

# Joint Concept Note

## Background

On November 9<sup>th</sup>, 2009, Guyana and Norway signed a Memorandum of Understanding (MoU) regarding cooperation on issues related to the fight against climate change, in particular those concerning reducing emissions from deforestation and forest degradation in developing countries (REDD-plus<sup>1</sup>), the protection of biodiversity, and enhancement of sustainable, low carbon development.

An accompanying Joint Concept Note (JCN) sets out the framework for taking the Guyana-Norway co-operation forward. It sets out how Norway would provide Guyana with financial support for REDD-plus results, and formed the basis for the first payment from Norway to Guyana.

Since the first Joint Concept Note was published, considerable progress has been made in the Guyana-Norway cooperation. The JCN has been updated regularly to reflect this progress and sets out next steps for achieving the 2015 goals of the partnership:

- The first update of the Joint Concept Note was finalized in March 2011 and guided the partnership until December 2012.
- The second update was finalized in December 2012 and guided the partnership up until June 2013.
- For the period September 2013 to November 2014, Norway and Guyana agreed on performance targets for key Strategic Objectives of the partnership. These are available online<sup>2</sup> and will be reported on and assessed.

This current version of the Joint Concept Note is the third update and is intended to guide the partnership for the period from June 2014 to June 2015.

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<sup>1</sup> As defined in the Bali Action Plan (2/CP.13).

<sup>2</sup> <https://www.regjeringen.no/globalassets/upload/kld/kl/klima-og-skogprosjektet/guyanorwayannouncement.pdf>

## Section 1: Introduction

This Joint Concept Note constitutes the overarching framework for taking the Guyana-Norway cooperation to its final year, 2015. Specifically, it addresses Paragraphs 2 (c), 3 and 4 of the MoU signed between Guyana and Norway on November 9<sup>th</sup>, 2009. The Joint Concept Note sets out how Norway is providing, and will continue to provide, financial support to Guyana, based on Guyana's delivery of results as measured, and independently verified or assessed, against two sets of indicators:

- *REDD-plus Performance Indicators:* A set of forest-based greenhouse gas emissions-related indicators, as described in more detail in Section 3 and Table 2. Results against these indicators will be independently verified according to the established practice of the partnership. These indicators will gradually be substituted as a system for monitoring, reporting and verifying (MRV) emissions from deforestation and forest degradation in Guyana is established. The development of the MRV system is guided by the MRV roadmap.<sup>3</sup>
- *Indicators of Enabling Activities:* Indicators are identified that can be independently assessed through publicly available information on progress regarding a set of policies and safeguards to ensure that REDD-plus contributes to the achievement of the goals set out in Paragraph 2(c) of the MoU signed between Guyana and Norway on November 9<sup>th</sup>, 2009, namely *“that Guyana’s LCDS Multi-Stakeholder Steering Committee and other arrangements to ensure systematic and transparent multi-stakeholder consultations will continue and evolve, and enable the participation of all affected and interested stakeholders at all stages of the REDD-plus/LCDS process; protect the rights of indigenous peoples; ensure environmental integrity and protect biodiversity; ensure continual improvements in forest governance; and provide transparent, accountable oversight and governance of the financial support received.”* The enablers are described in more detail in Section 2 and Table 1 below.

Norwegian financial support is primarily being channeled through a multi-contributor financial mechanism – the Guyana REDD-plus Investment Fund (GRIF). The support is financing two sets of activities:

- The implementation of Guyana's Low Carbon Development Strategy (LCDS)
- Guyana's efforts in building capacity to improve overall REDD+ and LCDS efforts.

Section 4 sets out how the financial mechanism operates.

The previous concept note updated the longer term goals of the partnership – these goals are further updated in this concept note. The annual progress in developing the MRV system and in strengthening the quality of REDD-plus-related forest governance continues to be defined as steps towards reaching these goals. The Government of Guyana is responsible for making publicly available the necessary data for assessing performance against the given indicators.

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<sup>3</sup>[http://www.forestry.gov.gy/Downloads/Terms\\_of\\_%20Reference\\_for\\_Guyana's\\_MRVS\\_Draft.pdf](http://www.forestry.gov.gy/Downloads/Terms_of_%20Reference_for_Guyana's_MRVS_Draft.pdf)

## **Section 2: Enabling Activities**

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The continuation of result-based financial support from Norway to Guyana will depend on publicly observable progress on forest governance, as outlined below.

### **Section 2.1 Indicators of Enabling Activities**

Performance in enabling activities will be measured against progress on six key categories of activities:

#### **Strategic framework:**

All aspects of Guyana's planned efforts to reduce deforestation and forest degradation, including forest conservation, sustainable management of forests and enhancement of forest carbon stocks ("REDD-plus"), are being developed in a consistent manner, through an internationally recognized framework for developing a REDD-plus programme, and will continue to evolve over time.

Guyana has chosen the Forest Carbon Partnership Facility (FCPF) as the strategic framework for its REDD+ efforts, with the Inter-American Development Bank (IDB) as the delivery partner. In 2014 Guyana concluded engagement with the IDB for the commencement of implementation of the FCPF with the signing of a Technical Co-operation Agreement between GoG and IDB. The focus will now be on the implementation of the FCPF and to commence the process of preparing the R-Package.

Guyana's REDD-plus efforts have been integrated within the Low Carbon Development Strategy (LCDS), which currently covers the period to 2015. The LCDS was originally launched in 2009, with an addendum in 2013. By June 2015, the LCDS will be updated to reflect progress in implementing REDD+ initiatives, lessons learnt from the Guyana-Norway Partnership and to set out in draft form the focus, initiatives and projects for the next phase of the LCDS (2015-2020). This draft document will then be subject to wide stakeholder consultations, including forest-dependent and Amerindian communities, and other members of civil society.

The contributions to Guyana's LCDS from Norway and other contributors, including the FCPF, will be administered in a transparent manner. Information concerning all expenditures, both planned and implemented, are publicly available on the relevant website of the Government of Guyana, and through national systems of public disclosure, including to the National Assembly.

#### *Goal of the partnership*

Guyana and Norway support the relevant decisions of the UNFCCC COPs in Cancun, Durban, Doha, Warsaw and Lima. In particular, the Governments welcome both (i) the Cancun decision to agree a new, global climate agreement by 2015, for implementation from 2020 at the latest and (ii) the Warsaw Framework for REDD+.

The Governments believe that the partnership between the two countries can provide many useful lessons for the crafting of the new global agreement, as well as influencing the effective functioning of other multilateral processes, e.g. the FCPF. This could include lessons on creating effective climate finance mechanisms, setting REDD+ reference levels, and providing practical lessons on the implementation of safeguards. The Government of Guyana's Readiness Package ("R-Package") was prepared and submitted to the FCPF in 2014. Guyana is considering to give an early idea presentation for the Carbon Fund in the April 2015 meeting with the intention of entering the fund's second pipeline.

## **Improved Financial Intermediation**

### *Goal of the partnership*

It is hoped that by 2015, the financial mechanisms of the partnership can be used as examples of interim flexible climate financing instruments, which allow for rapid approval of projects and stronger national ownership, while at the same time applying internationally recognized standards for fiduciary, environmental and social safeguards.

### **Continuous multi-stakeholder consultation process:**

The LCDS, including the REDD-plus strategy and prioritized LCDS funding needs, is subject to an institutionalized, systematic and transparent process of multi-stakeholder consultation, enabling the participation of all potentially affected and interested stakeholders at all stages of the REDD-plus/LCDS process. This process will continue to evolve over time. Particular attention is given to the full and effective participation of indigenous peoples and other forest-dependent communities.

### *Goals of the partnership*

- Monthly meetings of the Multi Stakeholder Steering Committee (MSSC), with comprehensive minutes of every meeting made publicly available immediately upon approval from the following MSSC meeting. Enable participation of all relevant stakeholders through renewal of invitations to the MSSC,
- Information and consultation program which includes:
  - o Keeping the GRIF and LCDS web pages updated with relevant information about the progress of ongoing processes.
  - o Wide stakeholder engagement and inclusive consultations of the LCDS.
  - o Establishing and operationalizing a Communications Team coordinated by the Office of Climate Change and responsible for communication, information and awareness sessions.
  - o The establishment of information and awareness activities that are designed to meet the needs of Amerindian communities, including through the use of non-internet based channels of communication such as in-person meetings, information folders, and traditional media.
  - o Coordinated information flows related to the different parts of LCDS implementation, including but not limited to LCDS progress, EITI, FLEGT, FCPF and GRIF projects. Collaboration with the National Toshias Council (NTC) and MSSC members to function as agents of information sharing.

### **Governance:**

A transparent, rules-based, inclusive governance, accountability and enforcement system for forests in Guyana is being progressively strengthened, in accordance with Guyana's outline REDD-plus Governance Development Plan (RGDP) as outlined in Table 1.

### *Goals of the partnership*

- Execution of EITI Scoping Study along with the preparation of a fully costed Work Plan by February 2015; application for EITI Candidacy presented to the EITI Board by June 2015.

- Continuation of work towards a Voluntary Partnership Agreement (VPA) under the EU FLEGT Action Plan in accordance with the July 2013 Joint EU-GoG Road Map with the intent of signing the VPA by Guyana upon completion of the VPA negotiations, a process which is jointly conducted by the GoG and EU. This will be conditioned upon large consensus of all stakeholders involved and impacted by the VPA, that their inputs have been taken into account, sufficient time given for discussions and engagements at the stakeholder level, and subject to further updating of the Road Map, including that which may emanate from the scheduled April 2015 EU GoG negotiation session.
- Continued implementation of Independent Forest Monitoring (IFM), with the second IFM assessment done at the end April 2014. In keeping with Section 4 of the agreed Terms of Reference for IFM, the next IFM assessments will be conducted at 2 years intervals thereafter, the next one taking place in April 2016 unless other provisions are foreseen in the VPA.
- Ongoing implementation of activities by the Land Reclamation Committee in accordance with its ToR and Work Plan, such as site screening evaluation, backfilling, and stakeholder engagements, will continue and be communicated publicly by June 2015.
- Submission of Guyana's fifth national report by June 2015 to the CBD including to the extent possible a description of the synergies between the protection of biodiversity, REDD+ and the LCDS.
- Revision of the National Biodiversity Strategy and Action Plan and continuing to implement actions to meet the Aichi Targets and the UNCBD Strategic Plan publically communicated by June 2015.
- Implementation of a GoG (MNRE) programme of activities, with actions focused on specific efforts to manage degradation from extractive activities where this needs to be done, including, but not limited to: the operationalizing of a mining school, training and capacity development, applying technology for improved recovery and reduced environmental impact, recruitment of additional mines officers and enhanced enforcement, and continued dialogue with the sectors and relevant stakeholders towards ensuring that sectoral best practices are applied and sustained thereafter.
- Implement a project to mainstream biodiversity protection in the gold mining sector, including completion of ToRs for two (2) Consultancies - ongoing: (i) capacity building of EPA Officers, and (ii) prioritisation of hotspots for monitoring and enforcement of mining-related activities by June 2015.
- Exploration of the development of a GRIF project that focuses on expanding the current mercury free program in addition strengthening the Exploration and Prospecting Unit of the Guyana Geology and Mines Commission so as to help enable environmentally low-impact mining and prospecting for small and medium scale miners.

### **The rights of indigenous peoples and other local forest communities as regards REDD-plus:**

The Constitution of Guyana guarantees the rights of indigenous peoples and other Guyanese to participation, engagement and decision making in all matters affecting their well-being. These rights will be respected and protected throughout Guyana's REDD-plus and LCDS efforts. Guyana's policy is to enable indigenous communities to choose whether and how to opt in to the REDD+/LCDS process. This will take place only when communities wish to do so with their titled lands, in accordance with Guyana's policy of respecting the free, prior and informed consent of these communities.

### *Goals of the partnership*

- GRIF funding made available to enable the achievement of the Government of Guyana's policy objective of completion of land titling for all eligible Amerindian communities, with progress measured relative to a publicly available timeline.
- GRIF funding made available for all Community Development Plans (CDPs) through the Amerindian Development Fund.
- Opt In mechanism strategy developed and the selection of a community to test the mechanism with a piloting of the mechanism in place by June 2015.
- Implementation of the part of the outreach program under the multi-stakeholder indicator which is tailored and targeted towards the needs of Amerindian communities by June 2015.

### **Integrated land-use planning and management:**

Several aspects of REDD+ relate to the development of a system for environmentally sustainable and climate smart area planning and management.

### *Goals of the partnership*

- By September 2015, Guyana has a formal system in place for holistic area planning and management.
- A key element of this system should be a publicly available map of area use (including, but not limited to, full transparency regarding existing and planned concession and reconnaissance areas for forestry and mining, titled lands for Amerindian communities, areas planned and concessioned for industrial agriculture etc.)
- The MNRE has recently launched a Geospatial Information Management Unit which has created a web-based application (Geonode) for the management and publication of spatial data inclusive of forestry concessions, mining concessions and Amerindian titled lands. The interface allows for non-specialized users to share data and create interactive maps which can all be publically accessed and viewed. By June 2015 the Geonode Server is to be publically available and operational.
- In the process of developing the system for area planning and management and the area use map, formal status of varying degrees of protection should be awarded to a significant part of the areas identified as Intact Forest Landscapes and priority areas for biodiversity. This will gradually replace the Intact Forest Landscapes interim performance indicator. The measures taken will as a whole be in line with Guyana's stated goal of maintaining 99.5 per cent of its forest for the duration of the partnership and stay on a similar trend after 2015, though the degree of forest protection will depend on various factors, including the availability of international climate finance.<sup>4</sup>

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- <sup>4</sup> Whilst implementing the IFL Roadmap, it was apparent that there was an urgent need for a technical analysis required to determine priority areas for biodiversity. As such, the Protected Areas Commission (PAC) along with expertise solicited from the University of Kent and Conservation International, completed a Technical Report on the Priority Areas for Biodiversity through consultations with relevant stakeholders. The Report was submitted as a means of verification for JCN 2014. In an effort to progressively implement the IFL Roadmap with consideration given to the recently completed technical gap-analysis report, the PAC has commenced the development of its System Plan and Strategic Plan (2015-2020) which will both provide the framework for protecting and managing existing protected areas and priority areas for biodiversity. In addition, the road

## **Monitoring, Reporting and Verification:**

Guyana has progressed far in developing a national MRV system. Guyana has established a deforestation baseline and performed four forest area assessments for the years 2009-10, 2010-11, 2012 and 2013. The fifth annual assessment for year 2014 is currently being conducted.

### *Goals of the partnership*

- Guyana has implemented the MRV-roadmap and reached a reporting level incorporating several Tier 3 elements by the end of 2015. These Tier 3 elements include, but are not necessarily limited to, the use of high resolution data at national level that allows for disaggregation, the use of methods that provide estimates of greater certainty than lower tiers for key carbon pools, the use of comprehensive field sampling that is linked to GIS based systems which integrates land use and management activity data, and is subject to quality checks, and validations. Further, other areas relevant to Tier 3 reporting, will be explored as stated in the MRV Roadmap.
- Guyana will conclude technical analyses that inform a national reference level that is to be submitted to the UNFCCC. The reference level will reflect the core elements of the reference level agreed by the GoG and the GoN, and also make provisions that the reference level be reassessed at regular intervals as/if global rates decrease. Guyana submitted the reference level to the UNFCCC by December 2014 in accordance with timelines provided by the UNFCCC secretariat – and was one of the first countries in the world to do so.
- Establish mechanisms for data sharing between governmental agencies, so that the MRV data generated can inform policy development in the broader land use sector, e.g. for land use planning, enforcement in the mining sector etc. The Geospatial Information Management Unit under the Ministry of Natural Resources and the Environment will coordinate this work.

## **Section 2.2 Assessing Progress Against Enabling Indicators**

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Table 1 below sets out how progress will be measured regarding enabling indicators going forward. These indicators are informed by the long term goals of the partnership as agreed in section 2.1 above, and thereafter updated in accordance with the long term goals.

Guyana and Norway have agreed that the necessary information to assess Guyana's delivery on these indicators will be easily accessible in the public space. Independent assessment of the information thus accessible determines to what degree, the REDD-plus enablers have been met.

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map makes reference to site-level management plans for which the PAC is currently drafting through a number of stakeholder consultations for three (3) existing protected areas – Shell Beach, Kanuku Mountains and Kaieteur National Park. In doing so, the management plans will serve as a template for piloting site specific priority areas for biodiversity.

### **Section3: REDD-plus performance indicators**

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Guyana is being paid for its performance through an incentive structure which rewards keeping deforestation below an agreed reference level, as well as avoiding increased forest degradation.

The Governments of Guyana and Norway strongly endorse the establishment of such an incentive structure under the United Nations Framework Convention on Climate Change (UNFCCC). To help facilitate such an agreement, the Governments have decided to pilot this incentive structure on a national scale and in a pragmatic, gradually evolving, workable and hopefully replicable manner. Once an international regime is in place, the Guyana-Norway partnership will be adjusted accordingly. Section 3.1 sets out the incentive structure, while Section 3.2 outlines how performance is to be assessed.

#### **Section 3.1 REDD+ incentive structure**

The payments due to Guyana for a given year are paid post facto. They are calculated as follows:

1. Measure avoided deforestation by subtracting Guyana's observed deforestation rate against the agreed *reference level*. See Section 3.1.1
2. Determine avoided greenhouse gas emissions by applying a set of *carbon-density proxies* to:
  - (i) convert the observed avoided deforestation rate into avoided greenhouse gas emissions;
  - (ii) subtract increased emissions from forest degradation based on agreed indicators and their reference levels as set out in table 2.See Section 3.1.2.
3. Apply an interim carbon price of US\$5 per tonne of avoided emissions, providing Guyana does not exceed an agreed level of deforestation within the context of the Guyana-Norway partnership – see Section 3.1.3. If the deforestation rate is above the levels stipulated in section 3.1.3, payments will be reduced and ultimately cease.

#### **Section 3.1.1 – Measuring Avoided Deforestation and Forest Degradation**

##### *Setting a Deforestation Reference Level*

For a global REDD+ mechanism to be effective it must incentivize both (i) reductions in deforestation in countries with high levels of deforestation and (ii) maintenance of low deforestation rates in countries that have maintained their forest cover. If only countries with high deforestation rates are compensated for improving their forest protection under an international climate regime, deforestation pressures will move to countries with currently low deforestation, like Guyana, and the overall emissions reduction effect will be diluted or lost.

On the other hand, if a global incentive structure does not ensure global additionality, the international community will be paying for “hot air” and there will be no mitigation impact.

This point is broadly accepted within the UNFCCC negotiations, and there is general agreement that a REDD-mechanism must provide genuine incentives for forest conservation in low deforestation countries, as well as ensure global additionality.



Therefore, Norway and Guyana have – pending the finalization of a UNFCCC reference level methodology – decided to use the “combined reference level” methodology to set a provisional reference level, based on an equal weighting of Guyana’s mean 2000 - 2009 deforestation rate and the mean 2005 – 2009 rate in developing countries with deforestation. The “combined reference level” methodology provides incentives for all categories of forest countries, and ensures that emissions from deforestation and forest degradation are reduced cumulatively at a global level.

In setting a historical deforestation baseline for Guyana under the Guyana-Norway REDD+ partnership, the mean value for the 2000-2009 period is used; 0.03% (see Box 1 below for background).

This estimate included all forest to non-forest change i.e. detected mining, road infrastructure, agricultural conversion and fire events that result in deforestation. It does not include forest degradation caused by selective harvesting, fire or shifting agriculture. The same approach and criteria was applied to calculate the area of deforestation from 2009 to 2010 (Year 1 period). The total area of deforestation for this period was calculated at 10 287 ha. In year 2 the change figure was similar and reported as 9 891 ha. For Year 3 the total area of deforestation over the 12 month period is calculated at 14 655 ha. There have been significant improvements in Year 3 in the development of methods of reporting on forest degradation.

This adheres to the principles used for setting the historical deforestation baseline in the Brazilian Amazon Fund.

The “global average deforestation rate” is calculated<sup>5</sup> across 85 developing forested countries by dividing the sum of reported forest area loss in only those countries which lost forest by the starting area of forest across all countries, Data on forest loss is taken from FAOs Forest Resources Assessment 2010 (FRA 2010). For the period 2005-2010 the “global average deforestation rate” was 0.52%. This figure will be subject to revision given new data from e.g. future FAO FRA’s or from the IPCC.

The reference level for Guyana is the mean value of these two measures, that is, 0.275%.

#### *Setting Reference Levels for forest degradation indicators.*

In the first two years of the partnership, Guyana’s MRVS was not sufficiently developed to enable an analysis of forest degradation in Guyana that would enable a facts- based reference level to be established for all degradation indicators. Guyana has made substantial progress in improving the knowledge base for degradation indicators, and the current set of indicators and their associated reference levels are described in Table 2.

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<sup>5</sup>The open source Osiris database was used for these calculations ([www.conservation.org/osiris](http://www.conservation.org/osiris)). Note that this is an underestimate because it does not include deforestation that occurred within countries that had a net gain in forest, nor does it account for all deforestation in countries that lost forest as some countries' reported forest area loss are net values.

**Box 1:**

To improve knowledge in historical deforestation rates in Guyana, an analysis of forest area change since 1990 to September 2009 was undertaken using archived Landsat type satellite data that met the IPCC Good Practice Guidelines for Land Use, Land use Change and Forestry (LULUCF). The analysis was conducted by Poyry and subsequently by Indufor upon assignment by the Guyana Forestry Commission. Assessments were conducted for three periods: Year 1 (01 October, 2009 to 30 September, 2010); Year 2 (01 October, 2010 to 31 December, 2011) Year 3 (1 January 2012 to December 31 2012) and Year 4 (1 January 2013 to December 31 2014) with findings subject to independent verification by Det Norske Veritas (DNV GL). The reports are available at [www.regjeringen.no/guyana](http://www.regjeringen.no/guyana) and [www.forestry.gov.gy](http://www.forestry.gov.gy).

## Forest Change Area by Period &amp; Driver from 1990 to 2013

Driver	Historical Period			Year 1	Year 2 2010-11 (15 months)		Year 3 2012		Year 4 2013	
	1990 to 2000	2001 to 2005	2006 to 2009	2009-10	Deforestation	Degradation	Deforestation	Degradation	Deforestation	Degradation
	Area (ha)									
Forestry (includes forestry infrastructure)	6 094	8 420	4 784	294	233	147	240	113	330	85
Agriculture (permanent)	2 030	2 852	1 797	513	52	N/A	440	0	424	N/A
Mining (includes mining infrastructure)	10 843	21 438	12 624	9 384	9 175	5 287	13 516	1 629	**11 251	2 955
Infrastructure	590	1 304	195	64	148	5	127	13	278	112
Fire (deforestation)	1 708	235		32	58	28	184	208	96	395
Settlements									23	20
Year 4 Shifting Agriculture										765
Year 2 forest degradation converted to deforestation							148		67	N/A
Year 3 forest degradation converted to deforestation									200	N/A
Amaila Falls development (Infrastructure Roads)					225				64	20
<b>Area Change</b>	<b>21 267</b>	<b>34 249</b>	<b>19 400</b>	<b>10 287</b>	<b>9 891</b>	<b>5 467</b>	<b>14 655</b>	<b>1 963</b>	<b>12 733</b>	<b>4 352</b>
Area Change for Year 4 without Shifting Agriculture										3 587
Total Forest Area of Guyana	18 473 394	18 452 127	18 417 878	18 398 478	18 388 190		<b>18 502 531</b>		18 487 876	
Total Forest Area of Guyana Remaining	18 452 127	18 417 878	18 398 478	18 388 190	18 378 299		18 487 876		18 475 143	
Period Deforestation (%)	0.01%	0.04%	0.02%	0.056%	0.054%		0.079%		0.068%	

\*\*Forestry infrastructure accounts for the full total of deforestation from forestry activities.

\*\*Mining Infrastructure accounts for 918 ha in 2013 out of the total deforestation driven by mining of 11 518 ha, when Year 2 & 3 transitional areas are taken into account.

\*\*\*Amalia Falls Development has been split from other infrastructure driven change for reporting purposes.

### **Section 3.1.2 Converting to Avoided Greenhouse Gas Emissions**

Guyana is working to implement an IPCC-compliant MRV-system for emissions or removals of carbon from Guyana's forest sector. Until such a system is in place, a set of basic interim (proxy) indicators will be used to assess Guyana's performance. As a more sophisticated forest carbon accounting-system is implemented, these basic indicators will be gradually phased out. The set of interim performance indicators is based on the following assumptions:

- They provide justification and prioritization for near-term implementation of REDD-plus efforts.
- They are based on conservative estimates while encouraging the development of a more accurate MRV system over time through building national capacities.
- They will contribute towards the development of a national MRV-system, based on internationally accepted methodologies and following the IPCC reporting principles of completeness, consistency, transparency, uncertainty, comparability, and encourage independent international review of results.

When calculating reduced emissions from avoided deforestation, an interim default value of 100 tons of Carbon is applied. This interim carbon figure corresponds to 367 tons of CO<sub>2</sub>. When calculating emissions caused by forest degradation, a default value of 400 tons per hectare is applied, this corresponds to 1468 tons of CO<sub>2</sub>. These conservative carbon values help to ensure that emission reductions from deforestation are not over-estimated and emissions from forest degradation are not under-estimated.

The interim indicators are described in table 2 below.

### **Section 3.1.3 Calculating Payment**

Payments due to Guyana will be calculated by applying an interim carbon price of US\$5/ton CO<sub>2</sub>, as established in Brazil's Amazon Fund.

However, this price will only be applied if Guyana's observed deforestation rate is below the agreed level. This is explained in the following section.

#### *Agreed maximum level of Deforestation*

If designed for maximum effectiveness and efficiency, a future global incentive system could allow for significant variations in individual countries' deforestation rates while still ensuring global additionality.

However, in the absence of a global system, such an approach alone would imply that Guyana would be eligible for significant payments even if it were to increase its deforestation along a business-as-usual trajectory towards the agreed reference level of 0.275%.

However, neither Norway nor Guyana wishes to see such an increase in deforestation, and in November 2009 the Joint Concept Note clearly stated that:

*"(...) the Participants agree that Norwegian financial support from 2011 onwards is also dependent on no national-level increase in deforestation over an agreed level that should be as close to historical levels as is reasonable in light of expanded knowledge of these historical rates and the quality of that knowledge. Such a level can only be set when more robust data is available concerning current and historic deforestation."*

**Box 2:****Mechanism for reducing results based payments if deforestation rate exceeds the agreed maximum level (0,056%)**

Deforestation rates (%)	Up to 0.056	0.057-0.062	0.063-0.080	0.081-0.090	0.091-0.1
Reduced compensation (% per 0.0015 increased deforestation)	0	1,5	2,0	2,5	3,0

At the same time, Guyana's national development requires limited but strategic use of forest assets to enable (i) a limited amount of economic activity to take place within the forest, where the economic value to the nation of such activity is very valuable; (ii) a limited amount of essential national infrastructure to be constructed where this is in line with critical development goals; (iii) support for the sustainable development of forest villages. Guyana is reaching a stage of economic development where experience from other countries suggests that enabling these objectives brings further deforestation pressures.

Therefore, pending the introduction of a global incentive system, it would defeat the purpose of making REDD+ an attractive development option for forest countries if this REDD+ agreement meant that no increases at all be allowed in Guyana's historically low deforestation rates. First, the rates are so small that the margin of error of measurements in itself could yield significant annual variations (as measured in per cent). Second, insisting on such strict limitations would probably yield an insufficient incentive structure for the people of Guyana to stick to a low-deforestation development path, as the economic downsides would be disproportionate to the incentive offered. Third, the relevance of historical trends when deforestation rates are extremely low is not as useful a predictor of future pressures on the forest as it is in countries with higher historic rates of deforestation.

There is no given mathematically correct answer to how these concerns should best be balanced. Guyana and Norway have chosen a model that on the one hand enables Guyana to exercise careful, strategic use of limited forest areas for high value economic activity, the construction of essential national infrastructure and sustainable development of forest villages. On the other hand, the model puts in place incentives that would quickly penalize an upward trend in deforestation, see Box 2.

The essence of this approach has two implications:

- (i) One-off predictable and controllable deforestation events will be allowed for critical national infrastructure that is part of Guyana's transition to a low carbon development

path.<sup>6</sup> During the duration of the current Guyana-Norway partnership, the only such event will be the construction of the Amaila Falls hydro-electricity plant. This plant is the flagship of Guyana's Low Carbon Development Strategy, and is expected to eliminate over 92% of the country's energy-related emissions, after the emissions associated with its construction are accounted for<sup>7</sup>. It will only go ahead after Guyana and Norway have agreed that the necessary Environmental and Social safeguards have been met, and an independent verification agreed by Guyana and Norway confirms the overall beneficial effects of the project from a climate change perspective.

- (ii) Economic activities will be permitted within the forest, within a ceiling on deforestation of 0.056 per annum, without any financial penalty apart from the reduction in compensation caused by a smaller margin between the reference level and the verified deforestation level. For any deforestation rate up to this level, Guyana will be eligible for payments equaling the full margin between the reference level and the verified deforestation level. For deforestation rates between 0,056 per cent and 0,1 per cent (unless they relate to the Amaila Falls project as described above), eligibility for payments would be calculated as a gradually decreasing percentage of the payments that would be due if only the margin between the reference level and the verified deforestation level were taken into account, as set out below. At deforestation rates at or above 0,1 per cent, no payments would be due to Guyana for that given year.

This approach is compatible with the Government of Guyana's declared long-term strategy to maintain the maximum amount of forest cover in Guyana, if an appropriate incentive structure is in place to make this strategy viable. This is being done through a balanced mix of maintaining forests under full protection (areas where only small-scale subsistence farming by forest dependent communities is allowed) and sustainable commercial forest management (where existing forestry concessions can operate within the terms of their licenses and the GFC's sustainable forest management guidelines).

In sum, this means:

- a) that a ceiling on the level of deforestation that can take place before 2015 with any incentives still flowing, has been set at only around 35 per cent of the level of deforestation that the reference level would imply;
- b) the accommodation of limited annual upward variations to ensure that the incentive structure still makes REDD+ a positive development choice for Guyana; and
- c) that Guyana is incentivized to maintain more than 99.5 per cent of its forest cover for the duration of the partnership.

See Box 3 for a summary description of how performance based payments will be calculated.

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<sup>6</sup> The exception is only from the 'agreed maximum level of deforestation' provision. The emissions resulting from such activities would still be part of the total deducted from the reference level to determine total payments due to Guyana. I.e., emissions from Amaila would still count as deduction in total amount due to Guyana in the years when Amaila was established.

<sup>7</sup> The January 2011 ESIA for the Amaila Falls project can be found at <http://amailahydropower.com/latest-news/key-project-documents>. Section 5 details how a 92% reduction in net greenhouse gas emissions is calculated.

Norwegian support to GRIF – alone or in combination with other contributors – will not exceed the sum calculated on the basis of the above described methodology.

It is also likely that while support from Norway will provide majority funding for results delivered by Guyana, in a given year, it is unlikely to equal the total sum owed to Guyana. Therefore, to ensure that the incentives which underpin the partnership are fully in place, Guyana and Norway will work together to seek to get other Participants to join the partnership.

Once other Participants are in place with sufficient commitments to the Partnership, this will enable Norwegian (and other Participants') contributions to vary directly with performance, i.e. a reduction in estimated emissions will lead to relatively higher contributions, increases to relatively lower contributions.

### **Section 3.2 Monitoring Progress Against Reducing Emissions and Enhancing Removals of Carbon in Guyana's Forests**

Progress against reducing emissions and enhancing removals of carbon in Guyana's forests will in time be measured through the MRV system that is being put in place as set out in the MRV-system Road-map, which was recently updated with a new version<sup>8</sup>.

Pending the implementation of the MRV-system, Table 2 sets out the interim REDD+ performance indicators described above. Guyana and Norway agree that these indicators will evolve as more scientific and methodological certainty is gathered concerning the means of verification for each indicator, in particular the capability of the MRV system at different stages of development. In 2014, a system of parallel reporting will be conducted to pilot reporting on forest carbon emissions for main drivers of deforestation.

Reporting on forest carbon emissions will be done in addition to reporting on the Interim Indicators in Table 2 of the JCN.

A roadmap for the establishment of a national MRV system and accompanying Terms of Reference for the system have been developed to provide a framework for verifiable, performance monitoring, set against international best practice and nationally appropriate circumstances. In years 1, 2 and 3 (2009-2012), implementation has also commenced in a number of administrative and technical areas. Broad based MRV-system Steering and Technical Committees have been established and initial technical work has commenced and advanced in forest area and forest carbon stock assessment and monitoring. The framework has been created for annual reporting on deforestation and forest degradation in accordance with interim REDD+ Performance Indicator that will evolve into a full MRV system. The first product has been the completion of historic reporting on forest/non forest cover and deforestation by driver, over the period 1990 to 2009, accompanied by annual reporting of forest/non forest cover and deforestation and forest degradation results in accordance with REDD+ Interim indicators set out in the JCN. Concurrently, work is also proceeding for field based assessments of forest carbon stock assessment and monitoring, the establishment of demonstration activities, and detailed technical studies on reference level setting and forest degradation, as well as other areas.

During 2009-2013, significant improvements to Guyana's ability to measure deforestation indicators were made. In particular, it was determined (and independently verified) that deforestation rates were extremely low.

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<sup>8</sup>[http://www.forestry.gov.gy/Downloads/Terms\\_of\\_%20Reference\\_for\\_Guyana's\\_MRVS\\_Draft.pdf](http://www.forestry.gov.gy/Downloads/Terms_of_%20Reference_for_Guyana's_MRVS_Draft.pdf)

**Box 3:**  
**How will results based payments be calculated?**

To calculate the results based payments due to Guyana based on the results in any given year, the following steps will be followed:

1. Subtracting Guyana's reported and verified deforestation rate from the agreed interim reference level of 0.275%;
2. Calculating the carbon emission reductions achieved through avoided deforestation (as compared to the agreed reference level) by applying an interim and conservatively set estimate of carbon loss of 100tC/ha. This value will be replaced once a functional MRV system is in place. The interim carbon loss figure corresponds to 367tCO<sub>2</sub>/ha.
3. Subtracting from that number changes in emissions – on a ton-by-ton basis – from forest degradation as measured against agreed indicators and their reference levels, as specified in Table 2.
4. In calculating the carbon effects of forest degradation, an interim and conservatively set carbon density of 400 tC/ha will be applied. Upon agreement under the UNFCCC on how to estimate and account for emissions from degradation, this approach will be adjusted accordingly;
5. The tons of “avoided emissions” is then multiplied with an interim carbon price of US\$ 5/ton CO<sub>2</sub>, as established in Brazil's Amazon Fund.
6. If the deforestation rate in a given rate exceeds 0,0056, the payments will be gradually reduced as a proportion of the sum derived through step 1-4 above, or cease (if at or exceeding 0,1 per cent), as stipulated in section 3.1.3, box 2.

Progress has also been made to gain a greater understanding of how degradation is to be measured, and is leading to further work that is expected to enable progress on refining the reporting on indicators to assess degradation, including that from mining and infrastructure (currently the dominant drivers of degradation).

Guyana and Norway have agreed that annual independent verification of REDD+ performance indicators will be conducted by one or more neutral expert organizations, to be appointed jointly by the Participants. The assessment determines what results Guyana has delivered according to the established indicators for REDD-plus performance. For the first, second and third reporting periods, the measurement of progress was carried out by Poyry and Indufor in collaboration with the Guyana Forestry Commission, and independent verification was carried out by DNV GL. DNV GL was selected on the basis of an international tender process in accordance with Norwegian procurement regulations.

#### **Section 4: Financial Mechanism:**

The Guyana REDD+ Investment Fund (GRIF) is channeling REDD-plus financial support from Norway and other potential contributors to the implementation of Guyana's LCDS.

Pending the creation of an international REDD+ mechanism, the Guyana REDD+ Investment Fund (GRIF) represents an effort to create an innovative climate finance mechanism which balances national sovereignty over investment priorities with ensuring that REDD+ funds adhere to globally accepted financial, environmental and social safeguards.

The GRIF is an interim solution for channelling climate finance to Guyana - designed for the Guyana-Norway Partnership up to 2015 - pending the transfer of payment intermediation, and associated processes, to Guyana's national systems. This will be done when it is possible to specify how independent verification of Guyana's adherence globally accepted financial, environmental and social safeguards can be implemented. This will draw on UNFCCC and other relevant guidance.

Until such time as national systems can be used, the World Bank's International Development Association (IDA) was invited by Guyana and Norway to act as Trustee and is responsible for providing financial intermediary services to the GRIF.

The Trustee (i) receives payments for forest climate services provided by Guyana; and (ii) transfers these payments and any investment income earned on these payments, net of any administrative costs, to Partner Entities, for projects and activities that support the implementation of Guyana's LCDS. Transfer of funds takes place on approval by the GRIF Steering Committee, which consists of Guyana and Norway, with observers from Partner Entities, as well as Guyanese and Norwegian civil society.

Partner Entities provide operational services for the approved LCDS investments, and apply their own globally accepted operational procedures and safeguards. As of March 2015, Guyana and Norway have approved as Partner Entities the Inter-American Development Bank (IDB), the World Bank and the United Nations Development Group.

More information on the operation of the GRIF is set out in the Administration Agreement between the Government of Norway and the World Bank.<sup>9</sup>

#### **Improved Financial Intermediation**

Improved Financial Intermediation is one of the key objectives of the Guyana-Norway partnership, in order to ensure effective flow of finances to GRIF projects. The lessons learned will be of global relevance. During the period of this JCN, steps to improve financial intermediation will see the Governments of Guyana and Norway:

- (i) The GRIF Steering Committee will amend the GRIF Governance Framework document to allow for partner entities to use any instrument they deem appropriate under the GRIF.
- (ii) The Governments of Guyana and Norway will encourage the Partner Entities to use the financing instruments they are comfortable with.
- (iii) Acknowledging the need for optimizing financing mechanisms to streamline development of GRIF projects and accessing other climate funds, the PMO will be equipped with the resources and provided with the flexibility to fast track project development.

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<sup>9</sup><http://lcds.gov.gy/guyana-redd-investment-fund-grif.html>



**Table 1 –Key REDD+ Enabling Efforts in 2014/15 (from June 15<sup>th</sup> 2014 to June 19<sup>th</sup> 2015):**

Goal of Partnership	Description of annual indicators for Years 5 of the Partnership outlining Actions to June 19 <sup>th</sup> 2015	
	ANNUAL INDICATOR	VERIFICATION/EVIDENCE
<b>STRATEGIC FRAMEWORK</b>		
Ongoing National Strategy	By June 2015, the LCDS will be updated to reflect progress in implementing REDD+ initiatives, lessons learnt from the Guyana-Norway Partnership and to set out in draft form the focus, initiatives and projects for the next phase of the LCDS (2015-2020). This draft document will later be subject to wide stakeholder consultations, including with Amerindian and forest-dependent communities, as well as other members of civil society.	Draft updated LCDS document available.  Public announcement of wide stakeholder consultations for the LCDS update.
	Continued engagement between IDB and GFC for implementation of the FCPF.  R Package prepared	Documentation on the implementation of the FCPF (copies of progress report, deliverables etc)  R Package prepared and publicly available
<b>CONTINUOUS MULTI-STAKEHOLDER CONSULTATION</b>		
	Monthly meetings of the MSSC with comprehensive minutes made publically available immediately upon approval from the MSSC meeting	Minutes of meetings available on LCDS web site
	Coordinated approach to outreach and communications with support from the MSSC.  Information flow will include climate change, LCDS and technical areas on REDD+ including MRVS, FLEGT, IFM, EITI, and FCPF across various sectors and stakeholder groups.	Annual Stakeholder Engagement Plan approved by MSSC and publically communicated.  Copy of renewed invitation to the MSSC and list of invitees.  Copies of awareness and communications materials  Reports from outreach sessions

	Regular updates of the GRIF and LCDS websites. Update with relevant information about progress of on-going processes. All documents, including deforestation reports, relevant for the Guyana-Norway partnership are available on one web page.	Matrix of information updates provided.  Link to web page with all relevant documents, including, but not limited to the LCDS with its addendum, deforestation reports, accuracy assessment reports, verification reports, independent forest monitoring reports, enabling activities self assessment, enabling activities independent assessment, GRIF-projects, etc.  Simplified summary of the MRVS interim measures report adapted to non-experts publicly available.
<b>GOVERNANCE</b>		
Application for EITI Candidacy by June 2015		
	Candidacy application submission to EITI Secretariat	Copy of EITI Candidacy Application.
Signing of the VPA	Continue to work towards a VPA in accordance with the joint GoG-EU Road Map with intent to sign the VPA upon completion of negotiations.	Updates on joint GoG-EU Road Map, widely circulated among stakeholders.  Concrete steps are taken to ensure the genuine consultation and participation of all stakeholders involved and impacted by the legality definition and minutes of meetings available and widely circulated among stakeholders.  Draft sections of VPA including drafts of the Product Scope, LAS and Transparency Annex, are developed in a participatory way and made available to all stakeholders and agreed with EU.
<b>SLUC/Extractive Industries</b>		

Implementation of a GoG programme with actions focused on specific efforts to manage degradation from extractive activities where this needs to be done	Mining School fully operational and conducting training courses for miners and operators in the sector	Curriculum for the Mining School available and records on number of persons completing courses
	Recruitment of additional field personnel and enhanced monitoring and enforcement	Report on recruitment of additional mines officers by GGMC  Completion of 3 new Mining Stations
	Land Reclamation Committee functional and supporting efforts to restore and rehabilitate areas subjected to mining with publically communicated goal for area restored by June 2015.	Minutes of meeting of the Committee  3 Site Specific Action Plan and Progress Reports, publically available
	Continue training and capacity building for new entrants and existing small and medium scale operators	Training reports and materials
GRIF support to sustainable mining	Explore the development of a GRIF project that focuses on strengthening the Exploration and Prospecting Unit of the Guyana Geology and Mines Commission- so as to help enable environmentally low-impact mining and prospecting for small and medium scale miners.	Draft PCN developed and presented to partner entity for consideration.
<b>IFM</b>		
Conduct IFM assessments at 2 year intervals	Preparations in accordance with IFM ToR for next assessment scheduled for April 2016	Communication with European Forest Institute on synergies and transitioning of IFM audits to Independent Monitoring under EU FLEGT.  Guyana's presentation at third Negotiation session of the EU and GoG on a FLEGT VPA, (scheduled for April 2015) on role of IFM in EU FLEGT process so far and possibilities of synergies and linkages  Evidence of IFM Audits taking place every 2 <sup>nd</sup> year, the last in April 2014 and the next planned for April 2016
<b>CBD</b>		

Prepare Fifth National Report to the CBD, including to the extent possible a description of the synergies between the protection of biodiversity, REDD+ and the LCDS	Submit 5th national report to the CBD	Copy of 5th National Report (including description of stakeholder consultation process and comments compilation) and submission.
Revise the National Biodiversity Strategy and Action Plan (NBSAP)	NBSAP revised to through a process of stakeholder involvement and takes on board recent REDD+ initiatives as well as outlines actions to meet the Aichi Targets and CBD Strategic Objectives	Revised NBSAP publicly available
<b>The rights of indigenous peoples and other forest communities as regards REDD+</b>		
Provision of GRIF resources to enable the achievement of the Government of Guyana's policy objective of completion of land titling for all eligible Amerindian communities, with progress measured relative to a publicly available timeline (ALT project timeline 2012-2016)	Continuation of activities under the titling and demarcation activities under ALT project.	Copies of Absolute Grants and Certificates of Title issued  Copies of investigation reports from MoAA and work orders for demarcation from GLSC
Opt In mechanism pilot started by June 2015	Opt In Mechanism Strategy prepared and piloted in one community	Copy of the Strategy  Initial report on the piloting of the Opt In Mechanism
GRIF funding made available for all CDPs through the Amerindian Development Fund	Documentation of lessons learned from Initiation Phase in the project document and operations manual for Phase II.	Phase II Project Document and Operations Manual with lessons learnt, publically available on GRIF webpages.  Signed project document for Phase II publicly available
	Commencement of funding and implementation of Phase II of the ADF, which will fund 160 CDPs.	List of villages which have received funding under phase II-
<b>FINANCIAL MECHANISM</b>		
Create maximum flexibility for project funding within the current GRIF framework.	Propose change to GRIF Governance Framework allowing for budget support.  Conditioned on the GRIF SC decision on changing the Governance Framework; encourage partner entities to use all financing instruments they are comfortable using in Guyana.	Copy of proposal to GRIF Steering Committee on changes to the Governance Framework.  Copy of letter to Partner Entities.

<b>Optimizing project development</b>	Acknowledging the need for optimizing financing mechanisms to streamline development of GRIF projects and accessing other climate funds, the PMO will be equipped with the resources and provided with the flexibility to fast track project development.	Institutional Strengthening Phase II project document submitted to IDB describing the strengthening of the PMO
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<b>INTEGRATED LAND USE PLANNING AND MANAGEMENT</b>		
Implementation of a formal system for holistic area planning and management	Present the NLUP to Minister of MNRE and Cabinet for consideration and approval.	Copy of submission of NLUP publically available.
	Continuous public awareness on the NLUP.	Public Awareness materials available.
	Update GIS layer to include forest concession information and available information on mining concessions, agriculture leases and protected areas	Updated GIS dataset available. Written confirmation from affected agencies that the land use plan and related GIS layer are agreed to, and that the plan indeed forms the basis of land use planning in Guyana.  Beta version of web-based application (Geonode) for management and publication of spatial data.
	Continually update GIS layer of allocated forest concessions but also including additional information on mining, agriculture and protected areas	Updated GIS dataset available. Annual production of written confirmation from affected agencies that the land use plan and related GIS layer updates are agreed to.
	Revise the IFL layer based on the available data	Updated GIS dataset available. Any revision of the IFL layer should be confirmed by both GoG and GoN.
	Finalize the definition of priority areas for biodiversity	Definition of priority areas for biodiversity established and publically communicated.

	Commence implementation of roadmap to codify formal status of protection for areas identified as IFL and priority areas for biodiversity.	<p>Identification of parameters to map key biodiversity areas.</p> <p>Public communication of the timeline for establishment of the areas of varying degrees of protection.</p> <p>The roadmap will be made publically available.</p> <p>Develop site specific management plans for the National Protected Area System in 2015. The drafting of site-specific management plans will include public consultation. 3 Site Specific Management Plans for Protected Areas.</p> <p>Technical Report on the Priority Areas for Biodiversity publically communicated. (**Parameters &amp; Definition included)</p>
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**Table 2: Interim Indicators for REDD+ performance in Guyana**<sup>10</sup>

Source of emissions or removals	Justification	Interim performance indicator	Monitoring and estimation	IPCC LULUCF reporting
Deforestation indicator:				
Gross deforestation	Emissions from the loss of forests are among the	Rate of conversion of forest area as compared to	Forest cover as of September 2009 will be used as baseline for monitoring gross	Activity data on change in forest land

<sup>10</sup>The Participants agree that these indicators will evolve as more scientific and methodological certainty is gathered concerning the means of verification for each indicator, in particular the capability of the MRV system at different stages of development. Based on experiences from the first and second reporting and verification exercise, some adjustments have been made in this table. However, the process has identified a need to develop further detail on the operationalisation of the indicators. Significant improved ability to operationalise the indicators has already been achieved, and this process will continue over the duration of the partnership.

	largest per unit emissions from terrestrial carbon loss.	<p>agreed reference level.</p> <p>Forest area as defined by Guyana in accordance with the Marrakech accords:</p> <ul style="list-style-type: none"> <li>• Minimum 30% tree cover</li> <li>• At a minimum height of 5 meter</li> <li>• Over a minimum area of 1 ha.</li> </ul> <p>Conversion of natural forests to tree plantations shall count as deforestation with full carbon loss.</p> <p>Forest area converted to new infrastructure including logging roads, shall count as full carbon loss, unless otherwise informed by field study that identifies an alternative carbon loss level.</p>	<p>deforestation.</p> <p>Reporting to be based on medium and high resolution satellite imagery and in-situ observations where necessary.</p> <p>Monitoring shall detect and report on expansion of human infrastructure (eg. new roads, settlements, pipelines, mining/agriculture activities etc.)</p>	
<b>Degradation indicators:</b>				
Loss of intact forest landscapes <sup>11</sup> . This indicator will be phased out of reporting on forest degradation under	Degradation of intact forest through human activities will produce a net loss of carbon and is often the	The total area of intact forest landscapes within the country should remain constant.	Using similar methods as for forest area change estimation.	Changes in carbon stocks in forests remaining as forests

<sup>11</sup>Intact Forest Landscape (IFL) is defined as a territory within today's global extent of forest cover which contains forest and non-forest ecosystems minimally influenced by human economic activity, with an area of at least 500 km<sup>2</sup> (50,000 ha) and a minimal width of 10 km (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory)." (See [www.intactforests.org](http://www.intactforests.org))

the MRVS subject to fulfillment of provisions laid out in the JCN on IFL	pre-cursor to further processes causing long-term decreases in carbon stocks.  Furthermore, preserving intact forests will contribute to the protection of biodiversity.	Any loss of intact forest landscapes area <sup>12</sup> shall be accounted as deforestation with full carbon loss. The IFL Baseline map developed in the first reporting period will be used to assess changes. Note that this indicator will be subject to review as stipulated in section 2.1.		
Forest management (i.e. selective logging) activities in natural or semi-natural forests	Forest management should work towards sustainable management of forest with net zero emissions or positive carbon balance in the long-term.	All areas under forest management should be rigorously monitored and activities documented (i.e. concession activities, harvest estimates, timber imports/exports).  Increases in total extracted volume, expressed in tons of CO <sub>2</sub> , (as compared to mean volume 2003 – 2008) will be accounted as	Data on extracted volumes is collected by the Forestry Commission.  Independent forest monitoring will act as an additional data source on forest management to complement this information.  Accounting of this indicator should be done in terms of carbon units referred as close as possible to extraction of biomass from the	Changes in carbon stocks in forests remaining as forests

<sup>12</sup>When assessing loss of IFL, the established elimination criteria will be applied:

- Settlements (including a buffer of 1 km);
- Infrastructure used for transportation between settlements or for industrial development of natural resources, including roads (except unpaved trails), railways, navigable waterways (including seashore), pipelines and power transmission lines (including a buffer of 1 km on each side);
- Areas used for agriculture and timber production;
- Areas affected by industrial activities during the last 30-70 years, such as logging, mining, oil and gas exploration and extraction, peat extraction, etc.
- Amerindian titles and extensions granted (the footprint of such areas, i.e. without applying a 1 km buffer)

The threshold values for IFL-patches (500 km<sup>2</sup>, min. width 10 kms) will not be applied in assessing IFL loss.



		<p>increased forest carbon emissions<sup>13</sup> unless otherwise can be documented using the gain-loss or stock difference methods as described by the IPCC for forests remaining as forests. In addition to the harvested volume, an appropriate expansion factor of 25 % (applied to the whole population of trees under forest management, i.e. harvested + remnant trees) shall be used to take account of carbon loss caused by collateral damage, etc, unless it is documented that this has already been reflected in the recorded extracted volume.</p>	<p>above ground carbon pool.</p>	
<p>Carbon loss as indirect effect of new infrastructure.</p>	<p>The establishment of new infrastructure in forest areas often contributes to forest carbon loss outside the areas directly affected by constructions.</p>	<p>High resolution satellite imagery and/or field observations shall be used to detect degradation in a 100m buffer surrounding new infrastructure (incl. mining sites, roads, pipelines, reservoirs etc.).</p>	<p>Medium and high resolution satellite to be used for detecting human infrastructure (i.e. small scale mining) and related degradation.</p>	<p>Changes in carbon stocks in forests remaining as forests</p>

<sup>13</sup> The participants agree on the need to create incentives for net-zero or carbon positive forest management practices in Guyana. This will require a sophisticated MRV system to assess the carbon effects of forestry activities. This will be an objective of the MRV system under development. In the interim period, focus will be on incentives for avoiding increased emissions from forest management activities.

		<p>As the benchmark for this indicator, the annualized number of the mapped degraded area from the second reporting period will be used (4368 ha)<sup>14</sup>. Any degradation above this benchmark in subsequent reporting years will result in reduced compensation.</p> <p>Unless other emission factors can be documented through the MRVS, these areas shall be accounted with a 50 % annual carbon loss, i.e. areas mapped in one year will be accounted with a further 50 % carbon loss in subsequent reporting periods.</p>		
Emissions resulting from subsistence forestry, land use and shifting	Emissions resulting from communities to meet their local	Not considered relevant in the interim period before a proper		Changes in carbon stocks in forests

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<sup>14</sup>For the second reporting period, Guyana made use of a new and significantly improved method for mapping infrastructure related degradation. A historical proxy analysis of areas affected by degradation from infrastructure was conducted for the period 2000-2010. The total area of a 100m buffer surrounding all new infrastructure was calculated for the historical period, as well as for the for the year 2 reporting period. This analysis indicated that the area affected by new infrastructure in the year 2 reporting period was comparable to the historical period.

As a benchmark for infrastructure related degradation in future reporting periods, the area mapped as degraded in the second reporting period will be used. This area equaled 5460 ha, but as the second reporting period had a length of 15 months, and subsequent reporting periods will be 12 months, this number was annualized. The benchmark is therefore 4368 ha.

cultivation lands (i.e. slash and burn agriculture).	needs may increase as result of <i>inter alia</i> shorter fallow cycle or area expansion.	MRV-system is in place.		remaining as forests
Emissions resulting from illegal logging activities	Illegal logging results in unsustainable use of forest resources while undermining national and international climate change mitigation policies	Areas and processes of illegal logging should be monitored and documented as far as practicable.	<p>The monitoring of illegal logging is within the main objectives of the GFC's forest monitoring system, and is informed by an illegal logging database. In addition to reporting on illegal logging via the database, Independent Forest Monitoring will support performance monitoring of forest legality through the IFM framework. Should IFM detect potentially significant challenges with the established forest monitoring system, this indicator will be reassessed.</p> <p>In the absence of hard data on volumes of illegally harvested wood, a default factor of 15% (as compared to the legally harvested volume) will be used. This factor can be adjusted up and downwards pending documentation on illegally harvested volumes, inter alia from Independent Forest Monitoring. Medium resolution satellite to be used for detecting human infrastructure and</p>	Changes in carbon stocks in forests remaining as forests

			<p>targeted sampling of high-resolution satellite for selected sites.</p> <p>Accounting of this indicator should be done in terms of carbon units referred as close as possible to extraction of biomass from the above ground carbon pool.</p>	
Emissions resulting from anthropogenically caused forest fires	Forest fires result in direct emissions of several greenhouse gases	Area of forest burnt each year should decrease compared to current amount	Coarse-resolution satellite active fire and burnt area data products in combination with medium and high resolution satellite data used for forest area changes	Emissions from biomass burning
Indicator on increased carbon removals:				
Encouragement of increasing carbon sink capacity of non-forest and forest land	Changes from non-forest land to forest (i.e. through plantations, land use change) or within forest land (sustainable forest management, enrichment planting) can increase the sequestration of atmospheric carbon.	<p>Not considered relevant in the interim period before a proper MRV-system is in place but any dedicated activities should be documented as far as practicable.</p> <p>In accordance with Guyanese policy, an environmental impact assessment will be conducted where appropriate as basis for any decision on initiation of afforestation, reforestation and carbon stock enhancement projects.</p>		Activity data on change to forest land and changes in carbon stocks in forests remaining as forests