

平成 29 年度途上国森林保全プロジェクト推進事業  
報告書

平成 30 年 3 月

林野庁

委託先：公益財団法人 地球環境戦略研究機関



## はじめに

途上国における森林減少・劣化に由来する温室効果ガス排出の削減等（以下「REDD+」という。）は重要な気候変動対策であり、国連気候変動枠組条約（UNFCCC）第 21 回締約国会議（COP21）で採択され、2016 年 11 月に発効した「パリ協定」にもその実施と支援を奨励することが明記された。

全世界的に REDD+を推進していくためには、途上国に対する資金と技術の提供が必要とされているが、特に資金については、公的資金の確保には限界があることから、民間セクターからの資金の提供が鍵となると考えられる。しかしながら、民間セクターが REDD+に対して投資するには、排出削減クレジットが獲得できる等のインセンティブが必要とされる。また、民間セクターが、途上国で実施される REDD+活動を通じて排出削減クレジットを獲得するためには、2018 年までに策定される予定のパリ協定の実施ルール（特に、パリ協定の 6 条「市場メカニズム」の実施ルール）等を踏まえる必要がある。

我が国は、民間セクターが排出削減クレジットを獲得し、同クレジットを活用し我が国削減目標にも貢献する観点から、これまでに 17 カ国（平成 29 年 2 月 1 日現在）と二国間クレジット制度（以下「JCM」という。）を締結している。REDD+についても、JCM の下で民間セクター主導により REDD+活動（以下「JCM-REDD+」という。）を推進することとしており、そのための環境整備、具体的には関連ガイドライン類のパートナー国政府との協議・合意を行うこととしている。このため、本事業の 1 年目である平成 28 年度は、関連ガイドライン類のうち提案方法論開発ガイドライン、プロジェクト設計書及びモニタリング報告書作成ガイドライン及びセーフガード促進・実施ガイドラインの日本政府案の作成等を行った。

本年度の本事業は、昨年度に作成された JCM-REDD+の関連ガイドライン類の日本政府案について、パートナー国との二国間合意に向けた協議等に係る対応を行うとともに、JCM-REDD+の実施等に関連する情報の収集・分析等の実施を目的として実施した。その成果を本報告書に取りまとめた。また、別冊 1 には、本年度カンボジア、ベトナム、ラオスに送付した JCM-REDD+ガイドライン類を収録した。別冊 2 には、H28 年度から継続して実施してきた、JCM-REDD+の推進について積極的であると考えられる 5 つのパートナー国（インドネシア、ベトナム、ラオス、ミャンマー、カンボジア）の REDD+の準備状況に関する情報収集の成果を収録した。





# 平成 29 年度 途上国森林保全プロジェクト推進事業 報告書 目次

1. パートナー国との JCM-REDD+ガイドライン案の協議等 -----	1p
1.1 JCM-REDD+ガイドライン類の修正の検討 -----	1p
1.1.1 勉強会の開催 -----	1p
1.1.2 JCM-REDD+ガイドライン検討会の開催 -----	1p
1.2 パートナー国との合同会議等への対応 -----	15p
1.2.1 ラオス -----	15p
1.2.2 カンボジア -----	15p
1.3 パートナー国における JCM-REDD+ガイドライン案の協議とワークシ ップの開催 -----	16p
1.3.1 カンボジア -----	16p
1.3.2 ベトナム -----	86p
1.3.3 ラオス -----	87p
1.4 パートナー国以外の国への説明等の対応 -----	89p
2 情報の収集・分析 -----	91p
2.1 パートナー国の情報収集・分析 -----	91p
2.1.1 パートナー国の情報収集（本年度更新情報） -----	92p
2.1.2 フィリピン（本年度新規情報） -----	94p
2.2 UNFCCC COP23 における情報の収集 -----	105p
2.2.1 COP23 の全体報告 -----	105p
2.2.2 今後の交渉のポイント -----	110p
2.3 JCM-REDD+や Zero Deforestation（森林減少ゼロ）活動等に関心のある民間企 業等の情報の収集・分析 -----	112p
2.4 森林分野の民間投資の枠組みに関する情報の収集 -----	119p
3 提案方法論及びプロジェクト設計書等の事前審査 -----	129p



## 1. パートナー国との JCM-REDD+ガイドライン案の協議等

本事業では、昨年度作成された JCM-REDD+ガイドライン類日本政府案をベースに、カンボジア、ラオス、ベトナムについて、各パートナー国の状況や協議の結果等を反映した JCM-REDD+ガイドライン類の各国版を作成した。本章には、JCM-REDD+ガイドライン類各国版を作成するまでの経緯（国内での検討、合同会議、各国担当者との協議）を記録した。最終的に作成した JCM-REDD+ガイドライン類各国版は、別冊 1 に収録した。

### 1.1 JCM-REDD+ガイドライン類の修正の検討

#### 1.1.1 勉強会の開催

2017 年 9 月 4 日に、JCM-REDD+の実施を進めていく際の問題点について意見交換するために、REDD+に関する有識者を集めた勉強会を開催した。途上国は気候変動枠組条約 (UNFCCC) で合意された REDD+ワルシャワフレームワークに基づき、国レベルで REDD+準備活動を進めている。また、緑の気候基金 (GCF) や森林炭素パートナーシップファシリティ (FCPF) の炭素基金において、国・または準国レベルでの REDD+成果支払いスキームが実施段階に入っている。このような状況において、エネルギー分野を念頭に置き開発された JCM のスキームに基づきクレジットを発行する JCM-REDD+を実施することで問題や混乱が生じるのではないかという懸念が生じたことから、林野庁の要請によって勉強会を開催した。勉強会では活発に意見が交換され、参加者の理解を深めた。

#### 1.1.2 JCM-REDD+ガイドライン検討会の開催

ラオスとの第 3 回 JCM 合同会議 (JC3) において、JCM-REDD+ガイドラインの検討を進めることが合意されたことに基づき、ラオス政府に送付するための JCM-REDD+ガイドライン案について議論するために、関係省庁、有識者を集めた検討会を 2017 年 9 月 20 日に開催した。JCM-REDD+ガイドライン日本政府案は、昨年度本事業において完成されたが、ラオスにおける状況を反映し修正を行う必要が生じたことによるものである。背景状況は下記の通りである。検討会で使用したプレゼンテーションは Appendix 1.1.2-1 として 1.1.2 章末に収録した。

- ラオス政府は、2015 年 9 月に北部 6 県を対象とした「Promoting REDD+ through Governance, Forest landscapes and Livelihoods in Northern Lao PDR」の Emission Reductions Program Idea Note (ER-PIN) を提出している。2016 年 7 月に Letter of Intent が結ばれ、FCPF 炭素基金が最大 8.4 百万 tCO<sub>2</sub> に対して支払いをすることが記されている。
- 日本では、環境省「平成 29 年度二国間クレジット制度を利用した REDD+プロジェクト補助事業」で早稲田大学が主体となり「ルアンパバーン県における焼畑耕作の抑制による REDD+」事業を実施しているが、ルアンパバーン県は上述の FCPF 炭素基金のプログラムが対象とする北部 6 県に含まれており、対象地の重複が生じている。
- ラオス政府と JC3 前後に実施した協議の中で（詳細は 1.3.3 章）、ラオス政府は JCM-REDD+における排出削減量の算定方法が、FCPF 炭素基金の方法論フレームワークによる算定方法と整合性のとれたものである必要があるだろうという見解を持っていることが示され、ラオス政府に対し、JCM-REDD+ガイドライン案を送付するためには修正が必要であることが明らかになった。

#### (1) JCM-REDD+ガイドライン検討会概要

日時： 2017 年 9 月 20 日 14:30-17:30

場所： (公財) 地球環境戦略研究機関 東京事務所

参加者 (敬称略) :

林野庁海外林業協力室 大仲、岡田  
環境省市場メカニズム室 鳥居  
経済産業省地球環境連携室 田村  
森林総合研究所関西支所 松本  
国際連携・気候変動研究拠点 徳川  
三菱UFJリサーチ&コンサルティング(株) 環境・エネルギー部 浅田  
地球環境戦略研究機関自然資源・生態系サービス領域 山ノ下、鮫島  
議事：

- 1 背景説明(林野庁)
- 2 REDD+の現状とJCM REDD+
- 3 ラオスの状況に対応するためのJCM REDD+ガイドライン(ラオス版)修正提案
  - ・ ガイドライン説明会でのコメント対応
  - ・ JCM REDD+の方法論ガイドライン(ラオス版)について
  - ・ JCM REDD+のPDDガイドライン、セーフガードガイドライン(ラオス版)について
  - ・ JCM REDD+のPCP, VVガイドライン(ラオス版)について
  - ・ Rule of implementationの修正について

## (2) JCM-REDD+ガイドライン検討会決定事項概要

- セーフガードの第三者監査(昨年度説明会でのコメント対等)
  - Validation & Verificationについて第三者監査を受けることを義務付けるという意見もあるが、事業者の自由ということでガイドラインは現状を維持。
- 持続可能な開発(SD)に関する記載(昨年度説明会でのコメント対等)
  - JCM REDD+の良さのアピール、パリ協定6条第二項との関係の明確化という面で重要
  - PDDには書かない、SGIPのセクション「A. project description」に新しく欄を設ける、モニタリングはなし
- 全体的な理解
  - JCM REDD+の方法論ガイドライン・方法論では、JCMの方法に則り、「最終的にプロジェクトエリアからのemission reduction to be creditedを計算する方法」のみを提示する。プロジェクトエリアがFCPFなどの排出権移転プログラムの対象エリアと重複していた場合、ダブルカウントを避けるため、算定されたemission reduction to be creditedのうち、一部のみを日本に移転する可能性がある(クレジット化できる排出削減量がemission reduction to be creditedよりも少なくなる可能性がある)が、そのことは方法論ガイドライン・方法論の範疇外。
  - 排出の移転(displacement)について、JCM REDD+のプロジェクトエリアが別の成果支払いプログラムの対象エリアに内包され、displacementが実質モニタリングされる状況にあるとしても、JCMプロジェクトのdisplacementはカウントしなければならない。
- 方法論ガイドライン
  - パラ26他：国のFREL/FRL、NFMSがあった場合、プロジェクトのリファレンス、モニタリングで“should be considered”を“is considered”に修正
  - パラ26他、「if alternative and/or additional approach and procedures」の部分、alternativeが「なんでもいい」という意味にならないかを確認する。結果：そのような意味にはならないが、誤解が少なくなるように改善した。

- PDD ガイドライン
  - A6 Project duration は 2013/1/1 とする
  - その他、提案した方法論を反映した変更を行う
- セーフガードガイドライン
  - 提案した方法論を反映した変更を行う（パラ 19 追加）
  - SD に関する記述欄を追加（SGIP の A.2. Description of project contribution to sustainable development）
- PCP ガイドライン
  - 二重登録の回避はフォームを変更し、二重計上にはならないことを示す等の文章にする。確認プロセスは JC でプロジェクト登録時に実施する。
  - 上述したように、ラオスでは、実際のクレジット発行量が emission reduction to be credited と異なる場合が生じる。その場合、実際のクレジット発行量は両政府と PP が議論し決定することになるが、この決定を「request for issuance の前に非公式（JCM プロセスの外）で行う」か、「全量の発行を PP が request for issuance した後、Decision of Issuance として JC で決定する（一応記録が残ることになる）」か、どちらが良いかはラオスと検討する。
- RoI
  - REDD+ に関するオプション（National REDD+ Strategy 等との関連性、セーフガード関連）を加筆する。修正方針（書きぶり）について最終的に外務省他各省と確認が必要であるが、まずは修正案を提示する。

## Appendix 1.1.2-1 JCM-REDD+ガイドライン検討会プレゼンテーション

配布資料 1  
REDD+の現状とJCM REDD+

JCM-REDD+ ガイドライン検討会  
2017年9月20日（水）  
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REDD+成果支払い(RBP)が進んでいる

- UNFCCCワルシャワフレームワークが定める、RBPを受けるための条件を満たす国が増えつつある(来年までに4カ国程度)
- GCFは条件を整った国にRBPを実施するための準備を進めている
- FCPF ERプログラムでは6カ国が最終合意のためのネゴ段階(19カ国が参加)

→ 国・準国レベルでのアカウンティングが進んでいる

RBPで明らかになってきた問題点

- GCF, FCPFのプログラムだけでは国・準国の削減量すべてに支払うことはできない
- RBP(主に後払い)であり、途上国が自分でコストを準備するのが困難
- 国・準国レベルで実施される活動は主にガバナンス強化等、実際の現場で森林減少防止に必要な活動は対象ではない

→ 排他的なRBPプログラムではなく、様々な資金ソースを組み合わせられることが重要

- JCM REDD+では、国内事業者の活動実施に注目し、より小さいレベル(プロジェクト)の活動実施、それに対応したアカウンティングを念頭に置いている
- JCM REDD+プロジェクトが検討されているラオス・カンボジアでも国・準国レベルのアカウンティング準備が進み、JCM REDD+独自のアカウンティングでは認められない状況になっている

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今回、FCPF ERプログラムの準備を進めるラオス政府より、FCPF ERプログラムの準国レベルのアカウンティングとの整合性を求められた

↓

国・準国で実施されるREDD+プログラムと整合性のあるJCM REDD+ガイドラインとなることで、現在のRBPの問題解消に貢献が可能

- 現場の活動に実施資金を供給可能(民間資金も活用)
- アカウンティングをあわせることで排出削減量のダブルカウント回避

→ これからの需要が見込める画期的なメカニズムになる可能性がある

## 配布資料 2 ガイドライン説明会コメント対応

JCM-REDD+ ガイドライン検討会  
2017年9月20日（水）  
IGES東京事務所



### 背景:

- 2017年2月24日にガイドライン(日本政府案)説明会を開催、参加者からのコメントがあった

### コメント:

- Sustainable Developmentに関する記述をする欄がないがよいのか?
- NGO(事業者でもある)からセーフガードもTPEの審査の対象にすべきというコメントを受けた
  - 現状、セーフガードに関する情報(SGIP/SGPR)はTPEのバリデーション、ペリフィケーションの対象外、パブコメとJC事務局による確認・評価
  - 「第三者機関にセーフガードを審査するキャパシティがあるのかを考慮」とのことだが、Climate, Community and Biodiversity Standard (CCBS)の審査を行っている機関であれば対応が可能である

### SDIに関する記述についての対応:

セーフガードにSDIに関連する記述が含まれているため、現行のままでもよいと考える。

### セーフガードもTPEの審査に関する対応

- オプション1: 現行のまま(今後検討する余地を残しながら)
  - オプション1.1: JC事務局の確認・評価能力を担保
- オプション2: TPEが審査に変更

	利点	課題点
TPEによる審査	<ul style="list-style-type: none"> <li>JCMがSGIにしっかり対応していることをアピール可能(批判を受ける可能性排除)</li> <li>ICAO-CORSIA等との関係を検討する必要があるかも?</li> </ul>	<ul style="list-style-type: none"> <li>日本ではCCBS可能なTPEなし、FSC可能なTPEはSGS、ビューロベリタス、海外でDOE+CCBSの機関は存在する</li> <li>事業者負担のコスト上昇</li> <li>ガイドラインの追加作業                             <ul style="list-style-type: none"> <li>TPEの資格を明記、さらなるガイドライン作成</li> </ul> </li> </ul>
JC事務局が担当	<ul style="list-style-type: none"> <li>ミニマムな事業者負担コスト</li> </ul>	<ul style="list-style-type: none"> <li>メカニズムに対する批判の可能性</li> <li>事務局能力には限界</li> <li>多くを求めても形骸化の恐れ</li> <li>能力担保として外部専門家を依頼した場合はJC事務局コスト増</li> </ul>

配布資料 3  
JCM REDD+方法論ガイドライン

JCM-REDD+ ガイドライン検討会  
2017年9月20日（水）  
IGES東京事務所



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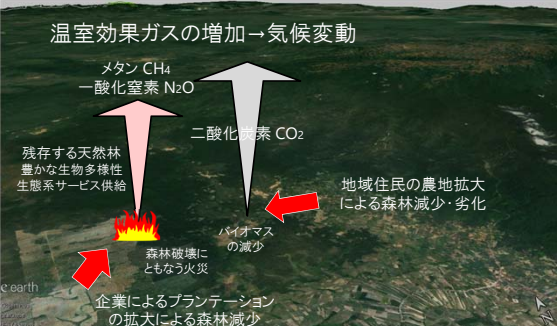
REDD+が抑制しようとしている温室効果ガス(GHG)



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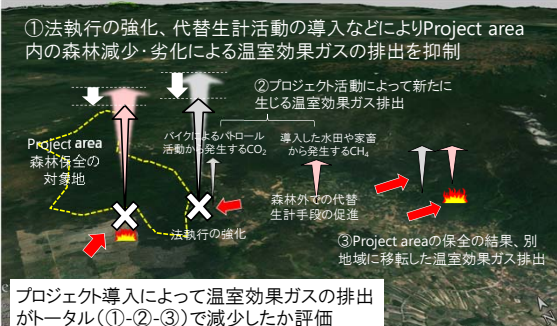
REDD+が抑制しようとしている温室効果ガス(GHG)

温室効果ガスの増加→気候変動



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REDD+導入後の温室効果ガス



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JCM REDD+方法論ガイドラインの構成

- Scope and applicability
- Terms and definitions
- Key concepts
  - Project emission reductions to be credited in a JCM project for REDD-plus
  - Eligibility criteria
- Concepts for REDD-plus in the JCM
  - Geographical boundaries
  - Carbon pools and GHG sources
  - Estimation and accounting of net emissions
  - Project reference level
  - Project net emissions
  - Project emissions reductions to be credited
- General guidelines for developing proposed methodologies

6. Instructions for completing the Proposed Methodology Form

Cover sheet of the Proposed Methodology Form

- Title of the methodology
- Terms and definitions
- Summary of the methodology
- Eligibility criteria
- Geographical Boundaries
- Carbon pools and GHG sources
- Establishment of project reference level
  - Establishment of project reference level
  - Calculation of project reference level
- Calculation of project net emissions
- Calculation of project emission reductions to be credited
- Data and parameters fixed ex ante

7. Instructions for completing the Proposed Methodology Spreadsheet

Proposed methodology spreadsheet (input sheet)

Table 1: Parameters to be monitored ex post

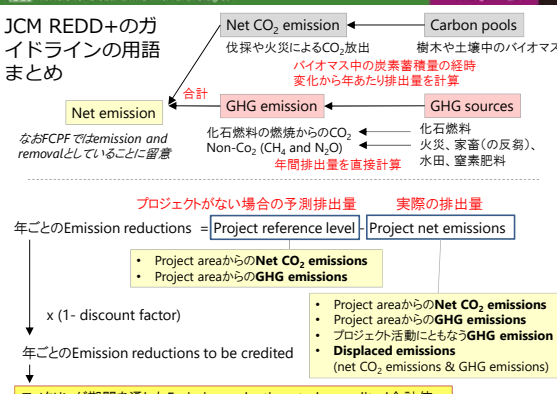
Table 2: Project-specific parameters to be fixed ex ante

JCM Proposed Methodology Spreadsheet (Calculation Process Sheet) [List of Default Values]

Annex 1. National definition of forest in PARTNER COUNTRY for REDD-plus under the JCM.

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JCM REDD+のガイドラインの用語まとめ



Net CO2 emission ← Carbon pools (伐採や火災によるCO2放出 樹木や土壌中のバイオマス)

GHG emission ← GHG sources (バイオマス中の炭素蓄積量の経時変化から年あたり排出量を計算)

Net emission (合計) ← GHG emission (化石燃料の燃焼からのCO2 Non-CO2 (CH4 and N2O) 化石燃料 火災、家畜(の反芻)、水田、窒素肥料)

年ごとのEmission reductions = Project reference level - Project net emissions

プロジェクトがない場合の予測排出量 (Project reference level)

実際の排出量 (Project net emissions)

Project areaからのNet CO2 emissions

Project areaからのGHG emissions

プロジェクト活動にともなうGHG emission

Displaced emissions (net CO2 emissions & GHG emissions)

年ごとのEmission reductions to be credited

モニタリング期間を通じたEmission reductions to be credited合計値



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### Proposed Methodology Formの作成の仕方 (例)

各欄にその方法論で求める要件や、クレジット化する排出削減量の計算方法を与える。参考のために記入例を赤字で示している

記入のためのインストラクションを示している

方法論で共通する排出削減量の計算方法について記載する

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### Proposed Methodology Spreadsheetの作成の仕方 (例)

#### 6. Instructions for completing the Proposed Methodology Form for REDD-plus

J. Data and parameters fixed ex ante 方法論レベルで規定値を与えるパラメーター

- マイナーなCarbon poolのEmission Factorなど

#### 7. Instructions for completing the Proposed Methodology Spreadsheet

Proposed methodology spread sheet (input sheet) [Attachment to Proposed Methodology Form]

Table 1: Parameters to be monitored ex post プロジェクト開始後のモニタリングで得られる実測値

- Monitoring period中のProject area内の森林面積推移
- プロジェクト活動によるGHG排出 など

Table 2: Project-specific parameters to be fixed ex ante プロジェクト開始前に決定される値 (プロジェクトごとの規定値、実測値)

- Project areaなどの面積
- Reference period中のReference area内の森林面積推移
- 実測したCarbon poolのEmission Factor など

JCM Proposed Methodology Spreadsheet (Calculation Process Sheet)

最終的な排出削減量が自動的に算出されるようにEXCELの計算式設定をする

[List of Default Values] 方法論レベルでの規定値

- マイナーなCarbon poolのEmission Factorなど

どのパラメータに対して方法論レベルで規定値を与えるか、プロジェクトごとに値を与える方法論によって異なる

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### 6. Instructions for completing the Proposed Methodology Form for REDD-plus (例)

#### J. Data and parameters fixed ex ante

Parameter	Description of data	Source
EF <sub>i</sub>	The Emission Factors of carbon pool j of stratum i	National forest inventory or 2006 IPCC Guidelines Vol.4 (Table 2.2, 2.3) or other internationally recognized data
MB <sub>i</sub>	Average Mass of fuel available for combustion of stratum i per hectare	2006 IPCC Guidelines
C <sub>f</sub>	Combustion factor. Shown in value together with MB <sub>i</sub>	2006 IPCC Guidelines Vol.4 (Table 2.6)
G <sub>wp</sub>	Emission factor for forest fire	2006 IPCC Guidelines
GWP	Global Warming Potential	2006 IPCC Guidelines
CC	Carbon content of oil	2006 IPCC Guidelines
ODU	Oxidized during use factor	2006 IPCC Guidelines

プロジェクトごとの規定値や実測値を使わず、全て方法論レベルで規定値を指定するパラメーター  
具体的な値は[List of Default Values]に記載

文献値を使う場合は出典を示す

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### 7. Instructions for completing the Proposed Methodology Spreadsheet (例)

Proposed methodology spread sheet (input sheet) [Attachment to Proposed Methodology Form]

Table 1: Parameters to be monitored ex post プロジェクト開始後のモニタリングで得られる実測値

Monitoring point No.	Parameters	Description of data	Estimated Value	Units	Monitoring option	Source of data	Measurement methods and procedures	Monitoring Frequency	Other comments
(1)	A <sub>yr</sub>	Area of stratum i (land use type) at year yr during monitoring period.	...	ha	Option C	MSIS, GLI/VS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m
(2)	AB <sub>yr</sub>	Area burnt in stratum i (land use type) at year yr during monitoring period.	...	ha	Option C	MSIS, GLI/VS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m
(3)	EF <sub>1,1</sub>	Emission factor (carbon stock per hectare) in above ground biomass of primary forest.	...	kg C ha <sup>-1</sup>	Option C	Forest sampling	Forest sampling	Once every three years	
(4)	EF <sub>1,2</sub>	Emission factor (carbon stock per hectare) in dead wood, all types of forest.	...	kg C ha <sup>-1</sup>	Option C	Forest sampling	Forest sampling	Once every three years	
(5)	L <sub>yr</sub>	Project fuel consumption during year yr during monitoring period.	...	kg	Option B	MSIS, GLI/VS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once a year	
(6)	DE <sub>CO2, yr</sub>	Displacement of net CO <sub>2</sub> emissions during year yr during monitoring period.	...	kg	Option C	MSIS, GLI/VS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m
(7)	DE <sub>CH4, yr</sub>	Displacement of CH <sub>4</sub> emissions during year yr during monitoring period.	...	kg	Option C	MSIS, GLI/VS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m

測定した面積入力欄

Table 1-a. Area of stratum i and area burnt in stratum i at year yr during monitoring period

Year during the monitoring period	(1) Forest area (ha): A <sub>yr</sub>			(2) Burnt area (ha): AB <sub>yr</sub>		
	Primary forest	Secondary forest	Cropland	Primary forest	Secondary forest	Cropland
yr1	A <sub>yr1</sub>	A <sub>yr1</sub>	A <sub>yr1</sub>	AB <sub>yr1</sub>	AB <sub>yr1</sub>	AB <sub>yr1</sub>
yr2	A <sub>yr2</sub>	A <sub>yr2</sub>	A <sub>yr2</sub>	AB <sub>yr2</sub>	AB <sub>yr2</sub>	AB <sub>yr2</sub>
yr3	A <sub>yr3</sub>	A <sub>yr3</sub>	A <sub>yr3</sub>	AB <sub>yr3</sub>	AB <sub>yr3</sub>	AB <sub>yr3</sub>
yr4	A <sub>yr4</sub>	A <sub>yr4</sub>	A <sub>yr4</sub>	AB <sub>yr4</sub>	AB <sub>yr4</sub>	AB <sub>yr4</sub>
yr5	A <sub>yr5</sub>	A <sub>yr5</sub>	A <sub>yr5</sub>	AB <sub>yr5</sub>	AB <sub>yr5</sub>	AB <sub>yr5</sub>

Table 1-b. Project fuel consumption

Year	(3) Project fuel consumption (TJ-C <sub>f</sub> )
yr1	L <sub>yr1</sub>
yr2	L <sub>yr2</sub>
yr3	L <sub>yr3</sub>
yr4	L <sub>yr4</sub>
yr5	L <sub>yr5</sub>

記録した燃料使用量入力欄

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### Table 2: Project-specific parameters to be fixed ex ante (プロジェクト開始前に決定される値 (プロジェクトごとの規定値、実測値))

(a) Parameters	(b) Description of data	(c) Estimated value	(d) Units	(e) Source of data	(f) Other comments
A <sub>ref</sub>	Size of reference area	...	ha	...	The reference area is decided by project proponents
A <sub>prj</sub>	Size of project area	...	ha	...	The project area is decided by project proponents
A <sub>db</sub>	Size of displacement belt	...	ha	...	The project area is decided by project proponents through mobility analysis of deforestation and degradation agents
A <sub>yr</sub>	Size of stratum i (land use type) at year yr during the reference period	...	ha	Satellite imagery	Min. spatial resolution of 30 m
AB <sub>yr</sub>	Size burnt in stratum i (land use type) at year yr during the reference period	...	ha	Satellite imagery	Min. spatial resolution of 30 m

Table 2-a. Area of stratum i and area burnt in stratum i at year yr during reference period

Year during the reference period	(1) Forest area (ha): A <sub>yr</sub>			(2) Burnt area (ha): AB <sub>yr</sub>		
	Primary forest	Secondary forest	Cropland	Primary forest	Secondary forest	Cropland
yr1	A <sub>yr1</sub>	A <sub>yr1</sub>	A <sub>yr1</sub>	AB <sub>yr1</sub>	AB <sub>yr1</sub>	AB <sub>yr1</sub>
yr2	A <sub>yr2</sub>	A <sub>yr2</sub>	A <sub>yr2</sub>	AB <sub>yr2</sub>	AB <sub>yr2</sub>	AB <sub>yr2</sub>
yr3	A <sub>yr3</sub>	A <sub>yr3</sub>	A <sub>yr3</sub>	AB <sub>yr3</sub>	AB <sub>yr3</sub>	AB <sub>yr3</sub>
yr4	A <sub>yr4</sub>	A <sub>yr4</sub>	A <sub>yr4</sub>	AB <sub>yr4</sub>	AB <sub>yr4</sub>	AB <sub>yr4</sub>
yr5	A <sub>yr5</sub>	A <sub>yr5</sub>	A <sub>yr5</sub>	AB <sub>yr5</sub>	AB <sub>yr5</sub>	AB <sub>yr5</sub>

測定した面積入力欄

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### [List of Default Values] 方法論レベルで固定する規定値 (例)

Carbon stock in above ground biomass of stratum i	Value	Unit	Parameter
Primary forest	300	kg C ha <sup>-1</sup>	EF <sub>1,1</sub>
Secondary forest	100	kg C ha <sup>-1</sup>	EF <sub>1,1</sub>
Cropland	30	kg C ha <sup>-1</sup>	EF <sub>1,1</sub>
Ratio to below-ground biomass, all types of forest	0.4	%	RF <sub>AGB</sub>
Emission factor of carbon stock in dead wood, all types of forest	14	kg C ha <sup>-1</sup>	EF <sub>1,2</sub>

Average mass of fuel available for combustion per hectare	Value	Unit	Parameter
Primary forest	119.6 ± 0.38	kg ha <sup>-1</sup>	MB <sub>1</sub> + C <sub>f</sub>
Secondary forest	42.2 ± 1.55	kg ha <sup>-1</sup>	MB <sub>1</sub> + C <sub>f</sub>
Cropland (rice residues)	2.6 ± 0.80	kg ha <sup>-1</sup>	MB <sub>1</sub> + C <sub>f</sub>

Emission factor for forest fire	Value	Unit	Parameter
CH <sub>4</sub>	6.8	kg C <sub>2</sub> H <sub>6</sub> burnt <sup>-1</sup>	G <sub>ef</sub> CH <sub>4</sub>
N <sub>2</sub> O	0.2	kg C <sub>2</sub> H <sub>6</sub> burnt <sup>-1</sup>	G <sub>ef</sub> N <sub>2</sub> O

Global Warming Potential	Value	Unit	Parameter
CH <sub>4</sub>	25		GWP
N <sub>2</sub> O	298		GWP

Carbon content of oil (Gasoline)	Value	Unit	Parameter
18.7	kg C TJ <sup>-1</sup>	CC	
1.0	%	ODU	
30	%	DF	

全て「J. Data and parameters fixed ex ante」で挙げられているパラメーターの値

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## ラオスの現状とその対応策

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**FCPF Emission Reduction Program (2018-2025年)**  
Accounting area: 北部6県  
8,123,097 ha  
排出削減量の一部をFCPF側に移転

**JCM REDD+ project**  
Project area: Huaykhing Village Cluster  
30,486 ha (北部6県の0.3%)  
排出削減量の一部を日本側に移転

ダブルカウントにならないことが必要

(Miettinen et al. 2016)

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### FCPF ER ProgramとJCM REDD+ projectの調和的アプローチ

**1st priority:**  
FCPF (WB)に転  
最大8.4 million ER (Loi 2016)  
Purchase Agreementで最終決定

**2nd priority:**  
JCMクレジット発行

**控除**  
(1) JCM REDD+プロジェクト活動に伴う追加的GHG排出  
(2) Project area外へのDisplacement  
(3) Discount factor (反転リスク)

ラオス政府に残る排出削減量

ラオス政府は、世銀に移転+バッファを控除した後に、残る排出削減量からJCMクレジットを発行できると認識

比較

- 残差がプロジェクトエリアからの排出削減量を上回ってはいれば問題ない
- 下回っている場合、調整が必要
- 調整のガイドラインは存在しない (資金投下量によって評価? 排出削減量によって評価?)

保守的な算定

移転可能分の排出削減量

反転バッファ  
移転量の10-40%

6県での排出削減量  
モニタリングによって算定

不確実性バッファ  
排出削減量全体の0-15%

Reference Level of ER program  
2005-2015年の平均値  
(3点2期間のデータ)  
EmissionとRemovalを分けて算定

JCM REDD+ project area

FCPF ER program Accounting area

Project area内での排出削減量

ラオス政府は、FCPFと整合性のある算定方法の採用を希望

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### ガイドライン外の話

クレジットの発行のタイミングがFCPFの影響を受けるのではないかと  
→FCPF対象地内でJCM REDD+プロジェクトを実施する限り、やむを得ない  
(FCPFのルールでは、移転量とバッファ量が確定するまでは他に転載できない)

現在想定されているスケジュール

年	FCPF (聞き取りによる)	JCM	注
2017	FCPFとのコンサルテーション ERPD完成	ガイドライン議論	プログラム開始まではJCMクレジット発行はFCPFの制約はない
2018	ERPD提出 プログラム開始	ガイドライン合意 プロジェクト登録? (開始は2015?)	
2019	ERPA締結(最速ケース)		
2020	MRV実施 (JICA PITとのタイミング)	MRV (タイミングを合わせる)	JICAプロジェクト終了、それまでにMRVを一度やりたい
2021	FCPF支払い(1回目)		
2022			
2023			
2024	MRV実施	MRV (タイミングを合わせる)	2025だとFCPF終了に間に合わない
2025	FCPF支払い(2回目) プログラム終了		
2026			プログラム終了後はFCPFの制約はない

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### FCPFとJCM REDD+の方法論の重要な相違点とその対処方針

非森林→森林による吸収 (removal)の取り扱い

FCPF Methodological Framework	JCM REDD+ガイドライン (2018年度日本案)	対処方針
<ul style="list-style-type: none"> <li>Account areaは行政区界で非森林も含む</li> <li>新規植林(非森林→森林)による吸収もカウント</li> </ul>	<ul style="list-style-type: none"> <li>Project areaはプロジェクト開始時に森林</li> <li>新規植林による吸収はカウントしない</li> </ul>	<ul style="list-style-type: none"> <li>FCPFにあわせ、新規植林による吸収もカウント →Project areaに非森林も含まれる必要 ※ただしLARが主な活動のプロジェクトは対象としないように注意</li> </ul>

FCPF ER Program Reference Level (Khamseu 2016)

FREL (net emissions): 6.91

FRL (net removal/enhancement): -7.21

Legend: Deforestation (red), Degradation (orange), Afforestation (green), Regeneration (blue)

昨年度案はこちらのみを評価

森林増加分も評価

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### プロジェクトエリアに非森林も含めることのメリット

- ラオス側が求めているFCPFとの方法論の整合性が高まる
- 行政区界をプロジェクトエリアと設定できるので、ラオスからFCPFへの説明 (e.g. ERPD) が容易になる

早稲田のプロジェクトでは元々Huaykhing Village Cluster全体を"Project site"というガイドライン案で定義されていない用語で呼んでいたが、これをProject areaとよぶことにすると分かりやすくなる

Figure 1. Location of the project site (Waseda U. 2016)

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国レベルのMRVと整合させることをデフォルトとする書きぶりに修正  
→前回提起されたJCM REDD+とUNFCCCにおけるREDD+の整合性の疑念

(新パラ6)

- These guidelines promote the national REDD-plus strategy and take into consideration the national or any relevant sub-national reference level and forest monitoring system established by the Government of Lao PDR.

(新パラ26, 33, 39)

- The approach and procedures used for any national or subnational reference level or monitoring system relevant to the project area developed by the Government of Lao PDR should be considered for estimating net emissions of the project.
- If alternative and/or additional approach and procedures are applied to estimate net emissions, the guidelines in paragraphs ... are followed.
  - 細かい場合分けは避け、柔軟な書きぶりにとどめた
  - ガイドライン上は「FCPFにそえる」という書き方はしない

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FCPFとJCM REDD+の方法論の重要な相違点とその対処方針案

小規模排出の取り扱い

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
<ul style="list-style-type: none"> <li>有意な炭素プール、GHG排出の全てを評価</li> <li>ただし、リファレンス期間の排出量全体の内、10%以下の炭素プールからの排出</li> <li>または、除外しても排出削減量の算定が保守的になる時は除外可能</li> </ul>	<ul style="list-style-type: none"> <li>リファレンスレベルの算定の際は、除外しても保守的な算定になる炭素プール、GHG排出は除外しても良い</li> <li>実際の排出量の測定の際には全て計測</li> <li>ただし、排出量全体の5%以下の排出については除外可能</li> </ul>	<ul style="list-style-type: none"> <li>ガイドライン上では特に指定しないが、炭素プールからの排出についてはFCPFにそえるを得ない</li> <li>その他の排出については、昨年度案のまま</li> </ul>

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FCPFとJCM REDD+の方法論の重要な相違点とその対処方針案

FCPFが取り扱わない森林からのGHG排出(CH4, N2O)の取り扱い

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
<ul style="list-style-type: none"> <li>森林からのCO2排出のみを評価</li> <li>森林火災によるCH4などは含まない</li> <li>3点2期間(2005-2015年)のデータ</li> </ul>	<ul style="list-style-type: none"> <li>森林火災などからのCH4も含めてよい</li> <li>最低5点4期間のデータ</li> </ul>	<ul style="list-style-type: none"> <li>オプション① JCM REDD+でもカウントしない</li> <li>オプション② JCM REDD+ではカウントする</li> <li>→その排出については2000-2010年で最低5点4期間のデータから評価?</li> </ul>

メタン CH4  
一酸化窒素 N2O  
二酸化炭素 CO2

6県での排出削減量モニタリングによって算定、不確実性に応じて控除

JCM REDD+ project area

Project area内での排出削減量FCPFのデータ、同じ算出方法、不確実性控除によって算定

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FCPFとJCM REDD+の方法論の重要な相違点とその対処方針案

排出削減量の保守的な算定

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
排出削減量の推定精度を計算し、不確実性バッファとして控除	保守的な算定を求める例: リファレンスレベルの算定において、排出削減量の大きい時期のデータは除いて計算など	昨年度案のまま JCM独自の保守的な算定を行う

プロジェクト活動による排出  
例: 活動で使ったエンジンからのCO2排出、導入した水田や家畜からのCH4排出

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
考慮しない	全てモニタリングし、森林保全による排出削減量から控除する	昨年度案のまま (控除するのは保守的な算定のため問題ない)

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FCPFとJCM REDD+の方法論の重要な相違点とその対処方針案

プロジェクトエリア外への排出のDisplacement

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
<ul style="list-style-type: none"> <li>Accounting area外へのDisplacementは考慮なし</li> <li>本来セーフガードであるDisplacement回避のための対策をアカウントングで記述</li> </ul>	<ul style="list-style-type: none"> <li>プロジェクトエリア外へのDisplacementが起きた場合(e.g. 焼畑の移動)、排出量をカウントし、プロジェクトエリア内での排出削減量から控除する</li> <li>全ての排出(CO2, CH4)を評価する</li> </ul>	<ul style="list-style-type: none"> <li>オプション① Displacementした排出量をカウントし、プロジェクトエリア内での排出削減量から控除する</li> <li>オプション①-1 CO2のみを評価</li> <li>オプション①-2 CH4などについては、Displacementの場合は評価(プロジェクトエリア内では評価しない)にも関わらず</li> <li>オプション② カウントしない</li> <li>Displacementが生じても、FCPF対象地内でモニタリングが行われ排出計上される。つまり、その分ラオス政府がFCPFに報告する排出削減量が減り、Displacementした排出が無視されるわけではない。カウントすると二重に考慮することになるため、カウントしない(ラオス政府と協議が必要)</li> </ul>

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FCPFとJCM REDD+の方法論の重要な相違点とその対処方針案

反転リスクの対処

FCPF Methodological Framework	JCM REDD+ガイドライン (2016年度日本案)	対処方針案
<ul style="list-style-type: none"> <li>反転リスクバッファを設定</li> <li>反転リスク評価方法が提示されている</li> <li>リスクの大きさに応じ、移転量の10-40%という、反転リスクのためのバッファ量を決定</li> </ul>	<ul style="list-style-type: none"> <li>JCM REDD+ではDiscount factorによって反転リスク分を控除する</li> <li>デフォルト値30%、バッファとは異なり、将来返却される事はない</li> </ul>	<ul style="list-style-type: none"> <li>昨年度案のまま</li> <li>FCPFのバッファは、FCPFへの移転に対する反転リスクに計上するので、JCM REDD+クレジットとして移転する分の反転リスクは含まれていない</li> </ul>

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FCPFへの移転も考慮し、JCM REDD+プロジェクトエリアからの排出量の一部がJCMクレジット化されないことを許容

(新バラ9) In a JCM project for REDD-plus, the project emission reductions to be credited are defined as the **sum of the annual emission reductions resulting from project activities** adjusted using a discount factor for the risk of reversals during a monitoring period.

(新バラ10) The **annual emission reductions** are the difference between the project reference level and project net emissions in each year.

- 変更は無い
- バラ10の”The annual emission reductions”は、FCPFに移転される分も含めた、プロジェクトエリア内で発生する全排出削減量。バラ8の”sum of the annual emission reductions resulting from project activities”は、そのうちJCM REDD+プロジェクトに貢献する分の排出削減量、と解釈可能

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プロジェクトエリアの定義の修正、森林の定義

(旧バラ16) The project area is a forested area where the project aim to conserve forests. The project area fulfills the national definition of forest designated by PARTNER COUNTRY, as specified in Annex I of these Guidelines, for a minimum 10 years before the project start. Land areas that temporarily do not fulfill the definition of forest stated in Annex I of these Guidelines due to recent natural or anthropogenic disturbance can also be regarded as forest eligible for JCM projects for REDD-plus.

(新バラ18) The project area is **the area targeted for reducing net emissions from forests**.

(新バラ16) The forest definition used for these Guidelines should follow the national definition of forest designated by Lao PDR, as specified in Annex I of these Guidelines. **If there is a difference between the national definition of forest and the definition used in a proposed methodology, the reason to choose the forest definition is explained.**

- プロジェクトエリアをプロジェクト開始時に非森林である場所も含められるように修正
- ただし森林セクターからの排出削減を実施する場所であることを明記
- このため森林の定義をproject areaのバラで書く必要はなくなる。  
→どこに置くべきか議論の余地があるが、とりあえず同じ節のGeographical Boundariesの前に小節を作って移動した
- 森林の定義をFCPFとそろえる必要があるため、書き振りをFCPFとそろえる  
※なおラオスのER-PINでは、国の森林定義外のForest regrowthも森林に含めている

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プロジェクトエリアの定義の修正(続き)

(旧バラ27) The project reference level is a conservative projection of the sum of the annual net CO2 emissions from the carbon pools and annual **GHG emissions from GHG sources in the project area** in the absence of the project.

(旧バラ34) Project net emissions include (a) the net CO2 emissions from the carbon pools and non-project **GHG emissions from GHG sources in the project area**, (b) additional GHG emissions due to the project activities inside and outside the project area including safeguards activities, and (c) displaced emissions in each year during the monitoring period.

(新バラ30) The project reference level is a conservative projection of the sum of the annual net CO2 emissions from the carbon pools and annual **GHG emissions from forests in the project area** in the absence of the project. Project reference levels of the net CO2 emissions and/or GHG emissions should be established based on the net CO2 emissions and/or GHG emissions from the reference area during the reference period.

(新バラ38) Project net emissions include (a) the net CO2 emissions from the carbon pools and **GHG emissions from forests in the project area**, (b) GHG emissions due to the project activities inside and outside the project area including safeguards activities, and (c) displaced emissions in each year during the monitoring period.

- プロジェクトエリアが非森林を含むことになった結果、プロジェクトエリアからは森林からのGHG排出+非森林からのGHG排出が起きていることになるが、後者を排除する

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JCM REDD+の対象とする活動

(新バラ5) These Guidelines aim to assist the development of methodologies to quantify emissions reductions from **any-of** the five REDD-plus activities listed in the Cancun Agreements (UNFCCC, Decision 1/CP.16 paragraph 70) , i.e. (a) reducing emissions from deforestation; (b) reducing emissions from forest degradation; (c) conservation of forest carbon stocks; (d) sustainable management of forests; and (e) enhancement of forest carbon stocks. **All methodologies account for (a) reducing emissions from deforestation at a minimum.**

プロジェクトエリアを非森林も含めるように修正した結果、新規植林・再植林を主体とするプロジェクトも対象となってしまうリスクがあるため、森林減少については必ず評価することにする(FCPFの書きぶりにあわせて修正)

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プロジェクトエリアの支配

(新バラ22) At the time of validation, at least 80 percent of **the forest in the project area** is under the control of the project, and acquisition of **the rights of use of the forest** to the extent necessary for the project is demonstrated by the project participants with documentary evidence. By the time of the first verification event, the entire right is under the control of the project, and is demonstrated as such by the project participants with documentary evidence.

- 森林についてのみ権利所持を証明するように修正(プロジェクトエリア内の宅地、農地などの権利を得ることは不要)
- 事前配布案ではこのバラを削除していたが復活させた

配布資料 6  
JCM REDD+PDDガイドライン  
セーフガードガイドライン 修正解説

JCM-REDD+ ガイドライン検討会  
2017年9月20日（水）  
IGES東京事務所



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## PDD-MRガイドラインの構成

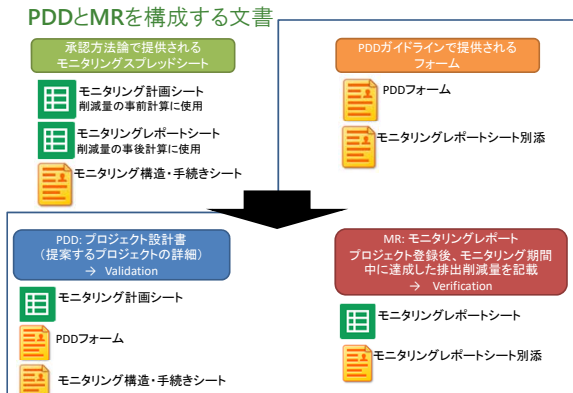
1. Scope and applicability
2. Terms and definitions
3. General guidelines
4. Developing a PDD
  - 4.1. Completing a PDD form
  - 4.2. Developing a Monitoring Plan
  - 4.3. Preparing for actual measurement
5. Monitoring
  - 5.1. Conducting monitoring
  - 5.2. Data correction for actual measurement
  - 5.3. Recording and archiving data
6. Developing a Monitoring Report

PDD = Project Design Document  
プロジェクト設計書

MR = Monitoring Report  
モニタリングレポート

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## PDDとMRを構成する文書



承認方法論で提供される  
モニタリングスプレッドシート

- モニタリング計画シート  
削減量の事前計算に使用
- モニタリングレポートシート  
削減量の事後計算に使用
- モニタリング構造・手続きシート

PDDガイドラインで提供される  
フォーム

- PDDフォーム
- モニタリングレポートシート別添

PDD: プロジェクト設計書  
(提案するプロジェクトの詳細)  
→ Validation

MR: モニタリングレポート  
プロジェクト登録後、モニタリング期間  
中に達成した排出削減量を記載  
→ Verification

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## PDDガイドラインの修正

パラ1 他のガイドラインの書きぶりにあわせて修正

修正前:

1. The "Joint Crediting Mechanism Guidelines for Developing Project Design Document and Monitoring Report for 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 (REDD-plus)" (hereinafter referred to as "these Guidelines") between Japan and PARTNER COUNTRY provides guidance for project participants on developing a Joint Crediting Mechanism (hereinafter referred to as "JCM") project design document (hereinafter referred to as "PDD") and a monitoring report.

修正提案:

1. The "Joint Crediting Mechanism Guidelines for Developing Project Design Document and Monitoring Report for 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 (REDD-plus)" (hereinafter referred to as "these Guidelines") are intended to assist project participants on developing project design documents (hereinafter referred to as "PDD") and monitoring reports under the Joint Crediting Mechanism (hereinafter referred to as "JCM").

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### A.4. Project area and displacement management area

**プロジェクトエリアを森林に限定することをやめたので不要となった部分:**  
(p7 例文)

According to this definition and local knowledge and the existing vegetative composition, the land in the project area has been under continuous forest cover for many hundreds of years.  
(p8)

In the corresponding cell for "fulfilment of forest definition" provide evidence that the project area has fulfilled the definition of forest for a minimum 10 years before the project start.

**方法論ガイドラインを反映し修正**  
(p8)

修正前  
Explain the past and present tenure rights in the project area, including ownership rights and use rights. Provide documentary evidence that at least 80% of the total project area is under the control of the project in the Annex.

修正後  
Explain the past and present tenure rights in the project area, including ownership rights and use rights. Provide documentary evidence that at least 80% of the forest in the total project area is under the control of the project in the Annex.

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### A.6 Duration (p11)

プロジェクト開始をどこまでさかのぼれるのか?  
*Note: The starting date of a JCM project is the date on which the operation of a project begins, but may not predate XXXX.*

### C.2 Establishment of project reference level, Reference area and period (P. 21):

修正前  
*"If a national or sub-national reference level has been established and formally submitted by PARTNER COUNTRY to the UNFCCC Secretariat, and if this reference level is relevant to the project area, including with respect to carbon pools and GHG sources, explain the validity of the project reference level in relation to the national or sub-national reference level. If no such national or sub-national reference level has been established, write "N/A" in the corresponding cell."*

修正提案:  
*"If a national reference level or relevant sub-national reference level has been established by the Government of Lao PDR, explain how the approach and procedures employed to establish the project reference level is compatible with the approach and procedures used to establish the national or relevant sub-national reference level."*

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バラ24(p26)に追記提案

24. The project participants develop a monitoring plan before validation using the Monitoring Plan Sheet and the Monitoring Structure and Procedures Sheet in the corresponding Monitoring Spreadsheet of the methodology(ies) applied. The monitoring plan utilizes data and estimates from the National Forest Monitoring System or from any relevant sub-national monitoring system, as appropriate.

国のデータを使うことについて追記

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4.3 Preparing for actual measurement  
バラ32(p28)  
修正前:  
If any parts of the monitoring are conducted by people with less relevant experience, such as members of local communities, they should be trained by experts before the monitoring and periodic checks on the results of their monitoring should be conducted.

修正提案:  
Community participation in monitoring is encouraged where appropriate, provided that procedures necessary for quality assurance and quality control are implemented.

FCPFでは、MRIにおけるコミュニティの参加の機会を見つけることとしているため  
"ER Program Measures, activity data, emission factors, safeguards and Non-Carbon Benefits, and encourages such community participation where appropriate"

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Monitoring Report Sheet Attachmentの2. Reassessment of project reference level (p51)

修正前  
"If a national or sub-national reference level is established after the project start date, these reference levels should be taken into account and the validity of the project reference level is explained at the timing of reassessment."

修正後  
If a national or relevant sub-national reference level is established after the project start date, the national or relevant sub-national reference level should be taken into account when reestablishing the project reference level at the time of reassessment, and the validity of the new project reference level should be explained

ラオスの状況に合わせた修正

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### SGガイドラインの構造

- 1. Scope and applicability スコープと適用
- 2. Terms and definitions 用語と定義
- 3. General guidelines 要件の提示 (計画, 実施, モニタリング, 報告, SGIP, SGPR)
- 4. Criteria for the safeguards under the JCM プロジェクトによって満たされるべき**11 基準 (criteria)**
- 5. Developing a SGIP and a SGPR 計画・報告フォームと記入のためのインストラクション

Annex I. Instruction for planning, implementing, monitoring and reporting safeguard activities 計画, 実施, モニタリング, 報告のプロセスのインストラクション

Annex II. Supplementary guidance for planning, implementing, monitoring and reporting safeguard activities 基準ごとの計画, 実施, モニタリング, 報告のための追加的ガイダンス

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### セーフガードガイドラインの修正

バラ19を追加

"19. Project participants provide information on safeguards, including that contained within the SGIP and SGPR, as required or requested for any national systems for providing information on how safeguards are addressed and respected."

国レベルのREDD+のセーフガードに配慮することを追記



配布資料9:  
ラオス版JCM-REDD+ガイドライン  
の検討—PCP, VVガイドライン—  
2017年9月20日

三菱UFJリサーチ&コンサルティング MUFG

論点：二重登録の回避に関する妥当性確認・検証プロセス

**【現行版のプロセス】**  
 ■ PJ実施者は、二重登録がないことをMoCで宣言し、確認書を提出  
 ■ TPEがMoC及び確認書の妥当性確認を実施

**【ラオス版に向けた修正の検討】**  
 補完プロセスのオプション  
 ① TPEが妥当性確認・検証を実施(現行)  
 ② JCもしくは両政府で調整

※ 検証時、両者のプロセス

各オプションでのガイドライン修正方針  
 ① TPEが妥当性確認・検証を実施する場合  
 ・ 【MoCフォーム】文言を修正  
 ② JCもしくは両政府で調整する場合  
 ・ 【VVガイドライン】現行の規定を削除  
 ・ 【MoCフォーム】文言を修正  
 ・ 【PCP】必要に応じて、当該プロセスを規定

1 Mitsubishi UFJ Research and Consulting MUFG

(参考) VVガイドライン(日本案、平成28年度末時点版)本文及び仮訳

6.11. Avoidance of double registration

6.11.1. Avoidance requirements

75 The TPE determines whether the proposed JCM project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

76 The TPE receives a written confirmation in the MoC from the project participants that the proposed JCM project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

77 In addition to the above, the TPE conducts, at a minimum, a search on the website of CDM and JI and other mechanisms that may result in international transfer of mitigation outcomes including voluntary schemes, to check whether the projects with similar activity and location have been registered. When projects with similar activity and location are found, the TPE ensures, through document review and/or interviews with the project participants on whether the proposed JCM project differs from projects registered under other mechanisms that may result in international transfer of mitigation outcomes.

78 The TPE provides an opinion on whether the proposed JCM project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

6.11.2. Assessment of avoidance of double registration

122 The TPE determines whether the project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

123 The TPE receives a written confirmation from the project participants that the project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

124 In addition to paragraph 123 above, the TPE conducts, at a minimum, a search on the website of the CDM and JI and other mechanisms that may result in international transfer of mitigation outcomes including voluntary schemes, to check whether the projects with similar activity and location in the Republic of Indonesia have been registered. When projects with similar activity and location are found, the TPE ensures, through document review and/or interviews with the project participants on whether the proposed JCM project differs from projects registered under other mechanisms that may result in international transfer of mitigation outcomes.

125 The TPE provides an opinion on whether the project is not registered under other mechanisms that may result in international transfer of mitigation outcomes.

(参考) 現行版のプロジェクトサイクル

Registration of project

Issue of credit

Project Participants, TPE, JC Secretariat, JC

Draft PDD, MoC & SGIP Submission

Public Comment (PDD, SGIP)

Validation (PDD)

Request for Registration

Completeness Check (7 days)

Review on SGIP (14 days)

Approval of Registration

Project Participants, TPE, JC Secretariat, JC

SGIP Submission

Public Comment

Monitoring Report Submission

Verification

Request for Issuance

Completeness Check (7 days)

Decision of Issuance

Revision of PDD (as necessary)

Revision of SGIP and resubmission (as necessary)

Evaluation on SGIP (30 days)

3 Mitsubishi UFJ Research and Consulting MUFG

参考：ラオスにおけるケースを想定したガイドラインの修正対応

4 Mitsubishi UFJ Research and Consulting MUFG

プロジェクトサイクルに基づくラオス版GLの修正方針(方法論開発～PJ登録)

	現行(日本案)	ラオスFCPPケース	ガイドラインの修正対応
方法論開発・承認	■ 方法論GLにたい開発 ■ 事務局が審査(外部委託可)、JCが検討	■ 原則としてFCPPの方法論に基づき、網羅されていない範囲(PJ活動に伴う排出等)についてはJCM独自方法論を決定	■ 【方法論GL】網羅する他スキームの方法論を用いることができるよう規定
PDD, SGIP作成	■ 方法論, PDD, GL, SG-GLにたいPJ実施者が作成・提出	■ (変更なし)	■ 【PDD-GL】上記方法論GLの修正に伴い、必要に応じてフォームやInstructionを修正
妥当性確認・審査	■ VV-GLにたいTPEがPDDの妥当性確認を実施 ■ SG-GLにたいJCがSGIPを審査	■ 二重登録回避に関する確認プロセスが必要となる可能性がある ・ TPEが妥当性確認を実施(現行) ・ JCもしくは両政府で調整	■ 【VV-GL】二重登録回避の確認プロセスの改定に基づき修正 ■ 【PCP】必要に応じて、二重登録回避に関する確認プロセスを追加
PJ登録	■ 妥当性確認・審査の結果を受けてJCが判断	■ (変更なし)	-

(注) MoCの作成、Public Inputの実施等、変更が想定されない項目は省略

5 Mitsubishi UFJ Research and Consulting MUFG

プロジェクトサイクルに基づくラオス版GLの修正方針(モニタリング～クレジット発行)

	現行(日本版)	ラオスFCPFケース	ガイドラインの修正対応
モニタリング	<ul style="list-style-type: none"> <li>■ モニタリング計画書に従いPJ実施者が実施</li> </ul>	<ul style="list-style-type: none"> <li>■ (変更なし)</li> </ul>	<ul style="list-style-type: none"> <li>■ -</li> </ul>
モニタリング報告書、SGPR作成	<ul style="list-style-type: none"> <li>■ 方法論、PDD-GLに従いPJ実施者がモニタリング報告書を作成</li> <li>■ SG-GL、SGPIに従いPJ実施者がSGPRを作成</li> </ul>	<ul style="list-style-type: none"> <li>■ (変更なし)</li> </ul>	<ul style="list-style-type: none"> <li>■ 【PDD-GL】方法論GLの修正に伴い、必要に応じてフォームやInstructionを修正</li> </ul>
検証/評価	<ul style="list-style-type: none"> <li>■ VV-GLに従いTYPEがモニタリング報告書、排出削減量を検証</li> <li>■ SG-GL、SGPIに従いJCI/SGPRを評価</li> </ul>	<ul style="list-style-type: none"> <li>■ 二重登録回避に関する検証プロセスが変更になる可能性がある                             <ul style="list-style-type: none"> <li>・ TFCが検証を実施(現行)</li> <li>・ JCIもしくは英政府で調整</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ 【VV-GL】二重登録回避の確認プロセスの変更に基づき修正</li> <li>■ 【FCPF】必要に応じ、二重登録回避に関する確認プロセスを追加</li> </ul>
クレジット発行	<ul style="list-style-type: none"> <li>■ PJ実施者からの要請を受けてJCIがクレジットを発行</li> </ul>	<ul style="list-style-type: none"> <li>■ (変更なし)</li> </ul>	<ul style="list-style-type: none"> <li>■ -</li> </ul>



## 1.2 パートナー国との合同会議等への対応

本年度はラオスとカンボジアにおける JCM 合同会議に出席するために出張した。

### 1.2.1 ラオス

2017 年 7 月 31 日、ビエンチャンにおいて、第 3 回 JCM 合同会議（JC3）が開催され、IGES より山ノ下麻木乃が出張した。JCM-REDD+のガイドライン協議を開始することが合意された。

### 1.2.2 カンボジア

2017 年 9 月 15 日、プノンペンにおいて、第 3 回 JCM 合同会議（JC3）が開催され、IGES より鮫島弘光が出張した。JCM-REDD+に関しては、技術作業部会（Technical Working Group）を結成し、JCM-REDD+のガイドライン協議を開始することが合意された。また、JCM-REDD+プロジェクトの事業者（三井物産、コンサベーションインターナショナル、カンボジア政府）の契約成立後、カンボジアの REDD+関係者を対象としたワークショップを開催することが了承された。

### 1.3 パートナー国における JCM-REDD+ガイドライン案の協議とワークショップの開催

JCM-REDD+ガイドライン案の協議のために、カンボジア（3回）、ベトナム（1回）、ラオス（3回）の3か国に出張し、政府関係者等と面談を行った。カンボジアはガイドライン協議のための技術会合（Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism）を2回開催し、ガイドライン案の最終ドラフトの合意に至った。

#### 1.3.1 カンボジア

JCM-REDD+ガイドライン案の協議のために、今年度カンボジアに3回出張し（表 1.3.1-1）、カンボジア政府関係部署、JCM-REDD+事業関係者等と面談を行った。面談の際には記録を作成した。

表 1.3.1-1 ガイドライン案協議のためのカンボジア出張

	時期	訪問先
第1回カンボジア出張 (出張者: 鮫島弘光)	2017年9月13日—16日	<ul style="list-style-type: none"> <li>● Cabinet office, Ministry of Environment (MOE)</li> <li>● General Directorate of Administration for Nature Conservation (GDANCP), MOE</li> <li>● コンサベーションインターナショナルカンボジア事務所</li> <li>● JICA 専門家オフィス</li> </ul>
第2回カンボジア出張 (出張者: 山ノ下麻木乃、鮫島弘光、藤崎泰治)	2018年1月18日—21日	<ul style="list-style-type: none"> <li>● 第1回技術作業部会会合開催</li> </ul>
第3回カンボジア出張 (出張者: 山ノ下麻木乃、鮫島弘光、藤崎泰治)	2018年2月18日—22日	<ul style="list-style-type: none"> <li>● 第2回技術作業部会会合開催</li> <li>● Cabinet office, Ministry of Environment (MOE)</li> <li>● 在カンボジア日本大使館</li> </ul>

カンボジアでは、第1回出張において、第3回 JCM 合同会議(JC3)で JCM-REDD+ガイドラインに関する協議を開始することに合意するために、前日に主要な政府関係者との面談を行った。JC3では、ガイドライン協議の開始が合意され、そのために技術作業部会（Technical Working Group）を組織することになった。第2回、第3回出張は、それぞれ、第1回、第2回技術作業部会会合のための出張であった。

第1回技術作業部会会合では、カンボジア側の JCM-REDD+に関する理解を促進することが第一の目的であり、丁寧な解説を行った。それを踏まえて、実際のガイドラインに関する技術的な内容や文言（書きぶり）について、議論を行い、修正が必要な点を明らかにした。第1回技術作業部会会合における議論を踏まえ、第2回会合に向けてさらに検討する必要があるポイントを「宿題(Home Work)」として取りまとめ、カンボジア側に送付し対応を求めた。その後、宿題に対するカンボジアの回答やコメント、新提案等が日本側に送付され、それを踏まえた対応を日本側で準備し、第2回会合の論点としてアジェンダに反映した。第2回会合のための日本側の準備では、IGES がカンボジアからのコメントを踏まえた対応策案を

日本国内で関係省庁・有識者で構成する検討会にメールを通じて報告し、そこからのコメントを反映させた。第1回会合と第2回会合の間にこのようなメールベースでのやりとりを挟むことで、議論の進捗をスピードアップさせることができたと考えられる。

第2回技術作業部会会合では、宿題のうちメールによるコミュニケーションだけで解決できなかった点を議題として掲げ、議論を進め、結果としてすべての事項について一通り結論を得た。この結論に基づき、ガイドライン案の修正を行うために、新たにカンボジア側への確認が必要な点が生じたため、メールによるコミュニケーションで明らかにし、ガイドライン案の修正を行った。ガイドライン案の修正にあたっては、日本国内で関係省庁・有識者で構成する検討会にメールを通じて報告し、そこからのコメントを反映させた。ここまでの経緯は表1.3.1-3にまとめた。最終的に、2018年3月7日完成したガイドライン案をカンボジア側に送付し、相手側の確認を依頼した。これに対するカンボジアの返答期限は3月26日となっている。送付したガイドライン案は別冊1に収録した。

## (2) JCM-REDD+ガイドラインに関する技術作業部会

### 1) 技術作業部会第1回会合

2017年12月19日、プノンペンにおいて、JCM-REDD+ガイドラインに関する技術作業部会第1回会合(The 1st meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanisms)を開催した。第1回会合で使用したプレゼンテーションはAppendix 1.3.1-1として1.3.1章末に収録した。

#### a) 技術作業部会第1回会合アジェンダ

Date: 19 December 2017

Time: 9:00-17:00

Venue: Meeting Room Orchid, Hotel Cambodiana, Phnom Penh

#### **Purpose of this meeting**

The Government of Cambodia and the Government of Japan signed a bilateral agreement on the Joint Crediting Mechanism (JCM) on 11 April 2014. At the third meeting of the Joint Committee (JC) held on 15 September 2017 in Phnom Penh, the JC agreed on the schedule and procedure for consultation of the REDD+ guidelines under the JCM, as well as establishing a technical working group for the development of the guidelines. This is the first meeting of the technical working group for consultation of rules and guidelines for REDD+ under the Cambodia-Japan JCM.

The purpose of the technical working group is to develop the guidelines for REDD+ under the JCM agreement between Cambodia and Japan. The final draft developed by the technical working group will be sent to the JC for its approval. In this first meeting, information on the recent progress of REDD+ in Cambodia and a draft of the guidelines prepared by Japan will be presented. The members will then discuss the guidelines.

#### **Proposed working schedule**

After this first meeting, the draft guidelines prepared by Japan will be modified based on the discussion and the revised draft will be shared via E-mail. The draft guidelines will be finalized at the second technical working group meeting then sent to the JC by the end of March 2018. The details of the schedule are to be discussed at the first meeting.

#### **Adopted Agenda**

<b>Opening</b>
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9:00-9:20	Opening Remarks by Co-Chair	Dr. Chea Sam Ang, Ministry of Environment of Cambodia Ms. Naoko Tsukada, Forestry Agency of Japan
	Self-introduction of attendants	
	Agenda 1: Adoption of Agenda	
<b>Sharing Background</b>		
09:20-10:00	Agenda 2: Current Progress of REDD+ Readiness in Cambodia	Mr. Chivin Leng, Ministry of Environment of Cambodia
10:00-10:30	Agenda 3: General Introduction of JCM and JCM REDD+ and Q&A	Mr. Yuki Okada, Forestry Agency of Japan
10:30-10:40	<i>(Coffee break)</i>	
<b>Technical Discussion on guidelines for REDD+ under JCM</b>		
10:40-11:10	Agenda 4: PCP guidelines and Q&A	Ms. Yoko Asada, MURC
11:10-12:30	Agenda 5: Methodology guidelines and Q&A	Dr. Hiromitsu Samejima, IGES
12:30-14:00	<i>(Lunch)</i>	
14:00-14:30	Agenda 6: PDD & Monitoring guidelines and Q&A	Dr. Hiromitsu Samejima, IGES
14:30-15:10	Agenda 7: Safeguard guidelines and Q&A	Dr. Makino Yamanoshita, IGES
15:10-15:30	<i>(Coffee break)</i>	
15:30-15:50	Agenda 8: VV guidelines and Q&A	Ms. Yoko Asada, MURC
15:50-16:10	Agenda 9: General discussion	
16:10-16:30	Agenda 10: Future schedule and procedure of the technical working group	Mr. Yuki Okada, Forestry Agency of Japan
<b>Closing</b>		
16:30-16:40	Closing remarks by Co-chair	Dr. Chea Sam Ang, Ministry of Environment of Cambodia Ms. Naoko Tsukada, Forestry Agency of Japan
<i>17:00- Dinner Reception at a restaurant near the venue</i>		

b) 結論（宿題）

“Home Work” from the 1st meeting of the Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism

**Methodology Guidelines**

- Forest definition (para 16 & Annex I)
  - Cambodia to provide the forest definition to be used in the methodology guidelines. Will be included in Annex I.
- “At the time of validation, at least 80 percent of forest in the project area is under the control of the project, and acquisition of the rights of use of the forest to the extent necessary for the project is demonstrated by the project participants with documentary evidence.” (para 22)

- Cambodia commented that the meaning is not clear.
- Japan commented that this explanation is intentionally “loose” so that the guidelines can accommodate the various possible circumstances in project areas. Japan believes the statement is necessary to confirm that the project participants have the right to implement the proposed JCM REDD+ project in the area in order to avoid possible violation of rights issues.
- Japan commented that 80% is proposed for the start of the project because sometimes project participants may not be able to secure 100% of control and rights of use at the project start. This situation has been observed in other carbon schemes. 100% is requested at the time of verification to issue credits. The 80% can be changed to best accommodate the circumstances in Cambodia.
- Japan commented that documentary evidence is requested for the validation, as only describing the situation in the PDD without providing any evidence makes it difficult to validate this requirement of the project. The documentary evidence could be a permit from the government, a signed agreement with a community, etc. and will reflect country circumstances.
- Cambodia to review if necessary.
- Communication with the national REDD+ team (para 32, 35)
  - Cambodia commented that the involvement of the national REDD+ team is crucial in developing and re-assessing the REL.
  - Para 32 requests the methodology proponents to “consider” the national FRL when they develop the project reference level. This can be interpreted to mean that the project participants may fully apply the national FRL to establish the project reference level or that they may establish the project reference level following the guidelines in para 33-34 taking into account the national FRL. This approach is proposed as it respects the national FRL but also provides flexibility to the methodology proponents to ensure that project reference level reflect project circumstances. Cambodia to consider if this approach is appropriate and propose an alternative if necessary.
  - For reflecting the comment from Cambodia in the guidelines, IGES suggests inserting the following text: *“The methodology proponents communicate with the national forest reference level and MRV focal point to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications.”* to the Methodology guidelines (before para 22) and *“The project participants communicate with the national forest reference level and MRV focal point to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.”* to the PDD-MR guidelines (after para 10).
- National inventory manual for ground-based survey (para 27, 28)
  - Cambodia commented that there is national inventory manual providing a method for ground-based survey and that the methodology proponents and project participants should consider this.
  - IGES suggests including the manual in the footnote as a reference for section 4.4. Estimation and accounting of net emissions.
  - Cambodia should discuss this suggestion.

#### **PDD-MR Guidelines**

- Section on “Environmental impact assessment”
  - Cambodia commented that there is no EIA yet in Cambodia, but it is under development.
  - Japan commented that the project participant has to follow EIA regulation if it exists and if not, the project participants only need to describe that there is no

requirement for EIA in the country (see page 22 of the PDD-MR guidelines. It provides an example of how to write a PDD and deals with this issue). Japan prefers to keep this section as it used in guidelines for other JCM sectors. They have had no problem with this.

- Cambodia to consider if this section is appropriate and propose an alternative if necessary.

### **Safeguards Guidelines**

- “Promoting and supporting” safeguards
  - Cambodia commented that the wording “promoting and supporting” is too weak compared to the wording “address and respect” used by the UNFCCC.
  - Japan commented there would not be a problem for changing this wording.
  - Japan to consider the change.
- National SIS
  - Japan asked whether the national safeguards information system should be mentioned somewhere in the guidelines.
  - Cambodia replied that REDD+ projects will be requested to provide safeguards information to the web portal.
  - Cambodia may propose additional text if necessary

### **Project Cycle Procedure Guidelines**

- The validation and verification of the safeguards (para 51-55, 67-70)
  - Japan explained that the guidelines do not require third party validation and verification for the safeguards and that they will be reviewed and evaluated by the Joint Committee.
  - Cambodia to consider if this approach is appropriate and may propose an alternative if necessary

### **Validation and Verification Guidelines**

- Double registration and double accounting
  - Japan explained that the guidelines for the energy sector requires avoidance of double registration but for REDD+ this would be difficult as there are some other schemes for result-based payments such as FCPF and GCF. Nevertheless, the guidelines should identify the approach for avoiding double counting of emission reductions.
  - Japan to provide clarification on this matter as there was not enough time for a full explanation at the meeting. The government of Japan will discuss this matter internally on January 9th and provide information to the government of Cambodia as soon as possible.

### **Miscellaneous**

- Terms and Definition
  - Japan proposes to insert the following text to the section “Scope and applicability” of methodology guidelines: “These Guidelines describe standards which are requirements to be met, except guidance indicated with terms “should” and “may” as defined in paragraph x below.” This sentence was accidentally dropped from the guidelines.
  - Cambodia to review if necessary.

表 1.3.1-2 「宿題」を通じた JCM-REDD+ガイドライン議論に関するカンボジアとのやりとりと第2回会合のための論点整理

No	Page	Content (Citation)	Comment by Cambodia (2018/1/10)	Response from Japan	Status
1		Methodology Guidelines 1GL_PM_REDD+_20171013_clean_Cambodia-10-01-18			
#1	3	16. The definition of forest used for REDD-plus methodologies should follow the national definition of forest designated by the Kingdom of Cambodia, as specified in Annex I of these Guidelines.	Guidelines should consider and ensure consistency with the National REDD+ Strategy, National Forest Monitoring System, Forest Reference Level and Safeguards of Cambodia. Refer to p7 of the “Initial Forest Reference Level for Cambodia under the UNFCCC Framework” which provides the forest definition for the Cambodia REDD-plus programme.	<b>Japan proposes adding the definition of forest from the “Initial Forest Reference Level for Cambodia under the UNFCCC Framework” to Annex I, as follows:</b> “Forest under a REDD+ project under the JCM in Cambodia refers to a unit of an ecosystem in the form of wetland and dry land covered by natural or planted vegetation with a height from 5 metres on an area of at least 0.5 hectares, and canopy crown cover of more than 10%. Forest also includes forest regrowth and areas under afforestation or reforestation. Rubber, oil palm plantations and perennial crops are excluded from this definition.”	Cambodia to check the proposed sentences. ➔ Agenda 3-1
#2	3	12. The project reference level is an estimate of the anticipated annual net forest-related emissions in the project area during the monitoring period without the project being implemented.	Assessment of the project reference level should include technical analysis from the Cambodian MRV Technical Working Group.	<b>Japan suggests inserting the following text in para 26:</b> “The methodology proponents communicate with the focal point for REDD-plus under JCM to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”	Cambodia to consider the proposed sentences. ➔ Agenda 2-1

				Also see #20	
#3	4	22. At the time of validation, at least 80 percent of forest in the project area is under the control of the project, and acquisition of the rights of use of the forest to the extent necessary for the project is demonstrated by the project participants with documentary evidence.	Cambodia team agrees on the proposed value of 80% at the time of validation and 100% at the time of verification.	No response required.	Concluded.
#4	5	28. (b) Ground-based survey of emission factors: Emission factors, or carbon stocks per hectare, of each carbon pool in each class, should be obtained through on-the-ground measurements.	Cambodia has developed a manual for the national forest inventory (NFI manual). The ground survey for JCM-REDD+ should consider the methodologies of the NFI manual.	<b>Japan suggests including “Field Manual for the National Forest Inventory of Cambodia” in the footnote as a reference for section 4.4. Estimation and accounting of net emissions as follows:</b> Than, S., L. Vesa, S. Vanna, P. Hyvönen, K. T. Korhonen, G. Sola, M. Henry and M. van Rijn, 2017. “Field Manual for the National Forest Inventory of Cambodia. 2nd revision”. Forestry Administration of the Ministry of Agriculture, Forestry and Fisheries, Food and Agriculture Organization of the United Nations, Phnom Penh, Cambodia.	Cambodia to check the proposed sentences. → Agenda 3-3
#5	5	28. (a) The accuracy of imagery analyses of forest/non-forest classification for each	“for each forest type” should be deleted	Japan agrees and deletes “for each forest type”.	Concluded.



		forest type is 80 percent or higher.			
#6	5	28. (b) Ground-based survey of emission factors	Cambodia will share its draft NFI as a reference.	Japan suggests adding it as a reference for section 4.4. (see #4)	Cambodia to check the proposed sentences (see #4) → Agenda 3-3
#7	6	32. The approach and procedures used for the national or any relevant sub-national reference level established by the Kingdom of Cambodia are considered when establishing the project reference level.	The involvement of the national REDD+ team is crucial in developing and re-assessing the REL  The following can be added: “The project reference level is extracted from the national forest reference level established by the Kingdom of Cambodia. If the project wishes to use alternatives or additional approaches and procedures, justification is presented to the Cambodia REDD+ Taskforce / MRV Technical Team for agreement.”	Japan suggests that it is sufficient to add the additional text to para 26 of methodology guidelines (see #2) and para 7 and 8 of the PCP guidelines (see #20).	Cambodia to consider the proposal. → Agenda 2-1
#8	7	41. The default value of the discount factor is 30 percent.	The discount value of 30% seems to be high compared to that of the VCS. A maximum of 20% is appropriate considering the existing voluntary carbon projects (i.e. VCS projects) and other REDD+ bilateral agreements.	<b>Japan requests Cambodia to provide justification to change the default value of the discount factor from 30% to 20 %.</b>	<b>Cambodia to provide justification, then discussion necessary at the 2<sup>nd</sup> TWG.</b> → Agenda 3-4
#9	10			<b>Following JCM Glossary and UNFCCC 1/CP.18 para42, Japan suggest to change</b>	Cambodia to check the proposed sentences

				<p><b>editorial as below</b></p> <p>Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving <b>net emission reductions</b>.</p> <p>→ Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving <b>net reduction of emissions</b>.</p>	→ Agenda 3-5
#10	22	<p>Table 2: Project-specific parameters to be fixed ex ante</p> <p>Size of displacement belt: The project area is decided by project proponents through mobility analysis of deforestation and degradation agents</p>	How to evaluate the validity?	<p>No change to the text.</p> <p>Clarification:</p> <p>Validity of the procedure that is proposed for the mobility analysis of deforestation and degradation agents in a proposed methodology would be assessed by the JC as part of the methodology approval process. The methodology may include procedures and data to identify the agents and the distance and direction that the agents are likely to move to outside project area. Any historical data, expert opinion, participatory rural appraisal (PRA), literature and/or other verifiable sources of information will be checked in the validation process of PDD by TPE.</p>	Concluded.
2		2GL_PDDMR_REDD+_20171013_clean_Cambodia-10-01-18			

#11	3	3. General Guidelines	Cambodia agreed to the suggestion from Japan to insert the following text “The project participants communicate with the national REL / MRV focal point to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.” between para 10 and 11.	<b>Japan suggests to insert the additional text between para 10 and 11.</b> “The project participants communicate with the focal point for REDD-plus under JCM to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”  Also see #21	Cambodia to consider the proposal. ➔ Agenda 2-1
#12	24	D. Environmental impact assessment	REDD+ project(s) is not under EIA of Cambodia. 3 types of forest related projects are required EIA such as Forest Concession, Economic Land concession, and Hydro dam with new reservoir.	No change to the text. Clarification: If an EIA is not required under national laws, the project participants simply write in their PDD that there is no requirement for an EIA. Japan prefers to keep this section as it used in guidelines for other JCM sectors. They have had no problem with this.	Concluded.
#13	27	4.3. Preparing for actual measurement	Should include Cambodia’s NFMS as a reference.	<b>Japan suggests adding “should consider Cambodia’s National Forest Monitoring System.” to para. 32.</b>	Cambodia to consider the proposal. ➔ Agenda 4-1
#14	45	Figure 1 Decision tree for data correction	The design should be consistent with NFMS.	<b>Japan proposes adding the following text to para 36:</b> “If any relevant protocols exist in the National Forest Monitoring System, equipment calibration and data correction should be conducted in line with these protocols.”	Cambodia to check the proposed sentences ➔ Agenda 4-2

#15			Cambodia REDD+ Task force expresses intention to be closely involved with the PDD development process.	Japan suggests that it is sufficient to add the additional text between para 10 and 11 in PDD guidelines (see #11) and para para29 in PCP guidelines (see #21).	Cambodia to consider the proposal. ➔ Agenda 2-1
3		3GL_SG_REDD+_20171013_clean_Cambodia-10-01-18			
#16		(Japan asked whether the national safeguards information system should be mentioned somewhere in the guidelines. <b>Cambodia may provide additional text if necessary.</b> )		No change to the text.	Concluded.
#17	1, etc.	Joint Crediting Mechanism Guidelines for Promoting and Supporting Safeguards for 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 (REDD-plus)	The wording “promoting and supporting” is too weak compared to the wording “address and respect” used by the UNFCCC.	Japan agrees to make this change.	Concluded.
#18	3	4. Criteria for the safeguards under the JCM	<b>Cambodia side need more time to consider this wording.</b>	<b>Japan notes that the guidelines have taken this wording from the Cancun Agreement,</b>	Cambodia to consider the wording.

		(d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities;		<b>and will wait for comments from Cambodia.</b>	➔ Agenda6-1
3		4PCP_REDD_171016_clean_Cambodia-10-01-18			
#19	5	25. After the registration of the project, the project participants operate the project and conduct monitoring of its activity in line with the registered PDD. The project participants may submit the request for registration after the start date of operation.	“may” should be deleted	No change to the text. Japan anticipates that most project participants will submit requests for registration before the start date of project operation, but they have the option to register after the start date.	Cambodia to consider the proposal. ➔ Agenda5-1
#20	4			<b>Following #2, Japan suggests to add a new paragraph 7:</b> “The methodology proponents communicate with the focal point for REDD-plus under JCM to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”  <b>Japan also suggests to add a sentence into</b>	Cambodia to consider the proposal. ➔ Agenda 2-1

				<p><b>new paragraph 8:</b> The submission may be accompanied by additional documents which help explain the methodology and the communication record with the focal point for REDD-plus under JCM.</p>	
#21				<p><b>Following #11, Japan suggests to add a new paragraph 29:</b> “The project participants communicate with the focal point for REDD-plus under the JCM to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.”</p> <p><b>Japan also suggest to add a sentence to new paragraph 30 as below:</b> “The project participants of a proposed JCM project prepare a draft PDD, after conducting a local stakeholder consultation and communication with the focal point for REDD-plus under JCM. The draft PDD consists of a completed “JCM Project Design Document Form” and monitoring plan.”</p> <p><b>Japan also suggests to add the new paragraph 30 as below:</b> .... The project participants submit the draft of PDD together with a modalities of communication statement (hereinafter referred to as “MoC”) and supporting</p>	<p>Cambodia to consider the proposal. ➔ Agenda 2-1</p>

				documentations including the communication record with the focal point for REDD-plus under JCM, as appropriate, to the TPE contracted by the project participants to perform validation of the project and to the secretariat for public inputs.	
4		6GL_VV_REDD_20171016_clean_Cambodia-10-01-18			
#22		The validation and verification of the safeguards (para 51-55, 67-70) (Japan explained that the guidelines do not require third party validation and verification for the safeguards and that they will be reviewed and evaluated by the Joint Committee. <b>Cambodia to consider if this approach is appropriate and may propose an alternative if necessary)</b> )		No change to the text.	Concluded
#23	10	6.7. Local stakeholder consultation Reporting requirements 55. The TPE: (a) Describes the steps taken to assess the	Is there any guideline for these “adequacy”?	Answer: The TPEs are accredited for the JCM by the JC taking into account the adequacy of their procedures.	Concluded.

		adequacy of the local stakeholder consultation; (b) Provides an opinion on the adequacy of the local stakeholder consultation.			
#24		Double registration and double accounting	Cambodia recognizes an issue of double registration and double counting. Cambodia will raise this issue for more detailed discussion at the TWG-JCM REDD+ meeting to be held on 19th Feb 2018.	<b>Japan to provide clarification at the 2nd TWG to facilitate common understanding on this matter.</b>	Japan to provide clarification and Cambodia to share the concern at the 2 <sup>nd</sup> TWG. ➔ Agenda 8
5		Additional issue			
#25	4	Methodology guidelines 17. The project area and the reference area for the project are identified. A displacement belt and/or displacement management area are also identified, when necessary. The project area and the displacement management area are delineated taking into account forest management units and other administrative boundaries as well as local land management customs.		Japan recognizes that the wording “Displacement management area” is confusing with “Displacement management belt”, thus <b>changes "Displacement Management Area" to "Activity Area"</b> . (Methodology, PDD and safeguard guidelines)  <b>Japan will explain this change carefully at the second TWG.</b>  Clarification: The <u>Activity area</u> is the area where the activities under the project are implemented. The activity area can overlap with the project area.	Cambodia to consider the proposal. Japan will provide explanation on this issue at the 2 <sup>nd</sup> TWG. ➔ Agenda 3-2



				<p>For example, an activity area could include forest area in the project area where patrolling will be conducted to stop people from clearing the forest, and it could also include non-forest areas where alternative/improved livelihoods will be created for local people.</p> <p>The <u>displacement belt</u> is the area where the project participants monitor emissions displaced by the project activities and it is always set outside the project area.</p> <p>For example, if the deforestation agents are local people who are clearing the forest for agriculture, and if the REDD-plus project stops them from clearing the forest in the project area, the displacement belt would be the area outside the project area where it is anticipated these people might move to clear forest after the project start. Displacement will be monitored in this area.</p>	
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## 2) 技術作業部会第1回会合

2018年2月19日、シエムリアップにおいて、JCM-REDD+ガイドラインに関する技術作業部会第2回会合 (The 2nd meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanisms) を開催した。第2回会合で使用したプレゼンテーションは Appendix 1.3.1-2 として 1.3.1 章末に収録した。これらを踏まえ修正したガイドライン案は、別冊1に収録した。

### a) 技術作業部会第2回会合アジェンダ

Date: 19 February 2018

Time: 9:00-17:00 (the room is available from 8:00-18:00)

Venue: Meeting Room, Le Meridien Angkor, Siem Reap

#### Purpose of this meeting

The Government of Cambodia and the Government of Japan signed a bilateral agreement on the Joint Crediting Mechanism (JCM) on 11 April 2014. At the third meeting of the Joint Committee (JC) held on 15 September 2017 in Phnom Penh, the JC agreed on the schedule and procedure for consultation of the REDD+ guidelines under the JCM, as well as on establishing a technical working group. The purpose of the technical working group is to develop the guidelines for REDD+ under the JCM agreement between Cambodia and Japan. The final draft developed by the technical working group will be sent to the JC for its approval.

The first meeting of the technical working group was held on 19 December 2017 in Phnom Penh. At the first meeting, information on the recent progress of REDD+ in Cambodia and the drafts of the guidelines prepared by Japan were presented and discussion points were identified. Some issues were identified and later addressed through follow-up discussion via Email.

The aim of this meeting is to finalize the drafts of the guidelines (to be sent to the JC for its approval) through discussion on outstanding issues.

#### Proposed working schedule

The final drafts of the guidelines will be sent to the JC to be discussed in the fourth meeting, which is planned for or after April 2018. The details of the schedule are to be discussed.

#### Adopted Agenda

<b>Opening (Coffee is available before the opening)</b>		
10:00-10:20	Opening Remarks by Co-Chair	Dr. Chea Sam Ang, Ministry of Environment of Cambodia Ms. Naoko Tsukada, Forestry Agency of Japan
	Self-introduction of participants	
<b>Adoption of Agenda</b>		
10:20-10:40	Agenda 1: Adoption of agenda ● Work progress of the TWG	Mr. Yuki Okada, Forestry Agency of Japan
<b>Technical Discussion on Issues for the Guidelines for REDD+ under JCM</b>		
10:40-11:10	Agenda 2: Cross-cutting issue	Dr. Hiromitsu Samejima, IGES Ms. Yoko Asada, MURC
11:10-12:00	Agenda 3: Methodology guidelines	Dr. Hiromitsu Samejima, IGES
12:00-13:30	Lunch Break	
13:30-13:45	Agenda 4: PDD guidelines	Dr. Hiromitsu Samejima, IGES
13:45-14:00	Agenda 5: PCP guidelines	Ms. Yoko Asada, MURC
14:00-14:15	Agenda 6: Safeguard guidelines	Dr. Makino Yamanoshita, IGES

14:15-14:30	Agenda 7: VV guidelines	Dr. Makino Yamanoshita, IGES
14:30-15:00	Coffee Break	
15:00-15:30	Agenda 8: General discussion ● Possible emerging issue	Dr. Makino Yamanoshita, IGES
<b>Future schedule</b>		
15:30-16:00	Agenda 9: Future schedule and procedure after the technical working group	Mr. Yuki Okada, Forestry Agency of Japan
<b>Closing</b>		
16:00-16:30	Closing remarks by Co-chair	Dr. Chea Sam Ang, Ministry of Environment of Cambodia Ms. Naoko Tsukada, Forestry Agency of Japan

- Dinner reception at a restaurant in the hotel

#### List of sub-agenda items for the technical discussion

Agenda Item No.	Homework No.	Issue	Action necessary for draft finalization
<b>Agenda 2 Cross-cutting issue</b>			
Agenda 2-1	#2, 7, 11, 15, 20, 21	Communicating with the focal point for REDD-plus under JCM for REL, MRV and PDD	Japan to share its view then to be discussed.
<b>Agenda 3 Methodology guidelines</b>			
Agenda 3-1	#1	Definition of forest in the Annex I	Agreement by Cambodia with Japan's proposal
Agenda 3-2	#25	Change in the wording: "Displacement management area" to "Activity Area" (additional issue proposed by Japan)	Agreement by Cambodia with Japan's proposal
Agenda 3-3	#4, #6	Inserting "National Forest Inventory Manual" to the footnote	Agreement by Cambodia with Japan's proposal
Agenda 3-4	#8	Value of discount factor	Cambodia to provide justification then to be discussed
Agenda 3-5	#9	Editorial changes	Agreement by Cambodia with Japan's proposal
<b>Agenda 4: PDD guidelines</b>			
Agenda 4-1	#13	Considering National Forest Monitoring System at actual measurement	Agreement by Cambodia with Japan's proposal
Agenda 4-2	#14	Keeping consistency in the data correction protocol	Agreement by Cambodia with Japan's proposal
<b>Agenda 5: PCP guidelines</b>			
Agenda 5-1	#19	Deleting "may" in para 25	Japan to provide clarification then to be discussed
<b>Agenda 6: Safeguard guidelines</b>			
Agenda 6-1	#18	Wording in the safeguard criterion (d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities	Cambodia to share its view then to be discussed
<b>Agenda 7: VV guidelines</b>			

Agenda 7-1		Confirmation of no changes in the text	Confirmation from Cambodia and Japan that there's no necessary change in the text
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**Excursion: Site visit to Preah Javaraman Norodom Phnom Kulen National Park**

Date: 19 February 2018

**Purposes of the Excursion**

Participants deepen their understanding on forest protection and management in the Cambodian national park

Participants observe the places and process of deforestation and forest degradation, and understand activities and challenges to address the drivers of deforestation and degradation, through the field observation and dialogues with park rangers and communities leaders

**Schedule**

Times	Activities	Transportation	Note
7:00am - 09:00am	Depart from Reveal Courtyard (hotel in Siem Reap) to Phnom Kulen	<i>Mini Bus 25-seat</i>	
9:00am - 9:30am	Ranger guides on-site visit to see: Reforestation Plots	<i>Mini Bus</i>	
10:00am - 11:00pm	Informal dialogue with Park Manager and Ranger at Ranger station 3 Rangers will briefly describe their works and challenges to protect Kulen National Park, as well as drivers of deforestation in the National Park.	<i>Mini Bus</i>	Knong Phnom Station
11:30am - 12:00pm	Ranger guides on-site visit to see: Preah Ang Thom Waterfall	<i>Mini Bus</i>	Ecotourism site
12:10am - 13:00pm	Lunch at restaurant on Phnom Kulen	<i>Mini Bus</i>	Near Water Fall Area
13:10pm - 16:00pm	Ranger guides on-site visit to see: Community of Protected Area Forest Different deforested plots (logging by local people, forest encroachment, land concession)	<i>Motorbike</i>	13 Motorbikes. Rangers will drive all participants
16:30pm - 18:30pm	Travel back directly to Siem Reap Airport	<i>Mini Bus</i>	

b) 結論

第2回技術作業部会における結論は、表 1.3.1-3 にまとめた。

表 1.3.1-3 カンボジア第2回技術作業部会における結論

No	Page	Content (Citation)	Comment by Cambodia	Response from Japan	Conclusion
1		Methodology Guidelines 1GL_PM_REDD+_20171013_clean_Cambodia-10-01-18			
#1	3	16. The definition of forest used for REDD-plus methodologies should follow the national definition of forest designated by the Kingdom of Cambodia, as specified in Annex I of these Guidelines.	Guidelines should consider and ensure consistency with the National REDD+ Strategy, National Forest Monitoring System, Forest Reference Level and Safeguards of Cambodia. Refer to p7 of the “Initial Forest Reference Level for Cambodia under the UNFCCC Framework” which provides the forest definition for the Cambodia REDD-plus programme.	Japan proposes adding the definition of forest from the “Initial Forest Reference Level for Cambodia under the UNFCCC Framework” to Annex I, as follows: <i>“Forest under a REDD+ project under the JCM in Cambodia refers to a unit of an ecosystem in the form of wetland and dry land covered by natural or planted vegetation with a height from 5 metres on an area of at least 0.5 hectares, and canopy crown cover of more than 10%. Forest also includes forest regrowth and areas under afforestation or reforestation. Rubber, oil palm plantations and perennial crops are excluded from this definition.”</i>	Agenda 3-1: The definition was revised as below following the “Initial Forest Reference Level for Cambodia under the UNFCCC Framework”. <i>“For a REDD-plus project under the JCM in Cambodia, forest refers to a unit of an ecosystem in the form of wetland and dry land covered by natural or planted vegetation with a height from 5 metres on an area of at least 0.5 hectares, and canopy crown cover of more than 10%. Areas also include forest regrowth and areas under afforestation or reforestation. Rubber, oil palm plantations and perennial crops are excluded from this definition.”</i>
#2	3	12. The project reference level is an estimate of the anticipated annual net forest-related emissions in the project area during the monitoring period without the project being implemented.	Assessment of the project reference level should include technical analysis from the Cambodian MRV Technical Working Group.	Japan suggests inserting the following text in para 26: <i>“The methodology proponents communicate with the focal point for REDD-plus under JCM to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep</i>	Agenda 2-1: To insert the following text in para 26: <i>“The methodology proponents communicate with <b>the technical contact person for REDD-plus under the JCM</b> to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions,</i>

				records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”  Also see #20	consider any comments and other feedback they receive, and keep records of the communications. <b>The technical contact person for REDD-plus under the JCM</b> is provided on the JCM website.”
#3	4	22. At the time of validation, at least 80 percent of forest in the project area is under the control of the project, and acquisition of the rights of use of the forest to the extent necessary for the project is demonstrated by the project participants with documentary evidence.	Cambodia team agrees on the proposed value of 80% at the time of validation and 100% at the time of verification.	No response required.	Concluded.
#4	5	28. (b) Ground-based survey of emission factors: Emission factors, or carbon stocks per hectare, of each carbon pool in each class, should be obtained through on-the-ground measurements.	Cambodia has developed a manual for the national forest inventory (NFI manual). The ground survey for JCM-REDD+ should consider the methodologies of the NFI manual.	Japan suggests including “Field Manual for the National Forest Inventory of Cambodia” in the footnote as a reference for section 4.4. Estimation and accounting of net emissions as follows: Than, S., L. Vesa, S. Vanna, P. Hyvönen, K. T. Korhonen, G. Sola, M. Henry and M. van Rijn, 2017. “Field Manual for the National Forest Inventory of Cambodia. 2nd revision”. Forestry Administration of the Ministry of Agriculture, Forestry and Fisheries, Food and Agriculture Organization of the United Nations, Phnom Penh,	Agenda 3-3: To insert “Field Manual for the National Forest Inventory of Cambodia” to para 27 before the IPCC guidelines.

				Cambodia.	
#5	5	28. (a) The accuracy of imagery analyses of forest/non-forest classification for each forest type is 80 percent or higher.	“for each forest type” should be deleted	Japan agrees and deletes “for each forest type”.	Concluded.
#6	5	28. (b) Ground-based survey of emission factors	Cambodia will share its draft NFI as a reference.	Japan suggests adding it as a reference for section 4.4. (see #4)	Agenda 3-3: See #4
#7	6	32. The approach and procedures used for the national or any relevant sub-national reference level established by the Kingdom of Cambodia are considered when establishing the project reference level.	The involvement of the national REDD+ team is crucial in developing and re-assessing the REL  The following can be added: “The project reference level is extracted from the national forest reference level established by the Kingdom of Cambodia. If the project wishes to use alternatives or additional approaches and procedures, justification is presented to the Cambodia REDD+ Taskforce / MRV Technical Team for agreement.”	Japan suggests that it is sufficient to add the additional text to para 26 of methodology guidelines (see #2) and para 7 and 8 of the PCP guidelines (see #20).	Agenda 2-1: To insert the following text in para 32: “The project reference level is <b>consistent with</b> the national forest reference level established by the Kingdom of Cambodia.”
#8	7	41. The default value of the discount factor is 30 percent.	The discount value of 30% seems to be high compared to that of the VCS. A maximum of 20% is appropriate considering the existing voluntary carbon projects (i.e. VCS projects) and	Japan requests Cambodia to provide justification to change the default value of the discount factor from 30% to 20 %.	Agenda 3-4: The default value is revised to 20 %.

			other REDD+ bilateral agreements.		
#9	10			<p>Following JCM Glossary and UNFCCC 1/CP.18 para 42, Japan suggest to change editorial as below</p> <p>Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving net emission reductions.</p> <p>→ Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving net reduction of emissions.</p>	<p>Agenda 3-5:</p> <p>The proposal on editorial changes are accepted by Cambodia. The definition of the term to be clarified in the Glossary.</p>
#10	22	<p>Table 2: Project-specific parameters to be fixed ex ante</p> <p>Size of displacement belt: The project area is decided by project proponents through mobility analysis of deforestation and degradation agents</p>	How to evaluate the validity?	<p>No change to the text.</p> <p>Clarification:</p> <p>Validity of the procedure that is proposed for the mobility analysis of deforestation and degradation agents in a proposed methodology would be assessed by the JC as part of the methodology approval process. The methodology may include procedures and data to identify the agents and the distance and direction that the agents are likely to move to outside project area. Any historical data,</p>	Concluded.



				expert opinion, participatory rural appraisal (PRA), literature and/or other verifiable sources of information will be checked in the validation process of PDD by TPE.	
#New			<2 <sup>nd</sup> TWG> In the second technical meeting, it is proposed and agreed to change “agents” to “drivers”.		No change to the text. In the guidelines, the agents of deforestation / degradation is written in an example to estimate displacement which conducts mobility analysis. As example sentences do not regulate every methodology should identify the agents nor conduct mobility analysis to calculate the displacement, it is not necessary to change the “agents” to “drivers”.
2	PDD guidelines 2GL_PDDMR_REDD+_20171013_clean_Cambodia-10-01-18				
#11	3	3. General Guidelines	Cambodia agreed to the suggestion from Japan to insert the following text “The project participants communicate with the national REL / MRV focal point to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the	Japan suggests to insert the additional text between para 10 and 11. “The project participants communicate with the focal point for REDD-plus under JCM to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications. The focal point for	Agenda 2-1: To insert following text between para 10 and 11. “The project participants communicate with <b>the technical contact person for REDD-plus under the JCM</b> to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the

			communications.” between para 10 and 11.	REDD-plus under JCM is provided on the JCM website.”  Also see #21	communications. <b>The technical contact person for REDD-plus under the JCM</b> is provided on the JCM website.”
#12	24	D. Environmental impact assessment	REDD+ project(s) is not under EIA of Cambodia. 3 types of forest related projects are required EIA such as Forest Concession, Economic Land concession, and Hydro dam with new reservoir.	No change to the text. Clarification: If an EIA is not required under national laws, the project participants simply write in their PDD that there is no requirement for an EIA. Japan prefers to keep this section as it used in guidelines for other JCM sectors. They have had no problem with this.	Concluded.
#13	27	4.3. Preparing for actual measurement	Should include Cambodia’s NFMS as a reference.	Japan suggests adding “should consider Cambodia’s National Forest Monitoring System.” to para. 32.	Agenda 4-1 To revise para 32 to “For the monitoring of C pools under Option C, a combination of remote sensing and ground-based survey(s) and the methods <b>adopted for</b> Cambodia’s National Forest Monitoring System should be used.”
#14	45	Figure 1 Decision tree for data correction	The design should be consistent with NFMS.	Japan proposes adding the following text to para 36: “If any relevant protocols exist in the National Forest Monitoring System, equipment calibration and data correction should be conducted in line with these protocols.”	Agenda 4-2 The proposal from Japan is accepted by Cambodia.
#15			Cambodia REDD+ Task force expresses intention to be closely involved with the PDD development process.	Japan suggests that it is sufficient to add the additional text between para 10 and 11 in PDD guidelines (see #11) and para para29 in PCP guidelines	Agenda 2-1: No changes to the text.

				(see #21).	
3	3GL_SG_REDD+_20171013_clean_Cambodia-10-01-18				
#16		(Japan asked whether the national safeguards information system should be mentioned somewhere in the guidelines.)	<2 <sup>nd</sup> TWG> The Cambodia Safeguards Information System should be address with the Cambodia National REDD+ Strategy.		To insert “the Cambodia Safeguards Information System” to para 3.
#17	1, etc.	Joint Crediting Mechanism Guidelines for Promoting and Supporting Safeguards for 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 (REDD-plus)	The wording “promoting and supporting” is too weak compared to the wording “address and respect” used by the UNFCCC.	Japan agrees to make this change.	Concluded.
#18	3	4. Criteria for the safeguards under the JCM (d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities;	<b>Cambodia side need more time to consider this wording.</b>	Japan notes that the guidelines have taken this wording from the Cancun Agreement, and will wait for comments from Cambodia.	Agenda6-1 To refer “The definition of indigenous peoples in Cambodia is specified in Land Law 2001” as a footnote of the Criterion (d).
3	4PCP_REDD_171016_clean_Cambodia-10-01-18				
#19	5	25. After the registration of the project, the project participants operate the	“may” should be deleted	No change to the text. Japan anticipates that most project participants will submit requests for	Agenda5-1 The proposal from Japan was accepted by Cambodia.

		project and conduct monitoring of its activity in line with the registered PDD. The project participants may submit the request for registration after the start date of operation.		registration before the start date of project operation, but they have the option to register after the start date.	
#20	4			<p>Following #2, Japan suggests to add a new paragraph 7:          “The methodology proponents communicate with the focal point for REDD-plus under JCM to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”</p> <p>Japan also suggests to add a sentence into new paragraph 8:          The submission may be accompanied by additional documents which help explain the methodology and the communication record with the focal point for REDD-plus under JCM.</p>	<p>Agenda 2-1:          To insert new paragraphs (para 7 &amp; para 8):          Para 7. “The methodology proponents communicate with <b>the technical contact person for REDD-plus under the JCM</b> to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website.”</p> <p>Para 8. The submission may be accompanied by additional documents which help explain the methodology and the communication record with <b>the technical contact person for REDD-plus under the JCM.</b></p>
#21				Following #11, Japan suggests to add a new paragraph 29:	Agenda 2-1: To insert new paragraph 29 as below.

				<p>“The project participants communicate with the focal point for REDD-plus under the JCM to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.”</p> <p>Japan also suggest to add a sentence to new paragraph 30 as below:  “The project participants of a proposed JCM project prepare a draft PDD, after conducting a local stakeholder consultation and communication with the focal point for REDD-plus under JCM. The draft PDD consists of a completed “JCM Project Design Document Form” and monitoring plan.”</p> <p>Japan also suggests to add the new paragraph 30 as below:  .... The project participants submit the draft of PDD together with a modalities of communication statement (hereinafter referred to as “MoC”) and supporting documentations including the communication record with the focal point for REDD-plus under JCM, as</p>	<p>Para 29. “The project participants communicate with <b>the technical contact person for REDD-plus under the JCM</b> to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.”</p> <p>Accordingly, to insert following text to Para 30 after “after conducting a local stake holder consultation” as below.  “(after conducting a local stakeholder consultation) and communication with <b>the technical contact person for REDD-plus under the JCM.</b>”</p> <p>In addition above, to insert following text to Para 30 after “supporting documentations” as below.  “(...supporting documentations) including the communication record with <b>the technical contact person for REDD-plus under the JCM</b>, as appropriate, (to the TPE...)”</p>
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				appropriate, to the TPE contracted by the project participants to perform validation of the project and to the secretariat for public inputs.	
4	6GL_VV_REDD_20171016_clean_Cambodia-10-01-18				
#22		The validation and verification of the safeguards (para 51-55, 67-70) (Japan explained that the guidelines do not require third party validation and verification for the safeguards and that they will be reviewed and evaluated by the Joint Committee.)	<2 <sup>nd</sup> TWG> Cambodia agreed no change to the text.	No change to the text.	Concluded
#23	10	6.7. Local stakeholder consultation Reporting requirements 55. The TPE: (a) Describes the steps taken to assess the adequacy of the local stakeholder consultation; (b) Provides an opinion on the adequacy of the local stakeholder consultation.	Is there any guideline for these “adequacy”?	Answer: The TPEs are accredited for the JCM by the JC taking into account the adequacy of their procedures.	Concluded.
#24		Double registration and double accounting	Cambodia recognizes an issue of double registration and double counting. Cambodia will raise this issue for more	Japan to provide clarification at the 2nd TWG to facilitate common understanding on this matter.	Agenda 8 Japan shared the information on the double registration and double accounting. The issue was commonly

			detailed discussion at the TWG-JCM REDD+ meeting to be held on 19th Feb 2018.		understood by both governments.
5	Additional issue				
#25	4	Methodology guidelines 17. The project area and the reference area for the project are identified. A displacement belt and/or displacement management area are also identified, when necessary. The project area and the displacement management area are delineated taking into account forest management units and other administrative boundaries as well as local land management customs.		<p>Japan recognizes that the wording “Displacement management area” is confusing with “Displacement management belt”, thus changes "Displacement Management Area" to "Activity Area". (Methodology, PDD and safeguard guidelines)</p> <p>Japan explained this change carefully at the second TWG.</p> <p>Clarification: The <u>Activity area</u> is the area where the activities under the project are implemented. The activity area can overlap with the project area.</p> <p>For example, an activity area could include forest area in the project area where patrolling will be conducted to stop people from clearing the forest, and it could also include non-forest areas where alternative/improved livelihoods will be created for local people.</p> <p>The <u>displacement belt</u> is the area where the project participants</p>	Agenda 3-2 The proposal from Japan was accepted by Cambodia.


				<p>monitor emissions displaced by the project activities and it is always set outside the project area.</p> <p>For example, if the deforestation agents are local people who are clearing the forest for agriculture, and if the REDD-plus project stops them from clearing the forest in the project area, the displacement belt would be the area outside the project area where it is anticipated these people might move to clear forest after the project start. Displacement will be monitored in this area.</p>	
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# Cambodia REDD+ Programme

Progress update and Future Plan




## Presentation Outline

- Overview of Cambodia REDD+ Programme
- Summary of Key Progress update
- Overview of FCPF Phase 2




## Overview of Cambodia REDD+ Programme



## Objective

To establish RGC REDD+ readiness to become eligible for results-based payments under the UNFCCC




### REDD+ Implementation Phase

	Phase 1: Readiness	Phase 2: Implementation	Phase 3: Results-Based
REDD+ Phase	Readiness is finishing	Implementation started	Pilot launched
REDD+ Phase	Establishing enabling conditions (capacity building, systems)	Implementing forest management, low carbon agriculture, reforestation, agroforestry	Pilot actions (Reduced emissions, increased carbon stocks)

Supported by

- CAM-REDD from 2011- 2015
- UN-REDD from 2011 to 2015
- FCPF from 2014-2020



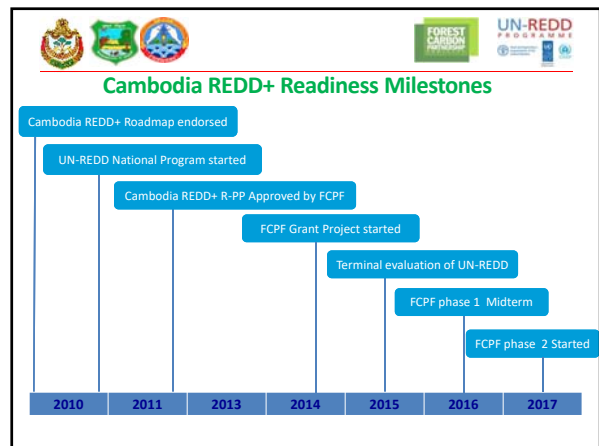
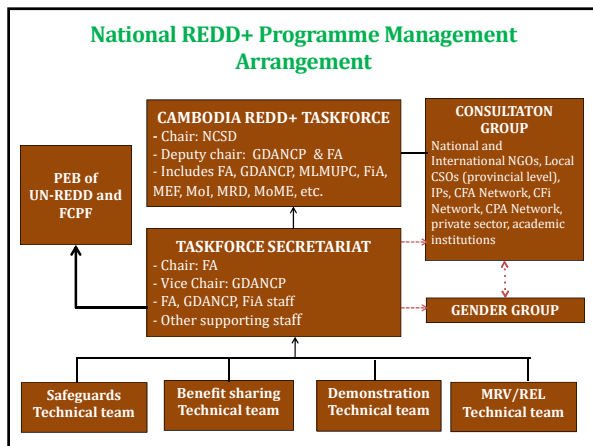
### Phase 1: REDD+ Readiness

National REDD+ Strategy

Forest Reference Level

National Forest Monitoring System

Safeguards Information System



### Cambodia REDD+ Development Partners

Components/Outcomes	Supporting framework				
	UN-REDD	Cam-REDD	FCPF	FAO Technical Cooperation	Embassy of Japan
Component 1: Readiness organization and consultation	✓✓	✓✓	✓✓		
Component 2: REDD+ Strategy Preparation	✓✓	✓	✓✓		
Component 3: Reference emissions level/reference level	✓	✓	✓✓	✓✓	✓✓
Component 4: Monitoring systems for forests and safeguards	✓	✓	✓✓	✓✓	✓✓

✓ Moderate focus  
 ✓✓ Strong focus


## Summary of Key Progress Update

### REDD+ Policy Frameworks

Target	Progress update	Future Action
National REDD+ Strategy and action plan endorsed by national REDD+ Taskforce	National REDD+ Strategy completed, endorsed by MAFF and MoE Initial draft of NRS action plan developed	Continue to develop and finalize NRS action plan
FRL endorsed by RGC; FRL submitted to UNFCCC	FRL completed, endorsed by RGC and submitted to UNFCCC for technical reviews. Technical assessment by UNFCCC Technical Evaluation Team Completed	Continue to improve FRL document based on UNFCCC technical assessment report FRL will be resubmitted to UNFCCC on 17 Oct. 2017


### REDD+ Policy Frameworks

Target	Progress update	Future Action
NFMS developed and operationalized	Version one of the National Forest Monitoring System (NFMS) completed and endorsed	NFMS version 2 being developed
Safeguard Information System prepared, endorsed and operationalized	Final draft of Cambodia REDD+ safeguards information system developed	Continue to finalized SIS and endorsed by RTF Prepare summary information on REDD+ safeguards to submit to UNFCCC for RBP



### REDD+ Policy Frameworks

Target	Progress update	Future action
NPASMP and action plan endorsed by MoE	<ul style="list-style-type: none"> <li>NPASMP completed and endorsed by MoE and RGC</li> <li>Second draft of action plan for implementation of NPASMP developed</li> </ul>	Finalization & endorsement of action plan for NPASMP by MoE
National Strategic Management Plan and Action Plan for production forest prepared and endorsed by MAFF	<ul style="list-style-type: none"> <li>Consultancies contracted</li> <li>Initial outline for strategic management and action plan prepared</li> </ul>	Finalization and endorsement of strategic management and action plans by MAFF




### REDD+ Policy Frameworks

Target	Progress update	Future action
REDD+ M&E framework developed and endorsed	<ul style="list-style-type: none"> <li>Consultancies contracted</li> <li>Approach paper and workplan for Development of Monitoring and Evaluation Framework prepared</li> </ul>	Finalization & endorsement of REDD+ M&E framework.



### Capacity building and stakeholders engagement


- All REDD+ management arrangements and key institutional elements, Project Executive Board (PEB), National REDD+ Taskforce (NRTF), REDD+ Taskforce Secretariat (RTS), and Technical Teams remain in place and active.
- Significant investment in capacity building and awareness raising on REDD+ readiness and implementation
- Key policy makers and REDD+ focal points provided support to participate in regional and international training, technical workshops and UNFCCC COPs
- Consultation Group ensures stakeholder engagement and ownership of REDD+ readiness process
- Access to information enhanced through production of diverse multi-media products –radio, TV, print and social media
- Enhanced public access to all communication products and reports that are placed on the Cambodia REDD+ website
- Over hundred events arranged on Readiness and NRS development to enhance consultation and participation



### REDD+ subnational demonstration activities


Five subnational demonstration sites initiated to strengthen REDD+ readiness by:

- Mainstreaming REDD+ governance at subnational level
- Generating lessons to inform design of approaches at national level
- Building subnational capacity
- Raising awareness





### REDD+ subnational demonstration activities

Target	Progress update	Future action
One REDD+ demo sites with FA developed and supported	<ul style="list-style-type: none"> <li>Measures to address key drivers tested (boundary demarcation, boundary poles installation, law enforcement/patrolling, reduction of transgression through energy efficiency bio digester construction and integrated farming and reforestation)</li> <li>Series of sub-national awareness raising and capacity building events conducted</li> <li>The most significant result is the completion of the legalization process for Partnership Forestry (PF) and official granting that has brought 5,420 ha under protection and management.</li> <li>PF management plan developed and endorsed by FAC</li> </ul>	Evaluation and documentation of lessons learnt





### REDD+ subnational demonstration activities

Target	Progress update	Future action
Two REDD+ demo sites with FIA developed	<ul style="list-style-type: none"> <li>Measures to address key drivers tested (boundary demarcation, boundary poles installation, law enforcement/patrolling, reforestation, ecotourism and eco-friendly aquaculture)</li> <li>Series of sub-national awareness raising and capacity building events conducted</li> <li>Management Plan and action plan prepared and endorsed for the management and protection of 4,500 ha of mangrove and 3,500 ha of flooded forest.</li> </ul>	Evaluation and documentation of lessons learnt

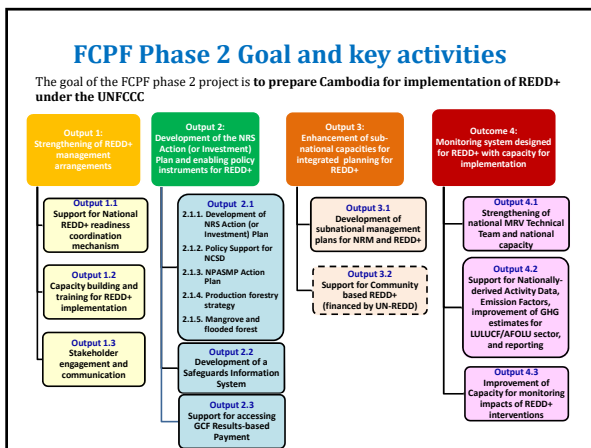



### REDD+ subnational demonstration activities

Target	Progress update	Future action
Two REDD+ demo sites with GDANCP developed and supported	<ul style="list-style-type: none"> <li>Measures to address key drivers tested (boundary demarcation, boundary poles installation, law enforcement/patrolling, CPA, livelihood and reforestation)</li> <li>Series of sub-national awareness raising and capacity building events conducted</li> <li>Management programme/plan for Phnom Kulen National Parks completed and endorsed by MoE.</li> <li>Final draft of an implementation plans/action plans for Phnom Kulen National Park prepared.</li> </ul>	<p>Finalization and endorsement of action plans by MoE</p> <p>Evaluation and documentation of lessons learnt</p>

## Overview of FCPF Phase 2



## Thank you

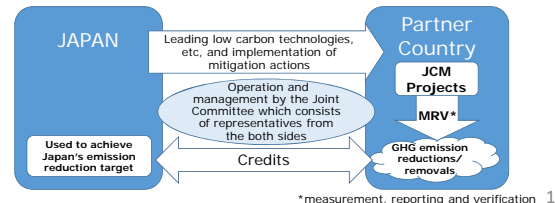
### Questions & Answers

## General Introduction of the JCM & the JCM-REDD+

Yuki Okada  
International Forestry Cooperation Office  
Forestry Agency, Japan

### Basic Concept of the JCM

- Facilitating diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing countries.
- Appropriately evaluating contributions from Japan to GHG emission reductions or removals in a quantitative manner and use them to achieve Japan's emission reduction target.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals.



\*measurement, reporting and verification

### The JCM related Articles in the Paris Agreement

#### Article 6 of the Agreement

- Parties shall, where engaging on a voluntary basis in cooperative approaches that involve **the use of internationally transferred mitigation outcomes towards nationally determined contributions**, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.
- The use of internationally transferred mitigation outcomes to achieve nationally determined contributions** under this Agreement shall be voluntary and authorized by participating Parties.
  - Use of market mechanisms, including the JCM, is articulated under Article 6 which prescribes for the use of emission reductions realized overseas towards national emission reduction targets.
  - The amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction in accordance with the Paris Agreement.
  - Japan is going to contribute to the development of the guidance for robust accounting including for avoidance of double counting to be adopted by the CMA\*.

\*the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

2

### JCM Partner Countries

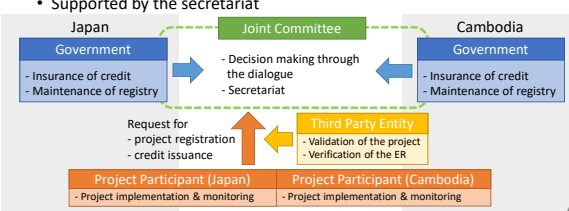
- Japan has held consultations for the JCM with developing countries since 2011 and has established the JCM with 17 countries.



3

### Structure of the JCM

- Joint Committee is a place for dialogue and for decision making
- Joint Committee:
  - consists of representatives of both governments
  - makes all decision related to the JCM
    - Making rules and guidelines
    - Approving methodologies and project registration
    - Notification of credits
    - Designating the third-party entities for validation and verification
  - Supported by the secretariat



4

### Current Progress of Cambodia- Japan JCM

- Signed Bilateral document (Apr. 11, 2014)
- 1st Joint Committee (Jan. 16, 2015)
  - Established JC Secretariat
  - Adopted rules and guidelines of the JCM
- 2nd Joint Committee (Apr. 26, 2016)
  - Approved 1st Methodology (LED street lighting system)
- 3rd Joint Committee (Sep. 15, 2017)
  - Extended JCM period until 2030
  - Registered 1st JCM Project (Solar Power Generation in School)
  - Introduced the concept of JCM-REDD+
  - Agreed initiation of consultation of REDD+ guidelines and further process



5

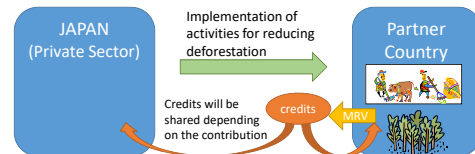
### Objectives of Technical Working Group

- **Technically discuss the draft guidelines** which is necessary to register the REDD+ methodologies and projects under the JCM and report the result of discussion to the JC through the following process;
  - **Review the content** of the draft Guidelines for REDD+ prior to the TWG meeting
  - **Organize the TWG meetings** to discuss the contents of the draft Guidelines for REDD+ **from the technical perspective** with taking into account national REDD+ readiness in Cambodia and the Rules for Implementation of the JCM
  - **Formulate the revised version** of the draft Guidelines for REDD+
  - **Report the revised draft** with technical recommendations to the forthcoming JC

6

### Features of the JCM-REDD+ (1/2)

- REDD+ is one of the potential sector of the JCM.
- Japan contributes to reduce GHG emission through implementing REDD+ activities
- The JCM credits are shared
  - The credits are generated through MRV of the GHG emission reductions or removals achieved by the activities
  - Depending on the contribution of both countries (project participants)



7

### Features of the JCM-REDD+ (2/2)

- **Flexibility in rules**
  - As the JCM is **based on the bilateral documents**, national circumstances can be reflected in the implementation rules
- **Upfront funding**
  - The JCM-REDD+ provides **upfront funding** to implement REDD+ activities to reduce deforestation and/or forest degradation which is essential for achieving results
- **Private sector involvement**
  - The JCM-REDD+ aims for **Japanese private sector participation** in REDD+
- **Rural development and poverty alleviation**
  - JCM-REDD+ projects are expected to directly **involve local communities** and contribute to **improving their livelihoods**

8

### Needs of Development Guidelines for REDD+

- There are many sector-specific issues in REDD+.
  - Activities related to land use and land use change
    - Technical issues for REL and monitoring
    - Risk of reversals (e.g. forest fire) and displacement
  - Large scale and various stakeholders
    - Safeguards: necessary to consider environmental and socio-economic impact (e.g. biodiversity conservation, providing alternative livelihood to local communities)
- To address those issues, **specific guidelines for REDD+** are required.

9

### Rules and Guidelines for the JCM-REDD+ (1/3)

➤ Some JCM guidelines are specific to REDD+, others are common to all sectors.

Other sectors	REDD+
Rules of Implementation for the JCM	
JCM Glossary of Term	JCM Glossary of Term <b>for REDD-plus</b>
Rules of Procedures for the Joint Committee	
JCM Project Cycle	JCM Project Cycle <b>for REDD-plus</b>
JCM Guideline for Designation as a Third-Party Entity	
JCM Guidelines for Developing Proposed Methodology	JCM Guidelines for Developing Proposed Methodology <b>for REDD-plus</b>
JCM Guidelines for Developing Project Design Document and Monitoring Report	JCM Guidelines for Developing Project Design Document and Monitoring Report <b>for REDD-plus</b>
JCM Guidelines for Promoting and Supporting Safeguards <b>for REDD-plus</b>	
JCM Guidelines for Validation and Verification	JCM Guidelines for Validation and Verification <b>for REDD-plus</b>

10

### Rules and Guidelines for the JCM-REDD+ (2/3)

#### Rules of Implementation for the JCM

- To explain **the purpose and scope of the JCM** and provide **overall rules** and the definition of the terms and used in the JCM.
  - Purpose of the JCM
  - Scope (Source of GHG, JCM Credit)
  - Roles and Responsibilities:
    - Joint Committee, Each Side (Cambodia/Japan), Third-party Entities (TPEs), Project Participants
  - Process
  - Issuance and Use of Credits

#### JCM Project Cycle for REDD-plus

- To provide **administrative steps** to be followed for methodology proponents, project participants, third-party entities (TPEs), other stakeholders, the JC, the secretariat and both sides **for approval of a methodology, registration of a JCM project, issuance of credits and related actions.**

11

### Rules and Guidelines for the JCM-REDD+ (3/3)

**JCM Guidelines for Developing Proposed Methodology for REDD-plus**

- To assist methodology proponents in **preparing proposed Methodologies** for REDD+ under the JCM for submission to the JC.

**JCM Guidelines for Developing Project Design Document and Monitoring Report for REDD-plus**

- To assist project participants **develop a Project Design Document (PDD)** and a **Monitoring Report (MR)** for REDD+ under the JCM employing a JCM-REDD+ methodology approved by the JC.

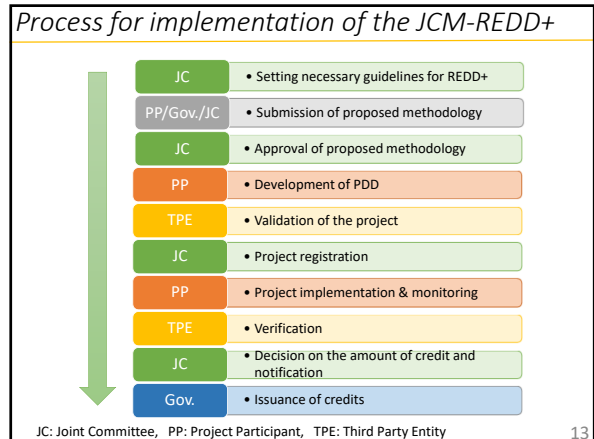
**JCM Guidelines for Promoting and Supporting Safeguards for REDD-plus**

- To assist project participants **develop a REDD+ Safeguard Activity Implementation Plan (SGIP)** and a **REDD+ Safeguard Activity Progress Report (SGPR)**.

**JCM Guidelines for Validation and Verification for REDD-plus**

- To assist **TPEs validate the PDD** and **verify the MR** of a REDD+ project under the JCM.

12



### Challenges of the JCM-REDD+

- **Clarity of the eligibility of REDD+ credits** under the Market Mechanism (of the Paris Agreement)
- **Scaling-up** of private sector's intervention
- **Consistency with other REDD+ methodologies** including the Warsaw Framework and harmonization with programs of RBPs (FCPF-CF, GCF, etc.)

14

### Introduction of JCM-REDD+ in Prey Lang (1/2)

- **History and Background**
  - Since 2011, GOJ supported CI to conduct a FS of REDD+ in Prey Lang
  - 2012, FA team conducted carbon stock survey together with CI
  - 2014, REL was developed for 2013-2022
  - 2015, Mitsui and CI started conversation for a possible partnership in Prey Lang JCM REDD+
  - 2016, Prey Lang was designated as Prey Lang Wildlife Sanctuary (PLWS)
  - MOE, Mitsui and CI are discussing the content of the agreement for JCM REDD+ in Prey Lang, and expecting to sign it soon.
- **Project Phases and Target Areas for implementation**
  - Phase 1: (TBD) Jan 2018 - 3 years  
Stung Treng area of PLWS (approx. 120K ha)
  - Phase 2: Jan 2021- 10 years  
Prey Lang Wildlife Sanctuary (431,683 ha)
  - Phase 3: TBD  
Other protected areas of Cambodia

15

### Introduction of JCM-REDD+ in Prey Lang (2/2)

- **Drivers of deforestation**
  - Unclear land tenure/use rights & poverty
  - Land conversion for cash crops/agriculture
  - Illegal logging for short term economic gain
  - Economic Land Concession- limited traceability of resource inputs/outputs
  - Population dynamics/ migration- unsustainable land management practices/ absence of management plan
  - Limited Law Enforcement resources & dynamic internal/ external threats/ limited local knowledge of policy
- **Activities**
  - Law enforcement/Livelihood/Biodiversity research
  - JCM activities (PDD development, monitoring, validation, verification & registration)
    - Livelihoods supported by Mitsui CSR
    - Other activities to be funded by Mitsui as their investment for carbon business

16

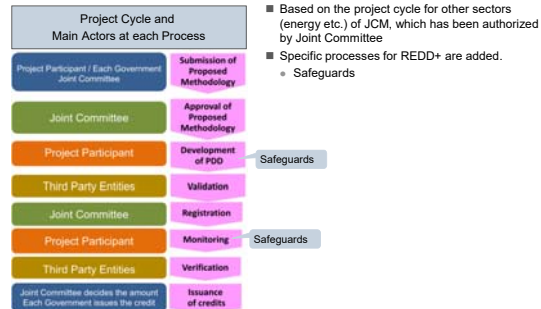
## Outline of "Project Cycle Procedure" for REDD+

19th, December, 2017

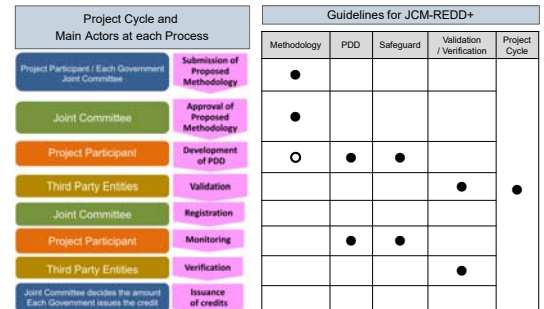
Notice: Final guidelines will be approved at Joint Committee between Cambodia and Japan.

## I. Overview: Project cycle of JCM-REDD+

### Project Cycle of JCM-REDD+



### Relation between Project Cycle and Guidelines



## II. Rules in each cycle, referred in "Project Cycle Procedures for REDD+"

### Contents of "Project Cycle Procedure for REDD+"

- General Procedures
  - Objectives
  - Scope and applicability
  - Terms and definitions
  - Approval of methodologies
    - Submission of proposed methodology, Completeness check, Public inputs
  - Implementation of Project
  - Pre-registration activities
    - Submission and publication of PDD / MoC, Public inputs, Validation of project
    - Submission, public inputs and review of SGIP
  - Registration of project
  - Pre-issuance activities
    - Submission of Monitoring report, Verification of emission reductions
    - Submission, public inputs and evaluation of SGPR
  - Issuance of credits
- Specific Procedures
  - (Revision of approved methodology / PDD, Changes to registered JCM project, Withdrawal of project / credit issuance, etc.)



### Key Stakeholders for Project Cycle

**Joint Committee (JC)**

- Consisted by the representatives from Cambodian and Japanese side
- Developing and modifying the rules and guidelines for JCM
- Designating the third-party entities (TPEs)
- Decision making for methodology approval, project registration, and issuance of credits

**JC Secretariat**

- Established by JC
- Performing the work for the implementation of JCM
  - Window for project participants
  - Supporting JC (implementation of completeness check, publication of documents, etc.)

**Third-party Entity (TPE)**

- Designated by JC
- Validating proposed JCM projects
- Verifying GHG emission reductions as a result of registered JCM projects

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### Process for Methodology Approval

Project cycle procedure, para 6-23

The flowchart shows the following steps:

- Project Participant / Each Government Joint Committee: Submission of Proposed Methodology
- Joint Committee: Approval of Proposed Methodology
- Project Participant: Development of PDD
- Third Party Entities: Validation
- Joint Committee: Registration
- Project Participant: Monitoring
- Third Party Entities: Verification
- Joint Committee decides the amount Each Government issues the credit: Issuance of credits

**Project Participants** and **JC** and any other stakeholders

- Preparation, Submission to JC Secretariat
- Completeness check (7 days)
- Public inputs (15 days)
- Assessment, Consideration (within 60 days, if impossible, within 90 days)
  - If necessary, external expert may participate in the assessment process.
- Conclusion: approval or not
- JC Secretariat: Publication of approved methodology (within 5 days)

※ Detailed technical instruction for preparing methodology is in methodology guidelines.

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### Process for Registration of Project

Project cycle procedure, para 28-57

The flowchart shows the following steps:

- Project Participant / Each Government Joint Committee: Submission of Proposed Methodology
- Joint Committee: Approval of Proposed Methodology
- Project Participant: Development of PDD
- Third Party Entities: Validation
- Joint Committee: Registration
- Project Participant: Monitoring
- Third Party Entities: Verification
- Joint Committee decides the amount Each Government issues the credit: Issuance of credits

**Project Participants**

- Preparation of 3 documents
  - Project Design Document (PDD)
  - Modalities of Communication (MoC)
  - Safeguard Activity Implementation Plan (SGIP)
- Submission of 3 documents to JC secretariat
- Submission of PDD and MoC to TPE for validation
- Public inputs for PDD and SGIP (30 days)

**JC Secretariat**

- Validation of PDD and MoC

**TPE**

- Request for registration

**JC**

- Review of SGIP (14 days)
  - If necessary, external expert may participate in the review process.
- Conclusion: project approval or not

※ Detailed technical instruction on PDD is in PDD guidelines, on SGIP is in Safeguard guidelines, on validation is VV guidelines.

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### Process for Issuance of Credit

Project cycle procedure, para 58-74

The flowchart shows the following steps:

- Project Participant / Each Government Joint Committee: Submission of Proposed Methodology
- Joint Committee: Approval of Proposed Methodology
- Project Participant: Development of PDD
- Third Party Entities: Validation
- Joint Committee: Registration
- Project Participant: Monitoring
- Third Party Entities: Verification
- Joint Committee decides the amount Each Government issues the credit: Issuance of credits

**Project Participants**

- Preparation of 2 documents
  - Monitoring Report
  - Safeguard Activity Progress Report (SGPR)
- Submission of 2 documents to JC secretariat
- Submission of Monitoring report to TPE for verification
- Public inputs (15days), Completeness check (7days) for SGPR
- Verification of emission reductions in the monitoring report
  - Evaluation of SGPR (30 days)
    - If necessary, external expert may participate in the evaluation process.
  - If necessary, re-assessment of SGPR (10 days)
    - For SGPR, within 60 days
- If necessary, revision of documents
  - For SGPR, within 60 days

**JC Secretariat**

**JC**

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### Process for Issuance of Credit (cont.)

Project cycle procedure, para 75-84

The flowchart shows the following steps:

- Project Participant / Each Government Joint Committee: Submission of Proposed Methodology
- Joint Committee: Approval of Proposed Methodology
- Project Participant: Development of PDD
- Third Party Entities: Validation
- Joint Committee: Registration
- Project Participant: Monitoring
- Third Party Entities: Verification
- Joint Committee decides the amount Each Government issues the credit: Issuance of credits

**Project Participants**

- Account opening to acquire JCM credits
- Submission of "request for issuance" to JC secretariat
  - Before submitting, consultation about credit allocation between project participants is necessary.

**JC Secretariat**

- Completeness check (7 days)

**JC**

- Decision making for issuance of credits

**Japanese and Cambodian side**

- Issuance of credits

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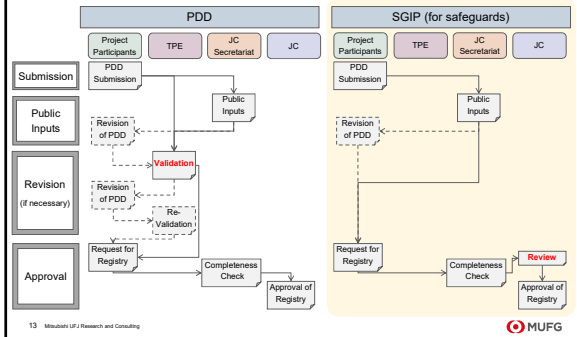
### III. Discussion Points

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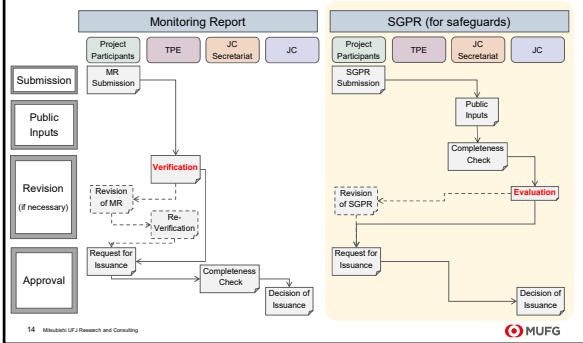
### Process for Safeguards

- In JCM, plan and report on safeguards (SGIP and SGPR) are not validated / verified by third party, but reviewed / evaluated by JC, consisted by representatives from government of Cambodia and Japan.
- Through the review by both governments, the appropriateness of the project and safeguard activity is ensured.
- Is it acceptable for Cambodian side?

### Appendix: General Project Cycle for "Registration" in REDD+ under the JCM

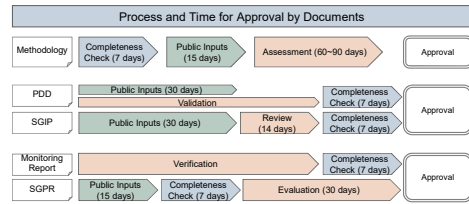


### Appendix: General Project Cycle for "Issuance" in REDD+ under the JCM



### Time to Approval


- Is number of date on each process acceptable?
  - Those rules are based on authorized JCM guidelines for other sectors.



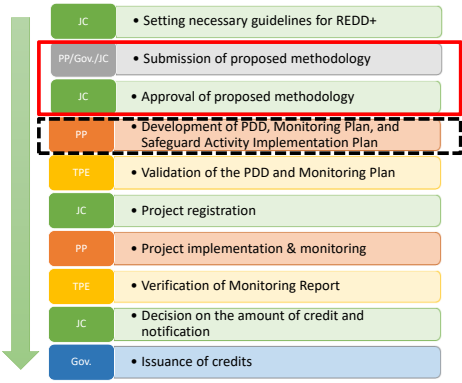
1st meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism  
19 Dec 2017, Hotel Cambodiana, Phnom Penh

## Outline of JCM guidelines for Developing Proposed Methodology for REDD+ (draft)

*Note: Final guidelines will be approved at Joint Committee between Japan and Cambodia*



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JC: Joint Committee, PP: Project Participant, TPE: Third Party Entity

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### Structure of JCM REDD+ methodology guidelines

- Scope and applicability
- Terms and definitions
- Key concepts
  - Project emission reductions to be credited in a JCM project for REDD-plus
  - Eligibility criteria
  - Concepts for REDD-plus in the JCM
    - Forest Definition
    - Geographical boundaries
    - Carbon pools and GHG sources
    - Estimation and accounting of net emissions
    - Project reference level
    - Project net emissions
    - Project emissions reductions to be credited
  - General guidelines for developing proposed methodologies
- Instructions for completing the **Proposed Methodology Form**
  - Title of the methodology
  - Terms and definitions
  - Summary of the methodology
  - Eligibility criteria
  - Geographical Boundaries
  - Carbon pools and GHG sources
  - Establishment of project reference level
    - Establishment of project reference level
    - Calculation of project net emissions
  - Calculation of project net emissions
  - Calculation of project emission reductions to be credited
  - Data and parameters fixed ex ante
- Instructions for completing the **Proposed Methodology Spreadsheet**
  - Proposed methodology spread sheet (Input Sheet)
    - Parameters to be monitored ex post
    - Project-specific parameters to be fixed ex ante
  - JCM Proposed Methodology Spreadsheet (Calculation Process Sheet)
    - List of Default Values]

Annex I. National definition of forest in Cambodia for REDD-plus under the JCM.

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### 1. Scope and applicability

- These Guidelines aim to assist the development of methodologies to quantify emissions reductions from the five REDD-plus activities listed in the Cancun Agreements (UNFCCC, Decision 1/CP.16 paragraph 70), i.e.
  - Reducing emissions from deforestation;
  - Reducing emissions from forest degradation;
  - Conservation of forest carbon stocks;
  - Sustainable management of forests; and
  - Enhancement of forest carbon stocks.
 All methodologies account for (a) reducing emissions from deforestation at a minimum.

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### 1. Scope and applicability

- These guidelines promote the national REDD-plus strategy and take into consideration the national or any relevant sub-national reference level and forest monitoring system established by the Kingdom of Cambodia.
  - National REDD+ Strategy & Action Plan
  - Forest Reference Emission Level
  - National Forest Monitoring System
  - Safeguard Information System

Refer & support

JCM REDD+ methodology and projects — Specific (alternative or additional) approaches and procedures

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### 3. Key concepts

#### 3.1. Project emission reductions to be credited in a JCM project for REDD-plus



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### 3. Key concepts

#### 3.1. Project emission reductions to be credited in a JCM project for REDD-plus

Greenhouse gas emissions → Climate change

CO<sub>2</sub> CH<sub>4</sub> N<sub>2</sub>O

Reduction of biomass Forest fire

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### 3. Key concepts

#### 3.1. Project emission reductions to be credited in a JCM project for REDD-plus

A JCM REDD+ project will reduce GHG emission from forest in the project area

Project area

Introduction of alternative livelihoods

Law enforcement

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### 3. Key concepts

#### 3.1. Project emission reductions to be credited in a JCM project for REDD-plus

Net reduction of emissions achieved by a JCM REDD+ project = ① - (② + ③ + ④)

① Anticipated emission from forest without project

② Actual emission from forest with project

③ Additional GHG emissions from the project activities

④ Displaced net emissions from the project area

CO<sub>2</sub> emissions from fossil fuels for patrolling

CH<sub>4</sub> emissions from paddy field and rice stock

Introduction of alternative livelihoods

Law enforcement

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### 3. Key concepts

11. Net emissions include net CO<sub>2</sub> emissions from carbon pools and GHG emissions from GHG sources.

4.3. Carbon pools and GHG sources

23. The carbon stocks to be considered includes each of the following five carbon pools: above ground biomass, below-ground biomass, dead wood, litter and soil organic carbon.

24. GHG sources to be considered are sources such as biomass burning, enteric fermentations of livestock, rice cultivation, and nitrogen fertilization for CH<sub>4</sub> and N<sub>2</sub>O and fuel consumed by project activities for CO<sub>2</sub>.

Net CO<sub>2</sub> emissions ← Carbon pools

- Above ground biomass
- Below-ground biomass
- Dead wood
- Litter
- Soil organic carbon

Net emissions ← GHG emissions

- CH<sub>4</sub> and N<sub>2</sub>O from biomass burning, enteric fermentation of livestock, rice cultivation, and nitrogen fertilization
- CO<sub>2</sub> from fuel consumed by project activities

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### 3. Key concepts

10. The annual emission reductions are a conservative estimate of the difference between the project reference level and project net emissions in each year.

12. The project reference level is an estimate of the anticipated annual net forest-related emissions in the project area during the monitoring period without the project being implemented.

13. The project net emissions is the sum of actual net emissions from forest in the project area, GHG emissions from the project activities and net emissions displaced to outside of the project area by the project activities during the monitoring period.

Annual emission reductions = Project reference level - Project net emissions

① Net CO<sub>2</sub> emissions and GHG emissions from project area

② Net CO<sub>2</sub> emissions and GHG emissions from project area

③ GHG emission from project activities

④ Displaced emissions in displacement belt (net CO<sub>2</sub> emissions & GHG emissions)

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### 3. Key concepts

9. In a JCM project for REDD-plus, the project emission reductions to be credited are defined as the sum of the annual emission reductions resulting from project activities adjusted using a discount factor for the risk of reversals during a monitoring period.

Annual emission reductions = Project reference level - Project net emissions

x (1 - discount factor) ← Risk of reversals / non-permanence risk (loss of conserved forest after the project period)

Annual emission reductions to be credited

Total emission reductions to be credited during monitoring period

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#### 4.2. Geographical Boundaries

17. The project area ... for the project are identified. The project area ... are delineated taking into account forest management units and other administrative boundaries as well as local land management customs.

18. **The project area is the area targeted for reducing net emissions from forest.**

#### 4.1. Forest Definition

16. The definition of forest used for REDD-plus methodologies should follow the **national definition of forest designated by the Kingdom of Cambodia**, as specified in Annex I of these Guidelines. If there is a difference between the national definition of forest and the definition used in a proposed methodology, the reason for selecting the forest definition is explained.



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#### 2. Forest Definition for REDD+

The forest definition for REDD+ follows the definition of the National Forest Programme while rubber and oil palm plantations and perennial crops are excluded from the definition of forest.

*Forest under the REDD+ programme refers to a unit of an ecosystem in the form of wetland and dry land covered by natural or planted vegetation with a height from 5 meters on an area of at least 0.5 hectares, and canopy crown cover of more than 10%. Area also included in the REDD+ programme are forest regrowth and areas under afforestation or reforestation.*

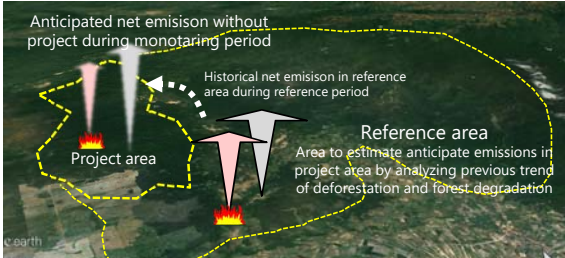
p7-8 and 30-31, Initial Forest Reference Level for Cambodia under the UNFCCC Framework (July 22, 2016)

→ Question for TWG: Should JCM REDD+ use this definition?

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17. ... the **reference area** for the project are identified. The ... displacement management area are delineated taking into account forest management units and other administrative boundaries as well as local land management customs.

19. **The reference area is the area used to establish the project reference level.** The reference area is similar to the project area with respect to agents and drivers of deforestation and/or forest degradation, landscape configuration and ecological condition, and socio-economic and cultural conditions.

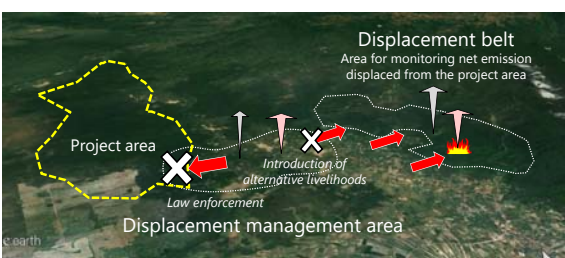


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17. ... A **displacement belt** and/or **displacement management area** are also identified, when necessary.

20. The **displacement belt** is the area outside the project area where **net emissions displaced by project activities will be monitored.**


21. The **displacement management area** is the area where project activities are implemented to reduce net emissions in the project area and to reduce the risk of the displacement of emissions to other areas.



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22. **At the time of validation,** at least 80 percent of forest in the project area is under the control of the project, and acquisition of the rights of use of the forest to the extent necessary for the project is demonstrated by the project participants with documentary evidence.

**By the time of the first verification event,** the entire right is under the control of the project, and is demonstrated as such by the project participants with documentary evidence



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#### 4.4. Estimation and accounting of net emissions

26. The approach and procedures used for the **national or any relevant subnational reference level or forest monitoring system developed by the Kingdom of Cambodia** are considered when estimating net emissions of the project. The guidelines in paragraphs 27 to 28 are followed when alternative or additional approaches and procedures are used.

Annual emission reductions =  $\text{Project reference level} - \text{Project net emissions}$

① **Net CO<sub>2</sub> emissions and GHG emissions from project area**

② **Net CO<sub>2</sub> emissions and GHG emissions from project area**  
 ③ **GHG emission from project activities**  
 ④ **Displaced emissions in displacement belt (net CO<sub>2</sub> emissions & GHG emissions)**

National or any relevant sub-national reference level      National or any relevant sub-national forest monitoring system



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### Initial Forest Reference Level for Cambodia under the UNFCCC Framework (July 22, 2016)

**Table 3-1: Total Annual CO<sub>2</sub> Emissions and Removals (t CO<sub>2</sub>/year) FRL reference period**

Period (year to year)	2006-2010	2010-2014
Annual CO <sub>2</sub> Removals (t CO <sub>2</sub> /year)	-6,626,046	-20,298,825
AVG Annual CO <sub>2</sub> Removals (t CO <sub>2</sub> /year)	-13,462,436	
Annual CO <sub>2</sub> Emissions (t CO <sub>2</sub> /year)	34,148,629	151,267,528
AVG Annual CO <sub>2</sub> Emission (t CO <sub>2</sub> /year)	92,708,079	
Net Total Annual CO <sub>2</sub> Emissions and Removals (t CO <sub>2</sub> /year)	27,522,583	130,968,703
AVG Net Total Annual CO <sub>2</sub> Emissions and Removals (t CO <sub>2</sub> /year)	79,245,643	

- Time frame: 2006-2014
- Focus: CO<sub>2</sub> emissions and removals from above ground biomass

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#### 4.4. Estimation and accounting of net emissions

26. The approach and procedures used for the national or any relevant subnational reference level or forest monitoring system developed by the Kingdom of Cambodia are considered when estimating net emissions of the project. The guidelines in paragraphs 27 to 28 are followed when **alternative or additional approaches and procedures** are used.

Annual emission reductions = **Project reference level** - **Project net emissions**

① **Net CO<sub>2</sub> emissions and GHG emissions from project area**

② **Net CO<sub>2</sub> emissions and GHG emissions from project area**  
 ③ **GHG emission from project activities**  
 ④ **Displaced emissions in displacement belt (net CO<sub>2</sub> emissions & GHG emissions)**

**Project specific (alternative or additional) approaches and procedures**

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#### 4.4. Estimation and accounting of net emissions

26. The approach and procedures used for the national or any relevant subnational reference level or forest monitoring system developed by the Kingdom of Cambodia are considered when estimating net emissions of the project. The guidelines in paragraphs 27 to 28 are followed when **alternative or additional approaches and procedures** are used.

27. The most recent IPCC guidelines, such as *IPCC 2006 Guidelines for National GHG Inventories* or the *IPCC 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry*, are used when estimating net emissions.

28. The monitoring of net CO<sub>2</sub> emissions from the carbon pools should be conducted using a **combination of remote sensing and ground-based survey**. The best available technology, including novel satellite observation technologies, may be employed to build effective monitoring systems for net CO<sub>2</sub> emissions.

(a) Remote sensing: .....

(b) Ground-based survey of emission factors: .....

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<Alternative or additional approaches and procedures> (para 28)

(a) Forest/non-forest, land cover types and forest type should be classified through remote sensing

Requirement	Forest/Non-forest	Land cover type	Forest type
Spatial resolution of satellite imageries >30m	✓	✓	✓
Classification of land cover and forest types: - Encouraged to reflect the amount of carbon stock / ha - Should reflect each country's forest designations.		✓	✓
Accuracy > 80%	✓		✓

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<Alternative or additional approaches and procedures> (para 28)

(b) Emission factors, or carbon stocks per hectare, of each carbon pool in each class, should be obtained through on-the-ground measurements

**Five Carbon pools**

- Above ground biomass
- Below ground biomass
- Dead wood
- Litter
- Soil organic carbon

If ground measurements are not used, a reasonable explanation is provided, and the IPCC's Emission Factor Database (EFDB), national forest inventories—or other internationally recognized data may be used as alternative data sources for the emission factors, with an explanation of the rationale for and validity of the data provided.

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#### 4.4. Estimation and accounting of net emissions

29. To establish the **project reference level**, carbon pools and GHG sources can be excluded if their exclusion leads to conservative estimates of emission reductions.

To estimate **project net emissions**, net emissions from **all carbon pools and GHG sources** should be estimated. However, if the net emission from any carbon pool or any single GHG source due to project activities is estimated to amount to **less than five percent of the total net emissions** according to measured values or data from the IPCC's guidelines, Emission Factor Database (EFDB), national forest inventories or other internationally recognized sources, a **simple but conservative procedure may be used** to estimate the amount, and ex post monitoring is not necessary.

Annual emission reductions = **Project reference level** - **Project net emissions**

① **Net CO<sub>2</sub> emissions and GHG emissions from project area**

② **Net CO<sub>2</sub> emissions and GHG emissions from project area**  
 ③ **GHG emission from project activities**  
 ④ **Displaced emissions in displacement belt (net CO<sub>2</sub> emissions & GHG emissions)**

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#### 4.5. Project reference level

30. The **project reference level** is a projection of the sum of the annual **net CO<sub>2</sub> emissions from the carbon pools** and annual **GHG emissions** from forest in the project area in the absence of the project. Project reference levels of the net CO<sub>2</sub> emissions and/or GHG emissions should be established based on the net CO<sub>2</sub> emissions and/or GHG emissions from the reference area during the reference period.

32. The approach and procedures used for the **national or any relevant sub-national reference level established by the Kingdom of Cambodia** are considered when establishing the project reference level. The guidelines in paragraphs 33 to 34 are followed when **alternative or additional approaches and procedures** are used.

Annual emission reductions = **Project reference level** - Project net emissions

① **Net CO<sub>2</sub> emissions and GHG emissions from project area**

National or any relevant sub-national reference level      Project specific (alternative or additional) approaches and procedures

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<Alternative or additional approaches and procedures> (para 33)

The **net CO<sub>2</sub> emission data** from carbon pools and GHG emission data from GHG sources to establish the project reference level should be obtained **for at least four point of times** (= carbon stock data from at least five points in time are required when using the stock-change method to estimate net emissions.)

GHG emissions from reference area (e.g. CH<sub>4</sub> from forest fire) during reference period

The **reference period** dates back at least 10 years from the start of the project. The methodology proponents may designate a maximum date back period of the historical data to be used for developing the reference levels that is appropriate for the methodology

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31. Regardless of how many of the activities described in paragraph 5 are included in the scope of a project, a single project reference level is established for the project. The reference level can be established by **integration of separate models for net CO<sub>2</sub> emissions and GHG emissions** or by **modeling the combined values directly**.

34. Three approaches for establishing the project reference level are recognized:

- (a) Average of annual net CO<sub>2</sub> emissions and/or GHG emissions during the reference period;
- (b) Single regression models of the historical trends of annual net CO<sub>2</sub> emissions and/or GHG emissions;
- (c) Other sophisticated models, including multiple regression analysis of annual net CO<sub>2</sub> emissions and/or GHG emissions, taking into account possible changes in drivers of deforestation and/or forest degradation, such as changes in demography, agricultural, forestry and other land use activities, and national and/or sub-national circumstances such as land development policies and programs.

Net emissions from reference area (net CO<sub>2</sub> emissions + GHG emission)

Net Emissions from project area (tCO<sub>2</sub>e)

Reference period      Start of project      Monitoring period

Project reference level

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#### 4.5. Project reference level

35. The project reference level is **reassessed within five years** to ensure that it adequately reflects the actual circumstances of the project area, such as drivers of deforestation and/or forest degradation, activities that lead to land-use changes, and changes of forest management methods. If the result of reassessment shows that the project reference level no longer adequately reflects actual circumstances, the project reference level is reestablished.

If a **national or relevant sub-national reference level is established after the project start date**, the national or relevant sub-national reference level is considered when **reestablishing the project reference level at the time of reassessment**, and the validity of the new project reference level is explained. However, the newly established project reference level cannot be applied retroactively to evaluate net emissions reduction before the reassessment

Annual emission reductions = **Project reference level** - Project net emissions

① **Net CO<sub>2</sub> emissions and GHG emissions from project area**

National or any relevant sub-national reference level      Project specific (alternative or additional) approaches and procedures

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#### 4.6. Project net emissions

36. Project net emissions include

- (a) the **net CO<sub>2</sub> emissions from the carbon pools and GHG emissions from forest** in the project area
- (b) **GHG emissions due to the project activities** inside and outside the project area including safeguards activities, and
- (c) **displaced emissions** in each year during the monitoring period.

(a) Actual net emission during monitoring period

(b) Additional GHG emissions from the project activities

(c) Net emissions from inside to outside the project area as the result of REDD+ activities

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#### 4.6. Project net emissions

36. Project net emissions include

- (a) the net CO<sub>2</sub> emissions from the carbon pools and GHG emissions from forest in the project area
- (b) GHG emissions due to the project activities inside and outside the project area including safeguards activities, and
- (c) displaced emissions in each year during the monitoring period.

38. The approach and procedures used in **any national or sub-national forest monitoring system relevant to the project area established by the Kingdom of Cambodia** are considered when establishing the monitoring system for project net emissions.

Annual emission reductions = **Project reference level** - **Project net emissions**

(a) **Net CO<sub>2</sub> emissions and GHG emissions** from project area  
 (b) **GHG emission** from project activities  
 (c) **Displaced emissions** in displacement belt (net CO<sub>2</sub> emissions & GHG emissions)

National or any relevant sub-national forest monitoring system      Specific (alternative or additional) approaches and procedures

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#### 4.6. Project net emissions <Additional approaches and procedures>

37. Displaced emissions are net emissions displaced from forest inside to outside the project area as a result of the project activities. **Any decrease in carbon stocks and increase of GHG emissions from forest outside the project area that are reasonably attributable to the project activities are quantified and accounted as displaced emissions.** Any increase in carbon stocks and decrease of GHG emissions compared to the situation without the project outside the project area due to the project activities are excluded from the accounting. The ways and means to identify and quantify displaced emissions are explained in the proposed methodologies.

Project area  
Targeting forest to be conserved

Displacement belt (optional)  
Area for monitoring displacement

(c) Displaced net emissions from inside to outside the project area as the result of REDD+ activities

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#### 4.7. Project emission reductions to be credited

40. The methodology proponents demonstrate that the method to estimate annual emission reductions is **conservative**.

41. In order to effectively deal with the **risk of reversals**, the annual project emission reductions to be credited are calculated using a **discount factor**, considering internal risks, external risks, and natural risk. **The default value of the discount factor is 30 percent.** The proposed methodologies may use the default value and/or provide a procedure that the project participants can apply to develop a project specific discount factor to deal with the risk of reversals, with the justification for the procedure provided.

Net Emissions

Project reference level

Annual emission reductions

Project net emissions

Start of project year y

Monitoring period

$\times (1 - \text{discount factor})$   
Default value: 30%

Annual emission reductions to be credited

Total emission reductions to be credited during monitoring period

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#### 6. Instructions for completing the Proposed Methodology Form

Cover sheet of the Proposed Methodology Form

- Title of the methodology
- Terms and definitions
- Summary of the methodology
- Eligibility criteria
- Geographical Boundaries
- Carbon pools and GHG sources
- Establishment of project reference level
  - Establishment of project reference level
  - Calculation of project reference level
- Calculation of project net emissions
- Calculation of project emission reductions to be credited
  - Data and parameters fixed ex ante

#### 7. Instructions for completing the Proposed Methodology Spreadsheet

Proposed methodology spread sheet (input sheet)

Table 1: Parameters to be monitored ex post

Table 2: Project-specific parameters to be fixed ex ante

JCM Proposed Methodology Spreadsheet (Calculation Process Sheet)

[List of Default Values]

Annex I. National definition of forest in Cambodia for REDD-plus under the JCM.

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#### Fill "Proposed Methodology Form" (e.g.)

Fill eligibilities or requirements of the methodology  
An example is provide in red

Instruction to fill the form

Procedure to calculate emission reductions to be credited in the methodology

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#### Create "Proposed Methodology Spreadsheet"

#### 6. Instructions for completing the Proposed Methodology Form for REDD-plus

J. Data and parameters fixed ex ante *A list of fixed parameters in a methodology*

e.g. Emission factor for minor Carbon pool

#### 7. Instructions for completing the Proposed Methodology Spreadsheet

Proposed methodology spread sheet (input sheet)

Table 1: Parameters to be monitored ex post  
e.g. Change of forest areas in project area during a monitoring period and GHG emission from the project activities.

Parameters to be monitored during monitoring period

Table 2: Project-specific parameters to be fixed ex ante  
e.g. Size of the project area, change of forest areas in reference area during reference period, and measured emission factors of some carbon pools.

Parameters to be fixed in a PDD (before monitoring period)

JCM Proposed Methodology Spreadsheet (Calculation Process Sheet)

[List of Default Values]

Methodology proponent provides the formula to estimate emission reduction automatically

Values of fixed parameters

Whether each parameter is provided by the methodology or the PDD or monitored differs between methodologies

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#### 7. Instructions for completing the Proposed Methodology Spreadsheet

Proposed methodology spread sheet (input sheet) [Attachment to Proposed Methodology Form]

Table 1: Parameters to be monitored ex post

(1) Monitoring point No.	(2) Parameters	(3) Description of data	(4) Estimated Values	(5) Units	(6) Monitoring option	(7) Source of data	(8) Measurement methods and procedures	(9) Monitoring frequency	(10) Other comments
(1)	$A_{i,t}$	Area of stratum i (land use type) at year ym during monitoring period.	Table 1-a, ha	ha	Option C	GLDVS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m.
(2)	$AB_{i,t}$	Area burnt in stratum i (land use type) at year ym during monitoring period.	Table 1-a, ha	ha	Option C	GLDVS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m.
(3)	$EF_{1,t}$	Emission factor (carbon stock per hectare) in above ground biomass stratum forest.	Table 1-b, tC ha <sup>-1</sup>	tC ha <sup>-1</sup>	Option C	Forest sampling	Forest sampling	Once every three years	
(4)	$EF_{2,t}$	Emission factor (carbon stock per hectare) in above ground biomass stratum forest.	Table 1-b, tC ha <sup>-1</sup>	tC ha <sup>-1</sup>	Option C	Forest sampling	Forest sampling	Once every three years	
(5)	$LC_{i,t}$	Project fuel consumption during year ym during monitoring period.	Table 1-b, tC	tC	Option B	RSRS, GLDVS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once a year	
(6)	$DE_{CO2,t}$	Displacement of net CO <sub>2</sub> emissions during year ym during monitoring period.	Table 1-b, tC	tC	Option C	GLDVS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m.
(7)	$DE_{CH4,t}$	Displacement of CH <sub>4</sub> and N <sub>2</sub> O emissions during year ym during monitoring period.	Table 1-b, tC	tC	Option C	GLDVS, Landsat imagery	Analyzing multispectral optical satellite imagery	Once every three years	Min. spatial resolution of 30 m.

Monitoring data

Table 1-a. Area of stratum i and area burnt in stratum i at year ym during monitoring period

Year during the monitoring period	(1) Forest area (ha): A <sub>i,t</sub>	(2) Burnt area (ha): AB <sub>i,t</sub>	(3) Forest area (ha): A <sub>i,t</sub>	(4) Burnt area (ha): AB <sub>i,t</sub>
ym1	A <sub>1,ym1</sub>	AB <sub>1,ym1</sub>	A <sub>1,ym1</sub>	AB <sub>1,ym1</sub>
ym2	A <sub>1,ym2</sub>	AB <sub>1,ym2</sub>	A <sub>1,ym2</sub>	AB <sub>1,ym2</sub>
ym3	A <sub>1,ym3</sub>	AB <sub>1,ym3</sub>	A <sub>1,ym3</sub>	AB <sub>1,ym3</sub>
ym4	A <sub>1,ym4</sub>	AB <sub>1,ym4</sub>	A <sub>1,ym4</sub>	AB <sub>1,ym4</sub>

Table 1-b. Project fuel consumption

Year	(1) Project fuel consumption (tJBLU)	(2) Project fuel consumption (tJBLU)
ym1	LC <sub>1,ym1</sub>	LC <sub>1,ym1</sub>
ym2	LC <sub>1,ym2</sub>	LC <sub>1,ym2</sub>
ym3	LC <sub>1,ym3</sub>	LC <sub>1,ym3</sub>
ym4	LC <sub>1,ym4</sub>	LC <sub>1,ym4</sub>

Monitoring data of forest areas

Recorded volume of consumed fuels



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**Table 2: Project-specific parameters to be fixed ex ante**

(A) Parameters	(B) Description of data	(C) Estimated value	(D) Units	(E) Source of data	(F) Other comments
$A_{ref}$	Size of reference area	Project specific value	ha		The reference area is decided by project proponents
$A_{pr}$	Size of project area				The project area is decided by project proponents
$A_{dis}$	Size of displacement belt				The project area is decided by project proponents through mobility analysis of deforestation and degradation agents
$A_{pr, yr}$	Size of stratum (= land use type) / at year yr during the reference period	--Table 2-a	ha	Satellite imagery	Min. spatial resolution of 30 m
$AB_{pr, yr}$	Size burnt in stratum (= land use type) / at year yr during the reference period	--Table 2-a	ha	Satellite imagery	Min. spatial resolution of 30 m

**Table 2-a. Area of stratum  $i$  and burnt in stratum  $i$  at year yr during reference period**

Year during the reference period	(1) Forest area (ha)	(2) Burnt area (ha)	(3) Primary forest	(4) Secondary forest	(5) Cropland
$yr_1$	$A_{pr, yr_1}$	$AB_{pr, yr_1}$			
$yr_2$					
$yr_3$					
$yr_4$					
$yr_5$					

Annotations: "Calculated by Excel formula on the methodology" (pointing to the value column), "Entry boxes for historical data of forest areas" (pointing to the data input cells).

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**JCM Proposed Methodology Spreadsheet (Calculation Process Sheet)**

The Calculation Process Sheet will be prepared by the methodology proponent.

The data in the spreadsheet are automatical copied from the input sheets and [List of Default Values]. Project proponents should not change the value in the sheet directly.

Item	Value	Units	Parameter
1. Calculations for project emissions (emissions to be credited)			
1.1. Project emission reductions to be credited during first period			
1.2. Stock data of the project			
Size of reference area	Carbon stock and biomass burning	ha	$A_{ref}$
Size of project area	Carbon stock and biomass burning	ha	$A_{pr}$
Size of displacement belt	Carbon stock and biomass burning	ha	$A_{dis}$
Monitoring start date			
Monitoring end date			
1.3. Selected default values			
Emission factor (carbon stock per hectare) in above-ground biomass in primary forest	Above-ground biomass	kg ha <sup>-1</sup>	$EF_{pr}$
Emission factor (carbon stock per hectare) in above-ground biomass in secondary forest	Above-ground biomass	kg ha <sup>-1</sup>	$EF_{sf}$
Emission factor (carbon stock per hectare) in above-ground biomass in cropland	Above-ground biomass	kg ha <sup>-1</sup>	$EF_{cr}$

Annotations: "Emission reduction to be credited is calculated into this box" (pointing to the 'Value' column), "All the boxes are linked to input sheet" (pointing to various cells).

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**[List of Default Values] (Example)**

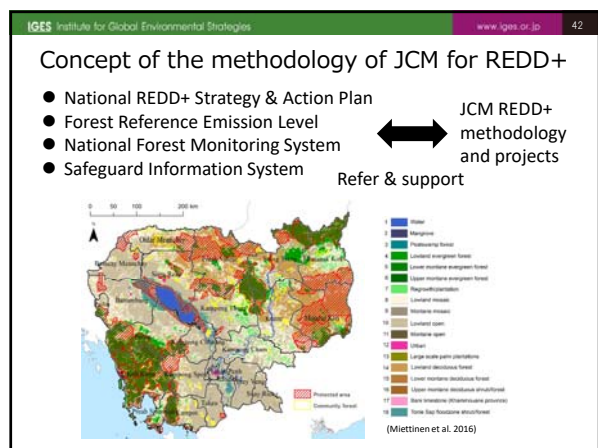
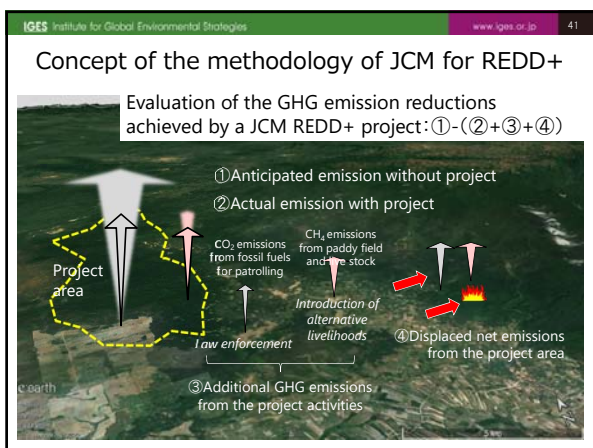
Emission Factors of carbon pool / of stratum $i$			
Carbon stock in above-ground biomass of stratum $i$			
Primary forest	350 kg ha <sup>-1</sup>	$EF_{pr}$	
Secondary forest	100 kg ha <sup>-1</sup>	$EF_{sf}$	
Cropland	30 kg ha <sup>-1</sup>	$EF_{cr}$	
Ratio to below-ground biomass, all types of forest	37.0 %	$R_{AGB}$	
Emission factor of carbon stock in dead wood, all types of forest	14 kg ha <sup>-1</sup>	$EF_{dw}$	
Average mass of fuel available for combustion per hectare			
Primary forest	119.6 * 0.36 t ha <sup>-1</sup>	$MB_{pr}$	$CF_{pr}$
Secondary forest		$MB_{sf}$	$CF_{sf}$
Cropland (rice residues)		$MB_{cr}$	$CF_{cr}$
Emission factor for forest fire			
CH <sub>4</sub>	0.12 g ha <sup>-1</sup> burnt <sup>-1</sup>	$GEF_{CH4}$	
N <sub>2</sub> O	0.2 g ha <sup>-1</sup> burnt <sup>-1</sup>	$GEF_{N2O}$	
Global Warming Potential			
CH <sub>4</sub>	25	GWP	
N <sub>2</sub> O	298	GWP	
Carbon content of oil (Gasoline)	18.7 kg-C kg <sup>-1</sup>	CC	
Oxidized during use factor	1.0	ODU	
Discount factor	30 %	DF	

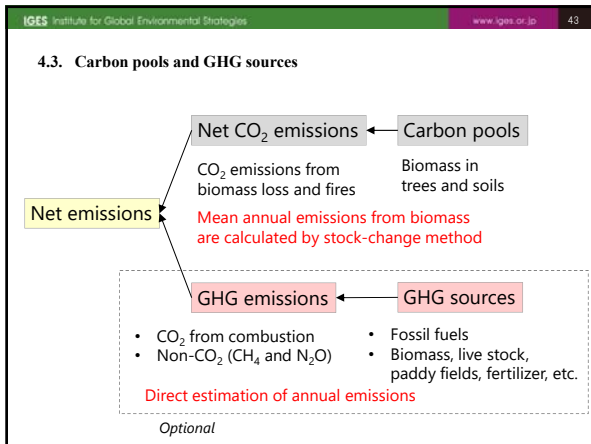
Annotation: "Default values from references" (pointing to the table).

*Fixed parameters in a methodology listed in [J]. Data and parameters fixed ex ante)*

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Fin.





- IGES Institute for Global Environmental Strategies www.iges.or.jp 44
- ### Discount factor
- Credit from the emission reduction should be discounted considering **risk of reversals / non-permanence risk** (loss of conserved forest after project).
  - VCS and FCPF require 10-60% non tradable "buffer" credit to pool among the projects. The pooled buffer can be released when projects demonstrate their longevity, sustainability and ability to mitigate risks of reversal. To simplify the system, JCM REDD+ require "discount" of credit which is not pooled and releasable, but allow to use **30% default value** without analysis of the risks.
  - Project participants for JCM REDD+ can also develop a project specific discount factor with the justification for the procedure.

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### 6. Instructions for completing the Proposed Methodology Form for REDD-plus

J. Data and parameters fixed ex ante *Source of each value*


Parameter	Description of data	Source
$EF_{ij}$	The Emission Factors of carbon pool $j$ of stratum $i$	National forest inventory or 2006 IPCC Guidelines Vol.4 (Table 2.2, 2.3) or other internationally recognized data
$MB_i$	Average Mass of fuel available for combustion of stratum $i$ per hectare	2006 IPCC Guidelines
$C_i$	Combustion factor. Shown in value together with $MB_i$	2006 IPCC Guidelines Vol.4 (Table 2.6)
$G_i$	Emission factor for forest fire	2006 IPCC Guidelines
GWP	Global Warming Potential	2006 IPCC Guidelines
CC	Carbon content of oil	2006 IPCC Guidelines
ODU	Oxidized during use factor	2006 IPCC Guidelines

*A list of fixed parameters under a methodology  
 The default values for each parameter are given in [List of Default Values]*

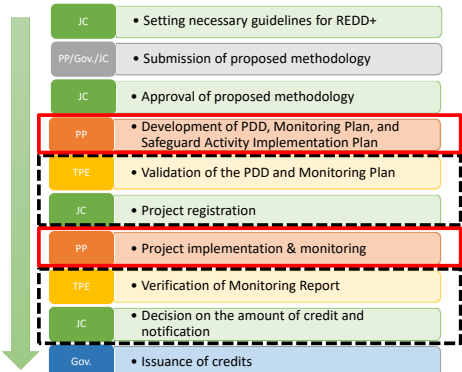
1st meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism  
19 Dec 2017, Hotel Cambodiana, Phnom Penh

## Outline of JCM guidelines for Project Design Document & Monitoring Report for REDD+ (draft)

*Note: Final guidelines will be approved at Joint Committee between Japan and Cambodia*



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JC: Joint Committee, PP: Project Participant, TPE: Third Party Entity

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### Structure of guidelines for Project Design Document (PDD) & Monitoring Report (MR)

- Scope and applicability
- Terms and definitions
- General guidelines
- Developing a PDD
  - Completing a PDD Form
    - PDD Form
  - Developing a Monitoring Plan
  - Preparing for actual measurement
    - Monitoring Plan Sheet
    - Monitoring Structure and Procedures Sheet
- Monitoring
  - Conducting monitoring
  - Data correction for actual measurement
  - Recording and archiving data
- Developing a Monitoring Report
  - Monitoring Report Sheet
  - Monitoring Report Sheet Attachment

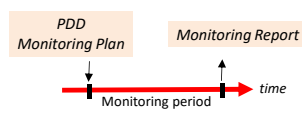
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### 1. Scope and applicability

- The guidelines are intended to assist project participants to develop **Project Design Documents (PDD)** and **Monitoring Reports (MR)**.

### 2. Terms and definitions

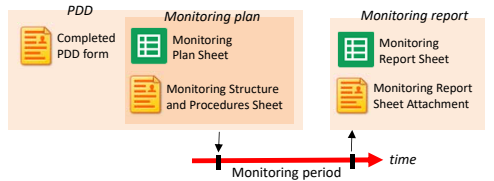
- A **PDD** is prepared by the participants of a JCM project and **sets out in detail**, in line with the JCM rules and guidelines, **the proposed JCM project**.
- "Monitoring" is generating, collecting and archiving all relevant data necessary for estimating project net emissions that are significant and reasonably attributable to a registered JCM project.
- A "**monitoring plan**" is developed by the project participants and **sets out the approach that they will use for the monitoring** of, and by third-party entities for, the verification of, the amount of emission reductions achieved by the JCM project.
- A "**monitoring report**" is prepared by the project participants and **describes the emission reductions** of an implemented registered JCM project for a particular monitoring period.



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### 3. General guidelines

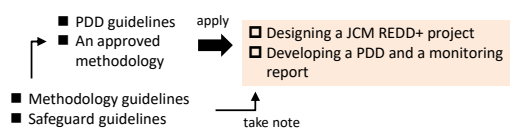
- A PDD consists of a **completed PDD form** and a monitoring plan using the **Monitoring Plan Sheet** and the **Monitoring Structure and Procedures Sheet**. A monitoring report is completed by using the **Monitoring Report Sheet**.
- A Monitoring Spreadsheet is a part of each approved methodology and consists of:
  - A **Monitoring Plan Sheet** which is used before validation for developing a monitoring plan and calculating emission reductions ex ante;
  - A **Monitoring Structure and Procedures Sheet**, which is used before validation for developing an operational and management structure to conduct monitoring;
  - A **Monitoring Report Sheet** which is used before verification for developing a monitoring report and calculating emission reductions ex post.



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### 3. General guidelines

- When **designing a proposed JCM project** and developing a PDD and a monitoring report, project participants **apply these Guidelines and the selected methodology(ies)** for REDD-plus under the JCM, which contain approved methodology documents and the monitoring spreadsheets. They also **take note** of the "Joint Crediting Mechanism Guidelines for Developing Proposed Methodology for 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 (REDD-plus)" and "Joint Crediting Mechanism Guidelines for Promoting and Supporting Safeguards for 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 (REDD-plus)".



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## 4. Developing a PDD

**Approved Methodology**

- A. Title of the methodology
- B. Terms and definitions
- C. Summary of the methodology
- D. Eligibility criteria
- E. Geographical Boundaries
- F. Carbon pools and GHG sources
- G. Establishment of project reference level
- G.1. Establishment of project reference level
- G.2. Calculation of project reference level
- H. Calculation of project net emissions
- I. Calculation of project emission reductions to be credited
- J. Data and parameters fixed ex ante

**Safeguard Activity Implementation Plan Form (Safeguard guidelines)**

## 4.1. Completing a PDD Form

**A. Project description**

- A.1. Title
- A.2. General description of the proposed project
- A.3. Location
- A.4. Project area and displacement management area
- A.5. Project participants
- A.6. Duration
- A.7. Description of drivers of deforestation and/or forest degradation and project activities
- A.8. Contribution from Japan

**B. Application of the approved methodology (ies)**

- B.1. Methodology(ies) applied to the proposed JCM project
- B.2. Explanation of how the project meets eligibility criteria of the approved methodology(ies)

**C. Calculation of emission reductions**

- C.1. Identification of all carbon pools and GHG sources relevant to the JCM project
- C.2. Establishment of project reference level
- C.3. Estimation of project net emissions
- C.4. Discount factor for the risk of reversals
- C.5. Ex ante estimation of emission reductions

**D. Environmental impact assessment**

**E. Local stakeholder consultation**

- E.1. Solicitation of comments from local stakeholders
- E.2. Summary and consideration of comments received

**F. References**

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## A. Project description

**A.1. Title of the JCM project**

Reducing deforestation and forest degradation through community-based forest management, and agricultural intensification in country XYZ.

*\* Provide an unambiguous title of the JCM project. The title should indicate the major project activities.*

**A.2. General description of the proposed project**

The project is the result of collaboration between Company ABC, Company DEF, national NGO ABC and the Department of Forestry of country XYZ. It builds on an earlier initiative, which supported 4 communities in province XYZ to establish community forests. These and other forests in the province are under threat of unplanned deforestation and degradation due to population growth, in particular lack of livelihood options, increasing rates of forest

**A.3. Project location**

Country	Country XYZ
Region, province, district, villages, etc.	Province XYZ Villages A, B, C, D, E, F, G, H, I, K, L
Geographical coordinates	The project area consists of 4 community forests located within latitude XXX to XXX and longitude XXX to XXX.

**A.4. Project area and displacement management area**

Project area

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Displacement management area

**A.5. Project participants**

Project participants

Country	Project participants
Kingdom of Cambodia	NGO ABC, Department of Forestry
Japan	Company ABC, Company DEF

**Project implementation structure**

Assigned roles and responsibilities for each organization participating in the project. The project participants are 4 organizations and 4 communities that are implementing the project. They are supported by 3 organizations providing technical inputs. Assigned roles and responsibilities are as follows.

Name of organization	Mandate	Roles and responsibilities in project
	Manage the	Force management planning and controls.

**A.6. Duration**

**A.7. Description of drivers of deforestation and/or forest degradation and project activities**

**A.8. Contribution from Japan**

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## B. Application of the approved methodology(ies)

**B.1. Methodology(ies) applied to the proposed JCM project**

Approved methodology No.	XXX
Version number	XXX
Approved methodology No.	
Version number	
Approved methodology No.	
Version number	

**B.2. Explanation of how the project meets eligibility criteria of the approved methodology(ies)**

Eligibility criteria	Descriptions specified in the methodology	Explanation of compliance with criterion
Criterion 1	The main drivers of deforestation and forest degradation are conversion for agriculture and forest fire.	The main drivers of deforestation and forest degradation in the reference region, as observed through the application of remote sensing and GIS, and through local consultations, are conversion for agriculture and forest fire (see above). Degradation is also occurring because of over-extraction of timber and fuelwood for local use, but as a conservative measure is excluded from the project accounting.
Criterion 2	The project area does not include forest on peat soil. Peat is defined as organic	No peat soils have been mapped in province XYZ. Database (RED) and none were detected in the project area during ground observations.

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## C. Calculation of emission reductions

**C.1. Identification of all carbon pools and GHG sources relevant to the JCM project**

Carbon pools and GHG sources listed in the applied methodology	Included/excluded (Y/N)	Justification of inclusion or exclusion
Carbon pools		
Above ground biomass	Y	Required by methodology. Accounts for about 68% of total forest carbon stock in lowland evergreen forest in country XYZ. (Reference: FFF). Major loss in reference scenario.
Below ground	Y	Required by methodology. Accounts for about 20% of total forest carbon stock.

**C.2. Establishment of project reference level**

Reference area and period

Approach, procedure and data to establish the project reference level

Approach and procedure	Carbon stock change and GHG emissions for each period (RE) is calculated using Equation 1: $RE_{t,y} = ACS_{t,y} - 4412 \times (L_{t,y} - L_{t-1,y})$
	Carbon stock change at year y is projected using Equation 2: $ACS_{t,y} = \sum (C_{t-1,y} - C_{t-2,y}) \times (1 - r) + C_{t-1,y}$ and Equation 3: $C_t = \sum (C_{t-1,y} - C_{t-2,y}) \times EF_{t,y}$
	Carbon stock during the reference period was calculated for 6 points in time. 6 classified land cover maps were generated from Landsat images for the

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## C.3. Estimation of project net emissions

**Estimation of project net emissions (excluding displaced emissions)**

Project net emissions at year y during the monitoring period are estimated using Equation 6:  $PE_y = ACS_{t,y} \times 4412 + L_{t,y} \times r_{t,y} + E_{t,y} - DE_y + DE$

Carbon stock change at year y ( $ACS_{t,y}$ ) is determined according to the projected land use transitions in the project area in the absence of the project and the effectiveness of project activities.

**Estimation of displaced emissions**

Reasons for including/excluding displaced emissions	Displacement of emissions is included as it is anticipated that if the project is implemented the agents of deforestation (migrant and local communities) will clear forests in the surrounding area as they are seeking to open up more land for cropping. It is also anticipated that some hunters who are no longer able to hunt in the project area will move to other areas to hunt some deer.
Ways and means to estimate emissions displacement	Emissions displacement is estimated by assessing the potential for and likely extent of activity shifting.
	Local and migrant communities clearing forest for agriculture
	The expansion of croplands in the project area will not be permitted under the

**C.4. Discount factor for the risk of reversals**

**C.5. Ex ante estimation of emission reductions**

**D. Environmental impact assessment**

Legal requirement of environmental impact assessment for the proposed project.	No.
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**E. Local stakeholder consultation**

**E.1. Solicitation of comments from local stakeholders**

**E.2. Summary and consideration of comments received**

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### 4.2. Developing a Monitoring Plan

24. The project participants develop a monitoring plan before validation using the **Monitoring Plan Sheet** and the **Monitoring Structure and Procedures Sheet** in the corresponding Monitoring Spreadsheet of the methodology(ies) applied. The monitoring plan utilizes data and estimates from the National Forest Monitoring System or from any relevant sub-national monitoring system, as appropriate.

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25. The project participants input estimated values for each parameter in the **Monitoring Plan Sheet (Input Sheet)**. The Input Sheet consists of a table of **parameters to be monitored ex post**, and a table of **parameters to be fixed ex ante**, which together provide a complete listing of the data that needs to be collected for the project.

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### Monitoring Plan Sheet (Input Sheet) [Attachment to Project Design Document]

Table 1: Parameters to be monitored ex post

Monitoring Parameter No.	Parameter ID	Description of data	Estimated Values	Units	Methods & eqn.	Source of data	Measurement methods and guidelines	Monitoring Frequency	Other comments
(1)	A <sub>1</sub>	Area of stratum i (land use type) i at year ym during monitoring period	...	ha	Optim C	IGES (GLS/RS)	Remote sensing using satellite imagery, GAGC, Expert judgement with double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-a, recorded ex post monitoring
(2)	A <sub>2</sub>	Area burnt in stratum i (land use type) i at year ym during monitoring period	...	ha	Optim C	IGES (GLS/RS)	Analysing multispectral optical satellite imagery, GAGC, Expert judgement with double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-a, recorded ex post monitoring
(3)	EF <sub>1</sub>	Emission factor (carbon) for stratum i (land use type) i at year ym during monitoring period	...	tonne/ha	Subopt C	Forest sampling	Forest sampling, GAGC, Training of community-based forest guards, double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-b, recorded ex post monitoring
(4)	EF <sub>2</sub>	Emission factor (carbon) for stratum i (land use type) i at year ym during monitoring period	...	tonne/ha	Subopt C	Forest sampling	Forest sampling, GAGC, Training of community-based forest guards, double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-b, recorded ex post monitoring
(5)	FC <sub>1</sub>	Project fuel consumption (year ym during monitoring period)	...	Lt	Subopt B	Project records	Sort of fuel receipts, GAGC, Double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-b, recorded ex post monitoring
(6)	FC <sub>2</sub>	Displacement of CO <sub>2</sub> emissions	...	tonne	Subopt A	IGES	Analysing multispectral optical satellite imagery, GAGC, Expert judgement with double-checks to exclude inapplicable or wrong assessment procedures	Once every three years	Table 1-b, recorded ex post monitoring

Table 1-a. Area of stratum i and area burnt in stratum i at year ym during monitoring period

Year during the monitoring period	(1) Forest area (ha) A <sub>1</sub>	(2) Area burnt (ha) A <sub>2</sub>	(3) Total area (ha) A <sub>1</sub> + A <sub>2</sub>	(4) Forest area (ha) A <sub>1</sub>	(5) Area burnt (ha) A <sub>2</sub>	(6) Total area (ha) A <sub>1</sub> + A <sub>2</sub>
Year 1	10,000	100	10,100	10,000	100	10,100
Year 2	10,000	100	10,100	10,000	100	10,100
Year 3	10,000	100	10,100	10,000	100	10,100
Year 4	10,000	100	10,100	10,000	100	10,100
Year 5	10,000	100	10,100	10,000	100	10,100

Table 1-b. Project fuel consumption

Year	(3) Project fuel consumption (L) FC <sub>1</sub>	(6) Displacement of CO <sub>2</sub> emissions (tonne) FC <sub>2</sub>
Year 1	10,000	100
Year 2	10,000	100
Year 3	10,000	100
Year 4	10,000	100
Year 5	10,000	100

Monitoring data

Monitoring data of forest areas

Recorded volume of consumed fuels

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28. In the **Monitoring Structure and Procedures Sheet**, the project participants describe the operational and management structure to be implemented in order to conduct monitoring, clearly indicating the **roles of personnel and organizations**, and set out in detail the **procedures for data collection, archiving and reporting, and QA/QC**.

29. The project participants appoint a person who is responsible overall for the monitoring, including preparation of the monitoring report, and managing and archiving of data. The person responsible for monitoring:

- Ensures the quality of the monitoring report and the structure and procedure for producing the report;
- Oversees and coordinates all the monitoring activities.

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### Monitoring Structure and Procedures Sheet

#### 1. Monitoring Participants

Responsible organizations for implementing the methods and procedures for each data

Description of data	Basic description of measurement methods and procedures	Organizations involved
Area of stratum i (land use type) i at year ym during monitoring period	Analysing multispectral optical satellite imagery	Company DEF, Forest Department
Area burnt in stratum i (land use type) i at year ym during monitoring period	Analysing multispectral optical satellite imagery	Company DEF, Forest Department

Example given in red

Instruction to fill the form

Responsible personnel and their roles

Personnel	Role(s)
Forest Division Head, Company DEF	Responsible for overall monitoring and monitoring report
Senior Lecturer, Geography	Responsible for remote sensing and GIS analysis

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### 2. Monitoring procedures

Area of stratum i (land use type) i at year ym during monitoring period.  
 Area burnt in stratum i (land use type) i at year ym during monitoring period.  
 Displacement of net CO<sub>2</sub> emissions during year ym during monitoring period.  
 Displacement of CH<sub>4</sub> and N<sub>2</sub>O emissions during year ym during monitoring period.

The area of each land use stratum and burnt areas will be monitored through analysis of Landsat images, using the same procedures for establishing the reference level. Displacement of net CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O emissions will be monitored in the same manner.

### 3. Procedures for recording and archiving data

"Standard Operating Procedures for Terrestrial Carbon Measurement", Wustock International (2012) will be the basic reference for recording and archiving data. The procedures include:

- Forest inventory data will be recorded on prepared field sheets and then later entered into a MS Excel file. A digital image of each field sheet will be taken before departing each plot for back up. All field sheets will be filed and digital images will be stored electronically in labelled folders.
- Fuel purchase receipts will be filed in duplicate.
- Remote sensing data and analysis results will be organized and filed in labelled folders.
- All electronic files will be backed up on a server.

### 4. QA/QC procedures

Area of stratum i (land use type) i at year ym during monitoring period.  
 Area burnt in stratum i (land use type) i at year ym during monitoring period.  
 Displacement of net CO<sub>2</sub> emissions during year ym during monitoring period.  
 Displacement of CH<sub>4</sub> and N<sub>2</sub>O emissions during year ym during monitoring period.

The following QA/QC procedures are applied to the remote sensing analysis:

- Horizontal accuracy assessment of all images used in remote sensing analysis is conducted to ensure proper alignment of images over multiple points in time. Root mean squared error (RMSE) of the difference between known digitized locations is

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## 5. Monitoring

### 5.1. Conducting monitoring

33. The project participants conduct monitoring in line with the monitoring plan of the registered PDD.

35. In monitoring for GHG sources under Option C, the project participants calibrate measuring equipment as per the monitoring plan.

### 5.2. Data correction for actual measurement

### 5.3. Recording and archiving data

43. The project participants record and archive the data as per the monitoring plan.

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## 6. Developing a Monitoring Report

45. The project participants develop a monitoring report using the **Monitoring Report Sheet** applied to the registered JCM project.

Verification

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## 6. Developing a Monitoring Report

47. In the Monitoring Report Sheet which is Attached Document to the Monitoring Report Sheet, the project participants provide the locations of monitoring points of the ground-based(s) survey on a map, the result of reassessment of the project reference level, and the situation of the actual recording and archiving of data.

Monitoring Report Sheet Attachment

- Monitoring sites of the ground-based survey(s)
- Reassessment of project reference level
- Recording and archiving data

Monitoring Report Sheet Attachment

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Fin.

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## 4.2. Developing a Monitoring Plan

26. The project participants provide information on each of the following items for each parameter specified in the Monitoring Plan Sheet in line with the applied methodology(ies), and may provide detailed information specific to the proposed project to the contents given in the applied methodology.

- Estimated values: Provide the estimated values of the parameter for the purpose of calculating emission reductions ex ante;
- Monitoring option for each data and parameter: Select one of the following options:
  - Option A:** Based on public data which is measured by entities other than the project participants (Data used: publicly available data such as official statistics, IPCC Guidelines, commercial and scientific literature, etc.)
  - Option B:** Based on the amount of transaction which is measured directly using measuring equipment (Data used: commercial evidence such as invoices);
  - Option C:** Based on actual measurement using measuring equipment (Data used: measured values).
- Source of data: Provide the source of data used or to be used. Clearly indicate the type of data source (e.g. official statistics, surveys, measured value, etc.) and the spatial level of data (e.g. local, regional, national, international), if applicable;
- Measurement methods and procedures: Provide a short description of how the parameters are to be measured/calculated including the QA/QC procedures applied.
- Monitoring frequency: Describe the monitoring frequency (e.g. continuously, annually).

National or any relevant sub-national reference level & forest monitoring system

Additional approaches and procedures

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## 6. Developing a Monitoring Report

45. The project participants develop a monitoring report using the **Monitoring Report Sheet** applied to the registered JCM project.


46. For each parameter in the Monitoring Report Sheet, the project participants provide information corresponding to the following items:

- Monitoring period: Describe the monitoring period;
- Monitored values: Provide the values of the monitored parameters for the purpose of calculating emission reductions;
- Monitoring option: Fill in the monitoring option used;
- Source of data: Provide the source of data used. Clearly indicate the type of data source (e.g. logbooks, daily records, surveys, etc.) and the spatial level of data (e.g. local, regional, national, international), if applicable;
- Measurement methods and procedures: Describe how the parameters are measured/calculated including QA/QC procedures applied. If a parameter is measured, describe the equipments used to measure it, including details on accuracy level, and calibration information (frequency, date of calibration and validity);
- Monitoring frequency: Describe the monitoring frequency.

1st meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism 19 Dec 2017, Hotel Cambodiana, Phnom Penh



## Outline of JCM guidelines for Promoting and Supporting Safeguards for REDD+ (draft)

*Final guidelines will be approved at Joint Committee between Japan and Cambodia*



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### ■ Structure of Safeguard guidelines

1. Scope and applicability
2. Terms and definitions
3. General guidelines
4. Criteria for the safeguards under the JCM
5. Developing a SGIP and a SGPR
  - 5.1. Completing a **SGIP (Safeguard Activity Implementation Plan)** form
 
  - 5.2. Completing a **SGPR (Safeguard Activity Progress Report)** form
 

Annex I. Instruction for planning, implementing, monitoring and reporting safeguard activities  
Annex II. Supplementary guidance for the planning of each safeguard criterion

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### 1. Scope and applicability

1. The JCM guidelines for Promoting and Supporting Safeguards for REDD+ are intended to assist project participants develop a SGIP and a SGPR under the JCM.
 

SGIP: a REDD-plus safeguard activity implementation plan  
SGPR: a REDD-plus safeguard activity progress report
3. These guidelines promote the national REDD-plus strategy and action plan established by the Kingdom of Cambodia.

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### 2. Terms and definitions

4. Safeguards for REDD-plus projects under the JCM are specified as a set of criteria, which are conditions to be met by the project, as set out in paragraph 20 below.
5. Safeguard activities are activities considered necessary to ensure that the REDD-plus safeguards criteria are respected when implementing the project activities.

### 4. Criteria for the safeguards under the JCM

20. Criteria for the safeguards under the JCM are the following:
  - (a) Complement or be consistent with the objectives of relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements concluded by the Kingdom of Cambodia;
  - (b) Establish transparent and effective project governance structures;
  - (c) Recognize and respect rights to lands and resources;
  - (d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities;
  - (e) Promote and support the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities;
  - (f) Provide equal employment opportunities and adequate working conditions;
  - (g) Conserve natural forests;
  - (h) Respect other prioritized areas that have high values for the conservation of biological diversity and ecosystem services;
  - (i) Generate other social and environmental benefits;
  - (j) Address the risks of reversals; and
  - (k) Reduce the risks of emissions displacement.

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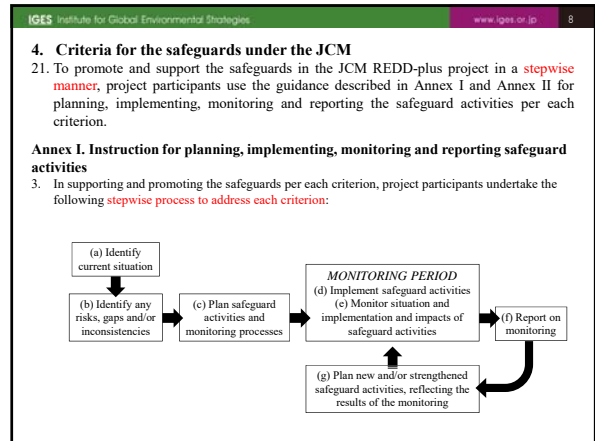
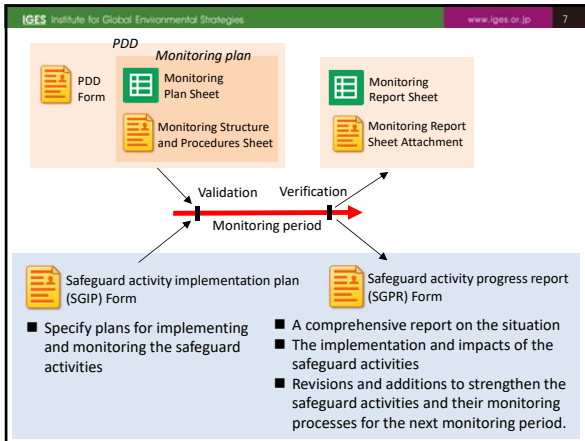
Criteria for the safeguards under the JCM	Cancun Agreement, UNFCCC
(a) Complement or be consistent with the objectives of relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements concluded by the Kingdom of Cambodia	1. That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements
(b) Establish transparent and effective project governance structures	2. Transparent and effective national forest governance structures, taking into account national legislation and sovereignty
(c) Recognize and respect rights to lands and resources	3. Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the UN General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples
(d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities	4. The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision
(e) Promote and support the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities	5. That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits
(f) Provide equal employment opportunities and adequate working conditions	6. Actions to address the risks of reversals
(g) Conserve natural forests	7. Actions to reduce displacement of emissions
(h) Respect other prioritized areas that have high values for the conservation of biological diversity and ecosystem services	
(i) Generate other social and environmental benefits	
(j) Address the risks of reversals	
(k) Reduce the risks of emissions displacement	

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### 3. General guidelines

11. Before validation, using the SGIP form project participants specify plans for implementing and monitoring the safeguard activities that they have identified for the criteria described in paragraph 20.
12. Project participants implement the safeguard activities and monitoring processes for the safeguards criteria as set out in the plans;
13. Before every verification, using the SGPR form project participants provide a comprehensive report on the situation with respect to each criterion (even if safeguard activities were not deemed necessary for a specific criterion/criteria), the implementation and impacts of the safeguard activities, as well as any intended revisions and additions to strengthen the safeguard activities and their monitoring processes for the next monitoring period.





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### Annex II. Supplementary guidance for the planning of each safeguard criterion

Table 1: Approaches for planning safeguard activities per each criterion

Criteria	Approaches for planning safeguard activities
Complement or be consistent with the objectives of relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements concluded by the Kingdom of Cambodia	<ol style="list-style-type: none"> <li>Identify relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements ratified or adopted by the Kingdom of Cambodia and their objectives. In doing so, take into account non-forest sectors relevant to drivers of deforestation and forest degradation.</li> <li>Identify whether the project activities will contribute to achieving the objectives described above and whether any gaps and inconsistencies between the objectives described above and the project activities exist.</li> <li>If gaps and inconsistencies to be resolved are identified, establish measures to address these issues and include them in the implementation plan of safeguard activities. If the identified gaps and inconsistencies are caused by reasons beyond the project's control, describe such reasons.</li> </ol>
Establish transparent and	<ol style="list-style-type: none"> <li>Identify (describe) the project's existing proposed governance structures. Provide information on:               <ol style="list-style-type: none"> <li>Decision-making processes;</li> <li>Consultation, consensus-building and information dissemination processes;</li> <li>Grievance resolution mechanism;</li> <li>Financial management system.</li> </ol> </li> </ol>

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### 5. Developing a SGIP and a SGPR

#### 5.1. Completing a SGIP form

**A. Project description**

A.1. Title of the JCM project

A.2. Description of project contribution to sustainable development

**B. Plans for implementing and monitoring the safeguard activities**

Criterion (a)  
Criterion (b)  
Criterion (c)  
Criterion (d)  
Criterion (e)  
Criterion (f)  
Criterion (g)  
Criterion (h)  
Criterion (i)  
Criterion (j)  
Criterion (k)

- Current situation
- Risks, gaps and/or inconsistencies in relation to whether the project activities comply with the criterion
- Plans for safeguards activities
- Plans for monitoring of the situation and the safeguard activity implementation

SGIP Form

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### 5.1. Completing a SGIP form

**A. Project description**

A.1. Title of the JCM project

*Reducing deforestation and forest degradation through community-based forest management and agricultural intensification in country XYZ*

A.2. Description of project contribution to sustainable development

*Provide a concise description of how the project contributes to the sustainable development of the Kingdom of Cambodia.*

Example given in red

Instructions

SGIP Form

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**B. Plans for implementing and monitoring the safeguard activities**

Criterion (a) Complement or be consistent with the objectives of relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements concluded by the Kingdom of Cambodia

Current situation (Paragraph 3 (a), Annex I)

Relevant laws, policies, programmes and other instruments and relevant international conventions and agreements concluded by the Kingdom of Cambodia, and their objectives

The laws and guidelines most relevant to the project and their objectives are:

- Law to Promote the Environment, which supports the conservation of environmental resources and biodiversity.
- National Land Use Policy, which aims to enhance management of land use resources that local people who use the land are involved in land use planning.
- The National Agricultural Development Plan, which is the country's blueprint to guide future directions in agriculture and rural development.
- The latest 5-Year Development Plan, which aims to reduce rural poverty and increase the provision of basic services such as health and education in rural areas.

Risks, gaps and/or inconsistencies in relation to whether the project activities comply with the criterion (Paragraph 3 (b), Annex I)

Identify and demonstrate with the objective and contribution to achieving the objective

Describe risks and/or inconsistencies identified

Implementation management area and employment in project activities, such as forest patrols and forest inventory

SGIP Form



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## 5.2 Completing a SGPR form

**A. Project description**  
 A.1. Title of the JCM project  
 A.2. General information of project

**B. Progress of implementing the safeguard activities compliant with the plans**

Criterion (a) – Plans specified in the SGIP  
 Criterion (b) – Safeguard activities  
 Criterion (c) – Monitoring of the situation and the safeguard activities  
 Criterion (d) – Monitoring results  
 Criterion (e) – Situation  
 Criterion (f) – Implementation  
 Criterion (g) – Impacts  
 Criterion (h) – Improvements for next monitoring period  
 Criterion (i) – Safeguard activities  
 Criterion (j) – Monitoring of the situation and the safeguard activities  
 Criterion (k)

SGPR Form

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## A. Project description

A.1. Title of the JCM project

A.2. General information of project

**B. Progress of implementing the safeguard activities compliant with the plans**

Criterion (a) Compliance to be consistent with the objectives of relevant laws, policies, programmes and other instruments at national, regional and local levels and relevant international conventions and agreements concluded by the Kingdom of Cambodia.

From specified in the SGIP (including any revision)	Implemented activities
Monitoring of the situation and the safeguard activities	
Monitoring results (Paragraph 1 (b) Annex B)	Situation
	Implementation
	Impacts
Improvements for next monitoring period (Paragraph 1 (g) Annex B)	Safeguard activities
	Monitoring of the situation and the safeguard activities

These instructions apply to all safeguard criteria a, b, c, d, e, f, g, h, i, j and k.  
 Describe the plans for safeguard activities and the processes to monitor their implementation and impacts, including any revisions of the plans when the need for new or additional safeguard activities was identified in the previous SGPR.  
 Describe the results of the monitoring, providing details about change in the situation since the start of the project, how and the extent to which the results are in line with the monitoring period, Annex B, paragraph 1 (b).

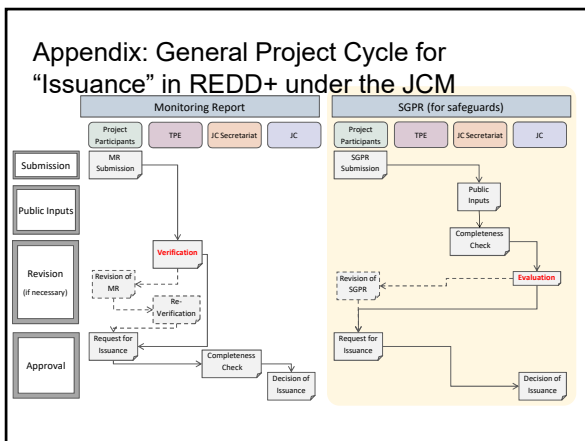
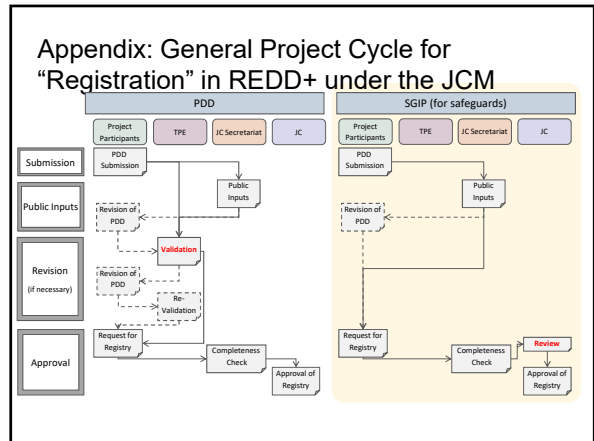
SGPR Form

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## Validation/Verification of the Safeguard documents (SGIP/SGPR)

To register the project  
 For **Project Design Document (PDD)**,  
 • PDD will be **validated by the third party entity (TPE)**  
 • Public inputs  
 For **SGIP**,  
 • Public inputs  
 • **Joint Committee (JC) review** (instead of TPE validation)  
 Finally, JC approve for registration

To issue credits;  
 For **Monitoring Report (MR)**,  
 • MR will be **verified by TPE**  
 For **SGPR**,  
 • Public inputs  
 • **Joint committee evaluate** (instead of TPE verification)  
 Finally, JC decide credit issuance.

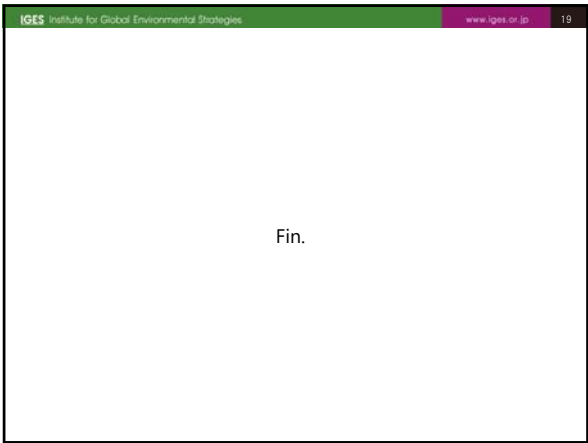


## Process for Safeguards

- In JCM, plan and report on safeguards (SGIP and SGPR) are not validated / verified by third party, but reviewed / evaluated by JC, consisted by representatives from government of Cambodia and Japan.
- Through the review by both governments, the appropriateness of the project and safeguard activity is ensured.
- Is it acceptable for Cambodian side?
- Safeguards are not requirement for the energy sector of JCM. We need to decide how to deal with JCM REDD+.
- Pros and Cons for TPE validation/verification for the safeguard documents should be considered

Pros	Cons
<ul style="list-style-type: none"> <li>Strong appeal for implementing SG activity</li> </ul>	<ul style="list-style-type: none"> <li>There are not many TPEs who can conduct validation &amp; verification of SG</li> <li>Cost for validation &amp; verification increases</li> </ul>

- On the other hand, review and evaluation by JC will be hard work...



## Outline of "Guidelines for Validation and Verification" for REDD+

19th, December, 2017

*Notice: Final guidelines will be approved at Joint Committee between Cambodia and Japan.*

## I. Outlines of "Guidelines for Validation and Verification for JCM-REDD+" (hereinafter, "VV guidelines")

- Based on VV guidelines for other sectors (energy etc.) of JCM, which has been authorized by Joint Committee
- Specific terms for REDD+ are added.

### Definitions

VV guidelines, para 5-6,13-14, 16, 81

#### "Validation"

- The process of independent evaluation of proposed JCM project by a TPE against the VV guidelines
- TPE
  - Determines whether the proposed JCM project complies with the requirements of the applied methodology, VV guidelines, and decisions by JC.
  - Assesses the claims and assumptions made in the PDD and MoC.



#### "Verification"

- The periodic independent review and ex-post determination by a TPE of the monitored GHG emission reductions as a result of a registered JCM project during the verification period
- TPE
  - Determines whether the project complies with the requirements of the applied methodology, VV guidelines, and decisions by JC



#### Relationship between Validation and Verification

- Validation and verification may be conducted by the same TPE.
- Validation and verification may be conducted either simultaneously or separately.

### Means of Validation / Verification

VV guidelines, para 8-10, 19-27, 83

#### Means of Validation / Verification

- Document review
- Follow-up actions (on-site visit, interviews, etc.)
  - At least for the first verification, on-site visit must be conducted.
- Reference to available information relating to projects or technologies similar to the JCM project

#### Process of Validation / Verification

- Assessment
- Request to the project participants
  - CAR (Corrective Action Request): when there has been a mistake, requirements not been met, or there is a risk that the emission reductions cannot be monitored or calculated
  - CL (Clarification Request): when the information provided is insufficient or unclear
  - FAR (Forward Action Request):
    - During validation, to identify issues that require review
    - During verification, when monitoring and reporting require attention and/or adjustment for the next verification
- Preparation of validation / verification report

### Items of Validation

VV guidelines, para 28-75

- Items of Validation
    - PDD form
    - Project requirements
    - Application of approved methodology
      - Whether the project meets eligibility criteria of approved methodology, etc.
    - Carbon pools and GHG sources and calculation of emission reductions
      - Including **discount factor**
    - Environmental impact assessment
    - Local stakeholder consultation
    - Monitoring
    - Public inputs
    - MoC
    - Start of operation
- Specific rules for REDD+**  
"The TPE determines whether all data sources and assumptions for the applied discount factor are appropriate and calculations are correct as applicable to the proposed JCM project." (para 43)
- In VV guidelines, validation requirements, means of validation, and reporting requirements are shown by each item.

### Contents of Validation Report


VV guidelines, para 79

- Summary of the validation process and its conclusions
- All its applied approaches, findings and conclusions
- Information on public inputs carried out by JC
  - Dates, how inputs received have been taken into account by project participants
- Responses of the project participants to CARs and CLs, and discussions on and revisions to project documentation
- List of interviewees and documents reviewed
- Details of validation term, technical experts, internal technical reviewers
  - Roles in the validation activity, details of who conducted the on-site visit
- Information on quality control within the team and in the validation process
- Appointment certificates or curricula vitae of the TPE's validation team members, technical experts and internal technical reviewers for the project

VV guidelines, para 101-120

### Items of Verification


- Items of Verification
  - Compliance of the project implementation with the eligibility criteria of the applied methodology
  - Assessment of the project implementation against the registered PDD or any approved revised PDD
  - Compliance of calibration frequency and correction of measured values with related requirements
  - Assessment of data and calculation of emission reductions
  - Post registration changes
- In VV guidelines, verification requirements, means of verification, and reporting requirements are shown by each item.

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VV guidelines, para 122

### Contents of Verification Report

- Summary of the verification process and the scope of verification
- Summary of the verification results and decision on the level of assurance
- Details of the verification team, technical experts, and internal reviewers
  - Roles in the verification activity, details of who conducted the on-site visit
- Findings of the desk review and site visit
- All of TPE's findings and conclusions
  - About eligibility, reported value, calibration of measuring equipment, data and calculation, etc.
- List of each parameter specified by the monitoring plan and a statement on how the values in the monitoring report have been verified
- Statement that identifies any changes to the registered PDD, and their date of approval by JC
- Assessment and close out of any CARs, CLs or FARs
- Assessment of remaining issues from the previous verification period, if any
- Conclusion on the verified amount of emission reductions achieved


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## II. Discussion Points

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### Site Visit as a Mean of Validation / Verification

- In validation / verification, on-site visit is recommended.
  - Only for the first verification, it is mandatory to conduct on-site visit.
- Those rules are based on authorized JCM guidelines for other sectors.
- Is it also acceptable for REDD+?

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### Avoiding Double Registration

- In the authorized VV guidelines for other sectors, there are validation and verification items of "avoidance of double registration". The draft VV guidelines for REDD+ has no rule on that.
- Even in REDD+ avoiding double "counting" of emission reductions is required, but there could be various approaches.
  - Not limited to the avoidance of double "registration"
- To identify the approach for avoiding double counting of emission reductions, further discussion is needed.
- Please share information on future potential of overlap of REDD+ program between two or more schemes, in Cambodia.
  - JCM, GCF, or other donors

**Avoidance of double registration**

Validation requirements


- The TPE determines whether the proposed JCM project is not registered under other international climate mitigation mechanism.

Means of validation

- The TPE receives a written confirmation in the MoC from the project participants that the proposed JCM project is not registered under other international climate mitigation mechanisms.
- In addition to the above, the TPE conducts, at a minimum, a search on the websites of CDM and JI to check whether the projects with similar technology and location have been registered. When projects with similar technology and location are found, the TPE ensures, through document review and/or interviews with the project participants on whether the proposed JCM project differs from projects registered under other international climate mitigation mechanisms.

Reporting requirements

- The TPE provides an opinion on whether the proposed JCM project is not registered under other international climate mitigation mechanisms.

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# Future Schedule & Procedure of TWG

Yuki Okada  
International Forestry Cooperation Office  
Forestry Agency, Japan


## Future Schedule & Procedure of TWG (Tentative Idea)

	REDD+ Guidelines	REDD+ Project
2017/12	(19 Dec.) 1st TWG Meeting	Agreement of MoE-Mitsui-CI (P)
2018/01	(-10 Jan.) Response to the "homework" at 1st TWG Meeting Submission of additional clarifications/questions/comments from Cambodian side <i>(Consideration by Japanese side)</i>	Implementation of REDD+ Activities in Prey Lang (P)
	(-26 Jan.) Response from Japanese side <i>(Mail-based consultation by both sides)</i> (14-18 Feb.) Lunar New Year	
02	(19-21 Feb.) 2nd TWG Meeting - Finalize draft REDD+ GLs	
03		
04	(14-16 Apr.) Khmer New Year	
05	4th Joint Committee of Cambodia-Japan JCM (P) - Report the draft REDD+ GLs from TWG	
06	- Approve REDD+ GLs	
07	(29 Jul.) National Election?	

# Appendix 1.3.1-2 カンボジア技術作業部会第2回会合プレゼンテーション

2nd meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism  
19 Feb 2018, Le Meridien Angkor, Siem Reap

## Agenda 2. Cross-cutting issue



Agenda 2-1. Communicating with the MRV Technical Working Group in developing methodology and PDD&MR

### Methodology guidelines

Methodology proponents propose a methodology to develop the **project reference level** and **estimate project net emissions**

**Comments from Cambodia**

#2 para 2  
Assessment of the **project reference level** should include technical analysis from the Cambodian MRV Technical Working Group.

#7 para 32  
The involvement of the national REDD+ team is crucial in developing and re-assessing the REL  
The following can be added:  
*"The project reference level is extracted from the national forest reference level established by the Kingdom of Cambodia. If the project wishes to use alternatives or additional approaches and procedures, justification is presented to the Cambodia REDD+ Taskforce / MRV Technical Team for agreement."*

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Agenda 2-1. Communicating with the MRV Technical Working Group in developing methodology and PDD&MR

### PDD guidelines

Project participants establish the **project reference level** and **estimate project net emissions** in Project Design Document and Monitoring Report

#11 3. General Guidelines  
Cambodia agreed to the suggestion from Japan to insert the following text between para 10 and 11.  
*"The project participants communicate with the national REL / MRV focal point to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications."*

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Agenda 2-1. Communicating with the MRV Technical Working Group in developing methodology and PDD&MR

### Methodology proponents

Propose a methodology to develop the **project reference level** and **estimate project net emissions**

- Communicate to explain the proposed approach and procedures
- Consider any comments and other feedback they receive
- Keep records of the communications

**The focal point for REDD-plus under JCM (provided on the JCM website)**


- MRV Technical Working Group
- REDD+ Task force
- Extracted data from the FREL, NFMS and future national data
- Technical analysis etc.

**Project participants**

Establish the **project reference level** and **estimate project net emissions** in Project Design Document and Monitoring Report

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the JCM website



The focal point for REDD-plus under the JCM is officially provided

- Third Party Entity for Validation and Verification
- Joint Committee


Methodology proponent →

Project participants →

- MRV Technical Working Group
- National REDD+ team
- Cambodia REDD+ Task force
- MRV Technical Team etc.

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the JCM website



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Agenda 2-1 (a)  
Communicating with the MRV Technical Working Group in developing **methodology**

Methodology guidelines

**Para 25-29 : Estimation and accounting of net emissions**  
Common rules for **project reference level** and **project net emissions**

↑ ↑

**Para 30-35 : Project reference level**

**Para 36-39 : Project net emissions**

#2  
Para 26.  
(a) *The approach and procedures used for the national or any relevant sub-national reference level or forest monitoring system developed by the Kingdom of Cambodia are considered when estimating net emissions of the project.*  
(b) *The guidelines in paragraphs 27 to 28 are followed when alternative or additional approaches and procedures are used.*  
(a & b) *The methodology proponents communicate with the focal point for REDD-plus under the JCM to explain the proposed approach and procedures to develop the project reference level and estimate project net emissions, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under the JCM is provided on the JCM website.*

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Agenda 2-1 (a)  
Communicating with the MRV Technical Working Group in developing **methodology**

Methodology guidelines

**Para 25-29 : Estimation and accounting of net emissions**  
Common rules for **project reference level** and **project net emissions**

↑ ↑

**Para 30-35 : Project reference level**

**Para 36-39 : Project net emissions**

#7 Comment from Cambodia  
Para 32.  
The involvement of the national REDD+ team is crucial in developing and re-assessing the REL  
The following can be added:  
"The project reference level is extracted from the national forest reference level established by the Kingdom of Cambodia. If the project wishes to use alternatives or additional approaches and procedures, justification is presented to the Cambodia REDD+ Taskforce / MRV Technical Team for agreement."

→ Japan suggests that it is more comprehensive to add the additional text to para 26 of methodology guidelines (#2) and para 7 and 8 of the PCP guidelines (#20).

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Agenda 2-1 (b)  
Communicating with the MRV Technical Working Group in developing **Project Design Document and Monitoring Report**

PDD guidelines

#11  
3. General Guidelines

**Cambodia agreed to the suggestion from Japan to insert the following text between para 10 and 11.**  
*"The project participants communicate with the national REL / MRV focal point to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications."*

**Japan suggests to revise the text to insert**  
*"The project participants communicate with the focal point for REDD-plus under JCM to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications. The focal point for REDD-plus under JCM is provided on the JCM website."*

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## Discussion on "Project Cycle Procedure" for REDD+

19th, February, 2018

Notice: Final guidelines will be approved at Joint Committee between Cambodia and Japan.

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A member of MUFG, a global financial group



### Procedure for communicating with the MRV Technical Working Group

In methodology development:

Methodology Proponents



In PDD preparation:

Project Participants



Before preparation of PDD

Required As appropriate

- "The focal point of REDD-plus" means MRV Technical Working Group in Cambodia, and is provided on the JCM website.
- Those procedures are based on the requirements in the Methodology Guidelines and the PDD Guidelines.

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**Comments from Cambodia**

**Cambodia REDD+ Task force expresses intention to be closely involved with the PDD development process.**

**Japan suggests that it is sufficient to add the additional text between para 10 and 11 in PDD guidelines (see #11) and para 29 in PCP guidelines (see #21).**

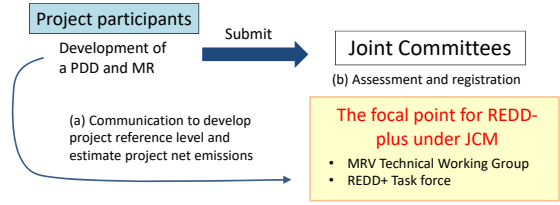
- In JCM, the Joint Committee (JC), consists of both governments, has a responsibility to assess and register submitted PDDs and MRs (PCP guidelines para 58). It is required that the JC is required to judge the proposed projects objectively.
- The Cambodia REDD+ Task force is highly likely to play a key role in the assessment in the JC and to make technical comments to submitted PDDs and MRs.

→ To secure the objectiveness and avoid potential conflict of interest, the Cambodia REDD+ Task force itself may not be a project participant.

However,


(a) the project participants communicate with the focal point for REDD-plus under the JCM (= the REDD+ task force) before the submission, to explain how they intend to establish the project reference level and estimate project net emissions following an approved methodology, consider any comments and other feedback they receive, and keep records of the communications.

(b) The Joint Committee, most-likely including the Task force, will check the whether the project developer sufficiently considered the FREL and NFMS or communicated with the Task force or not.



2nd meeting of Technical Working Group for Consultation of Rules and Guidelines for REDD+ under Cambodia-Japan Joint Crediting Mechanism  
19 Feb 2018, Le Meridien Angkor, Siem Reap

## Agenda 3. Methodology guidelines



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### Agenda 3-1. Definition of forest in the Annex I

#1  
*Para 16. The definition of forest used for REDD-plus methodologies should follow the national definition of forest designated by the Kingdom of Cambodia, as specified in Annex I of these Guidelines.*

**Comment from Cambodia**  
Guidelines should consider and ensure consistency with the National REDD+ Strategy, National Forest Monitoring System, Forest Reference Level and Safeguards of Cambodia. Refer to p7 of the "Initial Forest Reference Level for Cambodia under the UNFCCC Framework" which provides the forest definition for the Cambodia REDD-plus programme.

**Japan proposes adding the definition of forest from the "Initial Forest Reference Level for Cambodia under the UNFCCC Framework" to Annex I, as follows:**  
*Forest under a REDD+ project under the JCM in Cambodia refers to a unit of an ecosystem in the form of wetland and dry land covered by natural or planted vegetation with a height from 5 metres on an area of at least 0.5 hectares, and canopy crown cover of more than 10%. Forest also includes forest regrowth and areas under afforestation or reforestation. Rubber, oil palm plantations and perennial crops are excluded from this definition.*

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### Agenda 3-2. Change of "Displacement Management Area" to "Activity Area"

#25  
Japan recognizes that the wording "Displacement management area" is confusing with "Displacement management belt", thus changes "Displacement Management Area" to "**Activity Area**".  
(Methodology para 17, 21; PDD A.4.; and safeguard guidelines)



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Clarification:  
The **Activity area** is the area where the activities to reduce GHG emission under the project are implemented. The activity area can overlap with the project area.

For example, an activity area could include forest area in the project area where **patrolling** will be conducted to stop people from clearing the forest, and it could also include non-forest areas where **alternative/improved livelihoods** will be created for local people.

The **displacement belt** is the area where the project participants **monitor** emissions displaced by the project activities and it is always set outside the project area.

For example, if the deforestation agents are local people who are clearing the forest for agriculture, and if the REDD-plus project stops them from clearing the forest in the project area, the displacement belt would be the area outside the project area where it is anticipated these people might move to clear forest after the project start. Displacement will be monitored in this area.

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### Agenda 3-3. Inserting "National Forest Inventory Manual" to the footnote

#4  
*Para 28. (b) Ground-based survey of emission factors: Emission factors, or carbon stocks per hectare, of each carbon pool in each class, should be obtained through on-the-ground measurements.*

**Comment from Cambodia**  
Cambodia has developed a manual for the national forest inventory (NFI manual). The ground survey for JCM-REDD+ should consider the methodologies of the NFI manual.

**Japan suggests including the NFI manual in the footnote as a reference for section 4.4. Estimation and accounting of net emissions as follows:**  
*4.4. Estimation and accounting of net emissions<sup>1</sup>*  
*1. The following guides may be referred to for the estimation of net emissions:*  
- *Thun, S., L. Yess, S. Yama, P. Hyvönen, K. T. Korhonen, G. Sola, M. Henry and M. van Rijs, 2017. "Field Manual for the National Forest Inventory of Cambodia, 2nd revision". Forestry Administration of the Ministry of Agriculture, Forestry and Fisheries, Food and Agriculture Organization of the United Nations, Phnom Penh, Cambodia.*

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### Agenda 3-4. Value of discount factor

#8  
*Para 41. The default value of the discount factor is 30 percent.*

**Comment from Cambodia**  
The discount value of 30% seems to be high compared to that of the VCS. A maximum of 20% is appropriate considering the existing voluntary carbon projects (i.e. VCS projects) and other REDD+ bilateral agreements.

**Japan requests Cambodia to provide justification to change the default value of the discount factor from 30% to 20%.**

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### Existing voluntary carbon projects in Cambodia

- (1) REDD in Community Forests, Oddar Meanchey  
(VCS validation in 2012)  
Non-permanence risk buffer: 20%
- (2) REDD in Keo Seima Wildlife Sanctuary  
(VCS validation in 2017)  
Non-permanence risk buffer: 10%
- (3) The Tumring REDD+ project (Community Forests)  
(under VCS Validation)  
Non-permanence risk buffer: 20%
- (4) Southern Cardamom National Park  
?

### Agenda 3-5. Editorial changes of example

#9

Following JCM Glossary and UNFCCC 1/CP.18 para42, Japan suggests to change as below

6. Instructions for completing the Proposed Methodology Form for REDD-plus  
"Cover sheet of the Proposed Methodology Form" and "A. Title of the methodology"

Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving **net emission reductions**.

→Provide an unambiguous title for the proposed methodology. The title should reflect the types of REDD-plus activities to which the methodology is applicable and include the approach or activity(ies) for achieving **net reduction of emissions**.

## Agenda 4. PDD guidelines

### Agenda 4-1. Considering National Forest Monitoring System at actual measurement

#13

#### 4.3. Preparing for actual measurement

**Comment from Cambodia**

Should include Cambodia's NFMS as a reference.

**Japan suggests to add "should consider Cambodia's National Forest Monitoring System."** to para. 32.

32. The monitoring for carbon pools under Option C should be conducted using a combination of remote sensing and ground-based survey(s) and **should consider Cambodia's National Forest Monitoring System**. The best available technology, including novel satellite observation technologies, may be employed to build effective GHG monitoring systems.

### Agenda 4-2. Keeping consistency in the data correction protocol

#14

#### Figure 1 Decision tree for data correction

**Comment from Cambodia**

The design should be consistent with NFMS.

**Japan proposes to add the text to para 36:**

*36. The project participants determine the necessity for data correction in calculation of emission reductions following the decision tree shown in Figure 1 below. **If any relevant protocols exist in the National Forest Monitoring System, equipment calibration and data correction should be conducted in line with these protocols.***

## Agenda 6 Safeguards guidelines

Agenda 6-1 Wording in the safeguard criterion (d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities

## History of discussion

Paragraph 20 (Criteria for the safeguards under the JCM)  
(d) Recognize and respect the knowledge and rights of indigenous peoples and members of local communities

- Cambodia wished to consider the wording.
- Japan noted that the guidelines have taken this wording from the Cancun Agreement
  - "Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;"

## Agenda 8. General discussion (a topic for discussion)

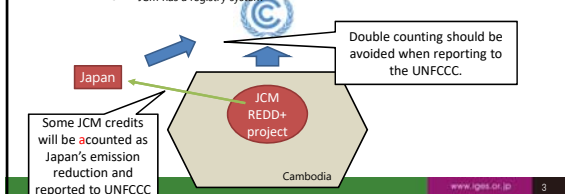
For the common understanding on possible emerging issues in the future on Carbon accounting

## Background

- **National level reporting and accounting** are required
    - Under the Paris Agreement, countries now have NDCs as a target and national reporting/accounting is required.
    - REDD+ countries are currently requested to report the REDD+ results (achieved emission reduction) through a biennial update report (BUR) for accessing to result-based payments. The results will be reported/accounted at national (or subnational) level
  - **How to maintain consistency in accounting as a country?**
  - The Result-based payment schemes are starting. Carbon credit schemes (inc. international transferring) are on-going.
    - GCF will pay for the result without result transfer.
    - FCPF Carbon Fund transfers result of emission reductions and pays for the emission reductions.
    - JCM REDD+ project generates credits based on the result of the emission reduction achieved and shares the credit between Cambodia and Japan. Japan will use the shared credit for its NDC.
    - VCS generates credits which is tradable in the voluntary market.
- How to avoid double counting?**

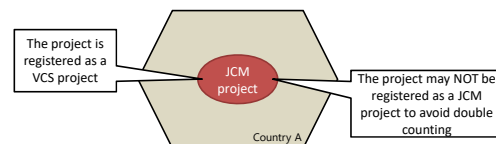
## For maintaining consistency with national reporting

- Reporting/accounting of REDD+ emission reduction at the national level is required.
- Some JCM credits will be reported as Japan's emission reduction.
- Both countries need to make it clear at the reporting/accounting to avoid double counting.
  - No international rules for reporting/accounting at the moment
  - Further measures to be taken in Cambodia when the national reporting/accounting rule is decided.
  - JCM takes some measures;
    - JCM REDD+ adopted Cambodia's national REL and monitoring to keep consistency with the national reporting/accounting
    - JCM has a registry system



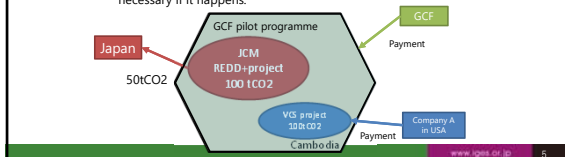
## Avoiding "Double registration" to avoid double counting

- A project should not be registered to multiple schemes which issue Carbon credits (international climate mitigation mechanisms)
  - This is the way adopted for the energy sector JCM for avoiding double counting of emission reductions
  - However, JCM REDD+ is in more complicated situation...



## Ex. a case with GCF pilot programme

- GCF will provide payment for the result.
- If Cambodia applies to the GCF pilot programme at national level after registration of a JCM REDD+ project
  - The JCM REDD+ project area (and VCS project area) maybe within the GCF programme area (this will be considered as "double registration")
    - In this case, prohibiting "double registration" under the JCM rule is not a good way to avoid double counting
    - So, under the JCM REDD+ rules, unlike the JCM energy sector rules, only "double counting" should be avoided
    - There will be a problem of "double payment" (another problem but there's no rule yet)
    - Or The JCM REDD+ & VCS project areas will be excluded from the GCF area
    - The time periods covered by the schemes to be considered
- Cambodia may need to provide the justification for no double counting
  - However, there's no experience. Further arrangement with GCF will be necessary if it happens.



## Conclusion at this time

- For JCM REDD+ guidelines development,
- Under the JCM REDD+, avoiding double registration is not the way to avoid double counting, unlike in energy sector
    - Because, even double registration occurs, double counting can be avoided
  - The JCM REDD+ guidelines determines to avoid only "double counting"
    - Cf. Section 7: Declaration of avoidance of double counting, JCM Modalities of Communication Statement Form for REDD-plus (MOC)
- For Cambodia,
- The measures to manage emission reductions to avoid double counting in national reporting/accounting and among Carbon schemes will be required in the future.
    - However we can not discuss the detail as there's no rules at the moment.
- JCM REDD+ tries best in the current situation to avoid conflict:
- JCM REDD+ adopted national REL and monitoring system to keep consistency with national reporting/accounting
  - JCM has a registry system to manage the JCM credits.
    - Linking to Cambodia's REDD+ registry might be one way for avoiding double counting

19/02/2018

## Future Schedule & Procedure after TWG

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Future Schedule & Procedure after TWG		
	REDD+ Guidelines	REDD+ Project
2017/12	(19 Dec.) 1st TWG Meeting	
2018/01	[Mail-based consultation by both sides]	
02	(19 Feb.) 2nd TWG Meeting	(Feb.) Agreement of MoE-Mitsui-CI (P)
03	(-07 Mar.) Revise draft GLs & Send to Cambodian side (-23 Mar.) Confirm draft GLs technically by Cambodian side (-End of Mar.) Finalize draft REDD+ GLs	Implementation of REDD+ Activities in Stung Treng, Prey Lang (P)
04	(14-16 Apr.) Khmer New Year	
05	4th Joint Committee of Cambodia-Japan JCM (P)	
06	- Report the draft REDD+ GLs from TWG - Approve REDD+ GLs	
07	(29 Jul.) National Election?	

### 1.3.2 ベトナム

ベトナムに1回出張し（表 1.3.2-1）、JCM-REDD+ガイドライン案の協議を促進するために、ベトナム政府関係部署等と面談を行った。面談の際には記録を作成した。

表 1.3.2-1 ガイドライン案協議のためのベトナム出張

	時期	訪問先
第1回ベトナム出張 （出張者：山ノ下麻木乃）	2018年1月24日— 27日	<ul style="list-style-type: none"> <li>● Vietnam REDD+ Office, Viet Nam Administration of Forestry (VNFORST), Ministry of Agriculture and Rural Development (MARD)</li> <li>● Department of Science, Technology and Environment (DOSTE), MARD</li> <li>● International Cooperation Department (ICD), MARD</li> <li>● JICA プロジェクトオフィス (Sustainable Natural Resource Management Project)</li> </ul>

2017年10月に開催された合同会議において、JCM-REDD+ガイドラインの検討をすすめることが合意され、日本政府案がベトナム政府側に送付された。これに対し Vietnam REDD+ Office からコメントを受けた。今回の面談では、事前に、ベトナム側コメントに対する日本側回答を事前に共有し、JCM-REDD+ガイドライン案の技術的な内容について議論した。これに基づき、日本側でガイドライン案を修正し、国内検討会に諮った後、ベトナム側に2018年3月15日付で再度送付し、確認を依頼した。ベトナム側に送付したガイドライン案は別冊1に収録した。また、ガイドライン案完成後、JCで協議するために必要となるベトナム側の手続き、それに関わる部署についても確認した。ベトナム側の手続き上重要なポイントは以下のとおりである。今後はこれに留意して議論を進めていく必要がある。

- ガイドライン案の最終版は、Vietnam REDD+ Office と VN FOREST の DOSTIC (Department of Science, Technology and International Cooperation) に送付する必要がある。
- その後、MARD の Department of Science, Technology and Environment (DOSTE) と MARD の International Cooperation Department (ICD) に確認が行き、最終的に MARD として承認が下りる。
- 今回のガイドライン承認では、それに付随するプロジェクトが存在していないため、「ガイドラインを合意しているという二国間の強いコミットメントがあることを示すことは、日本企業の投資を呼び込むのに重要である」ということを明確にしておく必要がある。



### 1.3.3 ラオス

JCM-REDD+ガイドライン案の協議を促進するために、今年度ラオスに3回出張し（表 1.3.3-1）、ラオス政府関係部署、環境省補助事業関係者等と面談を行った。面談の際には記録を作成し、森林局 REDD+オフィスの面談については、英語版 Meeting Note ドラフトを作成した。

表 1.3.3-1 ガイドライン案協議のためのラオス出張

	時期	面談先
第1回ラオス出張 (出張者：山ノ下麻木乃)	2017年7月17日－ 20日	<ul style="list-style-type: none"> <li>● REDD+ Office, Department of Forestry, Ministry of Agriculture and Forestry (MAF)</li> <li>● National Agriculture and Forestry Research Institute</li> <li>● 在ラオス日本大使館</li> <li>● JICA ラオス事務所</li> </ul>
第2回ラオス出張 (出張者：山ノ下麻木乃)	2017年7月30日－ 8月2日	<ul style="list-style-type: none"> <li>● Department of Forestry (DoF), MAF</li> <li>● REDD+ Office, DoF, MAF</li> <li>● JICA F-REDD プロジェクト</li> </ul>
第3回ラオス出張 (出張者：山ノ下麻木乃)	2018年2月21日－ 24日	<ul style="list-style-type: none"> <li>● REDD+ Office, DoF, MAF</li> <li>● 世界銀行 ラオス事務所</li> <li>● JICA F-REDD プロジェクト</li> <li>● 在ラオス日本大使館</li> </ul>

ラオスでは第3回 JCM 合同会議(JC3)において、JCM-REDD+ガイドラインに関する協議を開始することに合意すべく、第1回出張においてラオス政府（森林局）と事前協議を行った。第2回出張では、同時期に開催された JC3 において JCM-REDD+ガイドラインの協議開始が合意されたことを受け、その進め方についてラオス森林局に確認を行った。後日日本側はガイドライン案をラオス森林局に送付した。第3回出張では、日本側から送付したガイドラインについて改めて協議を進めていくこと、完成したガイドライン案を JC における協議に送るためのラオス側で必要な手続きについて確認を行った。

今年度は、日本側からガイドライン案をすでに送付したものの、それについてラオス側担当者との詳細な議論は行っていない。面談やメールのやりとり等を通じて得られた現在のラオスの状況を反映し、前回送付したガイドライン案に修正を加えたものを、2018年3月15日にラオス政府に送付し、確認を依頼した。

今後、ラオスで JCM-REDD+ガイドラインに関する協議を進めていくうえで留意する点は下記の通りである。

- 環境省補助事業の元で実施が計画されているルアンプラバン県の事業が、ラオス政府が準備を進めている FCPF 炭素基金排出削減プログラムとの対象地域の重複している点。
  - ラオス政府は、現在の環境省補助事業はパイロットプロジェクトと認識しており、JCM-REDD+プロジェクトを実施するためには具体的な計画を提出することを求めている。
  - 環境省補助事業実施主体は、事業実施には両国政府のコミットメントが重要であり、JCM-REDD+のガイドラインが合意されなければ具体的な将来計画を提出することは困難としている。
  - ラオス政府は、環境省補助事業を JCM-REDD+プロジェクトを実施するかどうかは、ガイドライン協議を進めることとは別の問題であることは理解されており、ガイ

ドライン協議の早期決着についても合意している。環境省補助事業の進捗等とは独立してガイドライン協議を進めていく必要がある。

- 第2回出張で確認した通り、クレジット発行対象期間を調整することで技術的に重複問題を解決する可能性があるが、現状ではラオス政府はこの案に前向きではない。
- ラオス政府担当者はFCPF 炭素基金排出削減プログラムへの対応で忙殺されていることにも留意する必要がある。
- FCPF（世界銀行）との調整は不可欠ではあるものの、ラオス政府を通じて進めていくのが効果的だろうと思われる。

## 1.4 パートナー国以外の国への説明等の対応

今年度はパートナー国以外の国への説明の必要性は生じなかった。JCM-REDD+と FCPF カーボンファンド排出削減プログラム(Forest Carbon Partnership Facility, Carbon Fund, Emission Reduction Programme)がどのように共存していくかについて、世界銀行と議論する必要性が生じたことから、JCM-REDD+について端的に説明する資料「JCM REDD+: Key points」を次の通り作成した。

### (1) JCM REDD+: Key points

#### **Background**

##### *Issues concerning REDD+ result-based payments*

- With international support developing countries have made significant progress in preparing for REDD+ at the national level in line with the UNFCCC Warsaw Framework.
- At the same time as REDD+ readiness is progressing, initiatives under FCPF, GCF and other programs are able to provide result-based payments (RBP) for REDD+ programs at national/sub-national scale.
- Currently, the funds for REDD+ RBP can only reward a small amount of the emission reduction activities of REDD+ countries. Investment from the private sector can help resolve the shortfall in funding for RBP.
- Developing countries incur substantial costs when preparing and implementing REDD+ activities under RBP programs. Additional investment for REDD+ implementation will help countries achieve emission reductions.

##### *Joint Crediting Mechanism*

- Japan has developed a bilateral scheme, the Joint Crediting Mechanism (JCM), initially focusing on support for emission reductions in the energy sector by promoting clean technologies through the participation of private companies. The JCM issues non-tradable credits once Japan's contribution to the emission reductions has been appropriately quantified. The credits can be used for the achievement of Japan's post-2020 emission reduction target. By June 2017, Japan had signed JCM bilateral agreements with 17 countries. Under these agreements 16 projects had been registered and 122 were in the pipeline.
- REDD+ was later included as an activity scope under the JCM. Preparations for JCM REDD+ are underway, with the initial focus being on the JCM agreements with Laos and Cambodia.

#### **Features of JCM REDD+**

JCM REDD+ supports local level activities, but through proactive coordination is designed to create synergies with existing national/subnational REDD+ RBP.

##### *Activities*

- JCM REDD+ supports the implementation of activities on the ground that tackle deforestation drivers. These activities are in line with the national/sub-national REDD+ strategy and action plan.
- Private companies play key roles in the JCM. They tend to be interested in investing in tangible activities.
- JCM REDD+ and REDD+ RBP programs are mutually beneficial. Policy measures, such as governance reforms promoted by REDD+ result-based programs, create

enabling conditions for forest conservation activities under JCM REDD+. In turn, when JCM REDD+ is implemented with these enabling conditions in place, by providing real incentives for actions on the ground it sends positive signals back to the policy measures.

*Reference level, monitoring, and estimation of emission reductions*

- JCM REDD+ maintains consistency with the national forest monitoring system and the reference level which JCM partner countries have established.
- JCM REDD+ estimates emission reductions to be credited conservatively by accounting for emissions from activity implementation and displacement.

*Safeguards*

- JCM REDD+ projects are required to develop a safeguards implementation plan and monitor and report the results of the plan's implementation. When shortcomings are identified, the safeguards implementation plan is improved. The JCM REDD+ safeguards are a set of criteria that build on the Cancun REDD+ safeguards.

*Governance*

- A Joint Committee that consists of representative of both governments is established and plays a central role in the implementation of the bilateral agreement, such as developing guidelines, approving methodologies and projects, and deciding credit issuance.
- Third-party validation of the project design and verification of the monitoring results are conducted.
- Processes for public inputs are provided and information is publicly disclosed through the web platform.

*Credit*

- Credits are issued and can be used by Japan to achieve its emission reduction target.
- The amount of credits to be issued will be determined through the results of MRV and consultation with partner countries, which takes into account the need for coordination with national/sub-national REDD+ programs.
- Japan and partner countries implement measures to avoid double counting.

## 2 情報の収集・分析

### 2.1 パートナー国の情報収集・分析

本事業では昨年度（平成 28 年度）、パートナー国のうち REDD+プロジェクトの実施に関心の高い 8 カ国（インドネシア、ベトナム、カンボジア、ラオス、ミャンマー、コスタリカ、チリ、ケニア）において、JCM-REDD+ガイドライン類の検討に当たり必要となる下記の項目の情報収集を行った。

- ① 中央政府の気候変動対策及び REDD+に関する所掌及び実施体制の詳細
- ② 2020 年以降の削減目標における位置付けを含む、気候変動対策としての REDD+の活用に関する法令、計画、見解
- ③ 準国よりも小さい地域を対象とする REDD+プロジェクトの実施（許認可制度、クレジットや利益分配制度を含む）に関する法令、計画、制度、見解
- ④ REDD+における市場メカニズム（排出削減量を国際移転する仕組み）の活用に関する法令、計画、制度、見解
- ⑤ 森林の定義、国家森林モニタリングシステムを含む REDD+の MRV（測定・報告・検証）システム
- ⑥ 森林を含む土地の所有、管理、利用に関する法令、計画、制度及びその実態
- ⑦ セーフガード情報システム、REDD+プロジェクトにおけるセーフガードへの対処や関連情報の取扱いに関する法令、計画、制度、見解
- ⑧ 当該国内において実施中の様々なスキーム（世界銀行森林炭素パートナーシップ基金（FCPF）、UN-REDD プログラム、GCF、VCS、JICA 及び他国援助機関等）による REDD+プロジェクト・プログラム間の調整状況
- ⑨ 国及び準国での参照（排出）レベルの策定又は検討状況、設定根拠、及び当該国内において実施中の様々なスキームによる REDD+プロジェクトにおける参照（排出）レベルの策定又は検討状況、設定根拠及び、国及び準国レベルの参照（排出）レベルとの関係や調整方法

今年度は、特に JCM-REDD+の推進について積極的であると考えられる 5 か国（インドネシア、ベトナム、カンボジア、ラオス、ミャンマー）について、上記の項目に関する情報を更新した。また、フィリピンについては、今年度新たに、民間事業者が JCM-REDD+に興味を持っているという情報があったため、上記の項目の一部について情報を収集した。本章では、5 か国（インドネシア、ベトナム、カンボジア、ラオス、ミャンマー）の更新情報のサマリーを記述した。今年度の更新情報を含めた 5 か国の情報は、別冊 2 に収録した。

### 2.1.1 パートナー国の情報収集（本年度更新情報）

各国の今年度の REDD+ の準備状況等に関する更新情報は下記の通りである。

#### (1) インドネシア

- インドネシアにおける 2017 年 12 月に REDD+ 実施手順に関する 2017 年第 70 号林業大臣規則が策定された。本規則は、国および準国レベルの双方を含めて、REDD+ 国家戦略、森林参照排出レベル、MRV、セーフガード情報システム、資金メカニズムを規定する包括的な規則である。

#### (2) ベトナム

- 2017 年 4 月に国家 REDD+ 行動プログラム (NRAP) の改定が行われ、承認された（首相決定 419/QĐ-TTg）。これまで 2020 年までを対象とした計画であったものが、2030 年までのものに改定された。この改定 NRAP に伴い、国家 REDD+ 運営委員会の機能は森林保護開発計画運営委員会に引き継がれた。
- 2017 年 9 月時点で、17 省において省 REDD+ 行動計画 (PRAP) が承認されている。
- 2017 年 5 月に、UNFCCC に提出した再改訂版参照レベルに対する技術アセスメント報告書が公開された。
- 2016 年 10 月に FCPF カーボンファンドに排出削減プログラム提出した ERPD を修正し、2017 年に改訂版を再提出した。TAP レビューを経て、2018 年 3 月のカーボンファンド会合での承認を目指している。

#### (3) カンボジア

- 2017 年に FCPF のフェーズ 2（2017-2020 年）が始まった。その目標の一つは NRS、NFMS、SIS を完成させ、2014-2016 年の排出削減量に対し、GCF パイロットプログラムから成果支払いを獲得する支援となっている。
- 国内の VCS REDD+ プロジェクトは今年度 2 つ増えて 4 プロジェクトとなった。新たな 2 プロジェクトは、プロジェクトが存在する州の FRL のデータを環境林業省自然保護保全総局から得、プロジェクトの参照排出レベルを設定していた。
- コンサベーション・インターナショナル、三井物産、カンボジア環境省の間で Prey Lang 野生動物保護区における JCM REDD+ 事業が合意された。
- ラオスで違法伐採の取締りが厳しくなった結果、カンボジア東部における違法伐採・ベトナムへの輸出が急増した。

#### (4) ラオス

- 2018 年 1 月、UNFCCC の REDD+ Web Platform に、FREL/REL に関する報告書が提出された。
- 2016 年にはフアパン県とルアンパバーン県で REDD+ タスクフォースと REDD+ 事務所が設置されていたが、2017 年 9 月までに、FCPF 対象のその他の北部 4 県においてもこれらが設置された。
- 北部 6 県を対象とした ERPD が、2018 年 1 月に FCPF に提出された。
- REDD+ の本格運用に重要な法制度である森林法、土地法、森林資源開発基金に関する首相令 38 号については、2017 年末現在においても改定作業中である。
- 2016 年に策定された木材輸出・木材ビジネスに関する首相令 15 号と関連法令度の本格運用により、ラオスから輸出される木材の取締の厳格化が進んでいる。

#### (5) ミャンマー

- UNREDD プログラムの支援を受け、2017 年にドラフト国家 REDD+ 戦略が策定された。省庁レベルのコンサルテーションが同年 12 月までに実施され、2018 年には一般公開、現在パブリックコメントが受け付けられている（2018 年 4 月 30 日まで）。国家 REDD+

戦略策定後には、UN-REDD プログラムが中心となり、国家戦略で示される方針の実施コストと実現可能性を検討する REDD+投資計画 (REDD+ Investment Plan) の開発が予定されている。

- 2018 年 1 月に森林排出参照レベル (FREL) が UNFCCC に提出された。
  - FREL : 48,607,511tCO<sub>2</sub>/year
  - スケール : 国レベル
  - 参照期間 : 2005 年から 2015 年の期間における森林減少の歴史的平均値
  - 炭素プール : 地上部・地下部森林バイオマス、リター
  - 対象ガス : CO<sub>2</sub>のみ

## 2.1.2 フィリピン（本年度新規情報）

### (1) 国家 REDD+戦略

フィリピンは早い時期から REDD+が始動した国の一つである。早くも 2009 年には、政府、市民社会、市民組織、学界のステークホルダーからなるグループが、REDD+のための国家戦略の策定に積極的に取り組むようになった。環境天然資源省（Department of Environment and Natural Resources：DENR）の森林管理局（Forest Management Bureau：FMB）およびフィリピンにおける REDD+の推進に関心のある非政府組織のネットワークである CoDe-REDD の主導のもと、2010 年にフィリピン国家 REDD+戦略（PNRPS）<sup>1</sup>が採択された。この戦略は、REDD+を準備段階から全国的な実施へと移行させ、実績に基づく報酬（結果に基づく支払い）を受けるまでの 10 年計画（2010～2020 年）を採用している。森林劣化・森林減少の緩和だけでなく、貧困の削減、生物多様性の保全、ガバナンスの改善を目標とする総体的なアプローチをとっている<sup>2</sup>。

より広範な国家政策の枠組みの中では、国家 REDD+戦略（PNRPS）は国家気候変動枠組戦略（2010～2022 年）<sup>3</sup>の「緩和の柱」に組み込まれている。REDD+には緩和と適応の両方の効果があると認められているため、戦略の一部は「適応の柱」にも組み込まれている。2010 年に発令された大統領令 881 号<sup>4</sup>では、気候変動対策委員会（Climate Change Commission：CCC）が「REDD+に関するプログラム、行動計画およびその他の同様のメカニズムを対象範囲とする」ことが認められた<sup>5</sup>。この大統領令では、DENR が REDD+の「運用実施主体」に指定されている。国家 REDD+戦略では制度的な取り決めや REDD+の監督機関の指定はされていないが、可能なガバナンス体制とそれを実現する方法について詳しく提言されている。そのため、この戦略は大統領令 881 号と併せて解釈され、実施されている。

しかしながら、大統領令 881 号に基づく現在の組織体制には課題がある。というのは、DENR-FMB が REDD+の運用を主導し活動に直接携わっている一方で、CCC が活動のとりまとめの技術的な監督機関となっているからである。機能的には、（現在の）CCC はこのような責任を負う立場にはないため、意思決定や実施の最終責任をどこが負うのかが不明確になっている。国家 REDD+戦略に示された明確なガバナンス体制（国家マルチステークホルダー REDD+評議会と指定国家機関）の確立に関する提言は、まだ達成されていない。

2017 年 6 月、DENR-FMB は「フィリピン国家 REDD+戦略の更新」<sup>6</sup>と題した文書を発行した。この文書には、国家 REDD+戦略そのものの更新点は示されておらず、2010 年の文書と同じ予定、項目、提案された戦略、特徴がそのまま今も適用されている。この文書が示したのは、REDD+の国内外での進展に関する更新情報、つまり最近の UNFCCC-COP の決定事項および REDD+の現場や実証プロジェクトから学んだ内容などである。この文書は、参照や見直しのための資料としては役に立つが、「フィリピンで REDD+を実施するための戦略的手段としての国家 REDD+戦略の詳細な検討、分析、評価が行われていない<sup>7</sup>。」

<sup>1</sup> Department of Environment and Natural Resources-Forest Management Bureau (DENR-FMB) and CoDe-REDD. 2010. *Philippine National REDD+ Strategy*. Manila, Philippines. Available at <https://www.elaw.org/system/files/PhilippineNationalREDDplusStrategy.pdf>.

<sup>2</sup> Ibid, 4-6.

<sup>3</sup> Climate Change Commission. 2010. "National Framework Strategy on Climate Change." Available at [http://www.neda.gov.ph/wp-content/uploads/2013/10/nfscg\\_sgd.pdf](http://www.neda.gov.ph/wp-content/uploads/2013/10/nfscg_sgd.pdf).

<sup>4</sup> Executive Order No. 881, s. 2010. "Authorizing the Climate Change Commission to Coordinate Existing Climate Change Initiatives, Reducing Emissions from Deforestation and Forest Degradation - Plus, and Other Similar Mechanisms," May 27, 2010. Available at <http://www.officialgazette.gov.ph/2010/05/27/executive-order-no-881-s-2010/>.

<sup>5</sup> Ibid, Section 1.

<sup>6</sup> DENR-FMB. 2017. *Update of the Philippine National REDD-plus Strategy*. Manila, Philippines: *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH*. (PNRPS Update) Available at <http://forestry.denr.gov.ph/redd-plus-philippines/updates/pnrps.pdf>.

<sup>7</sup> Ibid, front matter.



今後進むべき道を明確に示し、真に包括的な方法でさまざまな部門から参加を得た国家 REDD+戦略は、フィリピンでの REDD+の出発点として重要な役割を果たしたといえる。しかし、特に国家森林モニタリングシステム (NFMS)、森林参照 (排出) レベル (FREL/FRL)、測定・報告・検証 (MRV) システムの確立をはじめとする REDD+の準備段階の一部を含め、実施がやや滞っている。この失速の原因として、2017年に REDD+のすべてのプログラムおよび主な資金が完了したことや、上述のようなガバナンスおよび制度上の問題などが考えられる。この点については以降の節でさらに説明する。

2018年1月、DENRは REDD+への支援をとりまとめる国家主体としての指定を求める覚書を発出し<sup>8</sup>、官房長官 (Secretary to the President or Chief of the Executive Office) による適切な対応を待っている<sup>9</sup>。

## (2) 国家森林モニタリングシステムと森林参照 (排出) レベル

フィリピンにおける NFMS の確立と FREL/FRL の制定は、ともに国の MRV システム構築の一環として実施されている。2013年、ドイツ国際協力公社 (GIZ) が「フィリピンにおける REDD+の MRV への概念的アプローチ」<sup>10</sup>に関する調査を実施し、その中で NFMS と FREL/FRL へのアプローチについて意見を求めた。この調査で詳述されている森林モニタリングシステムは、森林および土地被覆変動に関する地球観測 (GOC-GOLD) の REDD+ ソースブックに記載された提言に基づいている<sup>11</sup>。

DENR と GIZ が 2012～2017年に実施した “National REDD+ System - Philippines project” では、準国レベルの MRV のプロトタイプを含む NFMS の内容と設計コンセプトの素案が作成された。この素案には REDD+の対象となる活動が含まれており、REDD+のための国家レベルでの MRV システム構築の基礎となるだけでなく、監視機能も備えている。また、森林由来の温室効果ガスの排出量と削減量を見積もることができるように設計されている<sup>12</sup>。

2015年、DENRは UN-REDD 経由で FAO から重点的な支援を受けて、「フィリピンで求められる森林資源のモニタリングの要件に対応し、REDD+の政策や対策を監視するとともに、国家および国際レベルの報告義務を果たす」NFMS 行動計画を策定した<sup>13</sup>。この NFMS の素案および行動計画は、まだ公開されていないが、DENR-FMB に要求して局長の承認が得られれば、コピーが入手できると思われる。

また、DENR-FMB は「林業部門のための政府報告と政策策定を支援する包括的な枠組み」として、国家森林モニタリングプログラム (NFMP) も開始した<sup>14</sup>。NFMP<sup>15</sup>の主な内容は森林由来の排出量の MRV であり、現在の林業プログラムでは網羅されていないその他のプ

<sup>8</sup> In accordance with UNFCCC Decision 10/CP.19, paragraph 1.

<sup>9</sup> DENR Memorandum addressed to the Executive Secretary, 10 January 2018. Available at [http://forestry.denr.gov.ph/redd-plus-philippines/updates/DENR\\_National\\_Entity\\_REDDPlus.pdf](http://forestry.denr.gov.ph/redd-plus-philippines/updates/DENR_National_Entity_REDDPlus.pdf).

<sup>10</sup> GIZ. 2013. *Conceptual Approach to REDD+ MRV in the Philippines: An Overview*. June 10, 2013. Manila, Philippines, GIZ. Available at

<http://faspelib.denr.gov.ph/sites/default/files/Publication%20Files/Conceptual%20approach%20to%20REDD%2B%20MRV%20in%20the%20Philippines.pdf>.

<sup>11</sup> Ibid, 3 and 11. See also PNRPS Update, 42.

<sup>12</sup> PNRPS Update, 48; GIZ. National REDD+ System for the Philippines Project Overview. Available at <https://www.giz.de/en/worldwide/62913.html>; Informal discussion with Mr. Mark de Claro, REDD+ Focal Person Environmental Forestry Section, Forest Resources Conservation Division, DENR-FMB. 19 February 2018. (De Claro; Views should not necessarily be considered official government statements or positions.)

<sup>13</sup> UN-REDD. Philippines Targeted Support: NFMS Action Plan Project Description. Available at <http://www.unredd.net/regions-and-countries/asia-pacific/philippines-the.html>.

<sup>14</sup> PNRPS update, 43.

<sup>15</sup> NFMS と NFMP の違いは不明確であり、明らかにするためにさらに調査が必要である。

プログラムを統合する可能性もある。このプログラムは、上述の大統領令 881 号およびフィリピン温室効果ガスインベントリ管理・報告制度を制定した大統領令 174 号 (2014 年)<sup>16</sup>の範囲内で確立されたものである。この制度の全体的なとりまとめを担うのは CCC で、DENR はさまざまな分野の中で特に土地利用と林業に関して主導する機関である。

FREL/FRL の制定については、アプローチ、方法論、基準となる年もまだ決まっていないが、当初の議論は、国土地理・資源情報庁 (National Mapping and Resource Information Authority: NAMRIA) が生成した 2003~2010 年および可能なら 2015 年以降の森林被覆に関する歴史的データとデータセットを使用する方向で進んでいる。主な課題は、異なる方法と技術<sup>17</sup>を用いて生成されている 2003 年と 2010 年の土地被覆のデータセット<sup>18</sup>を調和させることである。現時点では、含まれる炭素プールは地上部および地下部のバイオマスのみ注目することになっている<sup>19</sup>。FREL/FRL に関する資料は公開されていないが、予備協議、実現可能性調査、関連する研修が実施されており<sup>20</sup>、FREL/FRL 制定に向けた可能なアプローチについて他機関との議論も進んでいる。これらの取り組みの一部については、国家レベルの REDD+プログラムの項で簡単に説明する。

### (3) セーフガード情報システム

DENR と GIZ による “National REDD+ System - Philippines project” の第 3 項は、国家 REDD+セーフガードの枠組みとガイドライン (「ガイドライン」) の策定とセーフガード情報システム (SIS) の開発に特化している。これを実現するためには、REDD+セーフガードに関する UNFCCC-COP 決定をフィリピンの状況に合わせて変換するとともに、既存の国家および地方レベルの政策や仕組みを今後実施される REDD+に整合させる必要がある。

ガイドラインの素案と SIS のバージョン 1 が 2016 年に完成した<sup>21</sup>。提案されたガイドラインは、カンクン・セーフガードに合致した原則、基準、指標および適切な行動からなる一連の規格で構成されている。SIS は、地域レベルのデータを記録し、それを国家レベルの報告のために統合できるウェブサイトとオフラインのソフトウェアで構成される<sup>22</sup>。SIS は、REDD+の各現場において DENR、地方自治体、主要な市民社会および市民組織のメンバーで構成された現地 REDD+技術作業部会 (REDD+TWG) が関与できるように設計されている。提案されたプロセスの流れでは、各 REDD+TWG がその REDD+活動が該当するセーフガードを順守しているかどうかを評価し、その評価を地域環境天然資源省事務所 (Community Environment and Natural Resources Office: CENRO、市町村の場合) または州環境天然資源省事務所 (Provincial Environment and Natural Resources Office: PENRO、州の場合) 経由で DENR に提出することになっている。提出された評価はここでウェブサイト用にコード化される。データの検証は PENRO および第三者機関が担当する。検証後、データは DENR の地方事務所と FMB からアクセスできるようになり、国の政府機関に共有される<sup>23</sup>。ガイドラインの素案と SIS の実地テストは、2015~2016 年に東ダバオ州、東サマル州、アルバイ州にある REDD+

<sup>16</sup> Executive Order No. 174, s. 2014. “Institutionalizing the Philippine Greenhouse Gas Inventory Management and Reporting System,” 24 November 2014. Available at <http://www.officialgazette.gov.ph/2014/11/24/executive-order-no-174-s-2014/>.

<sup>17</sup> Wevina V. Manuel. 2014. “Land Cover Data in the Philippines” (Powerpoint presentation), The 5th UN-REDD Regional Lessons Learned Workshop on Monitoring Systems and Reference Levels for REDD+, 20 October 2014. Available at <http://www.unredd.net/documents/global-programme-191/mrv-and-monitoring-296/un-redd-asia-pacific-nfms-regional-workshop-20-22-october-2014-hanoi-vietnam-3565/technical-session-2-sub-national-and-3581/13484-01-02-03-wevina-manuel-rs-lu-philippines-13484.html>.

<sup>18</sup> De Claro.

<sup>19</sup> De Claro.

<sup>20</sup> See PNRPS Update, 41-42.

<sup>21</sup> DENR-GIZ. 2016. *Proposed National REDD-Plus Safeguards Framework Guidelines*. Manila, Philippines: GIZ. Available at [https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21\\_SFG%203.1.pdf](https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21_SFG%203.1.pdf)

<sup>22</sup> Id, 32.

<sup>23</sup> See GIZ. “Proposed Process Flow of REDD+ SIS (REDD+ Safeguards Information System User’s Manual)” (PowerPoint presentation). 20 March 2016.

のパイロットサイトで実施された。これらの地域からのフィードバックをもとに、素案を微調整して適切性と使いやすさを向上させた。

本報告書執筆の時点でガイドラインはまだ正式に採用されていない。当初の議論では、DENRの知識情報支援サービス (Knowledge and Information Support Services: KISS) において、SISを気候変動管理情報システム (Climate Change Management Information System: CCMIS) の主軸にすべきとの指摘があったが、これを正式に実施し、データや情報の共有のために主要部局を動員する政策はまだ存在しない<sup>24</sup>。SISのベータ版は、DENR-FMBのウェブサイトからアクセス可能と思われる<sup>25</sup>。また、政府のREDD+窓口との非公式な議論では、強化された森林情報システムとDENRのデータベースにSISを統合する可能性も指摘された。

#### (4) REDD+プロジェクトおよびプログラムの実施<sup>26</sup>

##### ● UN-REDD プログラム

UN-REDDプログラムは、2011年から2013年にかけてフィリピンに対して重点的な支援を実施した<sup>27</sup>。この一連の支援は、1) 効果的・包括的な参加型のREDD+準備の支援、2) REDD+の体制と制度に関する選択肢と包括的なコンサルティングの研究、3) モニタリングおよびMRVの能力向上という3つの成果をもたらした<sup>28</sup>。UN-REDDプログラムは、REDD+の「巡回説明会」、初期評価、現状調査による情報普及や能力開発など、初期の取り組みに資金を提供した。

食糧農業機関 (FAO) も、アテネオ・デ・マニラ大学公共政策大学院との提携により、2012年から2013年にかけてフィリピンに対して重点的な支援を実施した。このプロジェクトは、フィリピンでREDD+セーフガードに関する情報を提供するために地域の能力を高めることを目指すもので、南レイテ州とパラワン州での能力開発活動を支援した。

現在、政府のREDD+窓口との非公式な議論では、緑の気候基金 (Green Climate Fund: GCF) のもとでREDD+のパイロットプログラムを策定する可能性が挙げられている。

##### ● ドイツ国際協力公社 (GIZ)

GIZがフィリピンのREDD+に最初に取り組んだのは、2009年から2013年までの5年間である。“The Climate-relevant Modernization of Forest Policy and Piloting of REDD Measures in the Philippines Project”<sup>29</sup>では、国家および地域レベルで政策調査とベースライン調査が実施された。また、REDD+を紹介する巡回説明会や、南レイテ州のパイロットサイトのパートナーを対象としたMRVのシステムおよび技法に関する技術研修など、能力開発活動の実施も支援した。

2013年から2017年にかけて、GIZは“National REDD+ System - Philippines project”のもとで事業を継続した。フィリピン国家REDD+戦略の更新は、このプロジェクトのもとで完了した。国家REDD+セーフガードの枠組みとガイドラインの素案およびSISも策定され、検討のために主要政府機関に提出された。REDD+の実施のガバナンス機関として国家マルチ

<sup>24</sup> PNRPS Update, 32.

<sup>25</sup> Available at <http://redd-sis.sysdb.site/Home/>.

<sup>26</sup> The available publications and materials from each donor are listed in Annex I. Links are provided where available.

<sup>27</sup> For in-depth discussions of project activities, see UN-REDD Programme. 2013. *National Programmes Final Report - Philippines*. Available at [mptf.undp.org/document/download/12143](http://mptf.undp.org/document/download/12143).

<sup>28</sup> Id, 10.

<sup>29</sup> For in-depth discussions of project activities, see Ed Quitoriano. 2013. *Supporting REDD+ Readiness: Final Evaluation of the Climate Relevant Modernization of the National Forest Policy and Piloting of REDD+ Measures in the Philippines Project*. Manila, Philippines: GIZ. Available at

<http://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/Supporting%20Philippine%20REDD%2B%20Readiness.pdf>.

ステークホルダーREDD+評議会を設置するという選択肢は、議論され文書化されている。南レイテ州、東サマル州、アルバイ州にある REDD+のパイロットサイトでは、森林土地利用計画案が完成しており、各地域の立法議会で採決されることになっている。

● USAID

USAID の “Analysis and Investment for Low Emission Growth project” プロジェクトでは、林業データに関する課題と REDD+の評価に取り組んだ。USAID の報告書は南レイテ州のパイロットサイトにおける GIZ の経験に基づいており、FREL/FRL の制定と MRV システムの構築のために必要なデータと情報をさらに詳しく分析している。また、経済と生態系の回復力強化のための生物多様性と流域環境の改善 (Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience: B+WISER) プログラムのもと、現在 USAID と米国森林局は地球土地被覆観測センターと協力して、NFMS の衛星監視システムのために LIDAR データの調整を行っている。

表 2.1-1 : フィリピンにおける REDD+パイロットプログラム

場所	実施期間	ドナー、実施機関	内容と成果
Municipalities of Maddela and Nagtipunan, Quirino	2007-2029	<ul style="list-style-type: none"> <li>• MoreTrees, Inc.</li> <li>• Conservation International</li> </ul>	<ul style="list-style-type: none"> <li>• Gold Standard ratings under the Climate, Community and Biodiversity Standards for integrating community and biodiversity benefits (2009)</li> <li>• Accredited under the Verified Carbon Standards program (2011)</li> </ul>
Municipality of Peñablanca, Cagayan	2007-2013	<ul style="list-style-type: none"> <li>• Toyota Motor Corporation</li> <li>• Conservation International</li> </ul>	<ul style="list-style-type: none"> <li>• Gold Standard ratings under the Climate, Community and Biodiversity Standards for integrating community and biodiversity benefits (2009)</li> </ul>
Municipalities of Santa Fe and Aritao, Nueva Vizcaya	2008-2010	<ul style="list-style-type: none"> <li>• Mitsubishi UFJ Securities</li> <li>• BMZ</li> <li>• Kalahan Educational Foundation</li> </ul>	<ul style="list-style-type: none"> <li>• Agreement with Mitsubishi UFJ Securities for technical assistance to prepare Indigenous Peoples communities to generate Certified Emissions Reductions (2008)</li> <li>• Technical support from BMZ and the World Agroforestry Centre for the conduct of Agro-biodiversity and Carbon Stock appraisals (2010)</li> </ul>
Municipalities of Silago, Sogod, Bontoc and Tomas Oppus and Maasin City, Southern Leyte	2009-2013	GIZ	<ul style="list-style-type: none"> <li>• Socio-economic baseline assessment (2011)</li> <li>• Forest carbon baseline study (2012)</li> <li>• Biodiversity assessment in the Mt. Nacolod Key Biodiversity Area (2013)</li> </ul>

			<ul style="list-style-type: none"> <li>• Completed Forest Land Use Plans in 4 sites</li> <li>• Capacity building in GIS, forest mensuration and carbon measurement and monitoring, standards, verification and certification and remote sensing</li> <li>• Support for governance safeguards – local legislation protecting the Mt. Nacolod Key Biodiversity Areas, Decentralized budgets for Forest Land Use Planning and improved coordination between DENR offices</li> </ul>
Municipality of General Nakar, Quezon	2010-2014	<ul style="list-style-type: none"> <li>• EU and Team Energy Foundation</li> <li>• FFI</li> </ul>	<ul style="list-style-type: none"> <li>• Addressing tenurial issues associated with Indigenous Peoples ownership of the Ancestral Domains in the REDD+ area</li> <li>• Livelihood and enterprise development with non-timber forest products</li> <li>• Capacity building in remote sensing and spatial analysis</li> </ul>
Municipalities of Narra and Quezon, Palawan	2011-2013	<ul style="list-style-type: none"> <li>• EU</li> <li>• IUCN Ecosystems Alliance</li> <li>• ADVANCE-REDD Coalition</li> <li>• GIZ (for Research and MRV)</li> </ul>	<ul style="list-style-type: none"> <li>• Support for local policy making to recognize Protected Areas and strengthen recognition for Indigenous Peoples Ancestral Domains</li> <li>• Forest Land Use Planning in the municipality of Quezon and Watershed Management Planning in areas of Narra</li> <li>• Study to provide information on forest cover and forest carbon stocks</li> <li>• Field level trainings on MRV, community trainings in NTFP enterprises and agro-forestry</li> </ul>
Municipalities of Tiwi, Oas and Malinao, Tabaco City and Ligao City, Albay	2013-2017	GIZ	<ul style="list-style-type: none"> <li>• Introductory workshops on REDD+ as part of field testing the draft REDD+ Safeguards Framework and Guidelines and SIS</li> <li>• Completed Forest Land Use Plans</li> </ul>
Municipality of Maydolong and Borongan City,	2013-2017	GIZ	<ul style="list-style-type: none"> <li>• Forest Resource Assessment (2015-2016)</li> </ul>

Eastern Samar			<ul style="list-style-type: none"> <li>• Introductory workshops on REDD+ as part of field testing the draft REDD+ Safeguards Framework and Guidelines and SIS</li> <li>• Completed Forest Land Use Plans</li> </ul>
Municipalities of Manay, Tarragona and Caraga, Davao Oriental	2013-2017	GIZ	<ul style="list-style-type: none"> <li>• Forest Resource Assessment (2015-2016)</li> <li>• Introductory workshops on REDD+ as part of field testing the draft REDD+ Safeguards Framework and Guidelines and SIS</li> <li>• Free, Prior and Informed Consent (FPIC) process initiated for Forest Land Use Planning</li> </ul>

#### 5) REDD+への市場メカニズムの適用に関する政府の見解

本報告書執筆の時点(2018年2月)の時点では、REDD+への市場メカニズムの適用に関して正式な見解や立場を示していないが、その可能性については認めている。一例として、REDD+への緩和成果の国際的な移転(internationally transferred mitigation outcomes: ITMOS)の適用は今後の選択肢になると思われる。ただし、その場合はまずFREL/FRLを確定させ、炭素の取引やオフセットを行う制度の基準値として利用できるようにする必要がある<sup>30</sup>。2人の政府関係者<sup>31</sup>が別々の非公式な会談で述べたところによると、現在の日本とフィリピンの二国間クレジット制度(JCM)では、REDD+が選択肢として検討されているという。プロジェクトレベルのREDD+のプログラムまたは活動では、今のところ市場メカニズムは実施されていない。

炭素に関する権利については、具体的な政策は存在しない。しかし、森林炭素関連の活動に関心を持つ地域社会や先住民族のグループを巧みに利用した炭素関連のプロジェクトや「カーボン・カウボーイ」の問題の急増を受けて、フィリピン政府は少なくとも2つの政策を打ち出した。

2010年、国家先住民族委員会(National Commission on Indigenous Peoples: NCIP)はすべての地方局長に対して炭素取引に関するプロジェクトの承認を控えるよう求める通達を出し、同委員会による協定ガイドラインの発行を保留した<sup>32</sup>。2012年には、DENRの長官がすべての局長および地方長官に対して覚書を発出し、すべての地域において森林炭素取引に関する取り組みの受け入れを控えるよう求めるとともに、この件に関する国家ガイドラインの発行を保留した<sup>33</sup>。国家REDD+戦略またはDENRのプロジェクトやプログラムのもとで行われる実証プロジェクトやプログラムに関連しないREDD+活動は、

<sup>30</sup> De Claro.

<sup>31</sup> Mr. de Claro and Mr. Albert Magalang, Chief, Climate Change Division, DENR-Environmental Management Bureau (EMB). E-mail exchange on 11 February 2018.

<sup>32</sup> NCIP Memorandum Order No. OED-84-2010, s. 2010. "Directive to Refrain from Approving Projects on Carbon Trading," 23 March 2010.

<sup>33</sup> DENR Memorandum No. 297 "Interim Policy on Forest Carbon Trading and Registry of REDD-Plus Activities," 2 June 2012.

DENR-FMB に照会して 認可および指示を受けなければならない<sup>34</sup>。

2013 年には、DENR と GIZ による “Climate-relevant Modernization of the National Forest Policy and Piloting of REDD Measures in the Philippines project” において、詳細な政策調査が実施された。この調査は、(森林) 炭素のプロジェクトにおいてセーフガードを規制・確保するうえで欠けている重要な政策を補うためのもので、その序文には以下のような記述がある。

「明確な保有権や法的に定義された炭素の所有権がなく、基本的なセーフガードも備わっていない状態では、地域社会や先住民が、自主的炭素市場に関する金銭的な利益を見込む「カーボン・カウボーイ」と呼ばれる怪しい投資家との一方的な炭素取引の契約の被害者になってしまうリスクがある。炭素取引には猶予期間が設けられているにもかかわらず、こうした不法な行為は後を絶たず、適切なセーフガードの設定と、国内の森林炭素の正当な所有者の決定に関する行政的指導の実施が、喫緊の課題となっている<sup>35</sup>。」

この調査は、調査報告書<sup>36</sup>と事例研究の報告書<sup>37</sup>からなり、「炭素に関する権利と所有権を明確にする法的文書の制定を政策立案者に提言している<sup>38</sup>」。炭素に関する権利について明確な法的命令があれば、REDD+の市場メカニズムが実施された場合に発生し得る対立の解決にも役立つであろう<sup>39</sup>。DENR は森林炭素に関する政策の策定を開始しているが、進捗は滞っている<sup>40</sup>。炭素蓄積に関する DENR 行政命令など、その他の炭素関連の政策も保留中だが、その状況は不明である<sup>41</sup>。

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<sup>34</sup> Emily Manuel, Ingrid Rosalie Gorre, Yasmin Hatta, Edna Maguigad and Rowena Boquiren. 2013. *Who owns the carbon in the Philippine forests? A study on clarifying forest carbon rights for REDD-plus in the Philippines (Volume I: Main Study Report)*. Manila, Philippines: GIZ. Available at <http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Who%20owns%20the%20carbon%20in%20the%20Philippine%20forests%20-%20Volume%20I.pdf>, 68.

<sup>35</sup> Id, v.

<sup>36</sup> Id.

<sup>37</sup> Yasmin Hatta, Rowena Boquiren and Edna Maguigad. 2013. *Who owns the carbon in the Philippine forests? A study on clarifying forest carbon rights for REDD-plus in the Philippines (Volume II: Case studies)*. Manila, Philippines: GIZ. Available at <http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Who%20owns%20the%20carbon%20in%20the%20Philippine%20forests%20-%20Volume%20II.pdf>.

<sup>38</sup> Manuel et al, v.

<sup>39</sup> De Claro.

<sup>40</sup> Manuel et al, 68.

<sup>41</sup> Informal discussion with Atty. Edna Maguigad, Regional Policy and Governance Adviser, Non-Timber Forest Products - Exchange Programme (NTFP-EP), 21 February 2018.

Appendix 2.1-1 REDD+ Readiness Materials and Publications (National-level Support)

AIPP	<p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Study on <i>Indigenous Peoples Effective Engagement in REDD+ processes in the Philippines and Cambodia</i> (2013)  <a href="http://www.ccmn.aippnet.org/attachments/article/1266/Final_Case%20Study_For%20web.pdf">http://www.ccmn.aippnet.org/attachments/article/1266/Final_Case%20Study_For%20web.pdf</a></li> </ul>
GIZ	<p><b>Policy Review and Development</b></p> <ul style="list-style-type: none"> <li>• Study on <i>Pursuing an Enabling Policy Climate for REDD+ in the Philippines: Review and Analysis of Forest Policy Relating to REDD+</i> (2013)  <a href="https://www.giz.de/en/downloads/giz2013-en-redd-plus-review-analysis-forest-policy-philippines.pdf">https://www.giz.de/en/downloads/giz2013-en-redd-plus-review-analysis-forest-policy-philippines.pdf</a></li> <li>• Study on <i>Who Owns the Carbon in Philippine Forests? A Study Clarifying Forest Carbon Rights for REDD+ in the Philippines</i> (2013)  <a href="http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Who%20owns%20the%20carbon%20in%20the%20Philippine%20forests%20-%20Volume%20I.pdf">http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Who%20owns%20the%20carbon%20in%20the%20Philippine%20forests%20-%20Volume%20I.pdf</a></li> <li>• Study on <i>Improving Governance of Tenure: Enhancing Guidance for the Issuance of a Unified Tenure System</i> (2015)  <a href="https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Improving%20governance%20of%20tenure.pdf">https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Improving%20governance%20of%20tenure.pdf</a></li> <li>• Draft Study on <i>Legal Options Operationalizing REDD+ Governance in the Philippines</i> (2016)  <a href="http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21_NMRC%20policy%20paper.pdf">http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21_NMRC%20policy%20paper.pdf</a></li> <li>• Proposed National REDD+ Safeguards Framework and Guidelines (2016)  <a href="https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21_SFG%203.1.pdf">https://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/unpublished/2016-11-21_SFG%203.1.pdf</a></li> </ul> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Study on <i>Analysis of Key Drivers of Deforestation and Forest Degradation in the Philippines</i> (2012)  <a href="https://www.giz.de/en/downloads/giz2013-en-key-drivers-deforestation-forest-degradation-philippines.pdf">https://www.giz.de/en/downloads/giz2013-en-key-drivers-deforestation-forest-degradation-philippines.pdf</a></li> <li>• Study on <i>Assessment of the Implementation of Free, Prior and Informed Consent (FPIC) in the Philippines</i> (2013)  <a href="http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Assessment%20of%20FPIC%20in%20the%20Philippines%20-%20Volume%20I.pdf">http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Assessment%20of%20FPIC%20in%20the%20Philippines%20-%20Volume%20I.pdf</a></li> <li>• Study on a <i>Conceptual Approach to REDD+ MRV in the Philippines</i> (2013)  <a href="http://faspelib.denr.gov.ph/sites/default/files//Publication%20Files/Conceptual%20approach%20to%20REDD%2B%20MRV%20in%20the%20Philippines.pdf">http://faspelib.denr.gov.ph/sites/default/files//Publication%20Files/Conceptual%20approach%20to%20REDD%2B%20MRV%20in%20the%20Philippines.pdf</a></li> <li>• Study on <i>Draft Concept for a Philippine REDD+ Financing and Benefit-Sharing Scheme</i> (2016)  <a href="http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Draft%20concept%20for%20a%20PHL%20REDD+%20benefit%20sharing%20scheme.pdf">http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Draft%20concept%20for%20a%20PHL%20REDD+%20benefit%20sharing%20scheme.pdf</a></li> </ul>



	<p><b>Pilot Site Documents</b></p> <ul style="list-style-type: none"> <li>• Study on <i>Socio-economic Baseline for the REDD+ Pilot Sites in Southern Leyte</i> (2012)  <a href="http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Socio-Economic%20Baseline%20for%20the%20REDD+%20Project%20Sites%20in%20Southern%20Leyte.pdf">http://forestry.denr.gov.ph/redd-plus-philippines/publications-pdf/published/Socio-Economic%20Baseline%20for%20the%20REDD+%20Project%20Sites%20in%20Southern%20Leyte.pdf</a></li> <li>• Study in <i>Biodiversity Baseline Assessment in the REDD+ Pilot Area on Leyte Island as Input for Elaboration of an MRV System for REDD+ including Biodiversity Co-benefits</i> (2013)  <a href="http://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/Biodiversity%20baseline%20assessment%20in%20the%20REDD-plus%20pilot%20area%20on%20Leyte%20Island.pdf">http://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/Biodiversity%20baseline%20assessment%20in%20the%20REDD-plus%20pilot%20area%20on%20Leyte%20Island.pdf</a></li> <li>• Study on <i>Forest Carbon Baseline in Leyte</i> (2013)  <a href="http://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/Forest%20Carbon%20Baseline%20Study%20in%20Leyte.pdf">http://faspselib.denr.gov.ph/sites/default/files//Publication%20Files/Forest%20Carbon%20Baseline%20Study%20in%20Leyte.pdf</a></li> <li>• Study on <i>Biodiversity Baseline Assessment in the REDD+ pilot and Key Biodiversity Area in Mt. Nacolod Southern Leyte</i> (2013)  <a href="https://www.researchgate.net/profile/Roven_Tumaneng/publication/267151229_Biodiversity_baseline_assessment_in_the_REDD-Plus_pilot_and_key_biodiversity_area_in_Mt_Nacolod_Southern_Leyte/links/544638c40cf22b3c14de1364/Biodiversity-baseline-assessment-in-the-REDD-Plus-pilot-and-key-biodiversity-area-in-Mt-Nacolod-Southern-Leyte.pdf">https://www.researchgate.net/profile/Roven_Tumaneng/publication/267151229_Biodiversity_baseline_assessment_in_the_REDD-Plus_pilot_and_key_biodiversity_area_in_Mt_Nacolod_Southern_Leyte/links/544638c40cf22b3c14de1364/Biodiversity-baseline-assessment-in-the-REDD-Plus-pilot-and-key-biodiversity-area-in-Mt-Nacolod-Southern-Leyte.pdf</a></li> <li>• Forest Change and Detection and Biomass Estimation using ALOS/PALSAR Data in Support of REDD+ Readiness Activities in Palawan, Philippines. Technical Report (2014)  <a href="https://www.researchgate.net/publication/270958235">https://www.researchgate.net/publication/270958235</a></li> </ul>
UN-REDD Programme	<p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Corruption Risk Assessment for REDD+ in the Philippines and the Development of REDD+ Anti-Corruption Measures (2012)  <a href="http://www.ateneo.edu/sites/default/files/UN%20REDD%20CRA%20Final%20Report_1.pdf">http://www.ateneo.edu/sites/default/files/UN%20REDD%20CRA%20Final%20Report_1.pdf</a></li> <li>• Study on <i>Women's Inclusion in REDD+ in the Philippines: Lessons in Good Practices in Forest and other Natural Resource Management Sectors</i> (2014)  <a href="http://redd.unfccc.int/uploads/2234_24_philippines_gender_and_redd_report_sm.pdf">http://redd.unfccc.int/uploads/2234_24_philippines_gender_and_redd_report_sm.pdf</a></li> </ul>
USAID	<p><b>Research and MRV</b></p> <ul style="list-style-type: none"> <li>• Study on <i>Scoping and Review of Forestry Data and REDD+ in the Philippines: The AILEG project</i> (2013)  <a href="http://pdf.usaid.gov/pdf_docs/PA00JDJG.pdf">http://pdf.usaid.gov/pdf_docs/PA00JDJG.pdf</a></li> </ul>
U4 Anti-Corruption Resource Center	<p><b>Research</b></p> <ul style="list-style-type: none"> <li>• Tackling Corruption for Governing REDD+ in the Philippines (2011)  <a href="http://www.u4.no/publications/tackling-corruption-for-governing-redd-in-the-philippines/">http://www.u4.no/publications/tackling-corruption-for-governing-redd-in-the-philippines/</a></li> <li>• The Political Economy of Corruption and REDD+: Lessons from the Philippines Pilot Sites (2014)  <a href="http://www.u4.no/publications/the-political-economy-of-corruption-and-redd-lessons-from-the-philippines-pilot-sites/">http://www.u4.no/publications/the-political-economy-of-corruption-and-redd-lessons-from-the-philippines-pilot-sites/</a></li> </ul>

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## 2.2 UNFCCC COP23 における情報の収集

国連気候変動枠組条約 (UNFCCC) 第 23 回締約国会議 (COP23) が、2017 年 11 月 6 日から 17 日までドイツ・ボンにて開催された。本事業では、日本政府代表団として COP23 に参加し、REDD+やJCM に関連する会合やイベント等に出席し、各国政府関係者、国際機関、NGO 等から、REDD+の関連情報（特に資金、市場メカニズム、緩和や透明性に関する内容）を収集した。

### 2.2.1 COP23 の全体報告

#### (1) REDD+交渉

国連気候変動枠組条約 (UNFCCC) 第 23 回締約国会議 (COP23) が、2017 年 11 月 6 日から 17 日までドイツ・ボンにて開催された。第 47 回実施に関する補助機関会合 (SBI47) では、「途上国における森林セクターの組織アレンジメントを含めた緩和活動実施の支援の調整 (Coordination of support for the implementation of activities in relation to mitigation actions in the forest sector by developing countries, including institutional arrangements)」と題された REDD+に関連する交渉が行われた。この議題の論点は、REDD+実施のための資金などの支援を調整する組織を UNFCCC の下で設立する必要があるかどうかである。そもそもこの議題は、REDD+の主なルールがワルシャワフレームワークとして合意された COP19 (2013 年) において交渉が行われたものの、議論が収束せず、今回の SBI に先送りされた経緯がある (山ノ下 2014)。

COP19 当時、REDD+のレディネスに対する支援は行われていたが、REDD+の成果支払いについては全く見通しが立っていない状況であった。REDD+成果支払いに関する国際的な仕組みの構築にはかなりの時間を要しており、4 年が経過した現在も成果支払いが行われた実績はないが、それに向けて動き始めているスキームは存在する。UNFCCC の資金機関の一つである GCF (緑の気候基金) では、2017 年 9 月に、REDD+成果支払いのパイロットプログラムが総額 500 百万 US\$で実施されることが決まり (GCF 2017a)、運用ルールを含めた公募要領のドラフトが公開されたところである (GCF 2017b)。また、世界銀行が中心となり設置した FCPF (森林炭素パートナーシップファシリテーター) のカーボンファンドでも REDD+の成果支払いの実施に向けて作業が進んでおり、19 カ国が提案書を提出、そのうち 6 カ国 (チリ、コスタリカ、コンゴ民主共和国、ガーナ、メキシコ及び、コンゴ共和国) が最終段階の契約交渉に入っている (FCPF 2017)。

しかしながらこのような状況の変化は、これまでの「新たな REDD+支援調整組織が必要」と主張するアフリカ諸国を中心とする途上国と、「既存の組織以外は今のところ不要」とする先進国の意見を収束させるには至らず、本議題に関する合意文書も作成されなかった<sup>1</sup>。

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<sup>1</sup> 通常、論点に対する合意形成がされなくても「引き続き議論をする」等のこれからの予定に関する合意文書が作成されるが、今回はそれも作成されなかった。これはその議題で大きな意見対立があると一般的に理解される。合意文書が

むしろ、中南米諸国を中心とする一部の途上国が先進国と同じ見解を示したことで、途上国間の温度差が明確になったと考えられ、本議題における合意形成は今後も難航すると予想される。ただこれが、現在実施が進んでいる REDD+の今後の展開に影響を及ぼすことはほとんどないと考えられる。

REDD+はこれまで、二国間・多国間の援助機関や NGO 等を通じてレディネス支援が行われているのに加え、UNFCCC の資金供与機関である GEF (地球環境ファシリティ) と GCF も REDD+を直接、間接的に支援してきたが、各国への資金の配分や支援活動内容については、それぞれの組織間同士のコミュニケーションに任されてきた。これらの国際支援を受けて REDD+の準備状況を整えた途上国は、GCF や FCPF のプログラムへの参加を通じた REDD+の成果支払いへのアクセスの見通しが立っている状況にある。一方で、REDD+の実施を希望していても必要なレディネス支援を十分に受けられていない国も存在する。2006 年以降 REDD+活動関連資金を受けた国は 80 개국以上あるが、そのうち 19%がインドネシア、17%がブラジル、15%がそれに続く上位 4 개국 (ペルー、ガイアナ、コンゴ民主共和国、リベリア) に向けられたものであった (Norman and Nakhouda 2014)。また、現状において、GCF と FCPF を通じた成果支払いは期間限定的である上に、その期間中に REDD+実施国が達成するであろう排出削減量すべてに対して支払うための資金が準備されているわけでもない。このことが、REDD+後発国の焦りや不満につながっていると考えられる。

今後の REDD+の課題としては、パイロット的に始動している成果支払いの実施を通じて、REDD+の気候変動対策としての有効性を実績として示すことが重要である。そうすれば、排出削減ポテンシャルの高い森林分野への資金を確保することにつながり、REDD+成果支払いを継続的に途上国の努力に見合う十分なスケールで実施することができるようになるだろう。一方で気候変動緩和策としての観点からすれば、REDD+で一部の森林減少、劣化が激しい国に重点を置き、早急に大きな排出削減量を達成することは間違いではないが、公平性の観点も考慮する必要がある。REDD+は森林の生態系サービスの強化につながり、実施国の気候変動適応や持続可能な開発に貢献しながら排出削減を達成できる。REDD+成果支払いのメカニズム構築と実施を進めるのと同時に、今後も必要な国に対してレディネス支援を継続し、REDD+に参加できる国をさらに増やしていくことは大きな意味があると考ええる。

(1) サイドイベント：エミッション・ギャップ・レポートにおける森林分野関連の報告  
サイドイベントでは毎年恒例となっている国連環境計画 (UNEP) の「Emission Gap Report 2017 (UNEP 2017)」に関する発表が複数回行われた。第 8 版目となるこのレポートでは、森林がこれまでよりもフォーカスされている。レポートは、2100 年の気

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作成されなかった議題は、UNFCCC の手続き上のルールに従って SBI 次回会合で交渉がやり直される。

温上昇を2度以内に抑える排出パス（emission reduction pathway）と現行政策シナリオ（current policy trajectory）における2030年の年間排出量の差（ギャップ）は17 GtCO<sub>2</sub>eもあり、各国が提出したNDC（自ら定める国別目標）が2030年までに完全に実施された場合でもなお11-13.5 GtCO<sub>2</sub>eものギャップが残ることを示し、各国がNDCをより野心度の高いものへ見直すことが急務であると警告している。一方で、各セクターで費用対効果の高い方策のみを追加的に実行することでこのギャップは埋まり、2度目標の達成は努力次第で可能であるという希望を示している。植林（特に荒廃地再生）と森林減少防止は、太陽光発電、風力発電、高効率家電、高効率自動車と並んで、このギャップを埋めるために各国がNDC修正において検討すべき、削減ポテンシャルが高く費用対効果と実効性がすでに証明されている6つのカテゴリーとして示されている。この6つのカテゴリーは、現行政策シナリオにおける2030年の年間排出量を18.5 GtCO<sub>2</sub>e（そのうち森林減少防止と植林だけで5.3GtCO<sub>2</sub>e）削減するポテンシャルがあると推定している。既存の成功した政策措置として、森林減少防止ではブラジルの「アマゾンの森林減少防止と管理のためのアクションプラン（コストは平均US\$13/tCO<sub>2</sub>)」、植林では中国、コスタリカ及び、韓国で実施された政策が挙げられ、費用対効果が高く、他国でも参考にできる政策措置であるとしている。

森林管理が気候変動緩和において重要な役割を担っていること、費用対効果が高いこと自体は目新しい情報ではないが（例えばIPCC 2014）、国際社会がパリ協定の下で2度ないしは1.5度目標に取り組もうとしているこのタイミングで、森林管理がより野心的なNDCのために検討すべきカテゴリーとして取り上げられたことは特筆すべきであろう。他の森林関連サイドイベントでも、パリ協定の目標実現において森林分野の貢献は不可欠であることが科学的に示されているにもかかわらず、その効果的な活用が不十分である現状について「森林分野は舞踏会に招かれていないシンデレラ」と例えて指摘した発表があった。実際に森林分野には、気候変動緩和対策に拠出された資金全体の2%のみしか配分されていない（Climate Focus 2017）。一方で、増加する世界人口ともなって必要となる食糧増産を考慮すると、森林と農地の競合など土地資源をめぐる問題は深刻化する可能性があり、このことが気候変動緩和策として森林分野に大規模投資を進めることを難しくしているとも考えられる。このことについては、現在IPCCでは特別報告書「気候変動と土地」（2019年完成予定）の準備が進んでおり、科学的知見が取りまとめられることになっている（IPCC 2017）。上述したようにREDD+は成果支払いの実施段階に入っており、エミッション・ギャップ・レポートがそれを後押しするシグナルとなることに期待したい。他方でIPCC特別報告書によりとりまとめられる科学的知見を踏まえ、森林分野や農業分野を含めた土地セクターの効果的な気候変動緩和策について検討を深めることが今後非常に重要になると考えられる。

(2) サイドイベント：サプライチェーンにおけるゼロ・デフォレステーション  
森林に関連するサイドイベントの中で特徴的だったのは、国際的な農作物のサプライチェーンが森林減少を引き起こしているという問題が多く取り上げられていたことである。2020年までにサプライチェーンからの森林減少をなくすこと（ゼロ・デフォレステーション）を目標の一つに掲げた「森林に関するニューヨーク宣言（2014年国連気候サミット）」には、日本を含む政府、市民団体に加え、約50の企業が署名している。この宣言の下での取り組みを促進するための国際的なプラットフォーム「森林に関するニューヨーク宣言のグローバル・プラットフォーム」の発足も、国連開発計画（UNDP）によって今回のCOP期間中に発表された。

UNFCCCの公式サイドイベントであるフォレスト・デーでは「主要なサプライチェーンから森林減少を排除する取り組みの新たな展開」と題されたセッションが設けられた。通常UNFCCCのサイドイベントでは、政府高官や著名な研究者らがモデレーターを務めることが多い中、ユニリーバ社のサステナビリティ最高責任者がその役を務めたことで、民間企業がこの課題に積極的に取り組んでいるという強い印象を与えた。セッションでは、マース社とウォルマート社がそれぞれのサプライチェーンのゼロ・デフォレステーションに関するコミットメントについて説明した。マース社は新しい企業方針として、森林減少をサプライチェーンから排除することで自社のカーボンフットプリントを2025年までに27%、2050年までに67%減少させる数値目標を掲げた。ウォルマート社は、商品のバイヤーとして取り組んでおり、第一歩として自社のプライベートブランドに関しては、ブラジルから輸入される牛肉について「森林減少が顕著でない地域で生産されたものであることを地図情報で証明する」という新しい要求事項を設けたことを説明した。ノルウェー気候環境大臣は、企業のゼロ・デフォレステーションは重要であるが、そのための投資が不足していることを指摘し、2017年のダボス会議で公表した、経済成長と森林保全の双方に配慮した農業投資をレバレッジするための新しい基金について紹介し、協働を呼び掛けた。ノルウェー政府、ユニリーバ社、GEFが主導するこの基金は、2020年までに5百万haの熱帯林と泥炭湿地を保全することをターゲットとしている。

これまでもCSR活動の一環として森林保全や植林を行う企業は少なくなかったが、現在は国際的な大企業が企業方針の重要な要素として積極的に取り組むようになってきている。その背景には、企業が森林減少をビジネスリスクやビジネスチャンスとみなしていることが伺える。このセッションでも主張されていたように、個々の企業がこの課題に取り組むだけではなく、今後はネットワークを通じて協働することがより森林減少防止により大きなインパクトを生み出すと同時にコストを削減するために重要となるだろう。

UNFCCC における REDD+ の議論は、途上国内の森林減少要因に政策で対処するというアプローチが中心であり、それに沿った支援が行われてきた。しかし実際には、途上国の森林減少は国際的な農林産物マーケットからの影響を大きく受けている。2000-2012 年の熱帯林減少面積の 71% は農地開発のためであり、そのうち 29-42% は輸出目的の開発であったと推定されている (Lawson 2014)。民間企業によるサプライチェーンのゼロ・デフォレステーションの取り組みは、途上国政府が取り組む REDD+ のための政策措置を後押しすることになるだろう。REDD+ は途上国政府の森林関連部局が担当している場合が多く、REDD+ を、農業関連部局を巻き込んだ土地利用政策にまで発展させることの重要性は指摘されてきたものの、実現は容易ではなかった。また、これまでの REDD+ に関する議論では、民間セクターからの投資の必要性が示されてきたにも関わらず、政策アプローチが強調されてきたことから「政府開発援助 (ODA) で実施するものである」という認識が強くなり、どのように民間企業が REDD+ に関わればよいのかは不明瞭であった。民間企業のサプライチェーンにおけるゼロ・デフォレステーションの取り組みは、その一つの方法であると位置づけることができる。今後はこれまで実施されてきた途上国における REDD+ 活動と民間企業のゼロ・デフォレステーションの取り組みを独立したものではなく、相互に利益をもたらすように連携させていくことが重要である。

## 2.2.2 今後の交渉のポイント

### (1) REDD+議題

REDD+に関する議題（途上国における森林セクターの組織アレンジメントを含めた緩和活動実施の支援の調整）は、次回 SBI48（2018年4月30日～5月10日）で再度交渉が開始される。SBI 48における議論も前回と同じ状況となる可能性が非常に高いが、組織をつくる問題と自主的会合の継続を整理して決着をつける必要がある。今回（SBI47）の交渉で混乱を招いた「自主的会合の実施期限」に関する解釈について、SBI 47のプレナリーでブラジルとノルウェーが明確化を求めたため、今後何らかの形で見解が示される可能性がある。自主的会合が自動的に継続されることになると、ますます合意形成が難しくなる可能性がある。交渉ポジションを同じくする、アンブレラグループ、EU、中南米カリビアン諸国連合、インドネシア、フィリピン等のアジアの一部の国と連携し、交渉を進めていくことが重要になるだろう。

### (2) 市場メカニズム、緩和や透明性

交渉の進捗をフォローアップし REDD+との関連性を把握する。パリ協定においてどのように REDD+を運用するか、特に Cooperative Approaches の活用が REDD+を促進するという見地から重要であり、ダブルカウントの防止等を含むクレジットの計上に関して注視する。

### (3) Gateway 提案

COP24でこれを新たに承認するかの交渉が行われることになる。問題のある提案であるが、REDD+のマーケットの議論を始める契機になる可能性も秘めているので、慎重な検討の必要性があると考えられる。コンゴ民主共和国は COP23 の閉会プレナリーにて、次回 SB 会合で自主的なコンサルテーションを行うと発言したことから、SBI48 でその動向のフォローを行う必要があるだろう。

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## 2.3 JCM-REDD+や Zero Deforestation（森林減少ゼロ）活動等に関心のある民間企業等の情報の収集・分析

### 摘要

- 平成 28 年度途上国森林保全プロジェクト推進事業でのアンケート調査、東洋経済新報社 CSR データベース 2016 年版、海外の森林保全に関する 4 つのセミナーの参加企業構成の分析を行った。
- アンケート調査からは海外での森林保全活動を行っている 96 社をリストアップすることができた。しかし 4 つのセミナーへの参加状況から推定すると潜在的には約 2 倍の数の民間企業が海外の森林保全に対し関心を持っていると推定された。
- 「森林減少ゼロに貢献するグローバル・サプライチェーンの推進に関する国際シンポジウム」にはこれまで海外での森林保全活動を行ってこなかった企業が多数参加しており、これらの企業は海外の森林保全活動の新たな担い手となりえることが期待された。一方「JCM REDD+ガイドライン説明会」への参加企業はこれまで海外での森林保全活動の経験が長い企業の参加が中心で、JCM REDD+は新たな担い手を探すよりも、すでに専門的知識と経験を持った企業と情報交換を深化させていくことがより重要であると考えられた。

### 2.3.1 はじめに

平成 28 年度途上国森林保全プロジェクト推進事業においては、東洋経済新報社 CSR データベース 2016 年版（以下「東洋経済 CSR データ」）の掲載企業 1,311 社に対して海外での森林保全活動に関するアンケート調査（以下「H28 アンケート」）を行い、148 社から回答を得た。このうち 42 社が経済活動ないし CSR 活動として熱帯地域の森林保全に現在取り組んでいると回答していた。その方法はグリーン調達によって間接的に保全を図るもの（15 社）と、自社または NGO や他事業者を介して現地で直接森林保全の取組を行うもの（30 社、以下「現地保全活動」）が多く、9 社は両者の方法で森林保全に取り組んでいた。一方 REDD+由来の炭素クレジットの取引を回答した企業は非常に少なかった（図 1）。

しかしこの調査では回答率が低かったために、海外で森林保全活動を行っている企業の一部のみしか把握できていないと考えられた。このため本年度は日本最大の民間企業の CSR 活動データベースである東洋経済 CSR データ自体のデータを活用し、直接・間接的に海外の森林保全活動を行っている企業リストを拡充させた。東洋経済社の調査手法も主にアンケートによるものだが、データ回収率が 32%と非常に高いために信頼性が高い。ただし調査項目が「CSR 全般」「ガバナンス、法令順守、内部統制」「雇用人材」「消費者・取引先対応」「社会貢献」「環境」という多岐にわたっており、森林保全活動については記録漏れがある可能性が考えられる。

一方でそもそも H28 アンケートや東洋経済 CSR データのようなアンケート手法で海外の森林保全活動を行っている／興味を持つ企業の全容を把握しきれぬのかという方法論上の問題もある。このようなアンケートで自社の行っている海外の森林保全活動を回答してくる企業は自社の活動をアピールしたい動機があり、積極的に回答をする一方、植林や REDD+事業などの経済活動を行っている企業は回答を控えるバイアスが存在している可能性が考えられる。

アンケート手法と異なる調査手法として考えられるのが、各企業の、海外の森林保全事業に関するセミナーなどへの参加者状況を調べる方法である。情報収集のためこのようなセミ

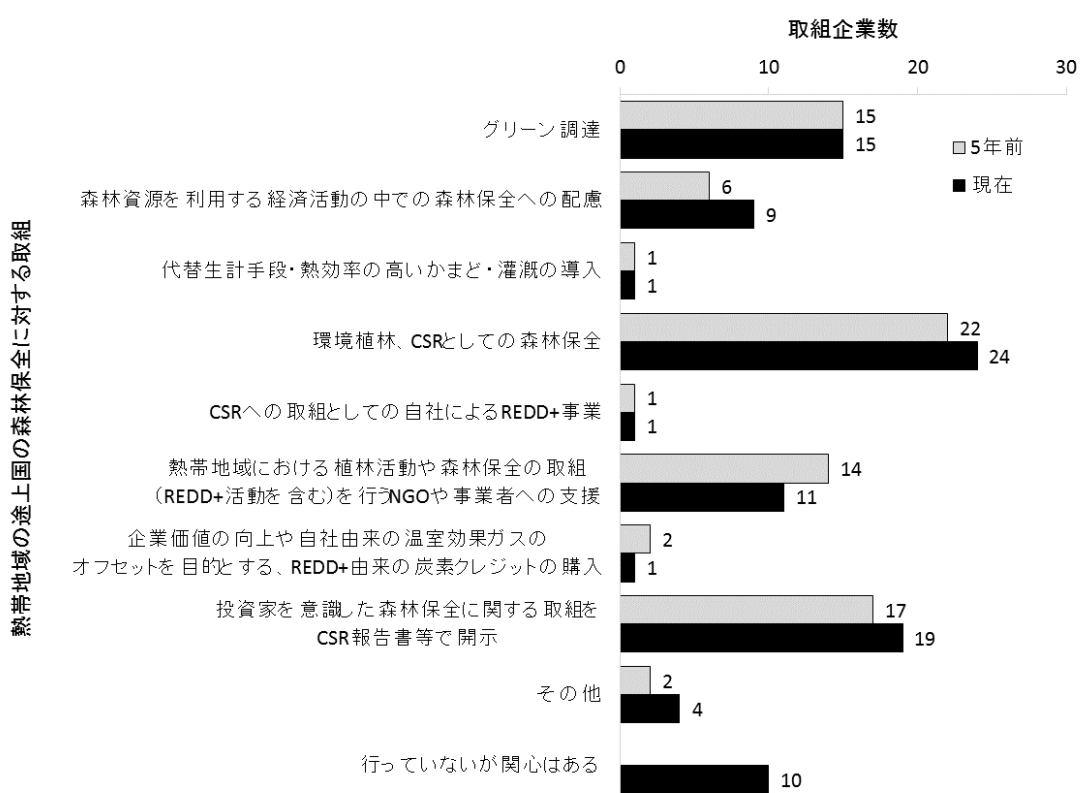


図1. 経済活動の一環または CSR 活動として、熱帯地域の途上国で取り組んでいる森林保全活動 (複数回答有) (平成 28 年度途上国森林保全プロジェクト推進事業報告書)

ナーに参加する企業は、仮に上記アンケートに何の回答も無かったとしても、海外の森林保全活動をビジネス上の利益またはリスクと捉え、関心を持っていると推定できる。このため過去のセミナー参加者名簿との比較も行った。一方でセミナーの参加による評価は、担当者の時間的・空間的都合（担当者の勤務地が東京だと参加しやすい）などにも左右されるので注意が必要である。

### 2.3.2 調査方法

#### H28 アンケートと東洋経済 CSR データの統合

東洋経済 CSR データの以下の項目の活動内容記載データから、「木」「林」「森」「RSPO」「パーム」で検索を行い、さらに抽出された活動内容の記載文を読んで、木材・紙に関するグリーン調達への取り組み、現地森林保全活動への取り組みについて記載のある企業を抽出した。

- 原材料のグリーン調達
- 環境ラベリング
- 気候変動対応についての取り組み
- 生物多様性の保全に関する取り組み
- 環境ビジネスへの取り組み

木材・紙に関するグリーン調達に関しては、原産地について特に記載がない場合でもそれが日本国内に限定されることは考えにくいため抽出対象に含め、国産材の調達を明記してある場合には除外した。一方植林など森林保全活動を行っていても、国内か海外か不明な企業は、国内で実施したと考えるのが妥当とし、抽出対象から除外した。

#### セミナー参加者分析

2016年度、2017年度に実施した以下の4つのセミナーの参加申し込み企業を調べ、アンケート調査（H28 アンケート＋東洋経済 CSR データ）との重複度を評価した。「JCM REDD+ガイドライン説明会」は REDD+事業に興味がある企業が、「インドネシアの森林管理政策・制度の現状と課題セミナー」と「森林減少ゼロに貢献するグローバル・サプライチェーンの推進に関する国際シンポジウム」にはグリーン調達に関心の高い企業が、「インドネシアの生態系修復コンセッションセミナー」には現地保全活動に興味がある企業の参加が多かったと予想された。

- インドネシアの森林管理政策・制度の現状と課題（2016/12/15）IGES 主催：参加団体数 63
- JCM REDD+ガイドライン説明会（2017/2/24）林野庁・IGES 主催、参加団体数：49
- インドネシアの生態系修復コンセッションセミナー（2017/6/15）IGES 主催：参加団体数 55

- 森林減少ゼロに貢献するグローバル・サプライチェーンの推進に関する国際シンポジウム（2018/1/23-24）林野庁主催：参加団体数：133

### 2.3.3 結果

H28 アンケートにおいて海外からのグリーン調達や現地保全活動について具体的な記載があった企業は 40 社であった。一方東洋経済 CSR データによれば、68 社が森林認証を使ったグリーン調達や現地保全活動について記載していた（表 1）。H28 アンケートの送り先企業は東洋経済 CSR データの掲載企業を用いているため調査対象の企業は同一の集団である。にも関わらず両者の重複は 12 社しかなく、H28 アンケートに回答した 40 社のうち 28 社は東洋経済 CSR データでは海外の森林保全活動は記しておらず、逆に東洋経済 CSR データで記載のあった 68 社のうち 56 社は、H28 アンケートへの回答がなかった。

H28 アンケートと東洋経済 CSR データを統合した結果、合わせて 96 社がグリーン調達ないし現地保全活動を行っていることが明らかになった。うちグリーン調達を行っているのは 63 社、現地保全活動を行っているのは 48 社であった。両者ともに行っているのは 15 社のみで、この二つの活動は大きく異なったグループが行っていた。2つのデータセットを比較すると、H28 アンケートでは現地保全活動を回答する企業が多かった（30 社：全体の 75%）であるのに対し、東洋経済 CSR データではグリーン調達を回答する企業数が多かった（53 社：全体の 78%）。

表1 H28 アンケート、東洋経済 CSR データで記載のあった森林保全活動回答企業数

	グリーン調達	現地保全活動	いずれかの活動
H28 アンケート	19	30	40
東洋経済 CSR データ	53	27	68
いずれかで記載	63	48	96

東洋経済新報社の上場版会社概要データから業種が判断できる 109 企業について、業種ごとのグリーン調達、現地保全活動に携わる企業数を表 2 に示す。グリーン調達は化学、食品、建設など直接紙や森林破壊の要因となっているオイルパームを使う企業、またそれを輸入する卸売業（主に商社）が多く実施していた。一方現地保全活動についてはより広い業種で、特に東南アジアに生産拠点を持つ機械・電気機器製造業で実施している企業が多かった。

表2 業種別のグリーン調達、現地保全活動を実施している企業数、各セミナーに参加した企業数

業種名	保全活動タイプ		セミナー		
	グリーン調達	現地保全活動	インドネシア林業政策	ゼロディフォレストレーション	インドネシア生態系修復コンセッション

建設業	5	1	4	3	2	
食料品	6	2		8		
繊維製品	2					
パルプ・紙	4		2			1
化学	9	6		2	3	
医薬品		1				
鉱業		1				
非鉄金属		1				
金属製品	1	1				
精密機器	2	1				
機械	3	6	1	1		
電気機器	5	9	2		2	3
輸送用機器	1	1			2	
ゴム製品		1		1		
その他製品	4	2	1		1	1
電気・ガス業						2
情報・通信業	2	1		1		
空運業	1			2		
卸売業	7	2	3		4	1
小売業	2	3	1	1	1	
銀行業	1			1	1	
証券業		1				
保険業	1	1			1	
その他金融業		1				
サービス業	2	1	1	3	2	1
合計	58	43	16	23	19	11

調査対象とした4つのセミナーのいずれかに参加した企業数は105社であった。このうち46社は東洋経済CSRデータ掲載の企業であったが、残りの59社は非掲載の企業であった。非掲載59社のうち5社は上場企業であったが、残りはコンサルタントや外資系企業の日本支店などの非上場企業であった。

掲載・参加の46社のうちH28アンケートまたは東洋経済CSRデータで海外での森林保全活動に関する情報が記載されているのは18社(39%)にすぎず、28社は両データセットで森林保全活動に対して情報がない企業だった(表4)。H28アンケートまたは東洋経済CSRデータで活動を記載している企業のうち、どのような保全活動を行っている企業がセミナーの参加率が高かったかを見ると、グリーン調達を行っている企業の参加率が高く(17/63社)、現地活動を行っている企業の参加率は低かった(8/48社)。また、両データセットで森林保全に対する活動について何も記載がない企業の参加割合は、4つのセミナー間でそれほど差は無かったとはいえ、ゼロディフォレストेशनセミナーで最も高かった(14/22社)一方、インドネシア生態系修復コンセッションセミナーで最も低く(8/17)、JCM REDD+ガイドライン説明会がそれに次いでいた(6/11社)。

表4 各セミナーへの参加企業数(東洋経済 CSR データ掲載企業のみ対象)

セミナー名	東洋経済 CSR データ掲載企業				非掲載
	合計	グリーン調達*	現地活動*	活動情報なし	
インドネシア林業政策	15	6	3	9	16
ゼロディフォレストेशन	22	8	4	14	37
インドネシア生態系修復コン セッション	17	9	5	8	12
JCM REDD+ガイドライン	11	5	2	6	8
いずれかに参加	46	17	8	28	-
いずれかにも参加せず	78	46	40	-	-
合計	124	63	48	28	59

\*:H28 アンケート記載情報も含む

### 2.3.4 考察

H28 アンケートと東洋経済 CSR データのデータを統合した結果、グリーン調達を行っている企業は 63 社、海外で現地保全活動を行っている企業は 48 社、合計 96 社が間接・直接に森林保全活動に貢献していることを公表していることが明らかになった。これはアンケートの送られた 1,311 社の 7%にあたる。H28 アンケート調査で明らかになったのと同様にその活動タイプは紙、木材、オイルパームなどのグリーン調達を行っている企業と、現地で植林などの森林保全活動に直接従事している企業の大きく 2 タイプに分かれていた。

アンケートに回答した企業は 2 つのアンケート調査で違いがあり、H28 アンケートでは現地活動を回答する企業が多かったのに対し、東洋経済 CSR データではグリーン調達について回答する企業の回答が多かった。これは後者のアンケートは結果から企業ランキングを作成する目的で実施されているため、企業コンプライアンスの観点からの質問が多かったのに対し、前者は企業の独自の貢献を具体的に聞く質問が多かったため、アンケートに回答する企業のタイプがやや異なったためと考えられる。このようにアンケート調査は一般に母集団の数割の回答しか得られず、アンケートに内容によって返答をする企業の層がすでにバイアスがかかってしまうため、量的な解釈が難しい。

一方セミナーの参加企業の分析は、アンケート調査よりも企業の興味関心をより客観的に観測できると考えられる。今回の分析に用いた 4 回のセミナーには 105 社が参加しており、そのうち 46 社は東洋経済 CSR データ掲載の企業であった。しかしそのうち H18 アンケートおよび東洋経済 CSR データで森林保全活動の回答・記載があったのは半分弱（18 社、39%）にしかならず、残りの企業の海外の森林保全分野への関心はこのセミナー参加者分析によって始めて明らかになったと言える。前述のように H28 アンケートと東洋経済 CSR データでは合計 96 社が間接・直接に森林保全活動に貢献していることを公表してい

たが、上記の割合から考えると、関心のある企業の数はおそらくその2倍程度存在すると推定される。

セミナーの参加率は現地保全活動を行っている企業よりも、グリーン購入を行っている企業の方が高かった。この理由としては、後者は違法伐採の排除、認証材の導入など、日本のあるいは国際的なルールがどのように規定されるかによって対応が変わってくるため、情報収集のモチベーションが高くなるが、前者の活動を行っている企業は、その活動の規模や内容などは企業の内部の事情または相手国の状況で決まることが多いためセミナーでの情報収集の必要性が必ずしも高くないためと考えられた。

また4つのセミナーの中でゼロディフォレストेशनセミナーの参加企業が、すでに森林保全活動をしている割合がもっとも低かった。ゼロディフォレストेशनの話題は日本ではまだ新しく、農業セクターを中心にこれまであまり森林に関係すると思われていなかった企業の参加が多かったためにこのような回答になったと考えられる。これらの企業は海外の森林保全活動の新たな担い手となりえることが期待される。

一方インドネシア生態系修復コンセッションセミナー、JCM REDD+ガイドライン説明会はやや専門度が高く、これまで森林保全に関心を払ってこなかった企業の関心は低かったと考えられる。後者の説明会の参加企業はこれまでもJCM REDD+実証可能性補助事業などに参加経験のある企業が多く、新たな企業の参加は少なかった。JCM REDD+を推進していくにあたっては、新たな担い手企業を探すよりも、すでに専門的知識と経験を持った企業と情報交換を深化させていくことがより重要であると考えられた。



## 2.4 森林分野の民間投資の枠組みに関する情報の収集

森林保全はこれまで、政府による公共投資によって担われてきたが、公的資金にも限界があり、必ずしも十分な効果を達成できていなかった。このため 20 世紀後半より、民間セクターの活用も期待されるようになった。森林保全に貢献する民間投資を促進するためには重要な点は、CSR や寄付行為などとは異なり、民間企業は投資がそれを上回る利益を生み出せなければ存続できないため、それを可能にする仕組みを作ることである。

その政策手段は以下の 4 タイプに整理できる (図 2-4-1)。

- ① 外部不経済の内部化 (総量排出削減など)
- ② 森林破壊的な投資の抑制 (違法伐採対策など)
- ③ 環境金融 (グリーンボンドなど) によるサポート
- ④ グリーンビジネスモデル・案件の開発

4 者は互いに補完的な関係にあり、それぞれが組み合わさることによって森林保全に貢献する民間投資が促進される。

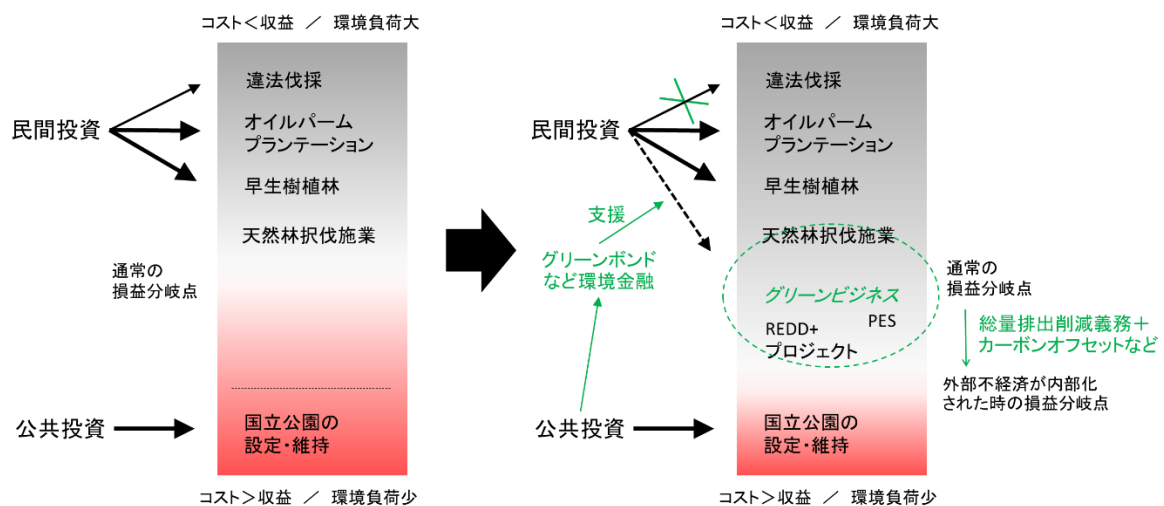


図 2-4-1 森林保全活動への民間投資促進のための政策手段

### 2.4.1 外部不経済の内部化

民間セクターの経済活動による二酸化炭素の排出に対し、海外の森林保全によってオフセットできるという考え方は、1990 年代に始まり、日本でも 2008 年に環境省がカーボンオフセットフォーラム (<http://offset.env.go.jp/>) を設立するなど、認知が高まりつつある。環境省の推定によれば、2007-2017 の 10 年間に計 1414 件のオフセットが実施された (図 2-4-2) (環境省地球環境局地球温暖化対策課市場メカニズム室 2017)。しかしその伸びは順調に伸びているとは言いがたい状況にある。REDD+による炭素排出削減は 2007 年 COP13 バリ行動計画において正式に UNFCCC で認められてから価値が生じ、現在の世界的のボランティア市場においてもっとも取引されているセクターのクレジットとなっている

る（図 2-4-3）。しかし世界的にみてもカーボン市場自体の大きさ（＝オフセットの取引量全体）は過去 10 年ほぼ横ばいを続けている（図 2-4-4）（Ecosystem Marketplace 2017）。

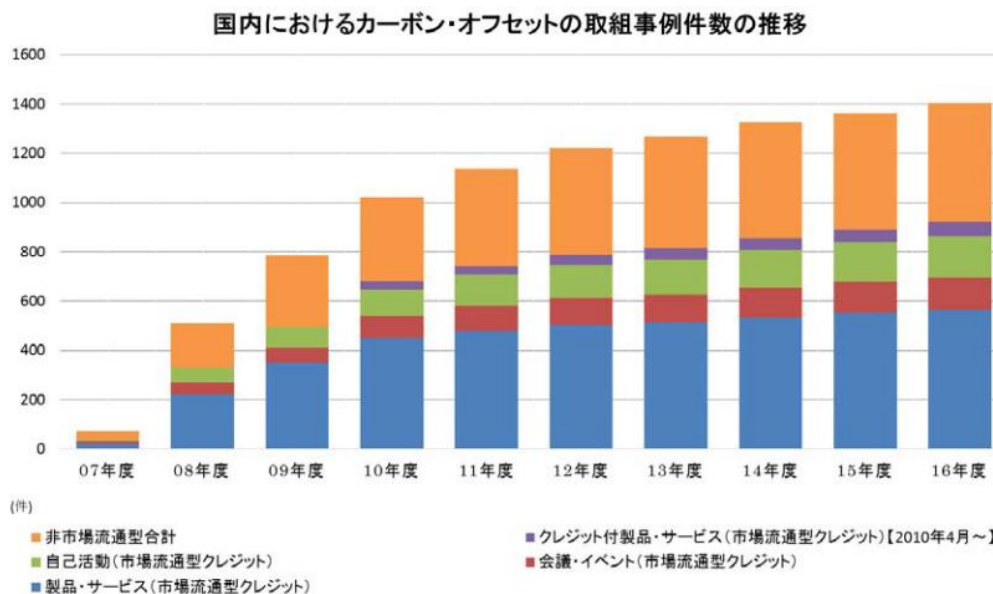


図 2-4-2 国内におけるカーボンオフセットの取組事例の累積件数の推移(環境省 2017)

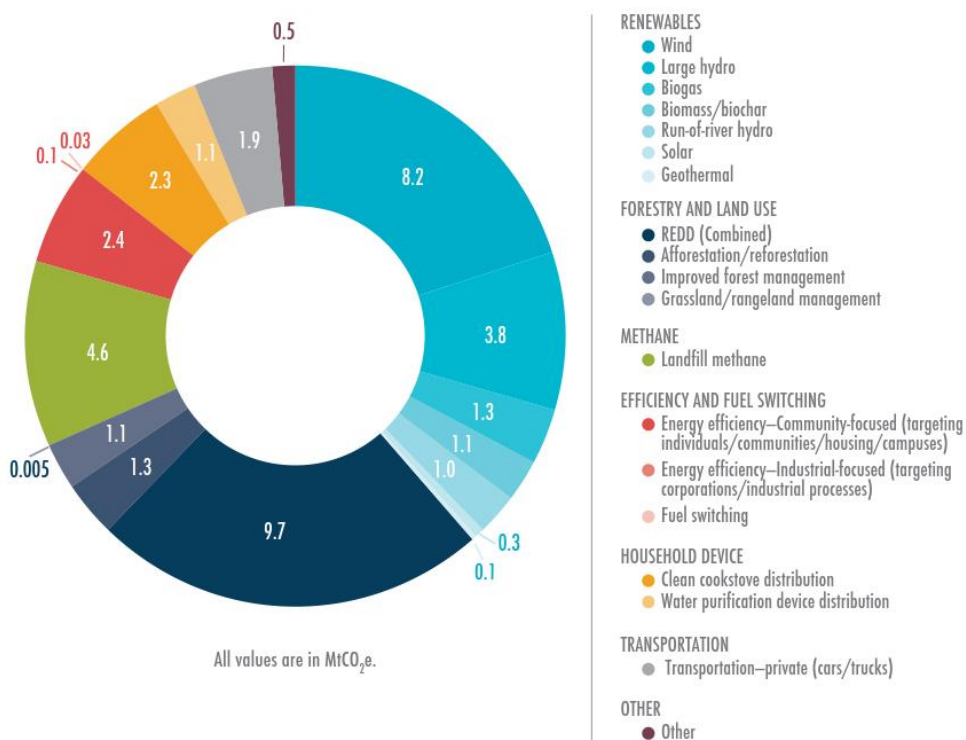


図 2-4-3 2016 年にボランティア市場で移転された炭素クレジットの構成(Ecosystem Marketplace 2017)

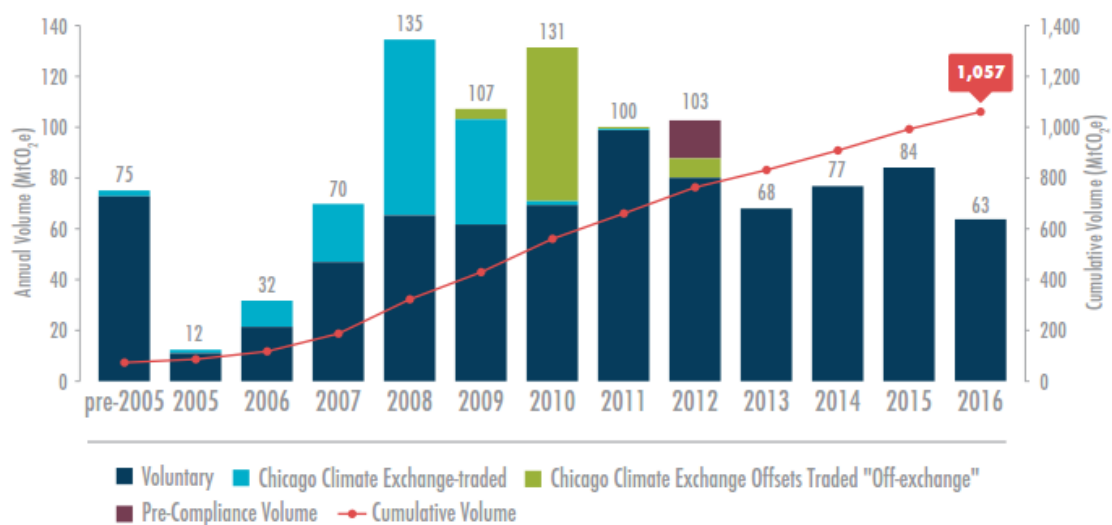


図 2-4-4 世界における市場メカニズムを活用してオフセットされた炭素の取引量推移 (Ecosystem Marketplace 2017)

民間セクターに対し温室効果ガスの総量排出削減が義務化される、または排出量に応じた炭素税が課せられるようになり、さらに海外の森林における排出削減とのカーボンオフセットが認められるようになれば、民間セクターによる海外の森林保全への投資は急速に進む可能性があるが、現時点ではそのような社会的合意には至っていない。また京都議定書レジームにおいては、途上国は排出削減義務を持たなかったため、REDD+プロジェクトによる排出権取引を歓迎したが、2015年パリ協定によって途上国自身も排出削減に努力をしなければならなくなったため、排出権の移転は困難になりつつあるといえる。

しかしながら今後緑の気候基金 (GCF) などの成果支払いを受ける途上国間の競争が本格化し、途上国が期待通りの資金を得られない状況になった場合、二国間で REDD+プロジェクトを実施し、排出権をシェアする JCM のスキームのニーズが高まる可能性は十分にあると考えられる。

#### 2.4.2 森林破壊を伴う農林産物生産の抑制

アジアでは経済成長とともに木材や紙の消費量は増加している (New Forest 2016) 一方、近年森林減少を抑えるため、木材の輸出禁止措置 (ミャンマー、カンボジア、ラオスなど) や新規プランテーション開発ライセンス発行の停止 (カンボジア、インドネシア、マレーシアサラワク州など) の政策が取られている。

さらに森林に関するニューヨーク宣言 (2014年) など、天然林を新規に伐採して作られたプランテーションからの農林作物輸入を排除する傾向は強くなりつつあり、非林地におけるプランテーション拡大には限界があるため、既存の農林作物プランテーションの生産性向上技術への需要が高まっている。

また以前は東南アジアにおける木材・商品作物生産は国有・民有のプランテーション主体で担われてきたが、栽培方法が普及するにしたがって、地域住民による生産が主体となりつつある（インドネシア・マレーシアにおけるゴムやオイルパーム、ジャワや北部ベトナムにおける早生樹生産）。一方で都市への流出による農村部の人口減少は今後進むと予測されており、林地が細分化され不明所有者が多い森林をどのように管理していくかという、現在日本の林業が直面している問題が将来顕在化していく可能性がある。このため日本の林業がこの問題の解決策を得ることができれば、将来的には東南アジア諸国の需要とも結びついていくポテンシャルが考えられる。

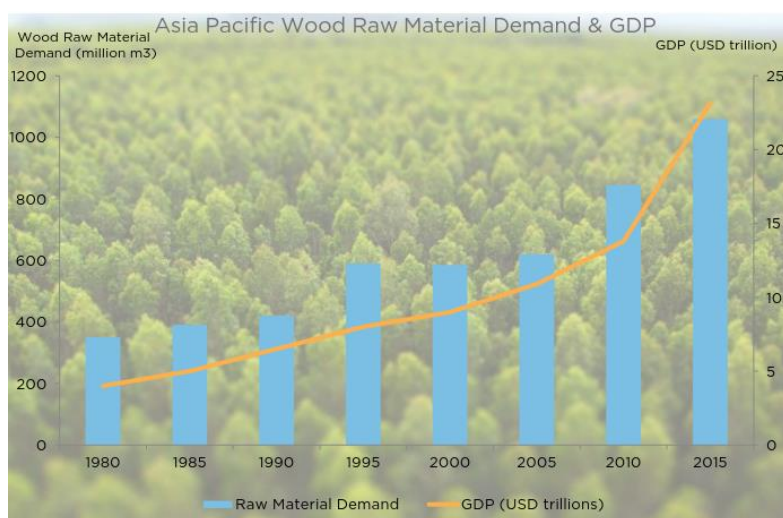


図 2-4-5 アジア太平洋地域における木材需要と GDP の推移 (New Forest 2016)

### 2.4.3 環境金融によるサポート

金融は、直接金融（株や債権への投資）と、間接金融（銀行による融資）に分類されるが、環境金融とはこの金融機能によって環境問題の改善に貢献する考え方を指している（水口, 2011）。近年、特に 2015 年の国連気候変動枠組条約 (UNFCCC) 第 21 回締約国会議 (COP21) 以降、環境金融が注目をあつめている。例えば、主要 7 カ国 (G7) のタスクフォースである気候関連財務情報開示に関するタスクフォース (Task Force on Climate-related Financial Disclosures: TCFD) でも、2016 年 12 月報告書を公表し、金融機関および非金融機関に向けて、気候変動関連のリスクや機関に関するガバナンス、リスク管理、戦略、指標および目標についての提言をだしている。

直接金融のうち、ESG 投資 (Environment, Social, Corporate Governance: ESG) については、地域・国別の ESG 投資残高において、2014 年 (18.28 兆米ドル) から 2016 年 (22.89 兆米ドル) にかけておよそ 25% の ESG 投資増加がみられる (表 2-4-1)。

表 2-4-1 ESG 投資の状況

地域	2014年 (10億米ドル)	2016年 (10億米ドル)	残高増加率
欧州	10,775	12,040	11.7%
米国	6,572	8,723	32.7%
カナダ	729	1,086	49.0%
オーストラリア/ニュージーランド	148	516	247.5%
アジア (日本以外)	45	52	15.7%
日本	7	474	6,689.6%
合計	18,276	22,890	25.2%

出展：Global Sustainable Investment Alliance (2016)を基に筆者作成

さらにグリーンボンドについては、さらにその成長は著しく、2013年から2017年の5年間で9倍程度にも増加している（図 2-4-6）。

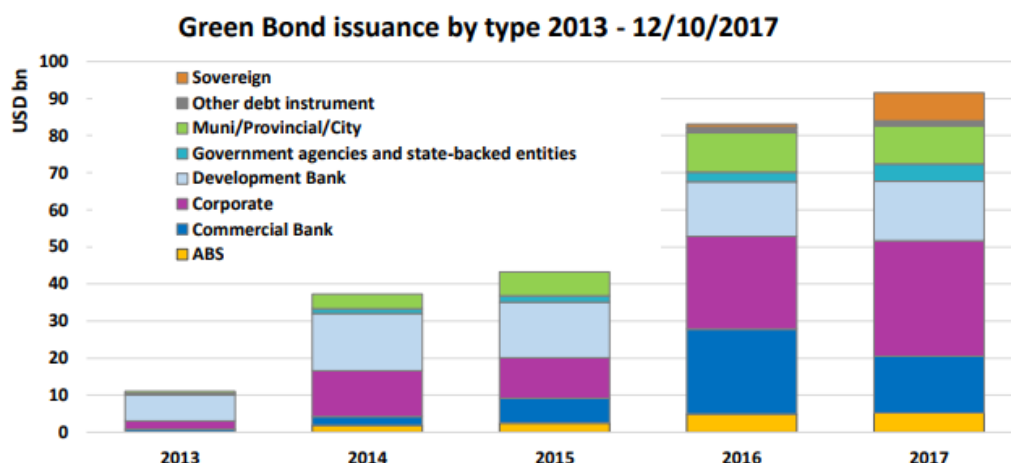


図 2-4-6 グリーンボンド発行残高の推移(2013年-2017年第3四半期)

出展：Climate Bonds Initiative (2017)

ただし、金融業界でも、「グリーン」の世界共通の定義がない中で、表 2-4-1 および図 2-4-6 のような集計を行っていることには注意が必要である。たとえば、ESG 投資の集計を行っている Global Sustainable Investment Alliance (2016) は地域別に集計をおこなっている（表 2-4-1）が、その集計方法は各地域によって異なっており、何を「ESG 投資」に含めるかというスコープも金融機関によって異なる。

表 2-4-2 ESG 投資の集計方法

日本	・ 日本サステナブル投資フォーラム(JSIF) が実施した金融機関へのアンケート結果 (28機関)
日本以外のアジア	・ 独立コンサルタントが、2013年-2015年を対象にデータ収集・分析したデータ。データ基は、Bloomberg Professional Service, Thomson Reuters, Eikonその他公開情報。
豪州及びニュージーランド	・ 主に、Responsible Investment Association Australasia (RIAA)が、69の金融機関に対して実施したアンケート調査他。資産に関する情報は、Morningstar。
カナダ	・ Responsible Investment Associationが、2015年12月31日時点での持続可能な投資資産に関してアセットマネジメント会社に請求した情報。インパクト投資に関するデータは、カナダのコミュニティー・投資・プロバイダーへのアンケート結果に基づく。
米国	・ 米国のSIF財団が、512の投資管理会社と1144の機関アセットオーナーに対して実施したアンケート調査。
EU	・ EUのSIFが、278のアセットマネージャー及びアセットオーナーに対して実施したアンケート調査。

出展：Global Sustainable Investment Alliance (2016)

また、間接金融では、グリーンローンがあげられるが、直接金融も同様に、「グリーン」の定義がなく、国際的に確立したトラッキングおよび集計方法がないが、国際金融公社 (IFC)、2014年の全シンジケートローンの総額の15%が、グリーンファイナンスであったと推計している (International Finance Corporation, 2017) (図 2-4-7)。なお、図 2-4-8 は、IFCによる国別のグリーンローンの総額 (2014年) の推計だが、日本は5番目に大きい額である。

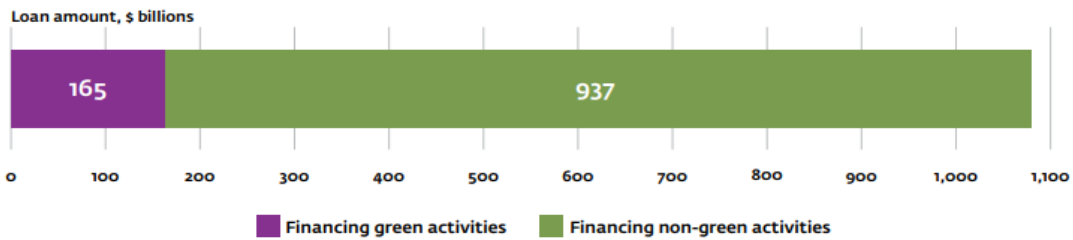


図 2-4-7 全シンジケートローンにおけるグリーンファイナンスの割合



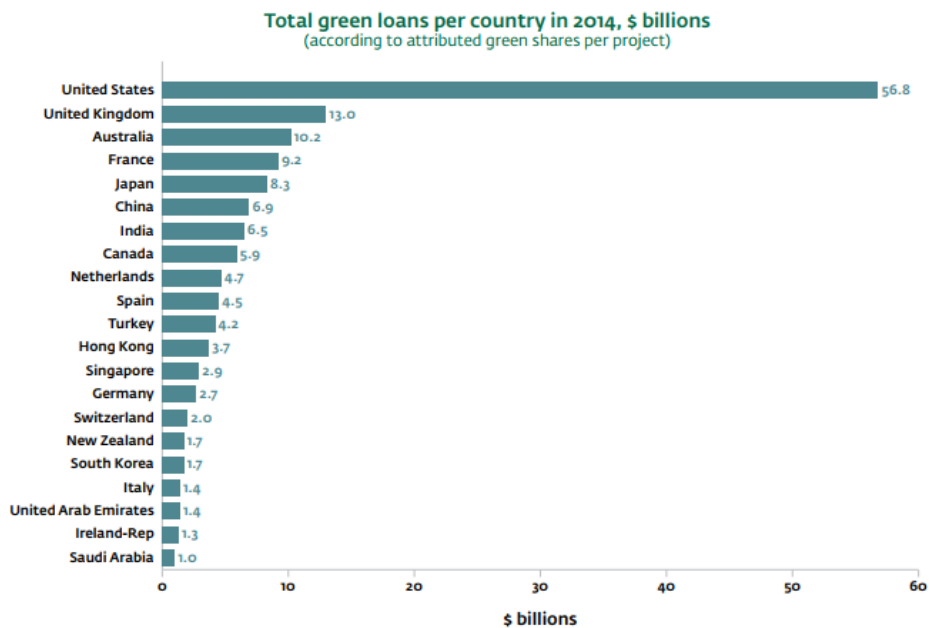


図 2-4-8 国別のグリーンローンの総額(IFC 2014 年、billion USD)

### ●環境金融と森林

International Finance Corporation (IFC)は 2010 年からグリーンボンドプログラムを始め、2017 年 6 月時点で、12 カ国で合計 58 億米ドルの起債を行っている<sup>1</sup>。その一環として森林セクターに対する世界で最初のグリーンボンドである「Forest Bond」を 2016 年 11 に設立し、ケニアの Kasigau Corridor REDD プロジェクトへの投資のために 1.52 米億ドルの起債を行った<sup>2</sup>。Kasigau Corridor REDD プロジェクトは 2011 年に世界で初めて VCS クレジットを発行した REDD+プロジェクトで、20 万 ha の面積を擁している。債券は満期 5 年で、すでに CalSTRS、Treehouse Investments LLC、TIAA-CREF、QBE などの投資企業に販売された。投資家は金銭もしくは VCS カーボンクレジットクーポンを受け取ることができ、自社のオフセットに使うことができる。CFI はその売り上げから REDD+プロジェクトに支払を行う。この Forest Bond は鉱山会社 BHP ビリトンとコンサベーションインターナショナルとともに運営されており、出資者がカーボンクレジットクーポンでなく現金を受け取りたい場合は BHP ビリトンがそれを引き取る<sup>3</sup>。

1

[http://www.ifc.org/wps/wcm/connect/corp\\_ext\\_content/ifc\\_external\\_corporate\\_site/about+ifc\\_new/ifc+governance/investor+relations/grnbond-overvw](http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/about+ifc_new/ifc+governance/investor+relations/grnbond-overvw)

2

<https://ifcextapps.ifc.org/ifcext/pressroom/ifcpressroom.nsf/0/594A016A78A7B14E8525805D00461397>

3

<https://ifcextapps.ifc.org/ifcext/pressroom/ifcpressroom.nsf/0/594A016A78A7B14E85258>

ニュージーランドにおいても荒廃地の森林回復によるカーボンクレジットを対価とするグリーンボンドが計画されている<sup>4</sup>。

一方スウェーデンの国有林の14%を管理している国营林業会社 Sveaskog は2017年11月に、そのFSC認証林からの持続的木材生産に対して約1億米ドルのグリーンボンドの起債を行った<sup>5</sup>。

これまで熱帯の林業セクターへの投資のほとんどは短期的にリターンが得られるプランテーション林業に対してであり、天然林施業に対してはわずかであった (Grulke *et al.* 2016)。しかし例えば、日本向けの木材生産をしている択伐コンセションに対し、伐採インパクトの少ない施業を導入してFSC認証などの要件を満たせば、グリーンボンドなどの融資を受けられるようなスキームが導入されれば、ゼロディフォレステーションレジームに対応した資源の安定輸入に貢献しうる。

また現在、日本は東南アジアのオイルパームプランテーション会社に対する最大のローンの貸し手となっているが (Kusumaningtyas & Gelder 2017)、これまでしばしば批判されてきたようにオイルパームビジネスが森林破壊を続けるのであれば将来的には負の財産となり、日本からのリーケージとカウントされてしまうリスクがある。このため日本の投資先、輸入元として認証オイルパームプランテーションを確保していくことが望ましいが、RSPO認証プランテーションの増加に限界があり、認証油の価格が上昇する中で、日本からのグリーンボンドが認証の初期費用を負担するようなスキームが考えられれば、日本にとって安定した認証油の確保が可能となるとともに、生産国の森林減少抑制にも貢献しうるであろう。

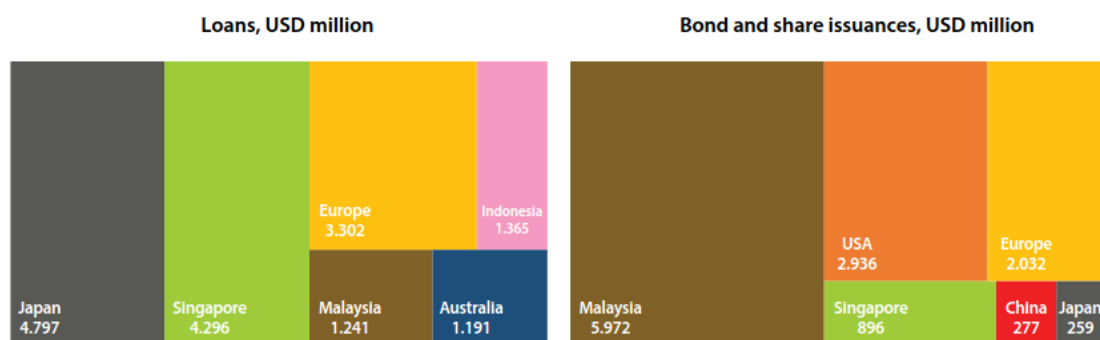


図 2-4-9 インドネシア、マレーシア、シンガポールのオイルパーム生産大手 15 社に対するローン (2006-2015 年に記録されたものの 72%)、債権 (最も最近の値) の貸し手国シェア (Kusumaningtyas & Gelder 2017)

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<sup>4</sup> <https://alternativeasset.co/forestry/green-bond-planned-for-new-zealands-forests/>

<sup>5</sup> <http://nordsip.com/2017/11/02/new-framework-for-green-bonds-in-forestry/>



#### 2.4.4 グリーンビジネスモデル・案件の開発

外部経済の内部化が義務化され、環境金融によるサポートを受けるのが容易になったとしても、森林の生態系サービスを活用し、収益を上げることができる具体的な案件が無ければ、森林分野への投資を集めることは難しい。実際に森林セクターに対するグリーンボンドや ESG 投資は非常にわずかなものにとどまっている。このため新たなグリーンビジネスモデル・案件の開発が望まれる。

IFC はラオスおよびインドネシアで早生樹プランテーション事業への投資を行い、その条件として地域住民の参加や、アグロフォレストリーの導入を促している<sup>6</sup>。地域住民は一般的に投資の回収まで長い時間がかかる林業よりも短期的に収穫ができる農業を好むが、法正林が成立するまでのコストを環境金融が負担できれば地域住民主体の木材生産が可能となるであろう。

また今後は日本でも開発が進みつつある精密林業の需要が高まっていくと考えられる。インドネシアのスマトラ島やカリマンタン島、マレーシアのサラワク州では泥炭湿地の開拓により急速な炭素放出、火災の誘発がおきている。このためこのような場所で農林作物の生産を行うためには水門を作ったうえで綿密な水位管理をすることが求められている。またカリマンタン島の天然林択伐コンセッションでは、択伐直後に林地を地図化し、補植が必要なギャップや必要な苗数を計算できるようになれば、より効率的な管理が可能になると考えられている。

#### 2.4.5 まとめ

森林セクターに対する環境金融の投資案件としては REDD+プロジェクトが注目されてきたが、パリ協定以後、国の排出削減量とのダブルカウントの問題に注意を払わなければならなくなりつつある。一方で各国の REDD+制度が完成しつつある中で、各国にレジストリーシステムと利益分配システムが整備されれば、プロジェクト実施者は MRV を国に任せて森林の回復に注力できるインセンティブが生じうる。

また炭素クレジット獲得目的以外の民間投資のニーズとして、ゼロディフォレステーション政策の恒久化により、プランテーションで農作物栽培における土地生産性の向上や、地域住民主体の生産流通システム確立の需要が考えられる。このような民間ベースでの森林管理を普及させるためにも、グリーンボンドなどの環境金融の整備が望ましい。

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<sup>6</sup> [https://www.climateinvestmentfunds.org/sites/default/files/IFC\\_FIP\\_PCM\\_June15.pdf](https://www.climateinvestmentfunds.org/sites/default/files/IFC_FIP_PCM_June15.pdf)

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### 3 提案方法論及びプロジェクト設計書等の事前審査

今年度は提案方法論及びプロジェクト設計書等の事前審査の必要性は生じなかった。

