air travel, fossil fuel extraction, speculative activity in financial markets, and on the use of bunker fuels associated with international shipping of goods. They propose that \$100 billion per year of new and additional finance could be found to support transformative non-market actions in the land sector<sup>19</sup>.

Based on the CLARA network research, Figure 2 The CLARA network's proposal for new and additional resources for NMA compared to VCM. shows the order-of-magnitude greater opportunity that new and additional finance could

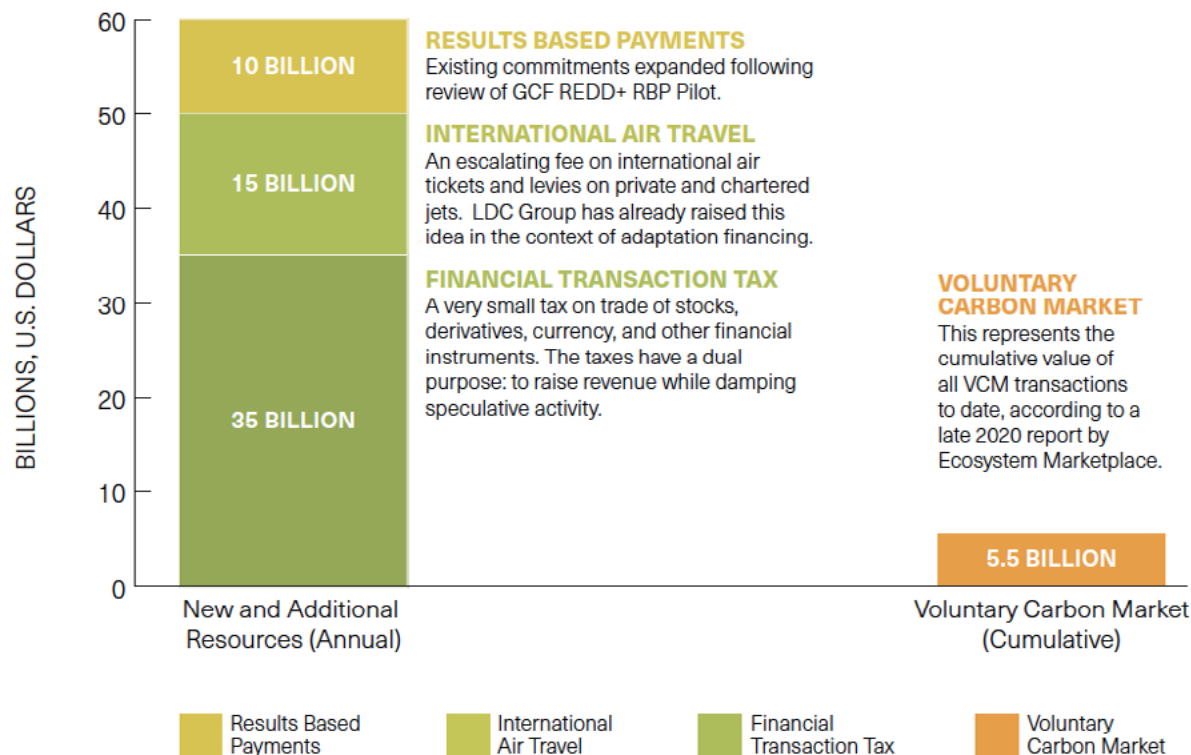


Figure 2. The CLARA network's proposal for new and additional resources for NMA compared to VCM.

create – greater in one year than the cumulative value of all voluntary market transactions to date.

The CLARA network Article 6.8 proposal could be a more general option to explore or support to leverage climate finance to support non-market conservation, including that of HFLD forests.

Furthermore, NMAs for HFLD jurisdictions could be implemented through the Green Climate Fund (GCF) REDD+ RbP pilot (if it is renewed) and/or through results-based finance programs with specific milestones of successful

implementation based on signed Letters of Agreement, such as the Central African Forest Initiative (CAFI). Another option could be to design new and additional HFLD forests conservation grants as part of NbS under Article 6.8.

In summary, Article 6.8 NMAs could offer several solutions for HFLD countries and jurisdictions.

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## 2.1.3 Option 3 - Interim approach for pre-2021 UNFCCC REDD+ results

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### Option 3.1 With an operational GCF REDD+ RbP Pilot

UNFCCC decision 9/CP.19 encouraged the GCF to play a key role in collectively channeling adequate and predictable REDD+ RbPs in a fair and balanced manner, considering different policy approaches, while working to increase the number of countries in a position to obtain and receive payments. The GCF operationalized its pilot program on REDD+ RbPs in late 2017, having launched a request for proposals for a total amount of \$500 million.

The GCF launched a remarkably successful pilot for non-market REDD+ credits; after two out of an anticipated five years, the pilot was fully subscribed. Eight countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Indonesia and Paraguay) have had REDD+ results approved by the GCF as part of this pilot program for approximately \$497 million. As of Autumn 2023, the consultation process for a subsequent phase of the pilot is ongoing but its future - and whether additional conditions will be applied - remains uncertain. Nevertheless, a lack of access to the GCF REDD+ RbP resources could cause a risk to HFLD countries and jurisdictions remaining engaged in REDD+, especially if there are no straightforward alternatives in the compliance market or VCM.

This option would therefore entail expanding the GCF REDD+ RbP Pilot into a permanent program. It seems reasonable to ask the GCF to create a permanent, non-pilot, REDD+ RbPs fund, perhaps with a higher price than the initial \$5/tCO<sub>2</sub>e. Furthermore, the HFLD adjustment for

non-market RbPs can be considered as very conservative and could be revisited. The GCF Secretariat has been working with countries for a subsequent phase of the GCF REDD+ RbP program which is expected to be presented to the GCF Board at its upcoming 37<sup>th</sup> Board meeting.

### Option 3.2 Without an operational GCF REDD+ RbP process - "sovereign carbon"

This option explores the concept of UNFCCC REDD+ "sovereign carbon": i.e. carbon coordinated at a national level, rather than being exclusively project based<sup>20</sup>. Recognizing decision 14/CP.19 paragraph 15 that mentions that countries seeking a market-based approach may be subject to verification processes, this option can be considered in the situation where countries have fulfilled the Warsaw Framework for REDD+ requirements and where the GCF REDD+ RbP mechanism is not operational (i.e., the current situation). In this case, an independent third-party verification could be undertaken by a Validation and Verification Body (VVB) (like Gabon did for its RbPs with Norway under the CAFI Letter of Intent (LoI) addendum<sup>21</sup>) and apply deductions based on, for example, the ART-TREES approach for uncertainty and leakage. This would ensure climate integrity while allowing these results to be marketed as credible sovereign carbon credits.

This option creates a possibility for HFLD countries to use results obtained through the UNFCCC Warsaw Framework for REDD+ (WFR) that could include an HFLD adjustment (e.g., the case of Gabon following the HFLD adjustment as set out in the GCF REDD+ RbP Pilot) and take all of these results (or a portion of them, e.g. without HFLD adjustment) to the VCM.

## 2.2 VCM AND STANDARDS OPTIONS

### 2.2.1 Option 4 - HFLD credits and leakage

This option considers the use of HFLD credits to compensate for leakage. As explained above, emissions leakage occurs when mitigation activities succeed in the area where they are being monitored, but are displaced elsewhere. As credits from HFLD jurisdictions are often issued at a national scale, they could play a role in counteracting leakage that occurs due to shifting global supply chains<sup>22</sup>.

The thinking behind this proposal is that HFLD countries and jurisdictions are the most critical places to protect from the displacement of deforestation and forest degradation. Therefore, purchasing “adjusted” HFLD credits could strengthen protection in these areas.

Based on this, a communication effort could be made together with VVBs and VCM rating agencies that companies add HFLD credits to their portfolios when buying non-HFLD ERR credits from ART, for example. This could be calculated roughly in proportion to the estimated amount of international leakage rates; thus, companies would, for example, purchase 1-2 non-market HFLD credits for every “traditional” REDD+ ERR credits.

Alternatively, since roughly a quarter of deforestation occurs in primary/intact forests, purchasing credits from HFLD jurisdictions in the range of 25% of a company's overall offset portfolio would align an individual company's portfolio with global trends<sup>23</sup>.

### 2.2.2 Option 5 - Changes to ART-TREES HFLD approach

Currently, ART does not distinguish between “carbon” credits (additional) and what some call “conservation” credits (HFLD adjusted). ART believes that ART-TREES HFLD credits are additional and fungible<sup>24</sup>.

This option would entail making changes to existing VCM standards such as the ART-TREES HFLD methodology. One option would be to differentiate between the “additional” credits and the “HFLD adjusted” credits so that buyers could better determine which they would want to buy, thereby increasing transparency in the system. This does not necessarily mean that one is for offsets/compensation and the other is not. The other option would be to only market the non-adjusted ERRs which could be used as “offset” credits and to use the HFLD adjusted ERRs (“conservation” credits) with a different tag. Either of these could (or could not) be combined with option 4 above of using adjusted HFLD credits to deal with leakage and could therefore be applied within the ART portfolio.

*ART believes that ART-TREES  
HFLD credits are additional  
and fungible*

### 2.2.3 Option 6 – Levying a mandatory HFLD contribution on all REDD+ carbon credit sales

Under this option, companies would contribute a mandatory contribution to an “HFLD Fund” as a percentage of their carbon credit sales based on their total offsetting purchases. This would be similar to the share of proceeds tax under Article 6.4. The so-called “HFLD Fund” could be administered by GCF as the UNFCCC’s financial arm.

### 2.2.4 Option 7 – Maintaining and expanding protected areas and Indigenous reserves

Although sometimes dismissed as BAU conservation actions, protected areas and Indigenous reserves, combined with command-and-control policies, continue to have a higher magnitude of NCS mitigation benefits<sup>25</sup>. It is also cheaper to conserve forests now rather than having to restore them later<sup>26</sup>.

ART offers a way for Indigenous peoples’ territories to be part of subnational accounting areas as part of national submissions. In TREES 2.0, Indigenous peoples’ territories can participate in aggregate and/or join with one or more non-Indigenous subnational jurisdictions through an agreement to establish a subnational accounting area for a national submission. ART thereby creates a new opportunity

for Indigenous peoples' territories of any size to contribute to and benefit from the carbon market. Additionally, under TREES 2.0, Indigenous peoples' territories are eligible to qualify as HFLD and therefore use the (optional) HFLD crediting approach, which may better reflect and reward their historical performance in protecting their forests<sup>27</sup>. This is more likely to not only reward their past forest stewardship, but also to sustain it in the future compared to non-HFLD crediting.

To date, no Indigenous peoples' territories are listed on the ART Registry Programs page with a subnational accounting area<sup>28</sup>. This option proposes targeted efforts to support IPLCs with HFLD territories by submitting proposals to ART and any other relevant VCM standard in the future.

### 2.2.5 Option 8 – Rewarding CO<sub>2</sub> removals through the REDD+ conservation of carbon stocks activity

One of the limitations of the accessible VCM REDD+ standards is that they do not provide a way to account for removals from forests remaining forests. Both ART and Verra's Voluntary Carbon Standard (VCS) Jurisdictional Nesting REDD+ (JNR) REDD+ state that they are considering these issues or will do so in the future, but to date, there is nothing operational in the VCM for these removals. If they were to be included, this would increase the carbon finance access for HFLD countries and jurisdictions. This option offers ideas on how removals could be included in existing VCM standards considering threat (and therefore additionality), science-based removals and offsetting for historical emissions.

As a first step, the concept of stable forests and "at risk forests"<sup>29</sup> could be used to assess the threat that forests in HFLD countries and jurisdictions face. This could be done by expanding on the [map](#) of the Global Stable Forests that was developed by Winrock International in the report on "[Options for Conserving Stable Forests](#)"<sup>30</sup> (Figure 3).

This map would be used as a scientific basis to assess the threat these forests face, and therefore support the

argument that interventions taken in these areas to support these forests are additional. In essence, looking at this map (for HFLD countries or jurisdictions that are seeking finance through UNFCCC REDD+, ART-TREES or Verra's VCS JNR), one would be able to assess objectively whether forests are at risk and whether climate services that these forests deliver are therefore additional. This can already be done with the Intact Forest Landscapes layer (see [here](#)) by running country stats (see [here](#)), but the stable forest approach is

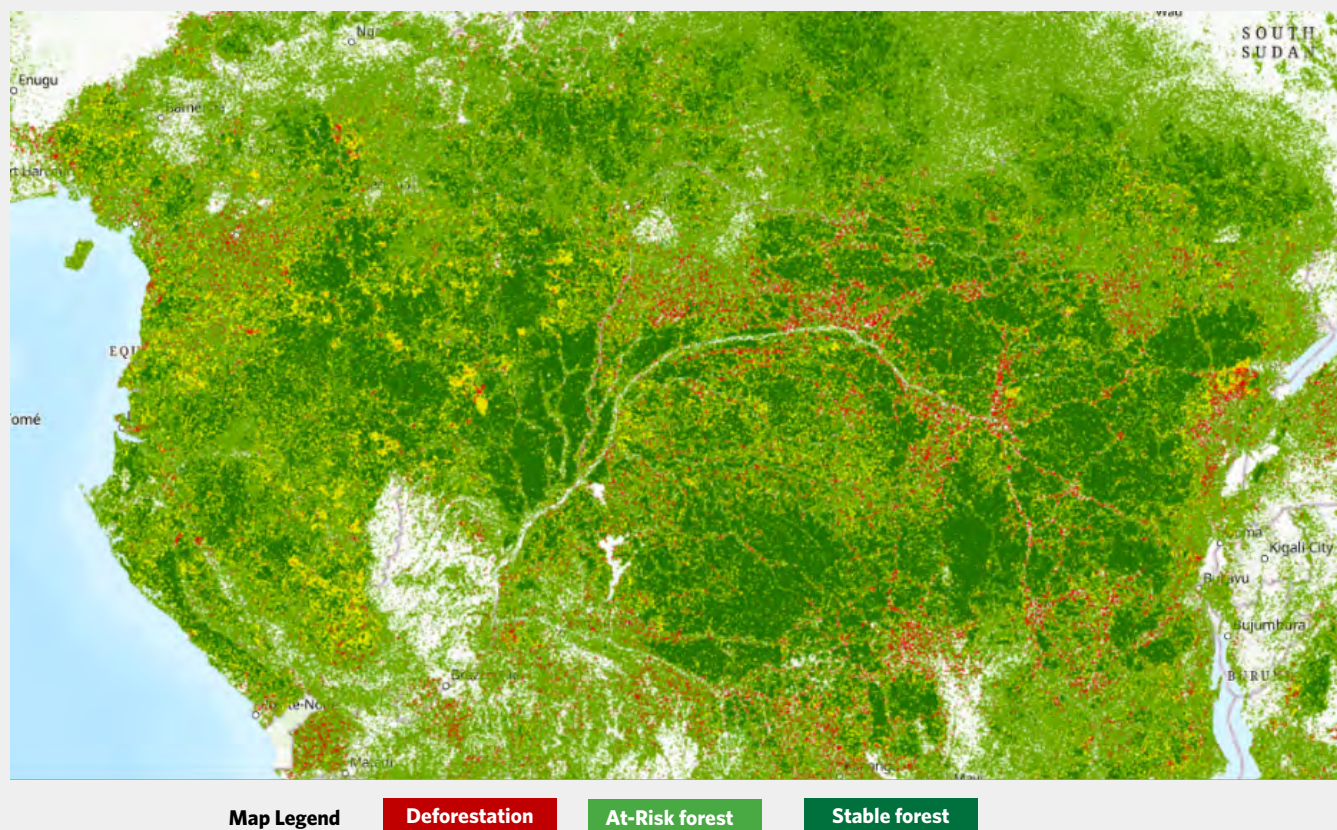


Figure 3. Screenshot of the Global Stable Forests map zooming in on the Central African Forests. The map shows which areas were deforested or converted from stable to at-risk forest in 2019 (compared to 2010). Conversion from stable to at-risk forests tells us that vitally important areas of forest are at increasing risk of deforestation each year.



stronger since its definition includes the concept of “threat” (i.e., forests that are not yet significantly disturbed or facing predictable near-future risks of anthropogenic disturbance). TNC is also working on a different and alternative approach to identifying forests that are at-risk beyond the existing deforestation frontier. Future work could assess which methodological approach is best suited for this option, but the essence of this option is identifying forests that are “at threat”.

Having established that a forest in an HFLD country or jurisdiction is “at threat”, one can reward the REDD+ conservation of carbon stocks activity. The operationalization of the “REDD+ conservation of carbon stocks” activity in terms of carbon finance under the VCM is another option that could be integrated into current approaches (e.g., ART-TREES and Verra’s VCS JNR). To maintain climate integrity, this option would only be available to HFLD countries and jurisdictions (not non-HFLDs) and could incentivize non-HFLD countries and jurisdictions to stabilize and reverse their emissions.

These REDD+ credits for the conservation of carbon stocks would be awarded for removals achieved in a given time period, applied to all forest types nationally that have been assigned a legal and active protection/conservation status of one kind or another (e.g., under the REDD+ activity “Conservation of existing stocks”) that is being effectively implemented.

A conservative per-hectare annual removal factor based on national data and/or regional data on “intact”/“old-growth” forests would be applied to these forests for each year that they remain effectively protected. This provides an elegant and robust accounting solution with known uncertainties, respects the principle of conservativeness (the removals should not be overestimated, or at least the risk of

overestimation should be minimized), evidences action by the country based on the threat for the “at-risk forests” and removes the need for additionality (e.g., no need for additional removals against a historic baseline). These credits would be part of HFLD countries’ or jurisdictions’ REDD+ credits.

This option could replace the current ART-TREES HFLD adjustment of a flat percentage and thus make it (more) fungible with the rest of the ART credits. In practice, the ART-TREES HFLD score would still be used to understand whether a country or jurisdiction can be considered as HFLD under TREES 2.0. However, instead of applying the arbitrary HFLD adjustment, HFLD countries and jurisdictions would apply this option of removals from the conservation of carbon stocks in forests that are at threat and have been assigned a legal and active protection/conservation status.

Furthermore, this option of removal credits could also be used for retroactive commitments of companies to complement their net zero targets (see option 9 below).

Another consideration is price differentiation, which would be set by the market. On the one hand, one could argue that there should be no price differentiation, while on the other hand, it could be argued that if this is the highest level and an HFLD country only has for example 1,000,000 conservation HFLD credits, those should sell at a much higher price (e.g., \$50/tCO<sub>2</sub>e) instead of existing prices.

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## 2.2.6 Option 9 – Historical emissions and race to net zero

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Under this option REDD+ WFR HFLD results and/or VCM HFLD credits could be used for companies’ retroactive commitments to complement their net zero targets. TNC has proposed the creation of a “platinum” claims tier that would encourage and recognize companies for offsetting these historical emissions. It seems reasonable that companies seeking to abate historical emissions could do so through either VCM HFLD adjusted credits (e.g. ART) or REDD+ WFR HFLD results.

In this case, the additionality argument does not seem as critical if a company already has a credible net-zero target and has met its current abatement needs through high-quality, fungible credits.

Furthermore, these REDD+ WFR HFLD results and/or VCM HFLD credits could also be bought by individuals to make a meaningful and tangible contribution to climate change mitigation and simultaneously support biodiversity and the protection of stable forests.

*Under this option REDD+ WFR HFLD results and/or VCM HFLD credits could be used for companies’ retroactive commitments to complement their net zero targets*

## 2.3 OTHER APPROACH OPTIONS

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### 2.3.1 Option 10 – Conservation credits

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A key recommendation of the World Bank Forest Carbon Partnership Facility (FCPF) commissioned report on options for conserving stable forests<sup>31</sup> was to create a “conservation credit”. The authors proposed that a conservation credit could be regarded as a common accounting unit that allows for the monitoring, valuation, and comparisons over time and between stable forests. The idea of this approach is to help to value stable forests and reduce their transition to at-risk forests, which are more expensive to protect per hectare.

Conservation credits, the authors of the report suggest, could be valued using the annual maintenance cost approach as an indicator and starting point, since this approach moves beyond valuing forests based on their imminent loss or their potential to offset emissions. This approach also gets us beyond the argument of additionality. Based on, for example, pre-agreed spatially explicit valuation of high-priority stable forests, payments would be adjusted as stable forests are maintained, decreased or increased.

Ecosystem services beyond carbon such as biodiversity, hydrological services and non-timber forest products can be “stacked” within the conservation credit. Although the annual maintenance value indicator is a small fraction of the asset value, the authors of the report suggest it should still generate substantial value in heavily forested countries and areas, such as HFLD countries and jurisdictions.

Depending on the context, the conservation credit could be used as a non-market approach and/or in a new market approach. The proposal suggests that the concept of conservation credits could also be used to help support issues such as valuing protected areas, debt-for-nature swaps or forest planning, and it could be used as a tradable unit in a Payments for Ecosystems (PES) scheme. The authors suggest that only a new PES scheme would rely on creating a new market mechanism and identifying new buyers for the “conservation credit”—other examples would simply use the concept to compare and value forests linked to other policy options.

Conservation credits could be used in the context of Ecological Fiscal Transfer (EFT) payments with monitoring, reporting and valuation consolidated into a single unit that could be used to prioritize EFTs and compare results between stable forests. The conservation credits can also indirectly or directly be linked to domestic resources. The authors of the WB FCPF report suggest that, for example, restructuring or redirecting existing subsidies could generate new revenue to fund conservation credits, and the private sector can be engaged through PES.

Alongside other work to improve forest governance, the conservation credit concept could be supported via a new “Stable Forest Fund” created under the mandate of the Parties to the UNFCCC and/or the Convention on Biological Diversity (CBD), which could be managed by the Global Environment Facility (GEF) or a multilateral development bank such as the World Bank. The fund should focus on complementing and adding to existing efforts to protect forests, rather than duplication. The GCF could also be considered as an option to manage the proposed new “Stable Forest Fund”.

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### 2.3.2 Option 11 – High Integrity Forest Removal Units (HIFOR)

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WCS has proposed the creation of HIFOR units based on the definition of high integrity forests. These units aim to create a tradeable environmental asset (a HIFOR unit) to proactively manage high integrity forests and safeguard their continued climate and other environmental services. The payment would be for an environmental service measured in tons of CO<sub>2</sub> removal that is maintained. The climate value of the unit would be the total net CO<sub>2</sub> removed from the atmosphere in a high integrity forest crediting area during a specified crediting period.

The loss of high-integrity forests itself is a risk, so long-term protection of high-integrity forests is therefore necessary to ensure their continued ability to remove carbon and the credibility of HIFOR units. HIFOR rewards ex-post the ongoing environmental service of carbon uptake in these forests, therefore the environmental service included in the unit cannot be reversed (i.e., achieving permanence).

Although the loss of high-integrity forests is a risk that can be quantified (see “at-risk forest” concept presented above), this option assumes that there is no intervention against an immediate driver of deforestation and that there is therefore no risk of activity leakage.

HIFOR units would not need to pass an additionality test and no strict causality between intervention and environmental service would be required. HIFOR payments would incentivize the continued conservation of high-integrity

forests for their environmental services, as measured by their net carbon uptake.

The big difference between HIFOR units and carbon credits is that HIFOR units cannot compensate for GHG emissions, and they lack offset (compensatory value).

HFLD countries and jurisdictions could use HIFOR units for the REDD+ Conservation activity (if they are not used for compensation/offsetting).

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### 2.3.3 Option 12 – Overseas Development Assistance

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This option would entail continued Overseas Development Assistance (ODA) to countries for forest protection. Recent examples are the CAFI-Norway-Gabon Lol addendum (see Gabon section further below for details), the Guyana-Norway agreement (see Guyana section further below) and the Norway-Indonesia agreement<sup>32</sup> (although Indonesia is not an HFLD country). Such agreements can be entirely bilateral (the case of Norway-Indonesia) or facilitated by a third-party entity (e.g., CAFI in the case of Gabon). They are based on results and performance monitoring (with independent third-party verification in the case of Gabon and Guyana, but not in the case of Indonesia).

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### 2.3.4 Option 13 – Philanthropy

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#### Option 13.1 Proforestation – growing additional older forests

At a global average, immature and young trees sequester far less carbon dioxide than older ones, and it can take decades for young trees to start sequestering carbon dioxide in important quantities. Therefore, another option to finance existing HFLD countries and jurisdictions, or ones that would like to become HFLD, is to design and implement what is known as “proforestation”. Proforestation means growing additional existing older and middle-aged forests as intact or high integrity ecosystems. In other words, it is the assisted ecological restoration of degraded forests so that they can become stable forests<sup>33</sup> in the future. This is a low-cost approach to quickly increase atmospheric carbon sequestration to reduce climate change and its inherent risks<sup>34</sup>. This approach differs from reforestation or afforestation since it focuses on existing older and middle-aged forests.

Proforestation serves a public good by maximizing co-benefits such as nature-based biological carbon sequestration and unparalleled ecosystem services such as scenic beauty, biodiversity enhancement, public health benefits, water and air quality, flood and erosion control, and low-impact recreation<sup>34</sup>.

As proforestation increases forest carbon sequestration abilities, the International Union for Conservation of Nature has ranked proforestation as one of the most effective NbS to fight against the climate and biodiversity emergencies<sup>35</sup>.

Currently it is not clear if an activity such as proforestation could be included in Article 6 options of the Paris Agreement or in the VCM. Meanwhile, the incentive of a proforestation

activity funded by philanthropy would be to strengthen the forest carbon sink, either in existing HFLD countries or jurisdictions or in countries/jurisdictions that aspire to become HFLD.

An example of proforestation can be found in the Sebangau National Park in Central Kalimantan in Borneo. This beautiful peat-swamp forest is the largest unfragmented area of forest remaining in Borneo’s lowlands and is the home to over 6,000 orangutans and the white-bearded gibbon. After a devastating forest fire burned hundreds of thousands of hectares in 2019, the Borneo Nature Foundation<sup>36</sup> developed a community-led restoration project to help restore the Sebangau National Park<sup>37</sup>. The objective of the project is to restore the forests’ original ecological functions, increase wildlife habitat and support green livelihoods in nearby communities.

#### Option 13.2 REDD+ WFR non-market results

If none of the other options work for REDD+ WFR results under the VCM, a viable option in line with other market-based approaches could be to attract philanthropic organizations to enter into bilateral agreements with HFLD countries (this could be done with or without the support of ODA). RbPs for REDD+ WFR non-market results/units offer many advantages for traditional philanthropy that want to see an outcome but are not necessarily interested in an offset/compensation *per se*.

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### 2.3.5 Option 14 – Nature Bonds, (also known as debt-for-nature swaps and debt-for-climate swaps)

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Nature Bonds, also known as debt-for-nature swaps and debt-for-climate swaps belong to a broader category of debt conversion programs and have been around for decades. Incentivized debt conversion is a financing mechanism that can support countries with a debt burden to bolster their long-term domestic investment in nature conservation, development projects, public health, and other social programs<sup>38</sup>. These types of swaps seek to free up fiscal resources so that governments can improve resilience without triggering a fiscal crisis or sacrificing spending on other development priorities<sup>39</sup>. These are voluntary transactions that typically involve cancelling or restructuring a portion of a country's sovereign debt, often with better rates or more favorable repayment terms, in exchange for the country's binding commitment to uphold the conditions of the debt conversion agreement. Nature Bonds can provide substantial finance for conservation, which in turn provides co-benefits for climate change mitigation and adaptation<sup>40</sup>. Creditors provide debt relief in return for a government commitment to, say, decarbonize the economy, invest in climate-resilient infrastructure, or protect biodiverse forests or reefs.

Nature Bonds swaps could be an option (or part of a suite of options) to support HFLD countries and jurisdictions in maintaining their HFLD status.

These various options, their estimated operational feasibility, perceived risk, and status are summarized in Table 1 below.



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Table 1. Overview of potential HFLD incentive structures and business models.

Umbrella	Option	Sub-options	Operational feasibility	Risk	Status
Paris Agreement	1. From REDD+ to reversing emissions		Low This approach may take a considerable amount of time to be operationalized as UNFCCC negotiations around these concepts may be challenging.	Low There is no inherent risk in trying to evolve the discussion of REDD+ based on lessons learned from over 10 years of operationalization.	Not tested, not operational.
Paris Agreement	2. Article 6	2.1 Full net removal accounting under Article 6.2 for Internationally Traded Mitigation Outcomes (ITMOs)	Medium Most HFLD countries would need considerable technical support and strengthened national policy initiatives to enable them to engage at this level of detail for net greenhouse gas (GHG) accounting from emissions and removals across their sectors. Nonetheless, it would give HFLD countries a considerable advantage over other countries as they are likely to be the biggest net removers (from the forest sector but especially across all sectors).	Medium The main risks are likely to be the ability of HFLD countries to report at this level of detail for GHG accounting across all sectors, and on the other hand, whether there will be buying countries interested in this specific approach that go the extra mile to try and recognize the important role of forests in reaching the objectives of the Paris Agreement.	Being explored between countries ( <i>pers. comm.</i> ).
Paris Agreement	2. Article 6	2.2 Article 6.4 GHG mitigation and sustainable development	Medium Robust operational national carbon registries will need to be developed by HFLD countries exploring a mixed approach of the Article 6 mechanisms as well as other VCM or climate and carbon finance options.	Medium There is an important risk of double counting if HFLD countries are using other mechanisms either through the Paris agreement, the VCM or other agreements to obtain climate and/or carbon finance for their HFLD Emissions Reductions and Removals (ERRs). There might also be a risk of creating direct competition between A6.4ERRs and what a country could include in its ITMOs. Furthermore, there might be a risk that the Supervisory Body under Article 6.4 does not fully understand NCS and/or is biased against it, thereby not approving many/any NCS methodologies. Another potential outcome is that even for NCS methodologies that would be approved, the Supervisory Body could impose additional rules for NCS programs (e.g. around equity, gender, etc.) that may further restrict the ability of existing programs to transact under Article 6.4.	There is still a lack of clarity on which types of projects/programs will be able to register under Article 6.4, but HFLD relevant standards are known to carefully follow these discussions.

Umbrella	Option	Sub-options	Operational feasibility	Risk	Status
Paris Agreement	2. Article 6	2.3 Article 6.8 – non-market approaches	Medium Given that the Conference of the Parties (COP)27 decision provides a tangible timeline to start operationalizing Non-Market Approaches (NMAs) under A6.8, it seems fair to assume that implementation will start in 2025. It will be strategic to keep a close eye on the identification of NMAs in 2023 and 2024 to better understand how these could be tailored to HFLD countries and jurisdictions.	Low The options and possibilities to explore in the future are non-controversial. What will be important is to ensure that climate finance for NMAs under A6.8 do really represent new and additional resources.	These discussions are currently being explored and the applicability for HFLD countries and jurisdictions depends on further COP related decisions and guidance for the implementation of Article 6.8.
Paris Agreement	3. Interim approach for pre-2021 UNFCCC REDD+ results	3.1 With an operational Green Climate Fund (GCF) REDD+ RbP Pilot	High The GCF Secretariat has been working with countries for a subsequent phase of the GCF REDD+ RbP program which is expected to be presented to the GCF Board at its upcoming 37th Board meeting. It remains to be seen how much of this finance will be available to HFLD countries and jurisdictions.	Low Some civil society groups lobby hard against the inclusion of any REDD+ payments in the GCF due to an opposition to carbon markets in general. However, this is well within the GCF’s mandate, as shown in the first pilot phase. Additionally, pro-REDD+ civil society groups can advocate for this.	Discussions for some type of continuation of the GCF REDD+ RbP pilot appear to be ongoing, but it is not clear if a decision will materialize in the short-term during future Board decisions ( <i>pers. comm.</i> ).
Paris Agreement	3. Interim approach for pre-2021 UNFCCC REDD+ results	3.2 Without an operational GCF REDD+ RbP process – “sovereign carbon”	Medium Several countries such as Gabon, Honduras, Belize and Papua New Guinea are considering the option of sovereign REDD+ carbon credits <sup>41</sup> in some version of the option described above. A challenge is to find or develop a framework/methodology for a VVB to undertake the verification.	High To date, corporate buyers have not yet signaled interest in purchasing these credits. Buyers are trying to figure out which guidelines to use here, as there is more flexibility under the Warsaw Framework to set historic (and adjusted) baselines. Such credits, once issued, could be reviewed on a case-by-case basis by VVBs as well as carbon credit rating agencies.	Ongoing discussions of sovereign carbon are taking place. Furthermore, the Coalition for Rainforest Nations has developed a corporate buyers guide on how REDD+ sovereign carbon credits are created <sup>42</sup> .
VCM and standards	4. HFLD credits and leakage		Medium It remains to be seen whether VCM standards would agree to using HFLD credits (especially national ones) as part of a leakage pool and if individual companies would retire them without using them as an offset. This option would also be contingent on having estimates of leakage rates. TNC is working with the University of Maine to attempt to calculate these rates more transparently.	Medium This approach could undermine marketed (or still to be marketed) HFLD adjusted credits (e.g., Guyana ART-TREES credits).	This option is being explored by Conservation International.

Umbrella	Option	Sub-options	Operational feasibility	Risk	Status
VCM and standards	5. Changes to ART-TREES HFLD approach		<p>Medium/Low</p> <p>With the first option, ART may agree to differentiate between carbon credits and conservation credits to increase transparency. With the second option, given ART's strong statement on the fungibility of TREES HFLD credits as offsets, it is unlikely that the ART board would make a U-turn on this position. Such ART-TREES HFLD adjusted ERRs would need to be sold at the same price as any other TREES ERRs.</p>	<p>High</p> <p>The risk would be that buyers of TREES ERR credits may not agree with purchasing 1-2 non-market HFLD credits for every 5 "traditional" REDD+ ERR credits. However, the biggest risk is that if the TREES HFLD credits are separated between adjusted and unadjusted ones, several HFLD countries/ jurisdictions may be unable to participate in ART altogether, creating the opposite effect of squeezing them out of carbon finance in the VCM.</p>	Unknown if this is currently/actively explored.
VCM and standards	6. Levying a mandatory HFLD contribution on all REDD+ carbon credit sales		<p>Low</p> <p>Learning from the negotiations around the Adaptation Fund (pursuant to decisions 3/CMA.1 and 1/CMP.14) and levy of shares of proceeds under the Paris Agreement, it is improbable that such an HFLD Fund would see the light of day under the UNFCCC or the Convention on Biological Diversity (CBD) soon, or in other words, in time to serve its purpose.</p>	<p>High</p> <p>It could be difficult to find a company willing to be the first mover. It is also less likely that this could reach scale without a high-level of buy-in.</p>	Unknown if this is currently/actively explored.
VCM and standards	7. Maintaining and expanding protected areas and Indigenous reserves		<p>Medium</p> <p>It may be challenging to: (1) identify Indigenous Peoples and Communities (IPLCs) in HFLD jurisdictions to support to work on an ART concept note together with the relevant jurisdiction and (2) develop an equitable benefit sharing plan for the proceeds of the carbon finance.</p>	<p>Low</p> <p>No changes are currently suggested to the ART standard and the current TREES 2.0 HFLD adjustment would be used. Other VCM standards could adopt a similar approach to ART). This approach would need to ensure that it does not unwillingly increase the potential for land grabbing from IPLCs by outside actors.</p>	Unknown if this is currently/actively explored.
VCM and standards	8. Rewarding CO <sub>2</sub> removals through the REDD+ conservation of carbon stocks activity		<p>Medium</p> <p>ART may be reluctant to revisit the way the HFLD adjustment is done under TREES. Other VCM standards that are evaluating how to deal with HFLD and/or removals could consider this option as a working basis.</p>	<p>Low</p> <p>This option would technically be a straightforward approach for HFLDs to operationalize and could provide a scientifically robust path to recognize the climate mitigation impact of conserving forest carbon stocks and removing other perverse incentives currently built into the VCM.</p>	Unknown if this is currently/actively explored.

Umbrella	Option	Sub-options	Operational feasibility	Risk	Status
<b>VCM and standards</b>	9. Historical emissions and race to net zero		<p>High</p> <p>These types of REDD+ WFR HFLD results and VCM HFLD credits are available. If a company (e.g. <a href="#">Microsoft's commitment</a> to be carbon negative by 2030 and by 2050 remove all the carbon the company has emitted from the environment either directly or by electrical consumption since it was founded in 1975) has a credible net zero target, then it would not be difficult (or controversial) to use these types of REDD+ results and HFLD credits to offset historical emissions.</p>	<p>Medium</p> <p>This option could unintentionally turn HFLD credits into second-rate credits which would not be a great outcome. On the other hand, it could also unlock more demand not available to other credits, as companies should purchase fewer and fewer offsets over time.</p>	<p>To date, there has been some (limited) corporate interest. Further exploration would be needed for potential avenues to scale this approach, either through the Tropical Forest Credit Integrity Guide (<a href="#">TFCI</a>), the <a href="#">VCMi</a>, the Science-based Targets Initiative (<a href="#">SBTi</a>) or similar processes.</p>
<b>Other approaches</b>	10. Conservation credits		<p>Low</p> <p>Setting up this type of fund and creating the structures to operationalize it would require a significant investment of time and money. Learning from the negotiations around the Adaptation Fund (pursuant to decisions 3/CMA.1 and 1/CMP.14) and levy of shares of proceeds under the Paris Agreement, it is improbable that such a Stable Forest Fund would see the light of day under the UNFCCC or CBD soon, or in other words, in time to serve its purpose. Nonetheless, the new Fund could also be managed outside of the negotiation/GCF/GEF/WB context by a public-private fund like LEAF.</p>	<p>Medium</p> <p>These types of conservation credits could undermine efforts of carbon finance in VCM standards such as ART.</p>	<p>Unknown if this is currently/actively explored.</p>
<b>Other approaches</b>	11. High Integrity Forest Removal Units (HIFOR)		<p>Medium</p> <p>Pilots for HIFOR would need to be set up in areas where there is a demonstrated "no-risk" to high-integrity forests. It is unclear at this point how these areas would be delineated (legal status, land rights, etc.), how benefit sharing of the climate finance would function (given that in many cases HIFOR areas are in IPLC territories) and if there would be any demand for HIFOR units.</p>	<p>Medium</p> <p>Conversations are ongoing to understand investor appetite to buy HIFOR units that will be generated in the future and if there are HFLD countries or jurisdictions that would be interested in piloting it. The fact that the unit would be entirely disconnected from processes that HFLD countries or jurisdictions are engaged in (e.g. REDD+) can be a strength, but also risks disconnecting these forests from other potential climate and/or carbon finance.</p>	<p>Discussion are ongoing to pilot HIFOR (<i>pers. comm.</i>).</p>



Umbrella	Option	Sub-options	Operational feasibility	Risk	Status
Other approaches	12. Overseas Development Assistance		High There is over a decade of experience in these types of partnerships, some more successful than others. The main questions are: how big/small such partnerships are/can be, if they are sustainable in the medium/long term, and if the climate finance is sufficient for HFLD countries and jurisdictions.	Low The main risk would be that this type of ODA finance gets downscaled over time.	Such agreements are in place and ongoing, e.g., Indonesia and Gabon.
Other approaches	13. Philanthropy	13.1 Proforestation – growing additional older forests	Medium Performance-based grants could be designed and disbursed to support HFLD countries or jurisdictions and/or those who would like to obtain the HFLD status. It would not be scientifically challenging to identify older or middle-aged forests that could be turned into intact or high integrity ecosystems based on the grants received.	Low There would be no real risks in implementing this option.	Proforestation is being implemented (as seen above), however it has not gained much attention in the international policy sphere or in the context of HFLD countries and jurisdictions.
Other approaches		13.2 REDD+ Warsaw Framework for REDD+ non-market results	Medium It is also hard to assess how many philanthropies are acquainted with the Warsaw Framework for REDD+ and its results. One would therefore expect that targeted communication and outreach would need to take place to operationalize this option after having identified potential philanthropies.	Low Since these REDD+ WFR results would not be used for offsetting purposes, this constitutes a low-risk option.	Based on discussions and literature review, there are currently no discussions taking place around this option.
Other approaches	14. Nature Bonds (Debt-for-nature swaps and debt-for-climate swaps)		Medium There is international experience in nature bonds. NGOs could play a central role as a third party in negotiating, administering, and implementing debt restructuring for tropical forest conservation in HFLD countries and jurisdictions. NGOs and identified donors could offer partial guarantees that lower the risk for investors and reduce the expense.	Low The main risks are creating and administering the agreements themselves as well as creating and increasing the fiscal space that is created by these swaps.	Ongoing discussions for nature bonds for HFLDs.

# 3

# HFDL COUNTRY INSIGHTS

**3.1 GUYANA**

**3.2 GABON**

**3.3 THE REPUBLIC OF CONGO (RoC)**

HFLD country finance examples from Guyana, Gabon and RoC based on what the three countries are doing and/or considering, as obtained through publicly accessible information are summarized here.



Gabon. Photo by Danae Maniatis ©

## 3.1 GUYANA

**Overview:** As a large HFLD country, Guyana has engaged in several climate finance and carbon finance processes, notably: the Norway Guyana partnership, ART-TREES and LEAF (Lowering Emissions by Accelerating Forest finance). The country has not completed the UNFCCC cycle to present national REDD+ results.

**Climate finance:** Norway and Guyana signed a climate and forest partnership in 2009 through to 2015. The forest partnership with Guyana had two result components: (1) continued low deforestation, and (2) improved governance in the forestry sector. Norway committed to providing financial support of up to \$250 million until 2015 for results achieved by Guyana in limiting emissions from deforestation and forest degradation, which supported the implementation of Guyana's low carbon development strategy. As part of the agreement, the two countries agreed to establish the Guyana REDD+ Investment Fund as the financial intermediary mechanism for the performance-based payments from contributors to Guyana.

Results relating to improved governance in the forestry sector are based on an objective appraisal detailed in the latest (2015) [Joint Concept Note](#) and [Technical Note on Payments](#). Norway paid Guyana in arrears for results achieved the previous year. Since 2009, Guyana has received a total of NOK 1.5 billion (about \$220 million) as RbPs from Norway. These funds have been invested in the country's low carbon development, financing renewable energy, flood protection, green job creation, as well as land titling and development funds for Indigenous peoples.

Interestingly, recent analysis has shown Guyana's bilateral agreement with Norway was effective at reducing tree loss

during the implementation period (2010–2015) but that deforestation increased after payments ceased (Roopsind *et al.*, 2019<sup>43</sup> and Hook & Laing, 2022<sup>44</sup>).

**Carbon finance:** In December 2022, it became the first country to achieve issuance of TREES credits and to sell those to a corporate buyer. Guyana's TREES credits include the application of the ART-TREES optional HFLD module (Figure 4).

Guyana's HFLD adjusted ART emissions reductions and removals result in a total of 33,470,599 tCO<sub>2</sub>e TREES credits (after the buffer pool and uncertainty deductions). Guyana's results were verified by the VVB Aster Global. All documents related to Guyana's ART submission are

available on the ART registry Program documents website<sup>45</sup>.

One-third of Guyana's credits (37.5 million HFLD credits), for a minimum of \$750 million between 2022 and 2023, will be purchased by the [Hess Corporation](#)<sup>46</sup> directly from the Government of Guyana at \$20tCO<sub>2</sub>e.

The government of Guyana has also engaged in the LEAF Coalition by submitting a proposal<sup>47</sup> and signed a Memorandum of Understanding (MoU)<sup>48</sup> with EMERGENT (a non-profit intermediary to mobilize carbon finance for tropical forest countries) in November 2021. The proposal targets the 2022-2026 period and estimates 17 million tCO<sub>2</sub>e annually during this period (non-binding).

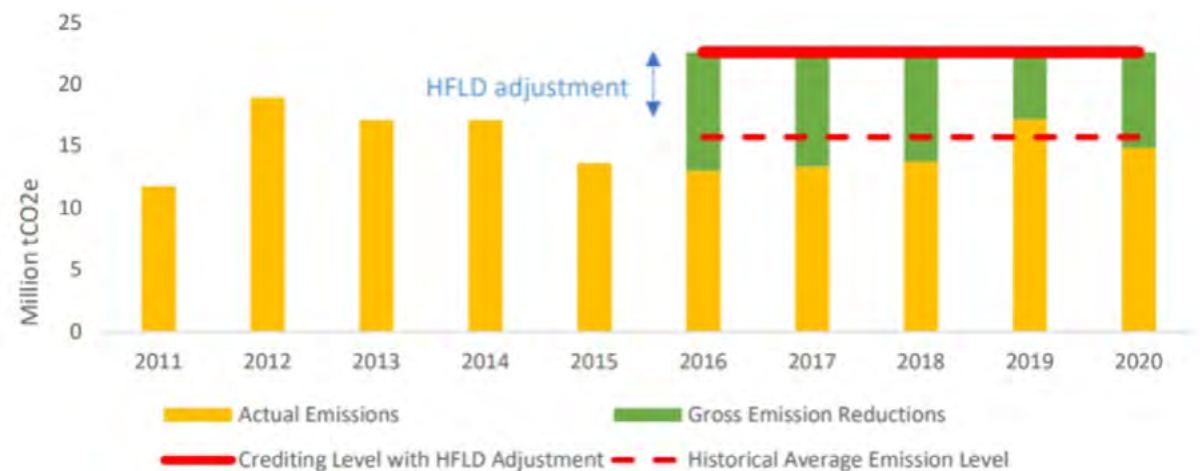


Figure 4. Guyana's ART-TREES crediting level. Gross emission reductions are represented by green bars below the red dotted line (historical average emission level) while gross emission reductions resulting from the HFLD adjustment are represented by the portion of green bars above the red dotted line. Source: Streck *et al.* (2022)<sup>49</sup>.

## 3.2 GABON

**Overview:** Gabon's forests cover 88% of the national land area (267,667 km<sup>2</sup>), making it the second most forested country in the world after Suriname. These forests represent about 11% of the Congo Basin rainforests and are home to at least 50% of Africa's remaining forest elephants<sup>50</sup>, as well as important global populations of primates such as gorillas, mandrills, and chimpanzees. The country has completed the UNFCCC cycle to present its national REDD+ results, has submitted a concept note to ART and is exploring marketing a portion of its UNFCCC REDD+ results through the [REDD+ plus exchange and registry](#) and/or other pathways.

Gabon, as any other country, is evaluating the pros and cons of RbPs, a compliance market or the use of a specific standard in a VCM context, as well as in a wider context of Article 6 from 2021 onwards.

**Climate finance:** [On 27 June 2017](#) the Government of Gabon and the Central African Forest Initiative (CAFI) signed a [Letter of Intent](#) (LoI) to establish a partnership to implement the [National Investment Framework](#) of Gabon. In 2019, Gabon and CAFI signed a 150 million US dollars agreement (2019 [addendum](#) to the 2017 LoI). Through this, Gabon is rewarded a 10-year deal for both reducing its greenhouse gas emissions from deforestation and degradation, and increasing absorptions of carbon dioxide by natural forests. The Partnership aims to reward Gabon for maintaining a high forest cover and low deforestation rate, recognizing the ecosystem services provided for by natural forests and the real and additional efforts needed to maintain a low deforestation rate. Under the Addendum to the CAFI LoI, the Norwegian government agreed to a first [payment](#) of \$16.9 million which was made in June 2021 for a reduction in emissions in results years 2016 and 2017

compared to a ten-year historical baseline, following the submission of a National Results Report to the Norwegian Government, which underwent a third party independent verification. Gabon's National Results Report for RbPs presented national results in gross emissions reductions and removals for 2016 and 2017.

Gabon's proposed national adjusted FRL, including a 10% HFLD adjustment, corresponds to 96,468,186 tCO<sub>2</sub>e/year (Figure 5)<sup>51</sup>. Gabon's REDD+ results for 2010-2018 against its adjusted FRL total 187,104,289 tCO<sub>2</sub>e. Gabon has submitted its UNFCCC REDD+ results through its Biennial Update Report (BUR) REDD+ Technical Annex. In the BUR REDD+ Technical Annex, Gabon distinguishes two categories of potential historic REDD+ results:

*the Norwegian government  
agreed to a first payment  
of \$16.9 million which was  
made in June 2021 for a  
reduction in emissions in  
results years 2016 and 2017  
compared to a ten-year  
historical baseline*

1. "Classic" REDD+ results linked to reductions in deforestation and degradation and enhancement in sequestration because of forest management, expressed as **"increased net removals"** (but which can also be expressed as reduced emissions) against a 2000-2009 baseline (centered on 2005, the year against which Gabon's climate commitments have been made). These REDD+ results consist of **90,636,103** tCO<sub>2</sub>e for the period 2010-2018;
2. "HFLD Adjusted increased net removals" REDD+ results, which are calculated by applying an adjustment of 10% to the annual average net removals for 2000-2009, equivalent to the maximum allowed adjustment as per the GCF REDD+ RbPs methodology for HFLD countries. These results would allow Gabon to claim a total of 187,104,289 tCO<sub>2</sub>e of credits – an additional **96,468,186** tCO<sub>2</sub>e of credits in recognition of Gabon's extreme HFLD status and the fact that during the 2010-18 crediting period Gabon net absorbed **1,055,317,962** tCO<sub>2</sub>e in its forest sector.

Furthermore, Gabon also stated that it would expect the 90,636,103 tCO<sub>2</sub>e of "classic" REDD+ credits to be traded whilst the remaining 96,468,186 tons would be more appropriate for non-market mechanisms and national offsetting.

Gabon stated that it will seek to use REDD+ results as ITMOs from 2021 onwards, given the [UNFCCC Glasgow Pact](#) agreement.

**Carbon finance:** Under the CAFI LoI Addendum, Gabon will seek to go through ART certification for the emission reductions and removals under the partnership with CAFI and Norway. So far, Gabon has submitted a [concept note](#) to ART with a reference period from 01/01/ - 12/31/2017 and a crediting period from 01/01/2018 - 12/31/2022. The accounting area is specified to be national. The concept note also states that Gabon is developing a National REDD+ registry to track its REDD+ results and RbPs under different financial mechanisms. The new Climate Change Law requires that all credits generated in Gabon are entered in the national registry, even if they are subsequently going to be transferred to a voluntary carbon standard such as ART-TREES.

Gabon is currently evaluating if it will market its UNFCCC REDD+ results (a portion or all of it) through the [REDD. plus exchange and registry](#). This is linked to the discussion of sovereign credits and could include an additional independent third-party verification.

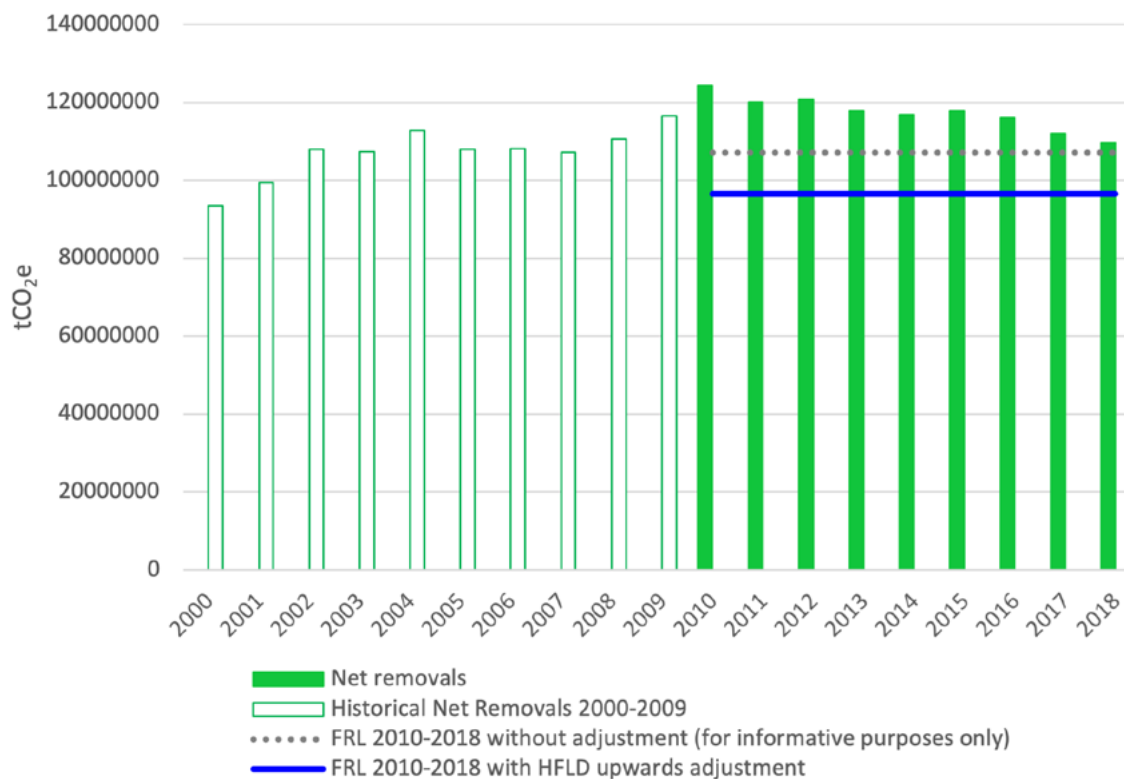


Figure 5. Gabon's proposed FRL for increased net removals (solid blue line). The FRL indicates the average historical net removals for 2000-2009 with a 10% upwards adjustment which is applied to the results period 2010-2018.

## 3.3 THE REPUBLIC OF CONGO (RoC)

**Overview:** The forests of the RoC span over 22.5 million hectares (69.8% of total land area), including 59,000 ha of planted forests<sup>52</sup>. The country has not completed the UNFCCC cycle to present its national REDD+ results, is engaged in the FCPF Carbon Fund and has four Verra projects. It is useful to note that the RoC has an operational REDD+ project and program registry<sup>53</sup>.

**Climate finance:** The RoC submitted its FREL<sup>54</sup> in 2016 and modified FREL in 2017<sup>55</sup>. However, the other documents to “qualify” for REDD+ results under the WFR have not been communicated to the UNFCCC Secretariat (they are not on the UNFCCC REDD+ Web Platform country page<sup>56</sup>). RoC developed a national REDD+ Strategy in 2018<sup>57</sup>. The FREL includes the activities of reducing emissions from deforestation and forest degradation and includes an adjustment based on estimated future emissions from these activities. The adjustment totals 46% of the FREL’s total emissions<sup>58</sup>. The country has not submitted a BUR REDD+ Technical Annex. Although the RoC has developed a [REDD+ National Strategy](#) (2016), a [REDD+ National Investment Plan](#) (2018) and a national [REDD+ MRV system](#), only the FREL and its modified submission have been submitted to the UNFCCC and are available on the [REDD+ Web Platform](#). The country is still working on operationalizing its safeguards information system and is yet to develop a Summary of Information for REDD+ safeguards (or to communicate it to the UNFCCC Secretariat).

**Carbon finance:** The RoC has been part of the FCPF since 2008<sup>59</sup>. It is also engaged in the FCPF Carbon Fund since 2014 and has signed an Emission Reductions Payment Agreement ([ERPA](#)) in 2021. The ERPA is for 5 years (2019-2023) and covers the jurisdictional areas of the Sangha and Likouala. It includes a planned ERR of 9,013,440 tCO<sub>2</sub>e until

2023 for USD \$92,64 million. The main REDD+ activities included are deforestation and forest degradation. The ERRs include the HFLD adjustment allowed for under the FCPF Carbon Fund Methodological Framework.

RoC has four Verra VCS projects<sup>60</sup>: one on afforestation, reforestation, and revegetation, one on improved forest management, one on REDD and the last one is a hybrid REDD and afforestation, reforestation, and revegetation project. The REDD project was designed to protect 92,530 ha of unlogged native Congolese forest, legally designated as a selective logging concession. The anticipated selective logging would have been undertaken on the dry lands, consisting of an area of 55,950 ha. The main activity of the North Pikounda REDD+ Project is the cancelation of the planned degradation and deforestation activities and the decision to instead protect the forest area, while maintaining and protecting the biodiversity of the area. Verified carbon units for the REDD project were issued in 2019 and 2021 (four issuances) for a total of 56,209 units<sup>61</sup>.

The RoC has also submitted a successful [proposal](#) to supply emissions reductions credits to the LEAF Coalition. The proposed ART-TREES accounting area includes the Cuvette, Cuvette-Ouest, Kouilou, Lekoumou and Niari departments, covering a total of 13.1 million hectares, of which 9.7 million hectares are forest (42% of the country’s total forest area). The accounting area excludes the departments of Sangha and Likouala to avoid double counting as they are already participating in the FCPF Carbon Fund Emissions Reduction Program. Three remaining departments with mainly savanna ecosystems and low forest cover are excluded from the TREES accounting area. Volume estimates for 2022-2026 are 5,512,922 tCO<sub>2</sub>e TREES credits.



An aerial photograph of a lush tropical rainforest. A river flows through the lower-left portion of the frame. In the center-right, a small clearing contains a few buildings, including a prominent one with a red roof. The forest extends to the horizon under a clear sky.

4

# POSSIBLE WAYS FORWARD



This report is an opportunity to present research and thinking for HFLD incentive structures and business models. TNC believes that several options presented in this summary could be further explored by the international community, private sector, and philanthropies to support HFLD countries and jurisdictions in accessing climate and carbon finance.

What is clear is that the most practical and direct way forward in the immediate future for HFLD countries and jurisdictions to attract climate and/or carbon finance is to use existing frameworks that are accessible. These are bi-lateral agreements, ART-TREES as well as ITMOs under Article 6.2 of the Paris Agreement and non-market approaches under Article 6.8. It might still take a few years to have the necessary clarity through Article 6.4.

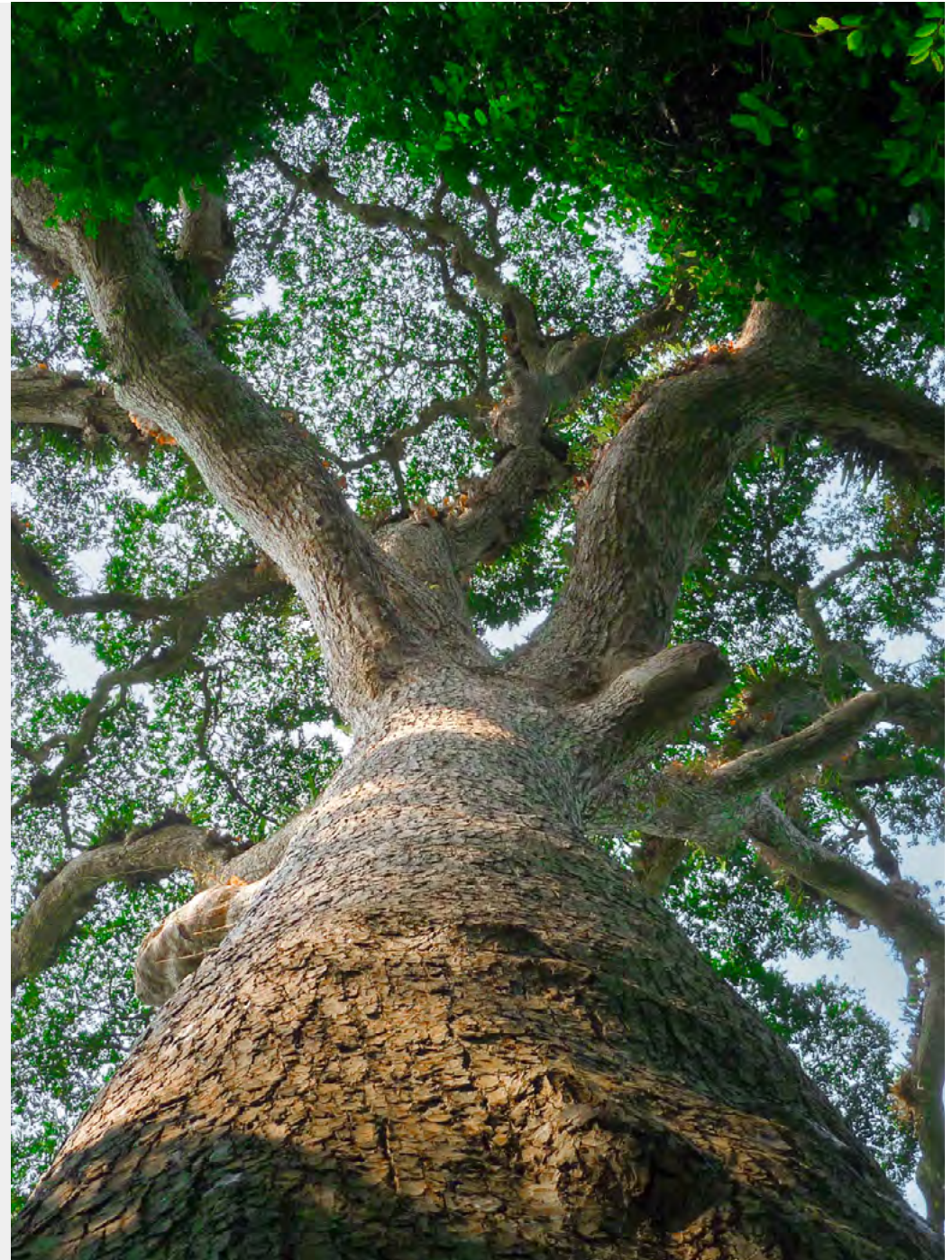
HFLD countries have very little time left to present their positions for HFLD options to be considered in the UNFCCC negotiations through Article 6, but despite the time sensitivity, it is important to note that this is still possible.

In terms of science or policy gaps that need to be addressed to strengthen finance for HFLD countries and jurisdictions, the following issues warrant further work:

- Improved science and policy analysis on removals and conservation of forest carbon stocks, either as market or non-market mechanisms.
- Exploring the additionality concept in a context of HFLD countries and jurisdictions (especially in terms of sustainable forest management and conservation of forest carbon stocks).
- Continue to raise awareness of the importance of forests in HFLD countries and jurisdictions and identify bankable and operational solutions together with supply countries and/or jurisdictions and potential buyer countries and/or private sector.

Environmental integrity and additionality in the context of HFLD countries and jurisdictions as well as transparency will be key elements for successful leveraging of climate and carbon finance. These forests are critical for NCS and NbS and the livelihoods of IPLCs. As an international community we must conserve them and find a way forward to agree on ways to do so that are viable, transparent and provide integrity so that we can ensure that these forests are left standing for future generations.

For more information about TNC's work on HFLD, please contact: [ncs@tnc.org](mailto:ncs@tnc.org)



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