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Jurisdictional and Nested REDD Initiative: Summary of Technical Recommendations – Version 2.0

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Part 1: Introduction and overview of jurisdictional process

1. Introduction

1.1. Purpose and organization of this paper

The objective of this paper is to recommend solutions to the issues outlined in the document *VCS Jurisdictional and Nested REDD Initiative Scoping Paper*¹ (Scoping Paper). An initial set of technical recommendations were prepared and released on 16th October 2011. The initial recommendations have been revised, based on advice and input from the Advisory Committee, Technical Experts, additional experts and stakeholders, and the outcomes from COP17/CMP7, with feedback incorporated in the current document “Summary of Technical Recommendations – version 2”. Input from the Advisory Committee and other experts and stakeholders is central to ensuring the final set of VCS requirements is informed by on-the-ground realities and is needed to establish useful and practical requirements. This document will be used to help prepare the initial draft of the new VCS rules and requirements for jurisdictional and nested REDD+.

The new VCS rules and requirements may be used in a number of ways. If a jurisdiction wants to generate Verified Carbon Units (VCUs – the carbon credits issued under the VCS) they will need to meet the rules and requirements and register their jurisdictional crediting scheme with a VCS-approved registry. A jurisdiction may also choose to adapt and apply the rules and requirements as best practice without seeking formal recognition under the VCS. In this case the rules and requirements could be read as guidance.² While the VCS is an independent voluntary standard, applying the jurisdictional and nested REDD+ rules and requirements may also serve to inform countries on operationalizing results-based REDD+ under voluntary, bi- or multi-lateral REDD efforts, the UNFCCC or another regulatory regime. It is hoped that these recommendations will help Parties to the UNFCCC and other stakeholders understand the practical details of implementing REDD+ baselines, monitoring, reporting and crediting at larger scales and using nested accounting. The implementation of a VCS jurisdictional and nested REDD+ program should also generate valuable lessons learned and facilitate a transition to an eventual UNFCCC REDD+ mechanism.

This paper is divided into four parts. Part I includes this introduction, definitions and an overview of the proposed jurisdictional cycle from jurisdictional baseline development to credit issuance. Parts II, III and IV contain the substantive detail on the recommended rules and requirements to implement jurisdictional and nested REDD+. Part II covers all the relevant steps to develop a jurisdictional baseline including deciding on scope and addressing additionality. Part III covers the subsequent steps after baseline registration that lead to credit issuance. Part IV contains issues that do not fit neatly in the other sections such as safeguards, role of government, and legal issues. For consistency and to facilitate review, the three substantive sections follow a common structure, as follows:

Each section starts with a simple title and issue statement

This is followed by a brief elaboration of the issue being considered to provide some background and context to the recommendations.

Summary of comments on recommendations

The purpose of the red section is to summarize the feedback received from the Advisory Committee and other peer reviewers. Where comments have led to revised recommendations, changes have been made directly to the recommended rules and requirements or good practice guidance.

¹ Available online at <http://www.v-c-s.org/node/296>

² For additional information on how the new VCS rules and requirements may be useful to governments, donors, and project developers please refer to the “JNRI Factsheet” available online here: <http://www.v-c-s.org/node/296>

Recommended rules and requirements

The green section contains the recommended rules and requirements, including the rationale behind the proposed approach. These recommendations will be developed into the formal VCS program documents that make up the new jurisdictional and nested REDD+ requirements.

Recommended good practice guidance

The blue section contains brief notes on possible good practice that may be developed in a separate document to the VCS program documents after the rules and requirements are completed, possibly as a second phase of the current initiative. This work may be done during or after the new standard is piloted in a number of jurisdictions to provide key lessons learned from implementation.

1.2. Methodology to develop recommendations

Jurisdictional and nested REDD+ is a simple idea in theory, but there are many different ways it can be designed and implemented, and a number of complexities that arise in practice. The complexity can increase significantly if specific rules are developed for every possible scenario and issue that may arise when a jurisdiction implements a jurisdictional and nested program. The recommendations here strive to create a system that is environmentally robust, workable, simple and consistent, while providing jurisdictions with needed flexibility and autonomy.

The recommendations in this document were developed over a period of approximately six months by a group of 14 technical experts along with the Secretariat of the Initiative.³ The 14 experts were divided into three groups which addressed the issues in Parts II, III, and IV. Each group analyzed the issues in the Scoping Paper and elaborated a series of options for addressing them. The final set of options papers totaled more than 230 pages. The options were analyzed to weigh their advantages and disadvantages before a recommendation was made. The first compilation of recommendations found in this document was put together by the Secretariat and the lead technical expert. This required some adjustments to the options and recommendations presented by the technical experts in order to bring the different sections together into a cohesive whole. The first version of the technical recommendations was then sent to the Advisory Committee, Technical Experts, and additional experts for review and comment, and a number of calls and meetings were organized to discuss the key issues and solicit feedback. Subsequently, dozens of reviewers collectively provided more than 800 individual comments and suggestions on the initial technical recommendations. All this input has been incorporated into the current version 2 of the technical recommendations, keeping in mind the overarching comment to simplify the rules and requirements wherever possible.

2. Definitions and Acronyms

The following defined terms are used in this document:

- **'AFOLU pooled buffer'**: This is the current pooled buffer used to manage non-permanence risk for VCS AFOLU projects.
- **'Baseline'**: The term "Baseline" (sometimes also called "reference level") is used herein as a general term for the rate of deforestation, degradation, or carbon stock enhancement, the location of deforestation, degradation and/or changes in carbon stock and GHG emissions, that have occurred historically or may be expected to occur in a "business as usual" (BAU) scenario. In this document, explicit distinctions are made between business as usual, crediting, and historic baselines, which may or may not be the same in practice.

³ A list of participating individuals is available online at <http://www.v-c-s.org/node/296>

- **‘Business-as-usual baseline’**: A forecast of projected changes in carbon stocks and GHG emissions for a given time period.
- **‘Co-dependency’**: Occurs when there is direct crediting to multiple scales and the performance of one scale affects the crediting of another because more VCUs cannot be issued than ERRs generated at the highest scale. For example, in jurisdictional crediting schemes, project reversals will affect the net number of ERRs generated across the entire jurisdiction, and as a result the total number of VCUs “available” to be issued to other “co-dependent” actors in the jurisdiction. Similarly a reversal within non-project areas may reduce the total number of ERRs generated across the entire jurisdiction and VCUs “available” for issuance to (co-dependent) projects.
- **‘Conservative’**: Conservative assumptions, values and procedures must be used to ensure that the GHG ERRs are not over-estimated (eg, for baselines, it is conservative to underestimate emissions and to overestimate sequestration).
- **‘Crediting baseline’**: The reference level used to estimate ERRs that are credited, in this case with Verified Carbon Units (VCUs).
- **‘Crediting scale’ and ‘scale’**: Refers to the scale at which a jurisdictional baseline can be registered under the VCS and VCUs issued. This is sometimes discussed in terms of higher or lower crediting scales where, for example, a project is one crediting scale and a subnational or national jurisdiction is another. A project is the lowest scale, a subnational jurisdiction is a higher scale, and a national jurisdiction is the highest scale.
- **‘Crediting shortfall’**: Occurs when there is co-dependency and fewer ERRs are generated across the entire jurisdiction than the sum of the VCUs claimed at each scale. For example, if a jurisdiction generated emission reductions/removals in non-project areas but a project reversal prevented sufficient ERRs from being generated across the entire jurisdiction for the jurisdiction to be fully credited for its non-project reductions.
- **‘Direct crediting’**: Refers to credits being issued directly by the VCS to a particular crediting scale. This may be a jurisdictional (national or subnational) government and/or a project nested within a jurisdictional crediting scheme, or subnational jurisdiction nested within a national jurisdictional crediting scheme.
- **‘Emission factor’**: The term emission factor is used here to refer to the emission/removal to be associated with a given unit used with the “rate” calculations in the baseline. The particular unit could be quite different depending on how the baseline is calculated, and could be expressed in a variety of ways such as per forest type, per m³ of timber extracted, per tonne of fuel wood, per cook stove, etc.
- **‘Historic baseline’**: The historic GHG emissions and/or changes in carbon stocks over some time period in the past.
- **‘Internal allocation program’**: A program developed by a jurisdiction if a jurisdiction wants to claim all VCUs generated across the entire jurisdiction and not allow direct crediting from a VCS registry to smaller scales such as nested projects.
- **‘Jurisdiction’**: An area defined as such for the purposes of the VCS jurisdictional and nested REDD+ rules and requirements. This could be an eco-region or other region defined by the federal government or a government administrative area, such as a nation, state, province, region, department or district. See section 6.1 for additional details on how a jurisdiction may be defined.

- **‘Jurisdictional crediting scheme’**: A scheme established by a national or subnational government and registered under the VCS that defines and operationalizes rules and requirements to enable crediting of REDD+ policies and measures and/or nested projects.
- **‘Jurisdictional pooled buffer’**: The account managed by the VCSA (or VCS registries) containing non-tradable buffer credits and used to cover reversals of carbon stocks associated with credits issued to jurisdictions and nested projects.
- **‘Multiple crediting scales’**: Where VCUs are issued to multiple scales (eg, VCUs issued directly to both a nested project and the jurisdiction itself, or a subnational jurisdiction and a national jurisdiction).
- **‘Nested activity’**: This may refer to a project nested under a subnational or national crediting scheme, or a subnational jurisdiction nested under a national crediting scheme.
- **‘Nested project’**: A project registered under the VCS that falls within a jurisdictional crediting scheme registered under the VCS.
- **‘Nested subnational jurisdiction’**: A registered subnational jurisdictional crediting scheme (that may or may not include an internal allocation program) which falls within a national jurisdictional crediting scheme that is also registered under the VCS.
- **‘Non-performing entities’**: An entity that suffers a reversal. This may be a jurisdiction where the reversal occurred in non-project areas or a project where the reversal occurred within the project boundary.
- **‘Non-permanence risk’**: The risk that forest carbon stocks will be lost and a reversal will occur.
- **‘Non-project areas’**: Forest areas outside project boundaries that are used by a jurisdiction to generate VCUs, eg, as a result of ERRs generated through the implementation of government policies and programs. This can be applied *mutatis mutandis* to areas outside a subnational jurisdiction boundary that are used by a national jurisdiction to generate VCUs.
- **‘Performing entities’**: An entity that reduces emissions or increases removals compared to the baseline scenario.
- **‘Rate’**: The term rate is used here to refer to the annual quantity of deforestation, degradation or carbon stock enhancement occurring. Rate will most often be expressed as an annual area or percentage of an area (eg, hectares per year) but could be, especially for degradation and carbon stock enhancement, an annual volume (eg, m³ of timber per year). Other metrics, where justifiable, would be allowable.
- **‘Reversal’**: Where credits have been previously issued from an area and where net reported emissions in the MRV period for the area exceed those in the baseline, resulting in ‘negative’ emissions for that MRV period.⁴
- **‘Single crediting scale’**: Where VCUs are issued to only one scale (eg, a jurisdiction with an internal allocation program that does not allow direct crediting to projects).

⁴ The current VCS definition of reversal is: “A situation where the net GHG benefit, taking into account project emissions, removals and leakage, in any monitoring period is negative. The amount of a reversal is calculated as the difference between the current total to date net GHG benefit of the project, compared to the total to-date net GHG benefit of the project at the previous verification event” (VCS Program Definitions, p 9)

- **‘Subnational jurisdiction’:** A jurisdiction operating below the national-level jurisdiction (eg, state, province, region, department or district – see section 6.1 for additional detail).

Acronyms are avoided wherever possible. However, for simplicity some acronyms are used:

- **ERR:** Emission reduction and/or removal (of GHGs)
- **GHG:** Greenhouse gas
- **IPCC:** Intergovernmental Panel on Climate Change
- **JNRI:** (VCS) Jurisdictional and Nested REDD+ Initiative that will produce new VCS requirements (an expansion of the standard) to enable jurisdictional and nested REDD+ crediting
- **MRV:** Monitoring, reporting and verification
- **UNFCCC:** United Nations Framework Convention on Climate Change
- **VCS:** Verified Carbon Standard
- **VCSA:** Verified Carbon Standard Association (the entity that manages the VCS)
- **VCU:** Verified Carbon Unit (the credits issued under the VCS to both projects and jurisdictions)

3. Overview of jurisdictional cycle

This section provides a high level overview of the proposed VCS jurisdictional and nested REDD+ rules and requirements and how they could be applied. Specific details on technical issues are addressed in the main body of the document. The technical recommendations allow three scenarios for applying the new rules and requirements, with differing degrees of flexibility given to a jurisdiction within each scenario. The choice of which scenario is most appropriate is left to the jurisdiction and a jurisdiction’s choice may evolve over time. For example, the jurisdiction may start off by defining a jurisdictional baseline to support stand-alone project activities and then evolve into a jurisdictional crediting scheme at the national and/or subnational scales.

All three scenarios start with developing a baseline covering a jurisdiction (jurisdictional baseline). This requires defining the jurisdictional boundary (section 6.1) and choosing the activities (sections 5.2 and 6.2) and pools (section 5.3) included in the baseline. After this initial step, the program cycles diverge based on the individual scenario chosen by the jurisdiction.

3.1. Scenario 1: Jurisdictional baseline with standalone project crediting

This is the simplest scenario for a jurisdiction. In this scenario, once the jurisdictional baseline is registered (section 6.2) projects (or subnational jurisdictions, where the national jurisdiction is using Scenario 1) may use the higher scale jurisdictional baseline for their own activities that are subsequently registered with the VCS. If the jurisdictional baseline is spatially explicit (eg, for unplanned deforestation) the smaller-scale (eg, project or jurisdictional) baselines would be “cookie cut” out of the larger jurisdictional baseline (section 6.2). If the jurisdictional baseline is not spatially explicit, the same data sources and emission factors used at the higher scale would be used to calculate the smaller-scale baseline (section 6.8). The VCS rules applicable to that smaller-scale are used to conduct MRV, estimate leakage, address non-permanence risk and calculate VCUs etc. Non-permanence risk is addressed via the AFOLU pooled buffer account currently in use for VCS AFOLU

projects, or the jurisdictional pooled buffer for smaller-scale jurisdictions. In Scenario 1, there is no MRV at the higher jurisdictional scale or issuance of VCUs for any areas outside the boundary of a smaller-scale jurisdiction or project registered with the VCS (e.g., no VCU issuance for emission reductions or removals on non-project areas within the jurisdiction).

As an example, a jurisdictional baseline is developed for province A. Province A does not want (or is not able to) claim VCUs for emission reductions or removals achieved across the entire jurisdiction. Each individual project uses the registered jurisdictional baseline and achieves project registration with the VCS. Each project then conducts MRV, leakage assessments etc. and is issued VCUs. The jurisdiction itself does not receive any VCUs. In effect, this scenario allows for standalone projects that are benefitting from the establishment of a consistent, broader scale baseline. The jurisdictional baseline helps reduce the transaction costs and promotes environmental integrity for a number of REDD projects being developed within the jurisdiction.

It should be noted that under this scenario a national baseline may also be registered and a subnational jurisdiction could develop and register a subnational baseline, jurisdictional crediting scheme, and/or internal allocation program. In such cases, the subnational baseline would be developed based on the broader national baseline. The subnational system could follow either Scenario 3 or Scenario 2, based on whether credits will only be issued to the subnational jurisdiction or if nested projects will also be credited.

3.2. Scenario 2: Jurisdictional crediting scheme with direct crediting to nested activities

In this scenario a jurisdiction develops and registers a jurisdictional baseline (section 6.2) and jurisdictional crediting scheme (section 9.4). This allows a jurisdiction to claim VCUs for ERRs generated across the entire jurisdiction, plus allows nested projects or nested subnational jurisdictions to also have VCUs issued to them directly by a VCS registry (sections 9.4, 9.5, 13). The jurisdictional crediting scheme can be developed and registered either simultaneously with a jurisdictional baseline or at a later point in time. The jurisdictional crediting scheme contains a number of important elements such as approval procedures, additional requirements for nested activities and policies to address leakage within the jurisdiction (section 9.4). Jurisdictions would also need to provide information on how social and environmental safeguards were being applied (section 11) and how “right of use” will be demonstrated (section 13) to allow the jurisdiction to claim VCUs from non-project areas. Once the scheme is registered, smaller-scale activities can use the jurisdictional baseline for their own activities which are then registered with the VCS. MRV is conducted across the entire jurisdiction and at the smaller scale (section 7), and both the jurisdiction and smaller-scale activities may be issued VCUs directly by a VCS registry (section 9.5). A jurisdictional pooled buffer addresses non-permanence risk and any crediting shortfall risk (section 10).

This scenario can be implemented to allow crediting to projects only (ie, no crediting of non-project areas), or crediting to both non-project areas within the jurisdiction plus projects (after subtracting for leakage and buffer withholding). In both cases, VCUs are issued for all claimed emission reductions or removals occurring across the jurisdiction after subtracting for leakage and buffer contributions. Credits issued to the jurisdiction for ERRs in non-project areas may also be allocated according to internal allocation plans set by the jurisdiction. What separates Scenario 2 from 3 is that Scenario 2 enables direct VCU issuance to nested projects whereas Scenario 3 does not.

As an example of the first option, a jurisdictional baseline is developed for province B. Province B wants to stimulate private sector investment in projects but does *not* want to claim VCUs for non-project areas within the jurisdiction. It does, however, intend to conduct MRV across the jurisdiction and wants to ensure that project leakage and any reversals/losses within the jurisdiction are accounted for. This therefore differentiates it from Scenario 1 where there is no jurisdiction-wide MRV. The jurisdiction develops a jurisdictional crediting scheme that allows direct crediting for projects but does not claim any VCUs for non-project areas. Each individual project uses the registered jurisdictional baseline and achieves project registration with the VCS (while applying certain additional

rules set by the jurisdiction – see section 9.4. Each project then conducts leakage assessments, MRV, etc. and is issued VCUs. The jurisdiction also conducts leakage assessments, MRV and a streamlined version of the jurisdictional non-permanence risk tool (section 10). If there is a loss in non-project areas that affect the number of VCUs generated across the entire jurisdiction, this is compensated by the jurisdictional pooled buffer and projects are still issued their VCUs.

As an example of the second option, a jurisdictional baseline is developed for province C. Province C wants to claim VCUs across the entire jurisdiction for ERRs generated by the REDD+ policies and programs it implements plus stimulate private sector investment in projects. It develops a jurisdictional crediting scheme that allows crediting to both the jurisdiction and projects simultaneously. Each individual project uses the registered jurisdictional baseline and achieves project registration with the VCS (while applying certain additional rules set by the jurisdiction). Each project then conducts leakage assessments, MRV, etc. and is issued VCUs. The jurisdiction also conducts leakage assessments, MRV, risk assessment etc. and is issued VCUs. Any reversals in non-project areas that affect the number of VCUs generated by the jurisdiction are compensated by the jurisdictional pooled buffer, enabling projects to still be issued their VCUs. Similarly, project reversals are covered by the jurisdictional pooled buffer, which enables the other REDD+ projects and the jurisdictional government to receive their full allocation of VCUs (section 9.5).

3.3. Scenario 3: Jurisdictional crediting scheme with internal allocation program

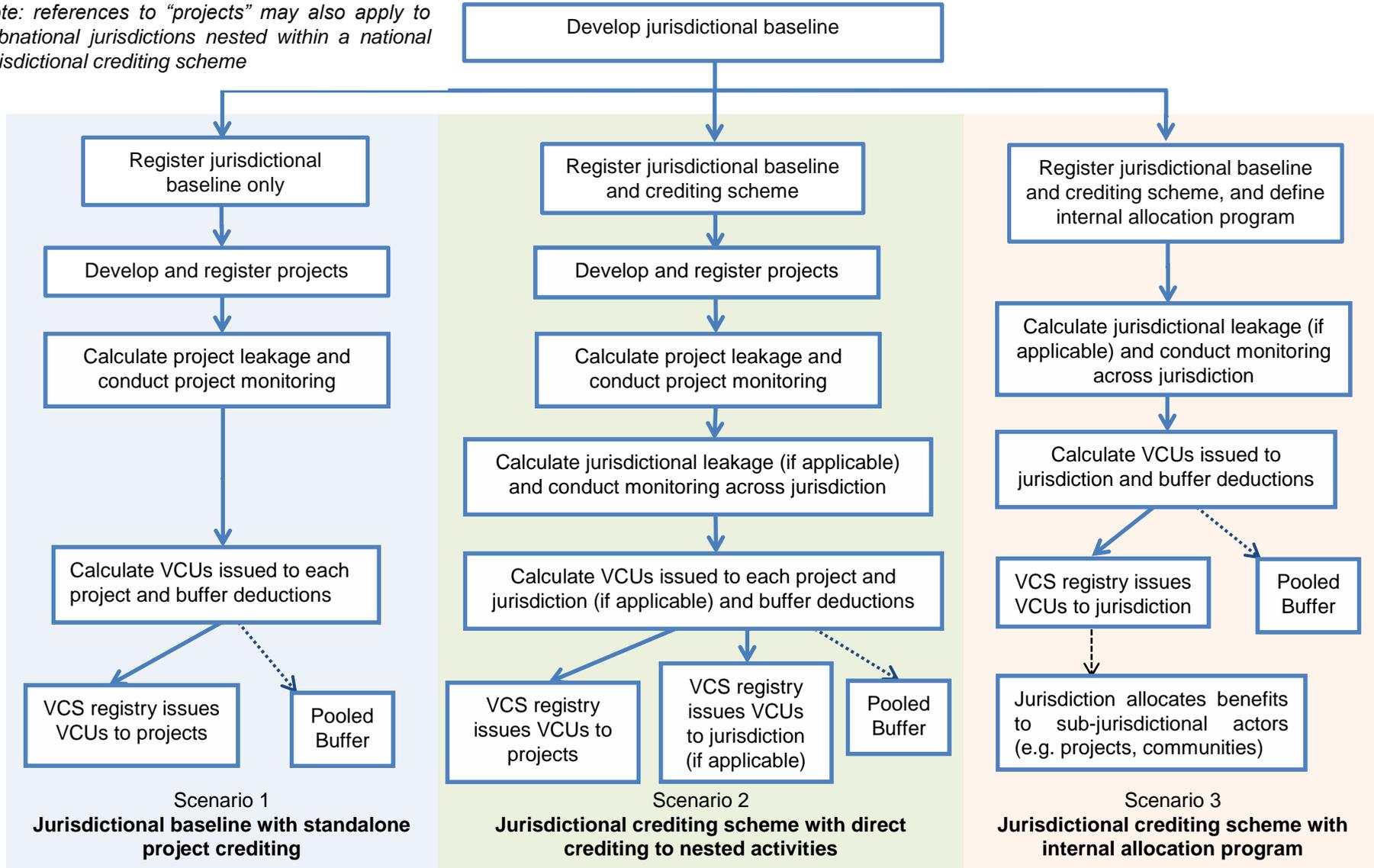
This scenario requires a jurisdiction to develop and register a jurisdictional baseline (section 6.2), crediting scheme, and internal allocation program (section 9.4). It allows jurisdictions to claim VCUs for ERRs generated across the entire jurisdiction, but does not allow direct crediting to projects or subnational jurisdictions nested within it (section 9.5), which is what distinguishes it from Scenario 2). The jurisdiction is issued all VCUs and is responsible for re-allocating credits or other benefits to participants (including project developers) or stakeholders within their jurisdiction (section 9.4). As with Scenario 2, the jurisdictional crediting scheme and internal allocation program may be developed and registered either simultaneously with a jurisdictional baseline or at a later point in time. Similar to Scenario 2, the jurisdictions would need to provide information on how safeguards were being applied (section 11) and the existence of a “right of use” to allow the jurisdiction to claim VCUs (section 13). In addition, the jurisdiction would be encouraged to spell out how internal allocation decisions would be made and operationalized (ie, how the benefits would flow and in what form to the sub-jurisdictional REDD+ actors). Because smaller-scale activities will not be registered with the VCS, the jurisdictional crediting scheme is not required to contain information on approval procedures, additional requirements for nested activities, or addressing leakage within the jurisdiction (section 8). MRV is conducted across the entire jurisdiction (section 7) and the jurisdiction is issued VCUs from a VCS registry. Reversals are addressed via the jurisdictional pooled buffer (section 10).

As an example, a jurisdictional baseline is developed for province D. Province D wants to claim VCUs across the entire jurisdiction for policies and programs it implements. This includes its own payment for the ecosystem services scheme that involves paying for the protection of forest under threat along with the conservation of less threatened forests that may not be eligible to receive VCUs under the VCS. It develops a jurisdictional crediting scheme and internal allocation program that documents these plans and demonstrates the jurisdiction has a right of use over the forest areas falling under the payment for ecosystem service scheme. Province D conducts leakage assessment, MRV etc. and is issued VCUs. It then either distributes these VCUs to participants in the domestic scheme or sells the VCUs and uses some or all of the proceeds to fund the payment for ecosystem services scheme. The choice is up to the jurisdiction.

See figure 1 for a flow diagram outlining the three scenarios.

Figure 1: Overview of jurisdictional and nested REDD+ crediting scenarios

Note: references to “projects” may also apply to subnational jurisdictions nested within a national jurisdictional crediting scheme



Part II: Defining scope and setting baselines

4. Guiding principles

The VCS program is governed by a core set of principles⁵, including conservativeness, accuracy and transparency. These same principles should apply to the requirements and supporting program elements developed under JNRI.

5. Scope

5.1. Accounting method

Issue: For jurisdictional accounting, should the VCS continue with the current activity based approaches, or allow (or even require) landscape accounting?

LULUCF accounting under the Kyoto Protocol and AFOLU accounting under the VCS are currently categorized based on specific activities – ie, emissions/removals from the defined activity (such as reforestation or avoided deforestation). If there are emissions or removals that are due to activities outside the defined activities, these emissions or removals are simply not included. The alternative approach is landscape-based accounting, whereby all emissions and removals occurring within a landscape unit (eg, jurisdiction) are accounted for regardless of the activity that caused them (see additional description in Annex 1). Landscape accounting approaches can be costly and there can be challenges with achieving adequate precision.⁶

Summary of comments on recommendations

There was some support for the concept of a landscape approach and for evolution through time towards landscape accounting. However, the difficulty lies in the integration of activity based (which is currently what VCS REDD+ projects are following) and landscape-based accounting approaches. At this time it was determined that under Scenario 3 (ie, where such compatibility issues are not relevant) jurisdictions should be allowed to determine how this integration occurs and so should be free to elect any form of accounting, including landscape based approaches.

Rules and requirements

To maintain compatibility and allow nested crediting, where activity-based accounting is being used to directly credit REDD+ projects, (ie in Scenarios 1 and 2), jurisdictions shall be required to use activity-based accounting. However, if requisite precision requirements (see Section 7.3) can be achieved, jurisdictions operating under Scenario 3 (ie, where projects are not directly credited) may use landscape accounting approaches.

Note: Activity-based accounting will not prevent a jurisdiction from accounting for its forests in accordance with IPCC categories of forest converted to non-forest, forest remaining forest, and conversion of non-forest to forest.

Recommended good practice guidance

⁵ Available at http://www.v-c-s.org/sites/v-c-s.org/files/VCS%20Program%20Guide%2C%20v3.0_2.pdf, Section 3
Available at http://www.v-c-s.org/sites/v-c-s.org/files/VCS%20Program%20Guide%2C%20v3.0_2.pdf, Section 3

⁶ An example of a type of landscape approach is the US Government's Forest Inventory and Analysis (FIA) program which forms the basis for US reporting to the UNFCCC. The FIA costs US\$80 million each year and achieves at the State level (large Jurisdiction) a sampling error equivalent to the 67% confidence level (as opposed to the 95% confidence level required by the current VCS project standard). It should be noted that even at this high cost the US FIA does not include interior Alaska which has access issues similar to many areas of tropical forests.

None

5.2. Eligible activities (RED, REDD, or REDD+)

Issue: Which activities should be included in a jurisdiction's baseline and crediting scheme?

The UNFCCC and VCS divide REDD+ up differently (see Annex 2 for a breakdown of the different activities and their relationship). Which activities should be included in the VCS standard for jurisdictional and nested REDD+?

Summary of comments on recommendations

There was some demand to require degradation to be included either immediately or after several years. The commenters were concerned with the completeness of accounting and ensuring all potential leakage was captured. Several questions focused on what happens when degradation precedes deforestation so that for the same parcel of land both degradation and deforestation could be recorded in the same baseline period.

At this time, it was determined not to include requirements with regard to requiring the inclusion of degradation. However, all significant sources of emissions should be included, unless there is justification for excluding them. Costs associated with its inclusion could be prohibitive to jurisdiction participation. Instead full consideration of leakage is required to ensure that, for example, decreasing deforestation is not increasing degradation.

Where degradation precedes deforestation in the same parcel in the same baseline period it is recommended to account only for deforestation as the same total emissions would occur whether deforestation occurs in one step or multiple steps. This allows identical reductions to be recorded and excludes the chance of double-counting.

Recommended rules and requirements

The new VCS jurisdictional & nested REDD+ standard will cover the VCS activities of:

- Reduced emissions from deforestation and degradation (REDD)
- Improved forest management (IFM)
- Afforestation, reforestation and revegetation (ARR)

Note: Peat activities are discussed under the carbon pools section immediately below.

IPCC guidance (which will likely inform any future UNFCCC international climate agreement) underpins the requirements of the VCS jurisdictional and nested REDD+ standard. All IPCC forest-related categories are covered, specifically:

- Conversion of forest to non-forest;
- Forest remaining forest; and
- Non-forest converted to forest.

However, for the purposes of VCS jurisdictional and nested REDD+, these activities are discussed in terms of the UNFCCC REDD+ activities – albeit with the exception of conservation of non-threatened carbon stocks. This is broken down as follows:

- Reduced emissions from deforestation
- Reduced emissions from degradation (which also includes most VCS IFM activities)
- Carbon stock enhancement (eg, through ARR, assisted natural regeneration and one VCS IFM activity - low productive to high-productive forest)

It will be up to each jurisdiction to choose which activities will be accounted for within their specific REDD+ program. The following requirements will be in place to ensure choices are conservative:

- All significant sources of emissions should be included. If any emissions that represent more than 10% of total emissions are not included, an explanation must be provided justifying why they are not included. If these excluded emissions increase by more than 50% when the baseline is updated they must be included in the updated baseline.
- Forest sequestration activities may not be included in a jurisdictional baseline if emissions from deforestation are not also accounted for.
- Where deforestation is included but degradation is not, methods must be in place to account for possible leakage from deforestation to degradation (see section 8.1).

Note that projects may include – using the existing VCS project-based accounting rules -- activities not included in the jurisdictional baseline. For example, a project occurring in a jurisdiction with a jurisdiction-wide deforestation baseline may decide to create their own degradation baseline and generate (i) jurisdictional credits from deforestation and (ii) project-level credits from degradation from the same project (though the areas defined as deforestation and degradation could not overlap).

Recommended good practice guidance

Guidance may be provided on how to select an optimal set of permissible activities based on eg, available historical remote sensing imagery, capacity of the jurisdiction for executing the MRV, existing deforestation and forest degradation threats and historical rates.

A Tier 1 (as defined in IPCC 2006) assessment of emissions to determine which activities to include is suggested. Additional guidance on such assessments may be provided.

5.3. Carbon Pools and GHGs

Issue: Which carbon pools and GHGs should be included?

The following pools can be accounted for in VCS forest carbon project activities: i) above ground biomass; ii) below ground biomass; iii) dead wood; iv) litter; v) soil carbon; and vi) wood products. The VCS requires projects implemented on peatlands to follow additional Peat Rewetting and Conservation (PRC) requirements, to address specific hydrological issues and the addition of the (usually very significant) soil carbon pool. The following sources of GHGs are also normally accounted for in the VCS project standard: i) fossil fuel emissions; ii) fertilizer emissions; iii) non-CO₂ biomass burning emissions; iv) emissions from manure management; and v) non-CO₂ emissions from wetlands/flooded lands.

How should this current list of carbon pools and GHGs be treated in the jurisdictional context? Can/should fossil fuel, fertilizer and manure applications be tracked at the jurisdictional scale? Should projects be required to follow the pools and GHGs accounted for in the jurisdictional baseline? Can projects add a pool (such as soil carbon) where it is not included in the jurisdictional baseline?

These issues were analyzed under two broad options; i) government decisions dominate and projects (or lower level jurisdictions) must quickly follow the higher level (eg, national) schemes; or ii) allow flexibility to include more pools at the lower scale, which requires direct crediting at the lower scale when more pools/sources are selected compared to the higher scale.

Summary of comments on recommendations

Some commenters wanted projects to be allowed to include more pools than the jurisdiction. The purpose was to give more freedom to projects to make their own cost benefit decisions on inclusion of pools. The current technical recommendations do not allow differences between projects and jurisdictions in pool choices because it opens up a range of new complications such as pool-specific baselines, pool-specific leakage that would have to be developed for projects with more pools than the immediately higher jurisdiction. This would add significant complexity to jurisdictional and nested REDD+ accounting which is inconsistent with an overarching objective to simplify the rules and requirements where possible. It will, however, be reconsidered in any future updates to the jurisdictional rules and requirements.

Rules and requirements

Jurisdictions set the pools that they include in their baseline. Subnational jurisdictions can include additional pools in their subnational baseline that are not included in a national baseline. Projects cannot expand the jurisdiction's selection of pools. If there are forested peatlands (or peatland forests would be created with afforestation/reforestation and/or with changes in drainage) within a jurisdiction then for those specific areas soil carbon must be included. In addition, the following overarching rules and requirements would apply for jurisdictions:

- The choice of carbon pools/sources must be conservative, ie, pools that are at risk of decreasing (relative to the baseline) due to program/project activities cannot be excluded.
- There should also be an option to exclude pools/sources where they are insignificant. Without this, baseline setting and monitoring could be unnecessarily burdensome.

With regard to determining the significance of pools/sources, the current VCS AFOLU Requirements set de minimus (insignificance) at 5% (ie, individual emissions sources need not be accounted for if they represent less than 5% of total project emissions), and allow methodologies to determine how to calculate this. To allow more flexibility for jurisdictions, it is recommended that significance be defined as 10%, rather than 5% for jurisdictional accounting. While this is consistent with IPCC guidelines for projects, the IPCC guidelines do not clearly state what significance is at a national level.

Peat should be treated as a sub-section of the soil carbon pool and be subject to the same conservativeness/significance tests as any other pool. However, should peat be included in a jurisdictional program, further rules and requirements, like those in the VCS AFOLU (project) Requirements will be required for baseline setting and monitoring to assure that the unique properties of the pool are handled correctly.

Recommended good practice guidance

Guidance may be needed on the appropriate selection of pools depending on individual national and sub-national (incl. project) circumstances, based on the fact that only some pools/sources are likely to be significant while others could be conservatively ignored. A method to determine what constitutes de minimus could be explained in the good practice guidance.

6. Jurisdictional baselines

6.1. Jurisdictional boundary

Issue: How is a "jurisdiction" defined?

Boundaries of jurisdictions define the extent over which the baseline is established and MRV is conducted. In addition, explicitly defining the boundaries of jurisdictions enables the VCS to ensure overlap between jurisdictions is avoided. Therefore, the VCS must keep a record of all boundaries of all registered jurisdictions.⁷

The technical analysis on how to define a jurisdiction was broken into the following key issues:

- Should there be a minimum size of jurisdictions?
- Should jurisdictional boundaries be allowed to cross administrative boundaries (eg, following ecosystem boundaries)?
- Should the boundary of a jurisdictional baseline or a jurisdictional crediting scheme be allowed to contain holes?
- Should jurisdictional boundaries be allowed to consist of multiple and non-contiguous parts?
- How can jurisdictional boundaries be defined and registered?

⁷ Note that defining boundaries of a jurisdiction does not automatically imply that all the land within the boundary is eligible for crediting. See section 9.4

Summary of comments on recommendations

A number of reviewers commented that only allowing administrative boundaries the first level below the national was too rigid. This was for two reasons: i) some countries are planning to develop subnational units for REDD+ based on eco-regions; ii) the first level below the national level does not give sufficient flexibility for a number of countries.

Additional comments were received on determining boundaries in disputed areas or areas where the administrative boundary is unclear, cutting new holes in the boundary in subsequent updates of the baseline, whether or not to allow multiple levels of nested jurisdictions, and whether a subnational jurisdiction should have a minimum size threshold to minimize leakage. Most comments were roughly consistent with their recommended changes, which are incorporated below. However, a minimum geographic size is still not included in the definition of an acceptable jurisdiction. The VCSA may revisit this in the future if very small jurisdictions (that may raise concerns regarding environmental integrity) are observed.

Recommended rules and requirements

A national government is free to decide boundaries for subnational jurisdictions and submit this allocation to the VCSA (see section 12.2). The determination of subnational boundaries must be precise and cannot result in overlapping subnational jurisdictions.

If a national government has not made any decision on subnational jurisdictional boundaries, jurisdictions shall follow existing administrative (ie, politically defined) boundaries rather than ecosystems or other forest type designations. The smallest jurisdictional boundary is the second administrative level below the national level. For example, this would be a municipality in Brazil (ie, one administrative unit below the state) or regency in Indonesia (ie, one administrative level below the province). No minimum size of a jurisdiction is imposed because (i) this could be difficult to set and apply to smaller countries; and (ii) the complexity of jurisdictional crediting and approval requirements will likely lead to a de facto minimal size.

Under exceptional conditions, holes within the boundaries are allowed when the baseline is initially developed such as when land is either inaccessible and not at risk of leakage, not under the jurisdiction's control (eg, due to civil unrest), or the political boundaries concerning the land is disputed. However, disputed boundaries may be included if the parties subject to the dispute can agree on a boundary for the purposes of the VCS. If the precise boundary of an administrative unit is unclear, the national government must provide written approval of the boundary (see section 12.2). Holes cannot be created when a baseline is renewed.

Multiple administrative subdivisions such as several municipalities may form one jurisdiction for the purposes of VCS accounting and crediting, as long as the administrative units are adjacent to each other to manage leakage.

To minimize complexity only 1 level of jurisdictional nesting is allowed, with the higher level responsible for deciding how jurisdictional and project nesting occurs within the jurisdiction. Any ineligible sub-national jurisdictions would be incorporated into the larger jurisdiction, but subject to the grandparenting rules (see section 6.3.1). For example, if a country is divided into states which are divided into districts, a district may be considered a jurisdiction and it could be nested within a state, which could develop its own jurisdictional scheme so long as the country was not participating. If the country decided to register a baseline for the entire country the national government would be responsible for determining whether the eligible subnational jurisdiction within the country was a state or district. If the country decided it was the state, the grandparenting rules would apply to any registered district level jurisdictions irrespective of whether or not they were nested within a state's scheme. If the country chooses the district as the subnational unit, the state level programs would be dissolved once the grandparenting periods expired. The districts within these states could be developed as jurisdictions, subject to relevant national level rules.

Jurisdictions must provide exact geographic coordinates of their boundaries to the VCS (eg, in kml format). The VCS must verify that there is no overlap with existing registered jurisdictions before registering a new jurisdiction. The description of the boundary is made publically available.

Recommended good practice guidance

The guidance will contain recommendations on determining the appropriate jurisdictional boundary. This should take into account issues such as the amount of control or authority a jurisdiction has over the forest land and other relevant land falling within a jurisdiction.

6.2. Developing a jurisdictional baseline

Issue: How is a jurisdictional baseline developed?

Developing a jurisdictional baseline is one of the key elements of a jurisdictional and nested REDD+ crediting scheme. A number of issues associated with developing a baseline are contained in this section including:

- What should be included in a jurisdictional baseline?
- How are historic emissions/removals calculated?
- What sort of baseline is used to estimate ex-ante ERRs? Is this based on (i) the historic rates of deforestation, ii) projected rates of deforestation, iii) a jurisdiction's own efforts to reduce emissions (potentially as part of the projected rates); or iv) be set as a crediting baseline that is below the BAU baseline?
- How is "location" calculated in unplanned deforestation baselines?
- Who is involved in developing a baseline?

6.3. Scope of Baseline

Issue: What is the scope of a baseline?

This is the first step in developing a jurisdictional baseline and addresses issues such as: How should the baseline be divided between activities? Should there be a separate baseline for each of deforestation, degradation and carbon stock enhancement? Should these broad activities be further divided? What activities should be included in the baseline? For each activity is it sufficient at the jurisdictional level to use only a rate, or must rate be paired with an emission/removal factor? Is there a requirement to specify location?

Summary of comments on recommendations

Feedback was predominantly focused on three areas:

- Exclusion of non-anthropogenic emissions – initial R&R suggested identification of areas of non-anthropogenic natural disturbances and exclusion of these areas from the baseline. However, many commenters pointed out the complications with determination and justification of such areas and potential for gaming. The text has now been changed so that such emissions would not be excluded except in the case where a particular event has caused emissions to occur with a long return interval such that they could be present in the baseline but not in the project case – such as significant hurricanes or geologic (ie, volcano, landslide) impacts.
- The separation of planned and unplanned deforestation – this was an issue that led to confusion so a new Annex (Annex 3) was created to better explain the issue and the rules around this relaxed.
- Overlap between project categories. The predominant issue was degradation preceding deforestation. The concern for the VCS is potential double counting. So if within the same baseline period within the same boundaries degradation will precede deforestation then only deforestation should be examined – the same total number of emissions / emission reductions will be accounted. If only degradation will occur during the baseline period only degradation should be examined – noting that when the baseline is updated the forest may be

re-categorized as being at risk of deforestation if this is expected to occur in the next baseline period.

More specification is now provided on non-anthropogenic emissions and more justification on the remaining issues (see also separate planned deforestation Annex 3).

Rules and requirements

A jurisdictional baseline may be broken down into any of the broad activities discussed in section 5.2 on scope. These are the UNFCCC REDD+ activities expressed as i) reducing emissions from deforestation; ii) reducing emissions from degradation; and iii) carbon stock enhancements⁸.

It may also be further divided into specific VCS AFOLU activities where doing so provides jurisdictions with flexibility and potential cost savings in carbon accounting. (See Annex 2 for a comparative breakdown of these different activities).

Irrespective if a baseline follows UNFCCC REDD+ or VCS project activity categories, the following criterion shall always be met:

- The overall baseline emissions for the jurisdiction shall not be exceeded by the aggregate of all activity baseline emissions selected by the jurisdiction.

Where broad UNFCCC REDD+ activities are divided into specific VCS AFOLU activities the following criteria shall be met:

- The single activities must be explicit and non-overlapping spatially within a given baseline period⁹ with the exception of enhanced carbon stocks in areas deforested in the baseline;
- Deforestation activities must be comprehensive (ie, a jurisdiction cannot select only planned or only unplanned deforestation);
- Different activities do not have to be comprehensive within broad degradation or sequestration activities.¹⁰

In all jurisdictions following Scenario 1 a deforestation baseline shall be divided between planned and unplanned deforestation if planned deforestation exceeds 10% of annual historic deforestation.¹¹ In the context of jurisdictional schemes, planned deforestation shall be defined as legally permissible, and authorized by the relevant authorities, deforestation exceeding 200 ha in area and for a single post-deforestation land use. To simplify tracking, patches smaller than 200 ha can be assumed to be associated with unplanned activities, and should be classified as such.

⁸ Sustainable forest management and conservation of forests are considered included under these three categories.

⁹ Degradation may precede deforestation but where a specific area is identified as subject to deforestation in the baseline period the same emissions will be recorded and the system is simpler and less at risk of double counting.

¹⁰ For example, within degradation a jurisdiction may elect to focus on timber harvesting but not fuelwood collection (except where associated with leakage), or afforestation may be included but not the enhancement of stocks of existing forests.

¹¹ The rationale for the specific rules and requirements separating planned and unplanned baselines when crediting occurs directly to projects is that planned deforestation may bias spatial baselines and all subsequent project-level carbon accounting for unplanned deforestation. This is because future planned deforestation activities are much less constrained by location than unplanned deforestation activities. The mere existence of a spatial location baseline for planned activities will immediately influence the location of new activities, negating the concept of a spatially-explicit baseline. This bias can only be avoided if planned deforestation is excluded from any spatial baseline. This issue is not relevant if only the jurisdiction is credited, since the total number of credits claimed by the jurisdiction will not be biased. It should be noted that, in line with the current VCS AFOLU requirements, projects (even if nested) can continue to include planned activities in their spatially explicit baseline if they can demonstrate that such activities would have occurred within the project boundary.

Instances of forest loss in the historic reference period shall be excluded from calculation and projection of rate of deforestation and associated emissions where they represent:

- Massive one-off infrastructure projects ($\geq 1,000$ ha of forest loss from the footprint of the infrastructure itself - such as the flooding for a new dam or the footprint of a new mine);
- Massive ($\geq 1,000$ ha) forest loss due to geological (ie, volcano or landslide) or hurricane impacts that have a return interval of >10 years.

The area associated with this historic loss will be clearly identified and future removals from the area shall not be included in the jurisdiction's accounting. The area may be included in the jurisdiction's baseline in a future update when the forest has recovered to its natural state.

Recommended good practice guidance

Good practice guidance should be developed on how best to analyze historic emissions and drivers of emissions to help jurisdictions determine what categories and activities should be included.

Good practice guidance should also be included on whether and how to divide the UNFCCC REDD+ activities or UNFCCC activities into VCS AFOLU activities. Costs and benefits may be elaborated.

6.4. Historic emissions/removals

Issue: How are historic emissions/removals estimated?

This is the second step in developing a jurisdictional baseline. It covers: What data may be used to create a historic baseline for different activities? Must remote sensing be used in all instances? What resolution of remote sensing imagery is acceptable and what accuracy of forest/non-forest differentiation? What stratification must occur? What would be the criteria for using techniques that do not use remote sensing imagery? What criteria should be in place for creating emission and removal factors?

Summary of comments on recommendations

Feedback was received on the specific technical requirements for setting baselines, as well as feedback on a number of issues that overlap with other sections in this document. Where overlapping, responses are given in the other sections-- eg, comments on planned deforestation are in the baseline scope section, non-anthropogenic emissions are addressed in both the natural disturbance and baseline scope sections and the MRV section addresses uncertainty deductions.

Rules and requirements

For Activity-Based Accounting:

General:

- A historical level of emissions must be calculated for each selected activity.
- The calculation of historical emissions of activities must be conservative.¹²
- For Scenario 1 the spatial location of activities under unplanned deforestation must be identified across a baseline period.
- Delineating the spatial location of unplanned degradation activities is optional.
- Rates for activities under unplanned deforestation must be determined using remote sensing (RS) imagery.
- Rates for all other activities may use RS imagery, but are not required to. Examples of other data sources that could be used include surveys, relevant statistics, inventories, etc.
- If the jurisdiction is nested within a higher-level jurisdiction, the activity rates must be assigned according to the rules and requirements for nesting. (see section 6.3)

Estimating activity rates and/or emission levels using remote sensing imagery:

¹² Conservative is relative to ultimate net ERRs. A conservative emissions baseline will underestimate baseline emissions and a conservative sequestration baseline will overestimated baseline sequestration

- All land use and land-use change (LULC) maps created using RS imagery and used for calculating activity rates must have a final spatial resolution of not greater than [100m x100m]. Imagery with a coarser resolution (eg, 250m x 250m) can be used to verify forest cover in areas with very low probability of deforestation such as areas distant from roads and forest frontiers (unmanaged forests – see definition below).
- The minimum mapping unit (MMU) size of the LULC maps created using RS imagery shall not be more than one hectare irrespective of forest definition.
- Land cover maps must be created using a forest stratification and LULC system¹³ with unambiguous and non-overlapping LULC classes and forest strata. Jurisdictions may further divide lands into sub-classes as long as each class is distinct and unambiguous. Areas where forest systems are present that have cyclical changes in forest cover, such as slash and burn systems, short-rotation managed forests, and temporarily unstocked forests, must be present in a separate stratum if their average carbon stock is significantly lower than the stock in the original forest.
- Remotely-sensed spatial data from at least three points in time taken from a similar season¹⁴ within the last 10 years must be present in the series. At least 2 years shall separate each of the three data points. Additional data points (including older data points) beyond the three may be included in the series. Where data from more than three points in time are available within the 10 year period, but not used to estimate the baseline, reasons for excluding any additional data points from the final analysis must be justified.
- Areas of a LULC map within the historical series may be classified as “unknown” due to involuntary gaps in the original RS data, including cloud cover, dust, smoke, or banding. However, such areas should be incontrovertibly forest or non-forest. If an area in an original image has gaps, one of the following two approaches shall be followed:
 - It is allowed to combine multiple RS images within a ± 12 month period to create one single LULC map.
 - Rates may be calculated by averaging pixel-based rates calculated from a large set of individual images.

In addition, forest areas may be systematically excluded where it can be justified that the forest area is ‘unmanaged’. Unmanaged forests are defined as forests that are located >50 km from roads, navigated rivers and/or from existing cleared forests. Alternatively, a jurisdiction may create its own definition of managed forest on the condition it leads to a conservative baseline estimation.

- The most recent point in time of the historical series must be within two years of the baseline period start date. The LULC map created from this point will serve as the ‘benchmark map’, indicating which areas are forest and non-forest at the start of the baseline period. An accuracy test is required for the forest benchmark map. The accuracy test requires a minimal accuracy of 80% for the distinguishing forest vs. non-forest classes.
- Calculated rates must be gross rates.

Estimating historical activity data not based on RS imagery

Historical activity data for some activities may be based on other data sources than RS imagery, including social surveys, governmental and non-governmental records. These data sources may be used as long as it can be demonstrated that they yield activity rates that are conservative.

Emission/Removal Factor Creation

Activity data must be converted to emission levels using an emission/removal factor.

- The calculated emission and removal factors should have a precision (determined by the half width of the confidence interval) of no more than 15% at the 95% confidence level. Where this

¹³ A Land-use and land cover (LULC) class is a broad land class, while a forest stratum is a subdivision within the forest LULC class.

¹⁴ The season may vary for different strata within the Jurisdiction. For example areas with high cloud cover will likely be examined during the dry season but areas of deciduous forests will have to be examined during the season when leaves are present

standard is not met an appropriate confidence deduction shall be applied. Locations of new field measurements used to calculate carbon stocks must be selected without bias.¹⁵ Existing inventory data may be used as long as it can be demonstrated that the data accurately represent strata within the jurisdiction.

- Field measurements used to calculate carbon stocks must have been collected within 10 years prior to the crediting period start date.
- Default data may be used for minor pools in the determination of emission/removal factors. Minor pools shall be defined as pools representing <15% of the total stock.

For Landscape Accounting

Where landscape accounting is elected for jurisdictions operating under Scenario 3, historic emissions will be calculated from changes in stocks. The precision requirement (determined by the half width of the confidence interval) is equal to no more than 25% at the 95% confidence level. Where this standard is not met an appropriate confidence deduction shall be applied.

Recommended good practice guidance

Excellent resources already exist that provide general guidance on the use of remote sensing analysis for mapping deforestation (eg, appropriate existing VCS REDD methodologies, the GOFCC GOLD guidebook). Guidance specific to the VCS would be drawn from these.

6.5. Establishing a baseline to estimate ERRs for crediting

Issue: What sort of baseline should be used to estimate ex-ante ERRs and VCUs?

The third step is to determine how to set a baseline that is used to estimate ex-ante ERRs and issue VCUs. This is referred to here as the crediting baseline. Should it be based on international agreements such as commitments under UNFCCC? Where no such commitments exist should the baseline be the historic average? Or should a projection be allowed based on increases through time or changes in for example population or GDP?

Summary of comments on recommendations

Substantive feedback was received on means for projection, how to balance various possible baselines and justification of conservativeness, how to deal with an official international baseline and the issue of crediting baselines.

Commenters feared giving jurisdictions the option to choose an upward trending emissions baseline may allow gaming, to the detriment of the atmosphere. The new rules and requirements require jurisdictions to present multiple potential baselines and justify the selected baseline.

Commenters feared that an internationally-agreed baseline could be a means to select a lower baseline than would result from the VCS process. Now the requirement is that the more conservative baseline is selected of the international and VCS baselines.

Commenters requested the freedom to allow the establishment of a crediting baseline that is more conservative than “business as usual”. This is now allowed.

Rules and requirements

Where no baseline has been established under the UNFCCC for the purposes of crediting or compensation in a results-based mechanism the baseline under the VCS shall be calculated from analysis of the historic baseline. This calculation can include adjustments to reflect national circumstances such as a projection based on changes in variables such as population estimates and

¹⁵ Plots must be allocated statistically. Allocation shall be random or systematic. It shall be demonstrable that measurements are representative of all included areas.

economic factors (eg, GDP or commodity prices) and other variables for which credible projections are available.¹⁶

- Jurisdictions shall present a minimum of two potential baselines and shall justify the selected baseline. The following baseline options shall be those presented:
 - Historical annual average from the previous 10 years;
 - A historical trend (increasing or decreasing) from at least the last 10 years based on changes through time.
- The baseline should take into account any relevant commitments by the jurisdiction to reduce emissions or increase sequestration within the jurisdiction that are not intended to be financed via market mechanisms (including certain types of nationally appropriate mitigation activities that are undertaken as “own effort” and not intended to be financed through market mechanisms).
- Significant committed future emissions from infrastructure projects (such as planned hydroelectric dams) may be included in the baseline. This may only occur when:
 - Committed forest loss will exceed 1,000 ha;
 - The planned activity has received all approvals required to commence; and
 - Either a) the activity causing the emissions has already commenced (construction is underway) or b) $\geq 80\%$ of required finances are demonstrably in place.The area associated with this future loss will be clearly identified when the baseline is developed, and any future emissions or removals associated with it will be ignored.
- A jurisdiction may adopt a crediting baseline that shall be more conservative than the selected baseline subsequent to consideration of “own efforts”.
- At baseline update the VCU's received during the previous baseline period should be added to the historic data to account for emission reductions resulting from REDD+ intervention.
- The baseline shall be fixed for 10 years, and must be updated and/or renewed after 10 years (see section 6.5 on updating/renewing baselines).

Where baseline has been established under the UNFCCC (or an alternative scheme for domestic or international compliance for the purposes of issuing credits or compensation in a results-based mechanism):

- The established baseline must be considered in the determination of the crediting baseline under the VCS jurisdictional crediting scheme for the corresponding activities.
- The established baseline shall be compared against the baseline determined using the steps above. The more conservative of the compared baselines shall be adopted for the purposes of crediting under the VCS.
- Where an internationally established baseline is adopted:
 - The duration of the jurisdictional crediting baseline shall be equal to the baseline under the UNFCCC (/ alternate scheme).
 - The data used for justification during negotiations for the UNFCCC (/ alternate scheme) baseline will form the basis of the division of the baseline into separate jurisdictional baselines. All activities included in the UNFCCC (/ alternate scheme) baseline shall be included under the VCS jurisdictional baseline. Where activities are not included under the baseline then an independent baseline can be developed. In addition, it is allowed to further split up the baseline into activities identified in 6.3, as long as the sum of the baselines for each of the activities remains equal to the UNFCCC (/ alternate scheme) baseline.
 - Where a UNFCCC (/ alternate scheme) baseline was established, a jurisdiction must adopt the activity rates and emission factors that were the basis for the baseline.

¹⁶ A projection approach is valid when: 1) there is greater certainty in projection of the correlated independent variable than of deforestation; 2) the trends in the independent variable precede trends in deforestation.

Recommended good practice guidance

Good practice guidance would be provided on how to project a baseline rate into the future and how to demonstrate a statistically significant projection.

6.6. Estimating the “location” of an activity under the baseline for unplanned deforestation

Issue: Where a location of emissions or removals is required in the baseline how is this to be determined?

This issue relates to unplanned deforestation baselines that are spatially explicit. How is the predicted location of future deforestation estimated? What must be included in the analysis? What form must the analysis take?

Summary of comments on recommendations

Feedback on Section 6.2.4 was limited but focused on the need and practicality of location analysis. Additional explanation has been included in the new Annex 3.

Rules and requirements

A location analysis (ie, a geographical allocation of a total quantity of deforestation within the jurisdiction) is required only for unplanned deforestation in jurisdictions following Scenario 1. Under Scenarios 2 and 3 a location analysis is good practice but is not required.

The location analysis shall be based on modeling the likely location of deforestation based on consideration of the impact of factors influencing deforestation in historic analyses (eg, distance from existing deforestation, distance from roads, rivers or towns, distance from mills, slope, elevation etc.)

It is not permitted to include location in the jurisdiction baseline for any planned activity. The rationale is that planned deforestation/degradation activities are relatively unconstrained by the location. In addition, setting a location-specific baseline may influence the location of future planned deforestation activities.

If the location analysis predicts a specific area will be deforested in the [10] year baseline period, then crediting for other activities cannot occur on the same area except for the enhanced stocks of the forests that would otherwise be absent.

Recommended good practice guidance

The good practice guidance could explain how land-use change modeling can be used to extrapolate historical deforestation observations into the future. A number of existing VCS REDD methodologies include methods to project the spatial location of deforestation and/or forest degradation into the future. The procedures in these methodologies are a good guidance for the spatial extrapolation.

6.7. Stakeholder participation in baseline development

Issue: Who is engaged when a jurisdictional baseline is developed, and how?

Who is engaged when a jurisdictional baseline is developed, and how?

Summary of comments on recommendations

This section was previously captured in section 4 on guiding principles. Some concerns were raised over whether this may create some confusion regarding how these principles may be applied in practice. The text below was adapted from the text on developing jurisdictional crediting schemes and internal allocation plans contained in section 9.4.

Recommended rules and requirements

In its documentation describing the jurisdictional baseline, the jurisdiction shall include information on how the jurisdictional baseline was developed. This information must include information on transparency and consultation with stakeholders (as set out in section 11 below) and a statement that the development of the jurisdictional baseline complied and will comply with domestic law.

Recommended good practice guidance

The REDD+ Social & Environmental Standards (SES) could be pointed to as guidance.

6.8. Multiple baselines at different scales for the same forest

Issue: How to deal with baselines at different scales occurring over the same forest?

The issue of how to treat different baselines developed at different scales for the same patch of forest can arise when:

- A larger-scale baseline is developed that covers existing smaller-scale baseline(s). For example, a jurisdictional baseline is developed that covers an existing VCS project. This is often discussed in terms of “grandparenting” the existing baseline into the new baseline.
- A smaller-scale baseline is developed in an area that already has a larger-scale baseline. For example, a state with a jurisdictional baseline allows new projects to be developed within the jurisdiction.

In either of these situations, it is possible that the ERR estimates for the same forest may differ. This can cause a number of issues, such as smaller-scale baselines (or credits issued against them) not “adding up” correctly compared to the larger-scale baseline. The two scenarios above are each discussed separately below.

6.9. Grandparenting

The technical team developed and analyzed five options for how to deal with existing baselines when a larger-scale jurisdictional baseline is developed. These were:

- Grandparent for a set number of years
- Grandparent for the period the smaller-scale baseline is valid
- Grandparent the smaller scale for the full crediting period of the project
- Allow the higher scale jurisdiction to choose the length of time grandparenting is allowed (with or without minimum and maximum times set by the VCS)
- Require reconciliation immediately (no grandparenting)

Summary of comments on recommendations

Two options for grandparenting were presented – fixing the period or allowing flexibility. Feedback was mixed between the options, with further variances between how long grandparenting should be allowed. The simplest (and fairest) option that gives sufficient certainty to all parties seems to be fixing the grandparenting period for projects and jurisdictions to equal the period of time until their baselines would have normally been updated. Opinions differed on how to address discrepancies between VCUs calculated by a smaller-scale baseline and a larger scale, but a majority indicated a preference to keep the system simple without punishing smaller scale early movers.

Recommended rules and requirements

Smaller-scale baselines remain valid for a set period of time before being replaced by the larger-scale baseline. During this time period the smaller-scale project or jurisdiction will be able to use their original baseline for calculating ERRs that occurred within their original boundary (ie, prior to any leakage calculations)

The period of time a baseline is valid for shall equal the number of years remaining before the baseline was due to be updated.

If the smaller-scale baseline has a different scope (ie, RED(D)(+) category or carbon pools included) than the larger-scale baseline, these rules and requirements only apply to those activities overlapping with the larger scale.

Any differences between the number of ERRs estimated at the smaller scale and the larger scale can be ignored.¹⁷

Once the smaller scale has been incorporated into the larger scale:

- Any activities within the smaller-scale baseline that are not yet included in the larger-scale baseline may continue
- If the smaller-scale baseline contains pools not accounted for in the larger-scale baseline, these pools do not need to be monitored or accounted for any longer.¹⁸

Recommended good practice guidance

Guidance should be given to higher-scale jurisdictions on how to calculate their baseline across the jurisdiction while incorporating grandparented smaller-scale baselines. Holes may be cut in the broader baseline and the emissions and / or sequestration present in the baseline in these holes will have to be considered when calculating the full jurisdictional baseline.

6.10. Establishing a new smaller-scale baselines within a pre-existing jurisdictional baseline

Issue: How is a new baseline developed within an existing jurisdictional baseline?

What happens when a smaller-scale baseline is developed within a larger-scale baseline? Specifically, what if the smaller scale wishes to use more robust input data or more localized factors and the smaller-scale analysis results in a baseline that is different to the larger-scale baseline? The technical team focused on two options: (i) maximize use of the jurisdictional baseline; and (ii) allow divergence across scales.

Summary of comments on recommendations

No comments were received on this section, though some minor edits were made based on revisions made to other sections.

Recommended rules and requirements

For unplanned deforestation projects with a spatially explicit larger-scale baseline

The smaller-scale baseline shall be identical to the larger-scale baseline but cut to the relevant area; identical deforestation pixels shall be applied for each baseline year for both the higher and lower scales. Where the smaller-scale has more refined carbon stock data, these data shall be incorporated at the larger-scale for the relevant strata or, if chosen, for a newly created substratum.

For all other activities or unplanned deforestation projects where the larger-scale is not spatially explicit

No spatial baseline will exist so specific baselines shall be required and developed for the smaller scale and will be subject to approval by the jurisdiction. Such baselines shall use the larger-scale

¹⁷ This is on the basis that i) it will be very hard to determine which baseline is more accurate; ii) any differences in emissions are likely to “net out” across the system; and iii) this approach is consistent with the objective of simplification where there is no clear loss of integrity. The VCS will monitor these differences, and if over time there appears to be a systematic bias this rule may be revised.

¹⁸ If they were significant they would be included in the jurisdiction’s baseline. Allowing the projects to continue to get credits for these pools would create additional complexity around MRV just for these pools, including leakage.

emission factor and/or removal factor but will calculate project-specific activity data and prove project-specific additionality. For activity data, the jurisdiction should, where applicable, require the smaller scale to use the same data sources to enhance correlation between the two baselines. In addition, the smaller scale shall use the same method of baseline development as the jurisdiction (e.g. historical average / historical trend / projection based on socioeconomic factors). Where the smaller scale has more refined emission factors or removal factors these shall be incorporated at the larger scale.

If the smaller-scale baseline is for unplanned deforestation, a spatially explicit baseline may be developed at the smaller-scale.

For all activities

If a new smaller-scale baseline is registered in the middle of a baseline period for the larger-scale, the larger-scale emission factors or removal factors shall be updated at the beginning of the next baseline period.

Recommended good practice guidance

None

6.11. Projects straddling a jurisdiction

Issue: What happens to projects that straddle or cross the boundary of a subnational jurisdiction?

It may be possible that an existing VCS REDD+ project crosses the boundary of a subsequently developed jurisdictional baseline and/or crediting scheme. This could result in part of the project area falling within a jurisdiction and some outside of it. The neighboring jurisdiction could also subsequently develop a jurisdictional scheme, which could result in a project falling in two (or more) separate jurisdictional schemes. The project and jurisdictions may all have different approaches to setting baselines which raises issues for a jurisdictional system.

The technical team developed and analyzed six options to deal with this issue. The options were:

- Divide projects along the jurisdictional boundary
- Treat the project as belonging to a single jurisdiction based on area
- Treat the project as belonging to a single jurisdiction based on scope
- Choose the most conservative option
- Exclude the project from the jurisdiction
- Let the jurisdiction choose how to address the issue from the above options

Summary of comments on recommendations

Most comments agreed with the suggested approach although one commenter stated the suggested approach was not workable for some projects – eg, those on communal or indigenous lands that may straddle a political boundary. A revision was made to the recommendations to accommodate this as an exception.

Recommended rules and requirements

A project that crosses a jurisdictional boundary shall be grandparented pursuant to the grandparenting rules (see section 6.3.1). Once the grandparenting period has expired; i) if the project proponent has received written approval from all relevant government representatives with authority over the forests where the project is located (including from every jurisdiction with a jurisdictional baseline registered with the VCS or eligible to register a jurisdictional baseline with the VCS), the project may continue as a single project and the boundary of the subnational jurisdiction that contains the greatest percentage area of the project will be extended to include the project; or ii) the project straddling two jurisdictions shall be divided along jurisdictional boundaries – ie, the project is cut into two separate projects if it sits in two different jurisdictions. Each piece of the project will be treated as

an independent project. Additional rules and requirements will need to be prepared to detail how a project is split.

Recommended good practice guidance

None

6.12. Updating a jurisdictional baseline

Issue: Updating jurisdictional baselines

Jurisdictional baselines will need to be updated from time to time to accurately reflect changing reality. This raises a number of questions:

- What is the adequate interval for such update?
- Would the validity period be the same for all BLs/ all jurisdiction?
- Who is responsible for updating the jurisdictional baseline, what is the scope of the update (eg, how often, what is updated), and what are the consequences if this does not happen?
- Can an update be triggered by eg, commodity price changes or other relevant factors?
- How is an update carried out?

Summary of comments on recommendations

A number of divergent comments were received on how long a baseline should remain valid before it is updated. Some reviewers preferred updating the baseline every 5 years, whereas others preferred 10. The decision on reference levels/reference emission levels in Durban, on the other hand, merely stated that they “should” be updated “periodically as appropriate, taking into account new knowledge, new trends and any modification of scope and methodologies”. Opinions on the potential for triggers to update a baseline between fixed update periods were also varied. Additional review by the secretariat also identified the need for more detail on updating the crediting baseline.

Recommended rules and requirements

Components of historic baseline to be updated

The following components shall be included in an update:

- **Emission factor and removal factor component:** must be updated at every baseline update. The updated factor must be calculated using field measurements that are no more than 10 years old.
- **Activity rate component:** must be updated at every baseline update. For all activities except planned deforestation the activity rate for each activity shall be updated using the same procedures as in the initial baseline development, but the historic rate may be adjusted for the impact of the REDD+ scheme. Any such adjustment needs to be justified and may include adjustments to take into account emission reductions or removals generated in previous baseline periods. For planned deforestation the updated baseline shall be developed by adjusting the previous baseline using factors that reflect any changes in forest threats, such as GDP, access to forests, commodity prices, population growth, etc. The adjustment factors must be calibrated based on empirical data at the registration of the baseline.
- **Spatial component (specific location of baseline activity where applicable):** must be updated whenever the activity rate component is updated. The spatial component shall take into account any areas that were targeted for REDD+ activities in the previous baseline period.

Updating the baseline used to estimate ERRs for crediting:

- Once the historic baseline has been updated, the baseline used to estimate ERRs for crediting shall be updated using the same approach set out in section 6.5.

Changing the scope

- At any time (ie, not only at the periodic update¹⁹) the scope of the baseline may be broadened by including either additional RED(D)(+) categories, activities under these categories, and/or carbon pools.
- The scope of the baseline may only be narrowed if it can be demonstrated that the category/activity/pool in question is (or has become) insignificant, and will remain so for the duration of the next baseline period. For any nested projects or subnational jurisdictional baselines registered with the now absent category/activity, a project-specific or subnational jurisdiction specific baseline for the specific activity will have to be developed and registered for the smaller scale to continue claiming VCU's for this activity.

Changing the boundary

- A jurisdiction may change their jurisdictional boundary if i) a border dispute that affected the boundary when the baseline was first set has been resolved; or ii) a new border dispute that affects the boundary has arisen since the boundary was first set; or iii) pursuant to section 6.4 on projects straddling a jurisdictional baseline.

Frequency of update

- The baseline shall be updated every 10 years. If the scope of the baseline has been expanded within this 10 year period, the entire baseline will be updated when the baseline is updated (ie, not just those activities included in the scope of the original baseline). A baseline update shall be carried out immediately if the baseline is derived from an RL/REL approved by UNFCCC and the RL/REL is updated.

Consequences of not-updating

- If a jurisdictional baseline update is not registered as required, projects that were registered previously under the jurisdictional crediting scheme may continue to use the jurisdictional baseline for a grace period of [18] months after the baseline expiration. However, if the baseline update was triggered by detecting significant errors in the current baseline a project must develop a project-specific baseline for registration with the VCS if the jurisdictional baseline is not updated. This project specific baseline must be submitted for validation before the 18 month grace period expires. The project baseline must start from the jurisdictional baseline expiration date. The same rules apply *mutatis mutandis* to subnational jurisdictions if a national jurisdictional baseline expires.

Nesting issues

- If a subnational jurisdictional baseline is nested within a national level jurisdictional baseline the frequency of updates in the subnational baseline must follow the frequency of updates of the national baseline. This update shall happen within a grace period of [18] months following the update of the national baseline. The updated baseline shall be used to estimate any ERRs occurring during this grace period.
- If a project is nested within a jurisdiction and includes a project-specific baseline for activities that were not included in the jurisdictional baseline, all project-based baseline components that are dependent on jurisdictional baseline components shall be updated when a jurisdictional baseline occurs within the grace period of [18] months.
- In cases where a subnational jurisdiction becomes nested within a national jurisdiction, the lower-level jurisdiction shall adopt all relevant components of the higher-level baseline and update the components of its own baseline that are not included in the higher-level baseline within the grace period of [18] months.

Recommended good practice guidance

None

¹⁹ Any update that is not part of the regular periodic update must only alter the additional pools or activities and no other baseline elements.

6.13. Additionality

Issue: How is additionality addressed in the VCS jurisdictional and nested REDD+ system?

The concept of additionality needs to be considered in three circumstances:

- When a jurisdictional baseline is developed
- When a project is developed within a jurisdiction that has a jurisdictional baseline and jurisdictional crediting scheme in place
- When a project is developed within a jurisdiction that only has a jurisdictional baseline (but no crediting system)

Summary of comments on recommendations

The majority of comments agreed with the suggested rules and requirements for additionality. Only two raised some questions over whether more guidance on additionality was required, and one thought all nested projects should automatically be additional in all circumstances. As a result, no edits were made to this section.

6.14. When a jurisdictional baseline is developed for jurisdictional crediting

Issue: How is additionality assured for jurisdictions?

Additionality should be assured when VCUs are being generated at the jurisdictional scale. However, because baseline setting at the jurisdictional and project scales is different, separate additionality considerations may be needed.

Recommended rules and requirements

When a jurisdictional baseline is correctly set it will take into account all existing constraints and feasible lands for the activities considered in the baseline. As a result, additionality should be factored into the jurisdictional baseline when it is determined and specific rules and requirements on developing a separate jurisdictional additionality test are not necessary.

Recommended good practice guidance

None

6.15. Project additionality within a jurisdictional crediting scheme

Issue: What is needed to assure project additionality within a jurisdictional crediting scheme?

This issue has two main components: (i) who decides what sort of additionality test applies; and (ii) what should a possible additionality test contain? The technical team developed and analyzed two options:

- Jurisdiction decides how to test for additionality
- VCS decides how to test for additionality

Recommended rules and requirements

Only nested projects that are additional should be approved. The jurisdiction being credited is responsible for setting requirements for project additionality and approving nested baselines. This recommendation is based on the recognition that if a jurisdiction is responsible for all emissions that occur within its boundaries, it should be allowed the full responsibility to manage projects.

Recommended good practice guidance

Good practice guidance could form the basis for jurisdictions to develop their own standards and requirements for proof of additionality within their crediting.

Such good practice guidance would detail the risks of poor additionality and the situations in which poor additionality might arise. This is especially important for avoided planned deforestation projects, where it is often challenging to justify a conversion threat and rate and additionality is often contentious. Specifically, the risk exists that avoided planned deforestation projects are implemented on land that is ineligible for the proposed conversion, either due to legal barriers or biogeochemical constraints.

The guidance would detail available options for proof of additionality. For example, a template Additionality Test could be developed that forms the basis of a jurisdiction-specific additionality test.

The outputs of the VCS Expert Steering Committee on Standardized Approaches²⁰ could also be useful for jurisdictions to determine project additionality (and for establishing project crediting baselines for internal allocation programs)

6.16. When a project is developed within a jurisdiction that only has a jurisdictional baseline (but no crediting system)

Issue: What is needed to assure project additionality within a jurisdictional baseline?

If there is no jurisdictional crediting scheme, an entity has not assumed responsibility over the emissions and removals that occur within the jurisdiction. As a result the option suggested above where there is a jurisdictional crediting scheme is not appropriate. However, the existence of an already registered baseline makes additionality testing slightly different to a situation where a project is developing its own baseline and seeking registration – if the jurisdictional baseline is spatially explicit (eg, in unplanned deforestation) there will already be a projection of which areas of forest will likely be deforested. This is not the case for activities that do have spatially explicit jurisdictional baselines (eg, planned deforestation). As a result, the technical team determined that additionality testing in this situation can be divided into the two scenarios:

- Additionality testing where there is a spatially explicit jurisdictional baseline
- Additionality testing where there is not a spatially explicit jurisdictional baseline

Recommended rules and requirements

Scenario 1: Where there is a spatially explicit jurisdictional baseline

If there is a complete spatial jurisdictional baseline²¹ for a particular activity then a project of the same activity will be considered automatically additional where it performs better than the baseline and further additionality testing is not required.

Scenario 2: Where there is not a spatially explicit jurisdictional baseline

If a jurisdictional baseline is not spatial for a particular activity then projects of the same activity must demonstrate additionality through application and validation of an additionality tool. The current VCS AFOLU additionality tool may need to be revised for the purpose of the VCS jurisdictional and nested REDD+ system. Other additionality tools could also be developed by project or jurisdictional participants.

Recommended good practice guidance

None

²⁰ See: http://www.v-c-s.org/consultation_draft_requirements_standardized_approaches.

²¹ Indicating specific pixels for each year of the baseline period that would be deforested, degraded or otherwise impacted

Part III: Estimating and issuing VCU

7. Monitoring, Reporting, and Verification (MRV)

Issue: Monitoring, reporting and verification

MRV contains a number of issues including:

What is required, who is required to undertake it, and how often should it be done? This section is divided into four sections covering the following:

- The purpose and structure of monitoring and monitoring reports
- The scope of activities monitored and using data from smaller scales
- Monitoring methods
- Internal verification / quality assurance and quality control

7.1. Purpose and structure of monitoring and reporting

Issue: What is the over-arching purpose and structure of monitoring and reporting?

What should monitoring, reporting and verification be seeking to achieve under jurisdictional schemes? What information should be collected and submitted for verification and with what frequency?

Summary of comments on recommendations

Feedback was largely in agreement with suggested text, especially with regard to monitoring frequency. It was highlighted that monitoring is applicable to and necessary for social & environmental safeguards. It was also suggested that jurisdictions be allowed to set monitoring requirements entirely separately from the VCS, and/or to use of IPCC Tier 1 monitoring approaches, both of which were rejected for the following reasons:

- Setting requirements separately from the VCS would remove the ability of the VCS to assure the quality (and fungibility) of achieved emission reductions / achieved sequestration.
- Use of Tier 1 defaults is considered not sufficiently credible for the VCS. In theory, deductions could be applied but the breadth of applicability of Tier 1 defaults is so great that such deductions could at times exceed 90% and the size of the needed deduction could never be absolutely known. Defaults for minor pools are now allowed but must be at least at what would be considered a Tier 2 level.

Rules and requirements

Jurisdictional crediting schemes must use the monitoring methods set out in section 7.3 to produce monitoring reports containing a Monitoring Inventory which are able to meet the following purposes:

- Determine changes in sequestration by sinks and the emissions from sources within the country/sub-national area/project area which is covered by the scheme;
 - This includes emissions/sequestration related to the success or failure of each activity class and;
 - Emissions/sequestration associated with natural disturbances excluding disturbances affecting $\geq 1,000$ ha from geologic impacts (ie, volcanos and landslides) and hurricanes with a return interval of >10 years.
- Determine changes in carbon stocks and emissions from sources outside the sub-national area/project area which has resulted from leakage (as required, see section 8.1);
- Determine the extent to which the activity classes were implemented;
- Update any land use map stratification that exists (as necessary);
- Gather data on the drivers of deforestation to be used in the baseline reassessment;
- Ensure that any social and environmental safeguards that are subject to MRV have been adhered to.

The monitoring inventory must follow a format provided by the VCS (to be developed).

Reports covering the entire jurisdiction must be submitted for external verification at least every 5 years from the scheme's start date. Monitoring reports from smaller-scale activities (nested subnational jurisdictions and projects) are able to be submitted for verification more frequently, but must also sync (ie, occur at the same time) with the higher scale reporting cycle at least once every 5 years. For example, where a jurisdiction conducts MRV every 5 years starting in 2015, nested projects that receive credits directly from a VCS registry may conduct monitoring more frequently but they must also conduct monitoring and report to the jurisdiction in the 5 year intervals used by the jurisdiction.

It is the responsibility of the higher level scheme to demonstrate that lower level results have been reconciled prior to their submission for verification (see section 7.2 below on scope). The assumption shall be made that project-level monitoring results where correctly following approved monitoring plans are more accurate for the project than the jurisdiction level monitoring results.

Projects must follow the most recent VCS AFOLU project based rules on monitoring.

Recommended good practice guidance

It will be necessary to set up some required structure (in the form of a monitoring template with tables for data and parameters to be monitored) that reporting entities will have to complete. They may not be as detailed as the UNFCCC tables, but could be created by working backwards from the final calculation that calculates the number of credits to be issued.

It would be beneficial to develop good practice guidance allowing jurisdictions to fully consider the costs and benefits of monitoring choices at different levels of a nested system.

7.2. Monitoring scope and scales

Issues: What is the scope of monitoring and how is data from smaller scales used at larger scale?

What must be monitored? Is the entity reporting required to only use their own monitoring data, or can results from lower levels be incorporated in higher level results? Can results from higher levels be used at lower levels?

Summary of comments on recommendations

No substantive issues were raised for this section.

Rules and requirements

The jurisdiction must monitor the activities and pools that were selected in the jurisdiction's baseline using the same or demonstrably equivalent methods.

The physical area that must be monitored is determined by the boundary of the activities selected, with the option to exclude areas that: (i) overlap with VCS registered subnational schemes or projects; (ii) are determined not to have been impacted by the scheme's activities (including leakage from those activities) following coarse-scale analysis; or (iii) have been excluded due to a significant natural disturbance or large scale infrastructure project excluded pursuant to sections 6.3.

Where possible the higher-level scheme shall adopt monitoring results from lower-level schemes for relevant areas.

Monitoring results from higher-level schemes may be used by lower levels where there is overlap in activities and boundaries. This data may be used on its own when it meets the minimum requirements in terms of accuracy and precision (see section 7.3) or be built upon as necessary.

Where there are inconsistent results between higher and lower scale monitoring, the lower scale monitoring shall always be presumed to be correct for the lower scale, on the assumption that lower scale data is more accurate.

Reporting must cover the previous monitoring period, which is a period of no more than 5 years since the project start date or the end of the last monitoring period.

Recommended good practice guidance

None

7.3. Monitoring methods

Issues: How is monitoring to be conducted?

What are the minimum standards outlined by IPCC guidance for detecting land cover and for developing emission or removal factors that are relevant for jurisdictional and nested REDD+? What requirements should be developed for minimum accuracy and precision?

Summary of comments on recommendations

Feedback supported the inclusion of uncertainty deductions. Such deductions are now allowed.

Rules and requirements

Jurisdictional schemes:

- Must determine land use changes according to the IPCC's 'Approach 3'²² for RED ,
- May use direct or indirect methods for monitoring degradation and enhancements in forest carbon stocks, and
- May use remote sensing or inventory records for AR project monitoring.

Any proxy measures of land use change used must be transparently documented and have a demonstration of their correlation with land use change proven.

IPCC Tier Two or higher methods must be used to derive emissions factors, with the precision level for each emissions factor being documented. As in the baseline, defaults may be used for minor pools (representing < 15% of total carbon stock).

Leakage monitoring, where applicable, shall follow the same requirements as project/activity class area monitoring.

An assessment of accuracy and uncertainty must be presented, following IPCC guidelines. The following criteria must be met:

- Accuracy of forest/non forest classification = 80%
- Accuracy of indirect emission calculation statistics on eg, areas of deforestation concessions, volumes of timber or fuel wood collected = $\pm 25\%$

²² See the GOFC-GOLD Sourcebook, "The IPCC Guidelines describe three different Approaches for representing the activity data, or the change in area of different land categories: Approach 1 identifies the total area for each land category - typically from non-spatial country statistics - but does not provide information on the nature and area of conversions between land uses, i.e. it only provides "net" area changes (i.e. deforestation minus forestation) and thus is not suitable for REDD. Approach 2 involves tracking of land conversions between categories, resulting in a non-spatially explicit land-use conversion matrix. Approach 3 extends Approach 2 by using spatially explicit land conversion information, derived from sampling or wall-to-wall mapping techniques. Similarly to current requirements under the Kyoto Protocol, it is likely that under a REDD+ mechanism that land use changes will be required to be identifiable and traceable in the future, i.e. it is likely that only Approach 3 can be useful for land tracking and therefore for REDD+ implementation."

(http://www.gofc-gold.uni-jena.de/redd/sourcebook/Sourcebook_Version_Nov_2010_cop16-1.pdf)

- Where landscape accounting is elected for jurisdictions operating under Scenario 3, historic emissions will be calculated from changes in stocks = $\pm 25\%$ at the 95% confidence level²³.

The emission/removal factors should have a precision (determined by the half width of the confidence interval) of no more than 15% at the 95% confidence level. Where this standard is not met an appropriate confidence deduction shall be applied. For example, in a hypothetical jurisdiction, significant deforestation pressure exists in a given stratum. Field monitoring is conducted to develop an emission factor. The carbon stock is equivalent to 550 tCO₂/ha, post deforestation land use is pasture with no remnant trees and clearance does not involve biomass burning.

In Scenario A measurement effort is high and the 95% confidence interval is equal to 10% of the mean (55 tCO₂e/ha) which is within the allowable 15% and so no deductions result.

In Scenario B a lower measurement effort occurs and the resulting uncertainty is reflected in a 95% confidence interval equal to 25% of the mean (137.5 tCO₂e/ha). Given the allowable uncertainty of 15% of the mean (82.5 tCO₂e/ha), an appropriate (ie, conservative) uncertainty deduction would be 137.5 – 82.5 = 55. This would give an emission factor in the baseline case of 550 – 55 = 495 tCO₂e/ha, and in the MRV case 550 + 55 = 605 tCO₂e/ha.

The monitoring inventory must conclude with the number of credits that are being claimed for the monitoring period.

Information on social and environmental safeguards must be provided in accordance with the requirements of section 11.

Drivers should be reported on to aid land use change analysis²⁴ and any changes to stratification must be documented.

The report must document the roles, responsibilities and contact details for those organizations or individuals who are responsible for reporting.

The use of community monitoring is encouraged where appropriate and the results will be subject to the same accuracy assessment and uncertainty deductions as any other method.

Recommended good practice guidance

Additional guidance will be needed. This will principally refer to existing sources such as the IPCC good practice guidance and the GOFI GOLD Sourcebook. Beyond these sources additional good practice guidance may be needed in specific areas especially on wetland areas with a particular focus on peat and coastal mangrove emissions factors due to low coverage by IPCC good practice guidance and fast evolving science.

7.4. Verification

Issues: External verification is covered in section 12. Internal verification refers to procedures for assurance of quality in monitoring results.

²³ Where this standard is not met an appropriate confidence deduction shall be applied.

²⁴ eg changes in significance of drivers, changes in location of drivers etc.

Summary of comments on recommendations

No feedback received.

Rules and requirements

The monitoring report must contain documented evidence of the quality assurance/quality control procedures undertaken according to IPCC good practice guidance.

Recommended good practice guidance

None

8. Leakage

Issue: Leakage from a credited jurisdiction may impact areas outside the jurisdiction, either within the country or internationally.

Options considered by the technical experts under each crediting option include:

- International leakage:
 - Do not account for international leakage
 - Require mitigation of potential international leakage
- Domestic leakage (outside a jurisdiction with crediting):
 - Do not account for domestic leakage outside the subnational jurisdiction
 - Require mitigation of potential leakage outside the subnational jurisdiction
 - Require jurisdictional leakage belts to monitor and account for leakage outside the jurisdiction, but still within a country
 - Deduct a certain percentage from jurisdictional VCUs to account for external leakage within a country
 - Allow for leakage sharing agreements between jurisdictions where leakage may occur
- Domestic leakage (from projects) in a jurisdiction with a baseline but no MRV
 - Allow for leakage sharing agreements between projects where leakage belts may overlap

8.1. Jurisdictional leakage

Issue: Should international leakage be accounted for? How should leakage be accounted for outside and inside a subnational jurisdiction with crediting?

International and domestic leakage needs to be considered for all crediting scales (national, subnational, and project). The term 'leakage' below refers to both activity shifting or market effects.²⁵

²⁵ *Activity shifting leakage* occurs where, as a result of the carbon project or jurisdictional policy/program, a specific agent (e.g. individual, community or operation) moves its/their deforesting activities to another area. Such actors and leaked emissions can often be tracked and monitored directly or through the use of a sufficiently wide leakage belt that captures potential displacements.

Market leakage occurs where a carbon activity reduces commodity production (typically timber or agriculture related) while not addressing underlying demand, in which case it can be expected that production will increase elsewhere to at least partially fill the supply shortfall – depending on supply/demand price elasticities. If the resulting displacement in commodity production is associated with forest or other GHG-emitting land clearing then market leakage occurs. Given its geographically dispersed nature, market leakage can be more challenging to track; instead credit deductions typically rely on estimations or discounting approaches based on kinds of the commodity(ies) being displaced.

Summary of comments on recommendations

Many reviewers commented that often it will not be politically feasible to implement leakage mitigation activities or conduct monitoring in neighboring jurisdictions. Based on this and other input, the VCS will develop an AFOLU Leakage Tool using easy to assess criteria for assigning percentage leakage deductions. Also, clarity was sought on how subnational jurisdictions might use leakage numbers assigned by national REDD+ programs.

Recommended rules and requirements

National jurisdictions

International leakage need not be tracked and deducted from the national jurisdiction's accounting. The rationale is that, i) it follows established precedent under the UNFCCC and VCS; and ii) it is simple to apply, and avoids the political challenges of international leakage. However, national jurisdictions being credited under the VCS shall still be required to identify potential sources of international leakage and mitigate leakage risk where possible, following steps 1 and 2 in the subnational jurisdiction section below.

Subnational jurisdictions

Where subnational jurisdictions are credited directly, leakage should be addressed as follows:

- 1) Jurisdictions shall identify the baseline drivers of deforestation or degradation and their potential for leakage;
- 2) Jurisdictions shall design and implement appropriate measures to avoid and/or reduce the risk of leakage where possible (leakage prevention measures), taking into account the feasibility of such implementation within the jurisdiction, or where appropriate, in neighboring jurisdictions;
- 3) Any residual leakage (after implementing mitigation measures) shall be accounted for as follows:
 - a) Where leakage from one jurisdiction may occur in another jurisdiction being credited under the VCS or another scheme (within the same country), jurisdictions may determine and implement an appropriate leakage sharing agreement, which shall be registered with the VCS, noting the following:
 - (i) Jurisdictions may agree that each jurisdiction is fully responsible for emissions (and reductions) within their own jurisdiction, regardless of whether some emissions may be the result of leakage from the other jurisdiction. In this case, a jurisdiction would not need to monitor or account for any leakage in the neighboring jurisdiction and vice versa;
 - (ii) Agreements may include other requirements or other arrangements such as payments or credit sharing, as agreed by both jurisdictions. This may be based, for example, on the differentiated leakage risk between the jurisdictions.
 - (iii) In cases where there is a national REDD+ program in place that includes countrywide leakage monitoring and a framework for determining and assigning leakage impacts, subnational jurisdictions shall use the leakage estimates attributed to them according to the national framework.
 - b) Jurisdictions shall account for leakage in other jurisdictions where leakage may occur and with which there is no agreement, or where the other jurisdiction does not have MRV and crediting in place, using one or more of the following options:
 - (i) Use a leakage belt or other method of monitoring and accounting for leakage outside the jurisdiction, using either a VCS-approved methodology or a method developed by the jurisdiction. A leakage belt is an area surrounding the border of the jurisdiction that is subject to MRV in order to quantify any leakage. Leakage mitigation activities may or may not be carried out within the leakage belts. Jurisdictions shall justify that a

- leakage belt is correctly placed and sufficiently large to capture displaced activities;
- (ii) Use a leakage deduction tool (to be developed by VCS) for estimating leakage potential outside and/or within the jurisdiction, ie, based on 'leakage risk' determine the appropriate leakage discount that would be applied to jurisdictional reductions; or
 - (iii) For activity shifting leakage within the jurisdiction, identify likely shifts in activities (eg, deforestation to degradation) and conduct monitoring for those activities not included in the baseline but that are at risk of experiencing increases in emissions due to leakage.
- c) Any resulting leakage (as monitored or estimated) is subtracted from jurisdictional credits

Recommended good practice guidance

Where only the highest level jurisdiction is credited directly, good practice guidance may be developed for addressing leakage internally, such as leakage taxes or buffers

8.2. Project leakage within jurisdictional crediting

Issue: How is project-level leakage addressed in nested projects?

Project-level leakage can occur within a credited jurisdiction, as leakage from projects may impact performance in non-project areas. If projects are rewarded based on their performance, in order to ensure projects are not over-credited, project-level leakage will still need to be taken into consideration.

Options considered by the technical team include:

- Require current VCS project-level leakage assessments; or
- Deduct a percentage from recorded project-level ERRs to account for leakage within the jurisdiction.
- Collect a leakage tax.
- Leave leakage requirements to the jurisdiction to determine

Summary of comments on recommendations

Clarity was sought regarding potential inter-jurisdictional project leakage.

Recommended rules and requirements

It is recommended to leave it up to the jurisdiction to decide how leakage within a jurisdiction is dealt with. This provides the greatest flexibility and allows the jurisdictions to choose an option they deem appropriate for their jurisdiction's circumstances. This would give jurisdictions the flexibility to develop their own policies or procedures, which could include any of the above options.

Where projects and jurisdictions are directly credited, jurisdictions should set out clear policies and procedures for leakage withholding from projects that would be registered with the VCS such that VCUs can be issued appropriately.

Leakage from projects that have the potential to displace emissions outside the jurisdiction in which they are located shall follow the leakage accounting requirements as set out for subnational jurisdictions in section 8.1 above.

Recommended good practice guidance

Further detail could be developed on how leakage taxes or other deductions may be determined

8.3. Project leakage when there is a jurisdictional baseline only

Issue: Project-level leakage can occur and needs to be accounted for

The only scenario where this arises is where a project uses a jurisdictional baseline but there is no jurisdictional MRV. In this scenario multiple projects will conduct their own leakage assessments, which may result in overlapping leakage belts.

Summary of comments on recommendations

Feedback was provided on the value of encouraging projects to agree up front on comprehensive but non-overlapping leakage belts that each would monitor and report on. Also, clarity was sought on how to treat pools that may not be monitored consistently across overlapping leakage belts.

Recommended rules and requirements

Where there is no jurisdictional crediting scheme, project-level rules and requirements for leakage should be applied.

Projects may agree among themselves on the boundaries of their leakage belts in order to avoid holes and overlaps. Such agreements may be communicated to the VCS and serve as the basis for each project's leakage accounting. If in the future any project under such an agreement has not verified its ERRs for more than five consecutive years or its crediting period ends, then the remaining projects shall follow the VCS requirements for stand-alone projects covering leakage monitoring, accounting and reporting.

If projects cannot reach an agreement on defining leakage belts to avoid overlap, and as a result leakage belts overlap with those of other registered VCS projects (eg, where the leakage belt area of the project includes the area or part of the areas of other VCS AFOLU projects or their leakage belts), it is recommended that this be addressed as follows:

Where the leakage belt of new project B overlaps with the project area of one or more already registered VCS projects (individually and collectively referred to as project A):

- Project B's leakage accounting shall exclude the area of project A
- An excluded area shall again be included in the leakage belt area of project B if project A has not verified its ERRs for more than five consecutive years, or when it ends its project crediting period under the VCS.

Where the leakage belts of two or more projects overlap and the same pools are being monitored for the purpose of estimating leakage, the amount of leakage attributed to each project will be calculated as follows for the overlapping pools:

- Each project shall estimate the amount of leakage that occurred per VCU issued for their project to determine the leakage ratio for each project, based on the non-overlapping leakage areas
- The estimated leakage ratio shall then be used to apportion the amount of leakage between the projects, as monitored to have occurred in the areas of overlapping leakage belts. Where the amount of leakage estimated in the overlapping areas is different based on each project's monitoring results the highest estimate shall be used. For example, if two projects each have 1 tCO₂e deducted for every 10 VCUs issued, the leakage monitored in the overlapping belts will be divided equally between the projects. If project A has a ratio of 2 leaked to 10 issued, and project B has a ratio of 1 leaked to 10 issued, project A will assume twice as much leakage in the overlapping area as project B. If project A estimated 900 tCO₂e leaked in the overlapping areas and project B estimated 500 tCO₂e the amount of leakage will be assumed to be 900. 600 will be assigned to project A and 300 will be assigned to project B.

- In cases where different pools are monitored by projects within overlapping leakage areas, each project shall be responsible for individually monitoring and accounting for such pools as applicable to their project.

Recommended good practice guidance

None

9. Crediting

Crediting under VCS jurisdictional and nested REDD+ contains a number of issues that are often inextricably linked to other sections. These main issues analysed by the technical experts were:

- What type of credit is issued? (regular VCUs or another type of credit)
- When are credits issued? How does nesting affect timing of credit issuance?
- How is double counting avoided?
- What conditions need to be met for a jurisdiction to receive credits? What decisions does a jurisdiction need to make when it establishes a jurisdictional crediting scheme?
- How are VCUs calculated and distributed across different scales?

9.1. What type of credits?

Issue: What type of credit is issued?

Should the jurisdictions be issued the same type of VCU as the existing project-based VCUs? Should a separate designation such as 'jVCU' be used for these credits?

Summary of comments on recommendations

Very few comments were received on this section, and most supported the recommendation not to create a separate credit type for jurisdictional units. This is because a separate credit type would create unnecessary complexity and potential confusion. Using the current VCS option to 'tag' credits with additional certifications could achieve the same effect, where desired.

Recommended rules and requirements

The VCS should not distinguish the source of VCUs by requiring a descriptor to those generated under a jurisdictional REDD scheme. However, should a jurisdiction request it, a VCU could be 'tagged' with additional information, for example to distinguish between project and jurisdictional credits. 'Tagging' could also be used to identify VCUs from projects or jurisdictions that meet the specific requirements of buyers, or bi- or multi-lateral partners (eg, California). See the VCS website for information about 'tagging'. It is also up to the jurisdiction to decide whether or not to issue jurisdictional credits, offer such credits for sale, or to retire such credits if they choose not to sell them as offsets (as is true of any VCU).

Differentiating jurisdictional and project-based ERRs by creating a new unit adds unnecessary complexity because credits can already be distinguished based on their serial number. Issuing different credits could also create confusion in the marketplace about the quality and fungibility of the various AFOLU assets generated under the VCS. The design of the VCS JRNI standard is intended to generate credits of the same quality regardless of whether they are produced by jurisdictional, nested project or standalone project activities.

Recommended good practice guidance

None

9.2. Timing

Issue: Timing of credit issuance

If a jurisdiction allows VCUs to be issued at multiple scales within the country (eg, VCUs issued to projects and jurisdictions), the timing of such crediting needs to be considered to avoid over-issuance to smaller scales that complete their MRV before the larger scale (ie, the risk is that all credits in the jurisdiction are 'taken' by projects that conduct MRV before the jurisdiction does for the same time period). This may occur if: i) the project causes more leakage than it accounts for; ii) there is a reversal in the project after the project has received VCUs but before the jurisdiction does; or iii) the project level MRV over-estimates the number of VCUs generated compared to the jurisdictional MRV.

The technical team developed and analysed four options to address this issue:

- Synchronize MRV and credit issuance across all levels (ie, crediting only occurs every [5] years irrespective of the scale).
- Allow credit issuance at different times, but issuance to projects prior to jurisdictional MRV is contingent on project contribution to a 'truing up' buffer to hedge against over-issuance risk. Such credits would be returned to projects following jurisdictional MRV.
- Allow credit issuance at different times, but issuance to projects prior to jurisdictional MRV is capped at conservative ex-ante estimates and approved by the jurisdiction.
- Allow unlimited crediting of smaller-scale entities – the larger jurisdiction assumes the risk.

Note: This issue is not relevant if all VCUs are issued to the jurisdiction – ie, there is no direct crediting of the jurisdiction and project at the same time.

Summary of comments on recommendations

Commenters considered that requiring project MRV be fully synchronized with Jurisdictional MRV, could be detrimental to project financing. Setting a cap on the number of credits that may be issued to projects before jurisdictional MRV is conducted would be arbitrary and could also cause issues with project financing. Because leakage and reversals are already covered (by other requirements) it is perceived that the risk of over-crediting projects where they conduct MRV prior to jurisdictions is very low.

Recommended rules and requirements

Nested projects and nested subnational jurisdictions can undergo periodic MRV and receive credits at different intervals than the higher scale. Such projects and subnational jurisdictions must also conduct MRV at the same time as the higher scale (see section 7.1) at least once every 5 years, except where currently in the grandparenting period.

It should be noted that leakage and reversal risks, that may create over-crediting risk are addressed elsewhere in the jurisdictional and nested REDD+ scheme. The larger-scale jurisdiction will set leakage rules for nested projects and/or subnational jurisdictions, so it is reasonable that it assumes some residual risk of over-crediting to projects or subnational jurisdictions that don't account for leakage accurately. Non-permanence risk is also addressed through the VCS buffer. As a result, the timing risk is not considered significant and this recommended approach should be sufficient to ensure environmental integrity whilst maintaining flexibility.

Recommended good practice guidance

The timing issue associated with leakage needs to be mentioned in the leakage guidance for jurisdictions, such that jurisdictions may ensure leakage risk is adequately addressed to ensure there is not a risk of over-crediting lower scales.

9.3. Double counting

Issue: How is double counting avoided?

The original JNRI scoping paper identified a number of areas where double counting of ERRs may occur. These were: i) at the project level, double counting may occur if there are overlapping projects and/or multiple credit issuances by different standards (eg, a non-VCS project is developed that overlaps a VCS project); ii) at the project and jurisdictional level where projects and/or jurisdiction count the same reduction (this is especially relevant where there is a VCS jurisdictional program and non-VCS projects or vice versa); and iii) at the jurisdictional level where there are government policies or commitments alongside jurisdictional REDD+ actions (eg, some NAMAs or other initiatives).

Summary of comments on recommendations

Very few comments were received on this section. Clarification was requested regarding double counting with related CDM projects such as cookstoves.

Recommended rules and requirements

Avoiding potential for some of these types of double counting in jurisdictional and nested REDD+ is already addressed in other parts of the system:

- Current VCS validation requirements for projects ensure that any areas already enrolled in another emissions trading program be identified and excluded (see existing VCS v3 Section 3.12.2).
- Current VCS project rules and requirements prevent VCS project boundaries overlapping.
- The risk that a nested VCS project and jurisdiction claiming the same emission reduction or removal from a jurisdictional policy is prevented by the 'right of use' rules and requirements (see section 13.1) along with the rules and requirements for developing project baselines after a jurisdictional baseline has been developed (see section 6.10).
- The risk that a government policy (such as a NAMA) results in double counting is addressed when the baseline is being developed (see section 6.5).
- The rules and requirements on setting jurisdictional boundaries prevent them from overlapping (see section 6.1)

The only additional rules and requirements are to require jurisdictions deduct from its jurisdictional ERR estimate any offset credits issued by or for other projects or programs with the same scope of the jurisdictional baseline. Any GHG credits issued to fuel efficient stove projects that significantly reduce consumption of non-renewable biomass (ie, where more than 10% of biomass consumption reduced would have been from non-renewable sources) operating within the boundary of the jurisdiction must also be deducted from the ERRs generated within the jurisdiction, to prevent double counting. This applies to fuel efficient stove projects that generate offsets under the CDM, VCS, or any other GHG emission reduction program.

Recommended good practice guidance

None

9.4. Jurisdictional crediting schemes and internal allocation programs

Issue: What are the conditions or eligibility requirements for a jurisdiction to receive VCUs? (Jurisdictional crediting schemes and internal allocation programs)

The jurisdictional and nested REDD+ rules and requirements contain a number of options for how REDD+ programs are implemented within a jurisdiction. If a jurisdiction is to claim VCUs or implement monitoring across the jurisdiction with credits going to nested projects, a jurisdictional crediting scheme must be developed. A jurisdictional crediting scheme sets out how a number of aspects of jurisdictional and nested REDD+ work within a jurisdiction. Such schemes may or may not contain an internal allocation program. An internal allocation program is recommended if a jurisdiction does not allow direct crediting of nested projects or nested subnational jurisdictions by the VCS. A jurisdictional

crediting scheme can be registered either at the same time as a jurisdictional baseline or after a jurisdictional baseline has been developed.

The two main issues for jurisdictional crediting schemes and internal allocation programs are:

- What does a jurisdictional crediting scheme and internal allocation program contain?
- How is it developed?

Summary of comments on recommendations

Comments agreed that the VCS should not provide requirements on internal allocation programs. It was suggested to add further detail on stakeholder consultation and safeguards in setting up jurisdictional crediting schemes.

Recommended rules and requirements

Contents of a jurisdictional crediting scheme

A jurisdictional crediting scheme must specify, at a minimum, the following:

- Whether or not independent projects are able to be registered with the VCS and receive VCUs directly from a VCS registry. If they are, the scheme must state:
 - Details on any approvals the project must obtain from the jurisdiction including steps that must be followed to receive approval;
 - Additionality requirements that must be met.
- If the jurisdiction is a national jurisdiction, whether or not independent subnational jurisdictions are able to be registered with the VCS and receive VCUs directly from a VCS registry. If they are, the scheme must state details on any approvals the subnational jurisdiction must obtain from the national jurisdiction including steps that must be followed to receive approval. Note, where subnational crediting is not allowed by the national jurisdiction, and a subnational crediting scheme was previously registered, grandparenting rules apply, as set out in section 6.9.
- If the jurisdiction is subnational, which approvals or 'no objections' for operating the crediting scheme have been secured from the national government.
- How leakage will be addressed within the jurisdiction if there is direct crediting from a VCS registry to smaller scales nested within the jurisdiction.
- If there is no direct crediting to nested jurisdictions or nested projects, it is recommended that internal allocation rules and procedures be defined.
- Information on the process followed to develop the jurisdictional crediting scheme (see below).
- How the right to claim VCUs is met (see 'right of use' requirements in section 13.1). This does not need to cover all areas within a jurisdictional crediting scheme – it is only required for those areas for which the jurisdictional participant is seeking to be issued VCUs.
- Boundaries of the areas where VCUs are being claimed based on 'right of use'. Such boundaries may be equal to or less than the boundary of the jurisdictional baseline. If the boundary of the jurisdictional crediting scheme is less than the boundary of the jurisdictional baseline this will not affect any other rules or requirements (eg, on monitoring) that will continue to apply to all areas included in the jurisdictional baseline.
- Any information a jurisdiction needs to provide on safeguards, transparency and stakeholder involvement, as set out in section 11
- Which REDD+ projects will be brought into the jurisdictional scheme and any information on grandparenting rules (if flexibility is allowed?).

Process for developing jurisdictional crediting schemes

- For both jurisdictional crediting schemes (and internal allocation programs that may be developed) the jurisdiction shall include in its documentation, information on how the scheme and/or program was developed. This information must include information on transparency and consultation with stakeholders (as set out in section 11) and a statement that the development and implementation of the jurisdictional crediting scheme and internal allocation program complied and will comply with domestic law.

Recommended good practice guidance

Guidance should be developed for internal allocation programs, to provide transparency and certainty to the various REDD+ participants within the jurisdiction. This may include guidance on addressing issues such as:

1. Who receives benefits including how eligibility to receive benefits is determined;
2. How benefits are quantified (eg, how decisions on quantifying VCU allocation or other compensation is made);
3. How the nature of the benefits is determined (ie, if the benefits are a re-allocation of VCUs; monetary disbursements; or other benefits such as infrastructure development or other community development projects. If benefits are the latter, the decision-making process for identifying projects should be explained);
4. How benefits will be allocated, including distribution mechanisms used;
5. How project underperformance/reversals will be handled; and
6. Information on the process followed to develop the internal allocation program (see below).

A number of these and other issues in this section relate to safeguards requirements (see section 11). Good practice guidance for the current section should be developed with the final recommendations and guidance from the safeguard and benefit sharing section in mind.

9.5. Calculating and distributing VCUs across scales

Issue: Calculating and distributing VCUs across different scales

In a nested system, VCUs may be issued to entities operating at different scales, such as a project nested within a jurisdictional crediting scheme. How is the number of VCUs that each scale is issued calculated? How does the system ensure the sum total of credits issued at the smaller scales do not exceed ERRs achieved at the higher scale or, if they do, how is environmental integrity maintained? This relates to the baseline section, which deals with similar issues from the perspective of grandparenting existing, and estimating new, baselines within a jurisdiction (see section 6.3). The objective of this section is to set out how the credit issuance at different scales is estimated and reconciled.

Summary of comments on recommendations

Only minor clarifying questions were received on this section.

Recommended rules and requirements

Scenario 3: Crediting a single national or subnational jurisdiction only (ie, no direct crediting of nested subnational jurisdictions or nested projects)

The following steps set out how to calculate the number of VCUs a jurisdiction is issued:

- Conduct monitoring (section 7)
- Estimate and deduct for jurisdictional leakage (subnational jurisdictions only – section 8.1)
- Deduct for jurisdictional pooled buffer (section 10)
- Deduct any VCUs issued to grandparented activities as these receive credits directly from the VCS registry during their grandparenting period (section 6.9)
- Complete verification (section 7.4 and 12.1)
- Jurisdiction is issued the remaining ERRs as VCUs

Note: A jurisdiction's re-allocation of VCUs within the jurisdiction is possible, but because this falls outside the scope of what jurisdictional and nested REDD+ crediting scheme regulates (section 9.4) additional VCS rules and requirements on this point are not necessary.

Scenario 2: Crediting a jurisdiction plus smaller scale(s) directly (ie, directly crediting national and subnational jurisdictions; or national or subnational jurisdictions where projects are also directly credited)

Step 1: Calculate the number of VCUs a nested **project** or nested **subnational jurisdiction** is issued:

- Conduct monitoring (section 7)

- Estimate and deduct for leakage pursuant to leakage rules set out in the jurisdictional crediting scheme (section 8.1 and 0)
- Deduct for jurisdictional pooled buffer (section 10)
- Complete verification (section 7.4 and 12.1)
 - If the issuance is before the larger-scale jurisdiction conducts its MRV, apply any applicable cap on credits (section 9.2)
 - If the issuance is at the same time as the larger-scale jurisdiction conducts its MRV, estimate the total number of VCUs due based on smaller-scale MRV (section 7.2)
- Project or subnational jurisdiction is issued credits

Step 2: Calculate the number of VCUs the **highest scale jurisdiction** is issued:

- Conduct monitoring (section 7)
- Estimate and deduct for jurisdictional leakage (subnational jurisdictions only – section 8.1)
- Deduct for jurisdictional pooled buffer (section 10)
- Deduct any VCUs issued to smaller-scale activities including:
 - Grandparented projects or subnational jurisdictions as these receive credits directly from the VCS registry during their grandparenting period (section 6.9)
 - Approved projects or subnational jurisdictions (section 6.10)
 - **Note:** If these deductions result in a negative number when compared to the higher scale MRV a reversal will be assumed to have occurred within the jurisdiction that was not captured by the higher scale MRV (section 10.1).
- Complete verification (section 7.4 and 12.1)
- Jurisdiction is issued credits

Crediting projects nested within a jurisdictional baseline (ie, no jurisdictional crediting scheme and no jurisdiction wide monitoring)

- Conduct monitoring (section 7)
- Estimate and deduct for leakage pursuant to VCS project leakage rules (section 8.3)
- Deduct for jurisdictional pooled buffer (section 10.3)
- Complete verification (section 7.4 and 12.1)
- Project is issued credits

Crediting projects nested within a jurisdictional baseline and jurisdictional monitoring (ie, no jurisdictional crediting scheme but jurisdiction-wide monitoring occurs)

- This scenario was presented as a potential option in the JNRI Scoping Paper. It is recommended that this be included as a type of jurisdictional crediting scheme, except that the jurisdiction itself does not claim VCUs from non-project lands. Additional rules and requirements are therefore unnecessary.

Discrepancies across scales

- In some instances monitoring at smaller scales can be used as part of the larger-scale monitoring (eg, unplanned deforestation or afforestation). In these instances there should not be any issues of differences in VCUs estimated at smaller and larger scales. However, in other activity types (such as reductions in degradation) smaller and larger scales may use different data and methods to estimate ex-ante ERRs. This may result in discrepancies between VCUs issued at the smaller scale and ex-ante ERRs estimated at the larger scale. In these cases, the smaller scale estimates are used to calculate VCUs issued to the smaller scale and this number is deducted from the larger scale's estimates for the entire jurisdiction. This recommendation is based on: i) the smaller scale likely having more accurate data; and ii) the larger scale being responsible for the smaller scale via approval (see section 9.4 and 12.1), and setting leakage rules (section 0 and 9.4).

Recommended good practice guidance

Good practice guidance may explain in more detail how the different crediting options could work. This may or may not be partially covered by the good practice guidance in other areas

10. Reversals

10.1. Reversals and consequential risks for jurisdictional crediting schemes

Issue: How do jurisdictional and nested REDD+ crediting schemes address and mitigate non-permanence risks?

This section looks at two related issues. First, to ensure the environmental integrity and permanence of verified emissions reductions, current VCS AFOLU projects are subject to a non-permanence risk assessment and buffer withholding to determine a portion of credits that must be contributed to a pool. Such buffer credits may be cancelled to offset a reversal of stocks on which credits have previously been issued.

Second, the risk of a crediting shortfall is analysed in jurisdictions where there is co-dependency due to multiple crediting scales, (eg, how a loss event that results in a reversal within a jurisdiction affects the ability for a nested project to receive VCUs associated with ERRs it generated)

Due to the complexity of the issues the technical team did not develop multiple options. Rather, time was spent developing an approach that was considered environmentally robust and practical. A general summary is set out followed by separate sections containing more detailed recommendations.

General summary of recommendations

Non-permanence risk and crediting shortfall risk are addressed via a single 'jurisdictional pooled buffer', which will operate globally.

In the event of a reversal, environmental integrity is ensured by cancelling VCUs held within the jurisdictional pooled buffer. In this respect it will perform much like the current VCS project buffer.

A jurisdictional-level reversal will be deemed to have occurred (and must be addressed using the buffer) if there is a net reversal when accounting for the emissions reductions and removals from all activities within the jurisdiction being credited (eg, REDD and ARR) under the VCS.

If there are multiple crediting scales and any reversal is compensated via the jurisdictional pooled buffer, credit shortfall risk disappears. Additional rules and requirements are therefore not necessary. This conclusion is based on the following:

- Smaller-scale estimates of VCUs are deducted from larger-scale estimates (see crediting section 9.5).
- If there is an underperformance in non-project areas, VCUs will still be created in these areas (though the total number may be smaller than expected). The full amount of VCUs can be issued to projects with the remainder (of credits achieved) issued to the jurisdiction. In such a case, there is no credit shortfall risk. For example, a jurisdiction expects to generate 50,000 VCUs in non-project areas but only generated 10,000. Projects generated a total of 50,000 VCUs within the jurisdiction, with a total jurisdiction-wide achievement of 60,000. The VCS issues 10,000 to the jurisdiction and 50,000 to the projects.
- Credit shortfall risk only exists where there is a reversal at one scale that results in less VCUs generated across the jurisdiction compared to the sum of the individual claims. The reversal is rectified via the jurisdictional pooled buffer, which should result in sufficient VCUs available for issuance to performing entities. For example, a jurisdiction generates 50,000 VCUs in non-project areas but a reversal of 10,000 in a project results in only 40,000 VCUs being generated across the jurisdiction. The reversal of 10,000 is rectified by the buffer, which

results in a net of 0 being recorded for the project and 50,000 VCUs being issued to the jurisdiction.

- If there is a discrepancy between the higher jurisdiction's MRV and the sum of the smaller scales, the error (or potential loss) is assigned to the higher scale. This follows from the first point above, which states the smaller-scale estimates are deducted from the larger scale. For example, if a jurisdiction verifies 10,000 VCUs across the jurisdiction but does not record any reversals in non-project areas, and the sum of the verified project VCUs is 11,000, a reversal of 1,000 is presumed to have occurred in the non-project areas. The jurisdictional pooled buffer rectifies the presumed reversal in non-project areas (by cancelling 1,000 buffer credits) and the projects receive 11,000 VCUs.

If a jurisdiction has a single crediting scale there is no credit shortfall risk within the VCS jurisdictional and nested REDD+ crediting scheme as all VCUs go to the jurisdiction. There may, however, be a credit shortfall risk associated with a jurisdiction not transferring benefits or credits down to smaller scales if there is a reversal or underperformance within the jurisdiction, but this risk is transferred to and assumed by the jurisdiction and its participants.

Recommended good practice guidance

Good practice guidance should include examples and explanations of how the jurisdictional pooled buffer works in practice. Guidance may also cover how jurisdictions with internal allocation systems may buffer against credit shortfall or underperformance risk, including the option to use the VCS jurisdictional pooled buffer.

10.2. Detailed rules and requirements for a jurisdictional pooled buffer

The following sets out more detailed rules and requirements needed to operationalize the jurisdictional pooled buffer.

Summary of comments on recommendations

Many reviewers were confused about how the jurisdictional pooled buffer would operate and whether there would be one global account or individual accounts for each jurisdiction, also how reversal liability would be shared among the various entities. There was widespread support for not penalizing performing entities, but also recognition about the importance of maintaining overall atmospheric integrity through shared use of buffer credits to cover losses wherever they occur in the system. Clarity was also sought regarding what would happen to nested projects if a jurisdiction continued to underperform or ceased MRV.

Recommended rules and requirements

All jurisdictions and nested projects receiving VCUs shall be subject to buffer withholding. Under Scenario 1, the current project requirements apply for non-permanence risk assessment and buffer withholding. For Scenarios 2 and 3, a jurisdictional pooled buffer (JPB) shall be established, comprising all jurisdictional and nested project buffer credits within a single global account, to be managed by the VCS and the registry system. In addition, buffer contributions made into the JPB by each jurisdiction and project will be individually tracked and accounted for.

Managing the JPB as a single global account increases the robustness and diversification of the pool to meet any unexpected losses wherever they may occur in the system. However, holding non-performing entities accountable for their losses is important to reduce moral hazard and encourage effective risk mitigation, and to not unfairly penalize performing entities for the poor performance of others.

The following rules and requirements apply to jurisdictions and projects receiving VCUs directly under Scenarios 2 and 3:

- 1) Project risk and required withholding percentages (ie, buffer contributions to be made at each verification event) shall be determined using the current VCS Non-Permanence Risk Tool. Jurisdictional risk shall be determined using the to-be-developed VCS Jurisdictional Non-Permanence and Crediting Shortfall Risk Tool.
- 2) In the event of a reversal within a jurisdiction (from project or non-project areas), the deficit shall be fully covered by the cancellation of an equivalent number of credits in the JPB.
- 3) In order to track performance any cancellations shall be logged as subtractions from the net total number of credits the non-performing entity has contributed to date to the JPB. If the non-performing entity has contributed insufficient credits to fully cover the loss then any shortfall shall be logged as subtractions against the buffer contribution made to date by the next jurisdictional level up participating in the VCS program (whether subnational or national) until the loss has been fully accounted for or no higher credited level exists.
- 4) Before receiving any further VCUs, entities shall make up any buffer shortfall (ie, net deficit) that has occurred due to their non-performance by replenishing the JPB with future verified reductions. As such replenishments are made, the buffer tracking logs of all the affected jurisdictional levels (per “3” above) shall be credited accordingly.
 - For example, assuming a project has contributed 100 credits into the JPB and the jurisdiction above it has contributed 500 credits to the JPB. If the project experiences a reversal of 150 credits, then this amount would be cancelled from the JPB. For tracking purposes, the project would now show a net buffer contribution of -50 credits, which would have to be paid back (with new verified reductions) before the project receives any more VCUs. Until the project’s reversals have been paid back into the buffer the jurisdiction above the project would show a net buffer contribution of 450 (500-50). If this jurisdiction subsequently experiences a net loss of more than 450 credits then it too cannot receive any more VCUs until the shortfall has been remedied.

This accounting approach places primary replacement responsibility on the non-performing entity, but also provides incentives for higher level jurisdictions not to approve projects or subnational jurisdictional REDD+ programs where reversal risks are not effectively managed.

- 5) For Scenario 2 only, in the event of a ‘reversal’²⁶ in non-project areas of a jurisdiction, the reversal shall be handled as follows to avoid penalising performing entities:
 - a) Buffer credits shall be cancelled from the jurisdictional pooled buffer in an amount equal to the reversal (in the non-project areas)
 - b) The VCS shall issue VCUs to the (smaller scale) performing entities in an amount equal to the number of VCUs they claimed

Note: The same rules apply *mutatis mutandis* where reversals occur in project areas and would otherwise result in a crediting shortfall to jurisdictions. It also applies to reversals within and outside of subnational jurisdictions nested under national accounting schemes.
 - c) The jurisdiction, where credited under the VCS, shall replenish the JPB as above.
 - d) In cases where the jurisdiction is not being credited (ie, where projects are nested in a jurisdiction that has chosen not to receive VCUs itself), the jurisdiction shall deposit a portion of ERRs into the JPB to cover potential reversals in non-project areas. The portion of ERRs that must be deposited will be determined by a

²⁶ The term ‘reversal’ is used here even though a jurisdiction may not have elected to be issued VCUs (e.g. when a jurisdictional crediting scheme only credits projects and not jurisdictions). In such cases, the jurisdictional buffer pool will still cover the loss in non-project areas regardless of whether the jurisdiction itself has contributed credits into the buffer.

streamlined version of the Jurisdictional Non-Permanence and Crediting Shortfall Risk Tool (to be developed).

- 6) After experiencing losses, it is important to promote continued jurisdictional participation in the scheme (and reduce default risks) where continued progress is demonstrated towards reducing emissions. Therefore, rather than fully repaying the buffer for the reversal immediately, once 25% of the deficit from a single monitoring report's reversal is paid back, and if there are no prior reversals that have not yet been fully repaid, jurisdictions may issue VCUs for 50% of subsequent ERRs achieved and contribute 50% to the JPB until the buffer has been fully replenished.
- 7) To quickly build up the JPB and strengthen the buffer system, the following shall apply:
 - a) Projects existing prior to the establishment of jurisdictional baselines/MRV shall transfer their existing buffers to the JPB pool once a jurisdictional baseline and MRV is in place.
 - b) Jurisdictions may choose to contribute a higher proportion of credits than that determined by the VCS Jurisdictional Non-Permanence and Crediting Shortfall Risk Tool to provide additional confidence to investors that any potential loss can be covered and not hold up future jurisdictional crediting.
- 8) In the event that a jurisdiction under Scenario 2 reports net reversals for $\frac{3}{4}$ or more of its verifications over a ten year period or fails to submit a verification report within seven years of the previous verification, it will be assumed to not have an effectively functioning jurisdictional and nested REDD+ program. In such a case, the following shall apply:
 - a) Lower scales shall continue to be credited for their ERRs—compensated by cancellations from the JPB—and only until the net buffer contributions (including credits contributed by the jurisdiction and all participants within it) are exhausted or until 10 years after the defaulting jurisdiction last submitted a verification report, whichever occurs sooner. At this point, no further VCUs shall be issued to projects or sub-jurisdictions nested within the non-performing jurisdiction.
 - b) Absent jurisdictional MRV, lower-level jurisdictions may operate as the new highest-level jurisdiction, or where no lower-level jurisdiction is participating, projects may operate independently (under VCS AFOLU project requirements). Subnational jurisdictions and projects pursuing this option shall reapply to the VCS and be validated as a new subnational jurisdiction or project (establishing a new baseline, etc.)

Buffer credits contributed by the non-performing jurisdiction shall be held or cancelled according to the current requirements for stand-alone projects (ie, after 5 or 10 years without submitting a report, buffer credits shall be put on hold under the assumption that carbon has been lost, and after 15 years buffer credits shall be cancelled from the buffer pool to cover all credits previously issued to the project).

Recommended good practice guidance

Good practice guidance should include examples and explanations of how the Jurisdictional Pooled Buffer works. This will include the examples currently contained in the definitions and rules and requirement sections along with additional examples and explanations.

Good practice guidance could also be developed outlining how potential jurisdictional legal frameworks and enforcement mechanisms could be used to bolster, or potentially replace, certain elements of the VCS non-permanence mitigation system.

The VCS AFOLU project and JNRI buffer approaches (and withholding amounts) have been designed to operate effectively and maintain atmospheric integrity regardless of whether a given project or jurisdictional actor intentionally or unintentionally takes actions that result in reversals, and regardless of whether such entities stop participating in the program and refuse to pay back lost credits. This

avoids the major challenges associated with determining intentionality and of the VCS trying to enforce legal agreements (eg, requiring compensation for intentional losses from projects leaving the VCS system) in foreign jurisdictions.

However, jurisdictions may choose to supplement the VCS buffer system by requiring that sub-actors (project and/or subnational governments) operate under contracts or other legal frameworks defining specific reversal remedies that can be enforced by the jurisdiction. Such legal tools may enable the enforcement of additional (eg, payback) provisions for entities who intentionally undertake activities that result in reversals (eg, clearing forest they had committed to preserve).

10.3. Project reversals using jurisdictional baselines

Issue: How are project reversals addressed where there is a jurisdictional baseline but no jurisdictional crediting scheme?

If there is a jurisdictional baseline but no jurisdictional crediting (and no jurisdiction wide MRV) the only reversals that exist are project reversals. There is also no crediting shortfall risk as there is no co-dependency.

Summary of comments on recommendations

No comments.

Recommended rules and requirements

Apply current VCS AFOLU project rules and requirements – ie, the current VCS AFOLU permanence risk buffer.

Recommended good practice guidance

None

10.4. Treatment of natural disturbances

Issue: How should significant natural disturbances be addressed?

Significant land-based emissions can occur due to natural disturbances (eg, hurricanes, landslides, flooding, drought, wildfires or storms). Given the potential magnitude of such events and their ability to wipe out other emission reduction gains, it is important not to unfairly penalize jurisdictions and projects if these emissions could not have been avoided. Otherwise, facing such large liabilities, many participants may either choose not join a REDD+ program in the first place or may walk away from their emission reduction activities after such a loss.

Summary of comments on recommendations

There was widespread support for not penalizing jurisdictions and projects for natural or non-anthropogenic emissions that could not have been prevented or mitigated.

To address this, originally, it was proposed that jurisdictional baselines should be retroactively adjusted to take into account any unavoidable force majeure events. Such adjustments would, in effect, zero out such emissions since they would be captured in both the baseline and REDD+ scenarios.

A number of reviewers were concerned about allowing baselines to be adjusted to capture force majeure events that may occur over time, since they generated real emissions that should be accounted for. Also, retroactively adjusting baselines (potentially frequently) could be, or at least appear, destabilizing. Furthermore, many felt that it would be challenging in certain cases to ascertain whether and to what extent such 'natural' events could have been prevented or their impacts been

minimized, and for fires whether they were human caused or not, which raises atmospheric integrity concerns if such emissions did not need to be accounted for and could just be zeroed out.

Some reviewers proposed that jurisdictions should be given flexibility to omit accounting for certain natural/non-anthropogenic disturbances that might occur as long as the same category of disturbances (eg, hurricanes) was also not captured in their baseline. However, this approach was seen to open the system to gaming, potentially encouraging the exclusion from accounting of only those disturbances expected to increase over time. Instead the Technical Recommendations now set clear parameters around the two kinds of natural disturbances (large-scale geologic losses and infrequent hurricanes) that shall be excluded from both the historic baseline and emissions accounted for in the crediting baseline.

Some reviewers pointed to the recent Durban (CMP7) decision on the Kyoto Protocol covering how natural disturbances will be treated for LULUCF in Annex 1 countries, with the potential to not account for such emissions if they exceed background rates. However, establishing background rates can be challenging, and there were concerns about adopting such an approach for non-Annex 1 countries.

In response to these comments, the new R & R's require that all natural disturbances (except large-scale geologic losses and infrequent hurricanes) be accounted for in both the historic baseline and MRV during the crediting period. But that emissions from significant, infrequent natural disturbances (defined as unavoidable) be covered by buffer credits rather than penalizing a jurisdiction or project.

Recommended rules and requirements

During MRV, as specified in section 7 above, all emissions (including anthropogenic and non-anthropogenic) shall be accounted for except for those associated with geologic disturbances affecting more than 1,000 ha and hurricanes with a return interval of more than 10 years and affecting more than 1,000 ha (both of which are also excluded from historic baselines).

Natural disturbances that are significant (ie, accounting for more than 5% of total ERRs generated within the jurisdiction during a given verification period) and infrequent (ie, not captured in the baseline period) shall be separated out in terms of emissions generated and area affected.

Total gross emissions from such natural disturbances shall be accounted for by retiring the same number of buffer credits from the JPB, rather than reducing the amount of credits available to REDD+ participants. Sequestrations from regrowth (whether natural or assisted) in the area affected by such natural disturbances shall be reported and used to build back up the buffer pool, rather than generating tradable credits.

Consistent with the Durban LULUCF decision (Dec 2011) under the Kyoto Protocol, the VCS defines 'natural disturbances' as "non-anthropogenic events or non-anthropogenic circumstances that cause significant emissions in forests and are beyond the control of, and not materially influenced by, a proponent. These may include wildfires, insect and disease infestations, extreme weather events and/or geological disturbances, beyond the control of, and not materially influenced by, a proponent. These exclude harvesting and prescribed burning."

To maintain solvency of the buffer, no more than 20% of the credits in the JPB will be cancelled in a single year due to natural disturbances. Instead, natural disturbance losses individually or collectively reaching this threshold shall be compensated for over time, cancelling up to 20% of the buffer pool each year until the loss has been fully accounted for.

Recommended good practice guidance

Guidance should be provided on how jurisdictions and verifiers might assess whether a given natural disturbance was "beyond the control of and not materially influenced by" REDD+ participants,

including possible mitigation activities (e.g. for wildfire prevention) that should be in place *a priori* to qualify.

Part IV: Safeguards, procedures, and legal considerations

11. Safeguards and benefit sharing

Issue: How to ensure that the implementation of REDD+ activities do not result in negative social or environmental impacts.

The technical team assessed options for developing jurisdictional and nested REDD+ safeguards principles and criteria, but concluded that this would be risky (and unlikely to be perceived as being legitimate) without a broad and lengthy stakeholder process. Fortunately, the Cancun Agreements contain strong and widely accepted safeguards principles that can simply be referred to, which has the added benefit of harmonizing VCS jurisdictional and nested REDD+ with emerging international policy frameworks. In addition, there are well-regarded jurisdictional standards frameworks – in particular the REDD+ Social and Environmental Standards²⁷ – that establish criteria for operationalizing such safeguards.

In terms of a right to claim GHG credits, the current VCS rules for projects require any project proponent to demonstrate their right to undertake activities and be credited for GHG reduction activities. Jurisdictions will need to demonstrate such a right of use covering activities (or polices) that produce ERRs across the jurisdiction that result in GHG credits, including those achieved by stakeholders across the jurisdiction. The technical team developed and analyzed options for how the VCS should address the disbursement or sharing of such benefits (that may be distributed as credits or other benefits) to stakeholders across the jurisdiction. The technical team determined that the allocation of benefits (and costs) associated with REDD+ is generally beyond the scope/control of a carbon standard such as the VCS. It was also determined that the rules and requirements proposed for safeguards (in this section) combined with rules and requirements for legal issues (section 13) and for developing jurisdictional crediting schemes and internal allocation plans (section 9.4) provided some protection and promoted benefit sharing. As a result specific rules and requirements on benefit sharing were not recommended.

Summary of comments on recommendations

Most reviewers recognized the value and importance of JNRI addressing safeguards at some level, while not reinventing the wheel or duplicating other efforts like REDD+ SES. Some reviewers wanted the safeguards to be strengthened, including encouraging generation of positive benefits (beyond 'no harm') and requiring monitoring and reporting against the safeguards contained in the project/jurisdictional plan. The R&R's have been revised accordingly.

Recommended rules and requirements

Jurisdictional baselines and crediting schemes shall:

- Be developed and documented in a transparent manner; and,
- Be developed with the involvement of stakeholders. Such consultation should include parties affected by the proposed scheme or program, such as existing VCS REDD+ projects, private land owners, local communities and/or indigenous peoples as well as relevant government agencies. The nature of these consultations (including who was consulted and the manner in which the consultations occurred) along with the outcomes of these consultations (including input received and how this was considered) shall be included in the

²⁷ See: <http://www.redd-standards.org/>

scheme or program documents submitted for registration with the VCS. Principle 6 of the REDD+ Social & Environmental Safeguards (SES) titled “All relevant rights holders and stakeholders participate fully and effectively in the REDD+ program” may be useful to guide stakeholder consultation.

In addition, the following text is recommended for inclusion within the VCS jurisdictional and nested REDD+ requirements:

“Participating jurisdictions and nested project proponents shall provide information in their VCS jurisdictional and project documents (JPD) on how they plan to address, and in monitoring reports on how they have addressed and respected, the safeguards contained in Annex 1 of Decision 1/CP.16 (“The Cancun Agreements”), and how they have avoided and/or mitigated negative and enhanced positive environmental and social impacts that may result from their VCS-credited REDD+ activities. Additional standards such as the Climate, Community & Biodiversity Standards (CCBS), Forest Stewardship Council (FSC) certification, and/or REDD+ Social & Environmental Standards (REDD+SES) may be used (if appropriate) to provide such information.”

Recommended good practice guidance

Regarding safeguards in general, the standards mentioned in the rules and requirements should be referred to and briefly explained.

Regarding benefit sharing, VCS participating jurisdictions could be referred to the criteria and indicators of the REDD+ SES’s Principle 2 covering how “The benefits of the REDD+ program are shared equitably among all relevant rights holders and stakeholders”.

12. Procedural issues

12.1. Validation and Verification

Issue: How is verification and validation addressed?

Independent assessment is an integral part of the VCS and other emissions trading systems. This helps promote environmental integrity and transparency. Validation is a process of checking jurisdictional or project documents before they are registered with the VCS. This may apply to: i) jurisdictional baselines; ii) jurisdictional crediting schemes; and iii) project level baselines. Verification is the process of checking the accuracy of monitoring reports before credits are issued.

The common issue in all these types of validation and verification activities is who should perform this task? The following options were developed and analyzed by the technical team:

- Apply the current VCS methodology approval procedures mutatis mutandis to other aspects of the jurisdictional and nested REDD+ crediting scheme that requires verification (which requires assessment by two accredited validation/verification bodies (VVB).
- Require assessment by a single accredited VVB.
- Create a new peer review process consisting of independent experts modeled on the UNFCCC expert review team concept for Annex I national inventories.
- Combine options 2 and 3 above, which reflects the current CDM process
- Allow ‘self-verification’ by a jurisdiction

Summary of comments on recommendations

Comments largely supported the proposed approach for validation and verification. Opinions differed on whether reviews should be conducted by one or two VVBs and on the role and oversight of the expert panel. The full process for validation and verification is still under consideration by the VCSA.

Recommended rules and requirements

The table below sets out the recommended approaches for each issue subject to verification or validation.

Issue subject to verification or validation	Recommended approach
Jurisdictional baseline	Review by a single VVB combined with an expert review panel
Jurisdictional crediting scheme (national or a standalone subnational)	Review by a single VVB combined with an expert review panel
Jurisdictional crediting scheme (subnational nested within an existing national)	Up to the national jurisdictional crediting scheme to decide.
Project baseline and monitoring report within a jurisdictional crediting scheme (direct crediting by the VCS)	Single review by a VVB
Project baseline within a jurisdictional crediting scheme (no direct crediting by the VCS)	Up to the national jurisdictional crediting scheme to decide
Jurisdictional monitoring report (if used as the basis of claiming VCUs directly from a VCS registry)	Single review by a VVB

Recommended good practice guidance

None

12.2. Communicating with governments (government “approvals”)

Issue: What entity should serve as the focal point for communications with jurisdictions? How should domestic regulations be taken into account? What types of communication may be required?

Definitions:

- **Focal Point:** The government body, agency or office that has control and responsibility for review and ‘no objection’ of lower-level jurisdictional programs and/or projects
- **Jurisdictional Proponent:** The government body, agency or office that has overall control and responsibility for the jurisdictional REDD+ program, or a body, agency or office that together with others, each of which is also a jurisdictional proponent, has overall control or responsibility for the project. The jurisdictional proponent and the Focal Point may be the same entity
- **Authorized Representative:** An entity authorized by the project or jurisdictional proponent to communicate with and provide instructions to the VCS registry administrator on its behalf, such authorization granted through a communications agreement signed by both/all parties and submitted to the VCS registry administrator

The technical groups considered the following types of communications:

Written approval: Written confirmation, ratification, or assent to the VCS jurisdictional element being submitted for registration with the VCS is required from the relevant Focal Point(s).

No-objection: Written letter from the Focal Point stating they do not object to the element being submitted for registration. Information on an element that is to be registered with the VCS is provided to the relevant Focal Point(s), and a response is required prior to it being submitted for registration. It

was considered to allow a lack of response from the Focal Point to be considered 'no objection'; however feedback emphasized the need for legitimate consultation with, and response from the Focal Point.

Notice of intent: Notice of intent refers to providing written notice to a government agency of an intention to register some action or element with the VCS. In the current context it does not request the recipient to either approve or formally object to the contents of the notice.

It should be noted that this does not preclude the recipient of the notice from either approving or objecting to the contents of the notice via domestic procedures outside the scope of the VCS.

Consultation: Consultation requires evidence that the entity submitting an element for approval has consulted with the Focal Point [and other relevant government body(ies)] prior to that element being submitted for registration to the VCS. In this document, this is used in combination with a no-objection.

Summary of comments on original recommendations

Focal points:

- A definition of focal points is needed, and has been provided Where a (single or multiple) REDD+ focal point has been designated by the government, such agency should be considered the focal point for any communication, including 'no objections'. Where none is designated, the CDM DNA should serve as the default national focal point.

Approvals vs. No Objection:

- Where relevant approval processes are already set out in a given jurisdiction (eg, in law), they should apply in place of the VCS requirements.
- There is a need for response from the focal point to ensure that governments are aware of developments at lower scales and to provide a measure of assurance to project and jurisdictional proponents that their efforts will be recognized in the longer term.
- It may be difficult to secure 'approval' from higher levels and therefore 'no objection' should be sufficient. Though many comments suggested a lack of response in 30 days was sufficient, many others strongly disagreed and the Secretariat has determined a response is required.
- There is a need to reduce the ability to 'shop' around different agencies and a need for clear rules to reduce the risk to the VCS of stepping into conflicts between the national and subnational governments

Recommended rules and requirements

Consideration of relevant domestic regulations

- If there are any domestic regulations governing government approval of any element covered by the VCS jurisdictional and nested REDD+ crediting scheme such as government approval of a jurisdictional baseline, or approval of project activities, the VCS shall require evidence that this domestic regulation was complied with. Satisfying this provision make take the place of the rules and requirements discussed below on VCS-specific no-objections. For any elements that are not covered by domestic regulation, the rules and requirements discussed below are required to register an element with the VCS.

Focal Point for communication and 'no objection'

- Jurisdictions are encouraged to designate a specific ministry, authority, agency or other government entity to serve as the focal point for the initiative. More than one focal point is possible within a country (eg, multiple provinces may have their own focal point; there may also be a national and multiple subnational focal points).

- Where such a designation is not made, any elements that need a no-objection response, and any communications referred to in this section shall be directed to the relevant government agency, as follows:
 - The national and any relevant subnational jurisdictional proponent that has registered an element under the VCS jurisdictional and nested REDD+ crediting scheme (as shown on the VCS website); or,
 - Where no such proponent is registered, to any and all REDD+ Focal Points identified by the national government under other REDD+ programs (eg, the agency identified as the Focal Point for FCPF or bi-lateral REDD+ agreements); or,
 - Where no REDD+ Focal Points have previously been established, to the Designated National Authority (DNA) under the Clean Development Mechanism; or,
 - Where no DNA has been established, to any and all relevant government agency or agencies (eg, ministry or department) within the national and relevant subnational government.

Baselines

- Jurisdictional baselines may only be submitted to the VCS by jurisdictional government entities/agencies that qualify as jurisdictional proponents (see definition), or by an authorized representative of the jurisdictional proponent. Note that baselines may be developed by non-governmental organizations or other partners, but such partners may not submit baselines for registration, unless they have been designated as the authorized representative by the jurisdiction.
- Jurisdictions are required to follow the stakeholder consultation requirements with respect to jurisdictional baselines, as set out in section 11, including consultation with the national Focal Point, or relevant agencies.
- If the entity that submits a jurisdictional baseline for registration is i) the national Focal Point; or ii) has legislated control or authority over the jurisdiction covered by such baseline, including control over forest and environmental management, evidence of no-objection from higher levels of government (eg, national government) is not required (ie, a subnational government agency with control over forest and environmental management submitting a baseline for registration does not need to get a no-objection response from the national government). If the jurisdictional proponent does not have sufficient authority over the jurisdiction, the proponent (or representative) needs to consult with the jurisdiction's Focal Point and the national Focal Point (where different) and comply with the no-objection requirements. In other words, a sub-national jurisdiction without full control over forest and environmental management can submit a jurisdictional baseline for registration where it demonstrates it has consulted with the higher scale (eg, national) Focal Point(s) and completed the no-objection requirement; or, an NGO, can submit a jurisdictional baseline for registration where it has been recognized as the authorized representative, and demonstrates it has consulted with the Focal Point(s) and completed the no-objection requirement.
- When a jurisdictional baseline is submitted for registration, the information contained in the request for registration shall specify what, if any, government communications are required for the registration of any subsequent smaller-scale (subnational jurisdictional or project level) baselines.
- If the administrative boundary of a subnational jurisdiction is not clear, the national government must provide additional written approval of the administrative boundary for the purposes of the VCS.

Leakage

- Jurisdictions shall establish or define a centralized body/agency (that may be the Focal Point or another entity) to track any leakage sharing agreements in place, and where not applying the VCS leakage tool (to be developed), a mechanism for tracking leakage across the jurisdiction and for assigning leakage to projects and/or jurisdiction based on REDD+ program rules.

Jurisdictional Boundaries

- Jurisdictional boundaries may only be submitted by the jurisdictional proponent or national government proponent or Focal Point.
- Only national government proponents or Focal Points may submit jurisdictional boundaries where such boundaries do not align with administrative units (eg, where the national Focal Point determines that subnational jurisdictions should be based on eco-regions).

Crediting schemes

- Only the national jurisdictional proponent is eligible to submit national jurisdictional crediting schemes for registration under the VCS jurisdictional and nested REDD+ system.
- Only the national jurisdictional proponent, national Focal Point, subnational jurisdictional proponent or sub national Focal Point are eligible to submit subnational jurisdictional crediting schemes.

Projects

- If a project falls within a jurisdictional crediting scheme, it shall follow any approval procedures set out in the jurisdictional crediting scheme.
- If the project sits within a jurisdiction that has a jurisdictional baseline only (but no crediting scheme), additional communication with the Focal Point is not required to be issued VCUs, and the project shall follow the project-based VCS requirements.

Recommended good practice guidance

None

13. Legal issues

Issue: How does the VCS deal with legal issues associated with jurisdictional and nested REDD+?

There are a number of legal issues that arise with jurisdictional and nested REDD+, such as treatment of carbon rights in non-project areas within a jurisdiction that is issued VCUs (eg, ownership of credits associated with government policies), how rights to credits from government policies relate to rights to project credits where the areas overlap (ie, a policy operating within a project boundary), and ownership of credits.

13.1. Claiming credits under a registered baseline

Issue: How are credits claimed under a jurisdictional baseline?

Registering a jurisdictional baseline does not automatically give right to emissions reductions/removals – additional steps are needed to demonstrate the claimant is the appropriate entity. What are the legal requirements for claiming a right of use with respect to emissions reductions/removals under a national or subnational jurisdiction-wide crediting scheme? What changes are required to the VCS project level requirements on demonstrating a right of use in order to be applicable to jurisdiction-wide activities²⁸?

²⁸ Noting this is not the same as establishing legal title to the emission reduction/removals. The *VCS Standard* requires the following of projects:

The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use (see VCS document Program Definitions for definition of right of use) accorded to the project proponent(s):

- 1) A right of use arising or granted under statute, regulation or decree by a competent authority.
- 2) A right of use arising under law.
- 3) A right of use arising by virtue of a statutory, property or contractual right in the plant, equipment or process that generates GHG ERRs (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such right of use).

The VCS currently requires, for project activities, that the project proponent provide evidence establishing conclusively the project proponent's right of use in respect of a GHG emission reduction or removal in order to issue credits. It must be determined how such right may be demonstrated by a jurisdiction and by a project that is nested within a jurisdiction.

The technical team developed and considered the following options:

Where multiple crediting scales exist:

Jurisdiction- wide crediting:

- Jurisdiction to provide evidence of right of use to emissions reductions/removals in order to claim credits from land or forests where title to that land or forest is held by individuals or groups (eg, privately owned land, community land), or exclude such areas from crediting claims
- Jurisdiction to provide evidence for right of use to emissions reductions/removals in order claim credits via a new type of usage right for ERRs that are generated from activities that are not spatially explicit
- Jurisdictions have sovereign rights to claim right of use to emissions reductions/removals and credits provided the legal basis for this is demonstrated (eg, via statute)

Project crediting (where projects are credited directly):

- Projects have right of use over the full amount of emissions reductions generated within project boundaries
- Where emissions reductions within project boundaries may be partially due to project activities and partly due to jurisdictional policies and programs, right of use over the emissions reductions/removals, and therefore right to credits, may be split between the project and the jurisdiction

Where only one crediting scale exists:

- Where only projects are credited, current VCS rules and requirements apply
- Credit distribution or benefit sharing to nested sub-national jurisdictions and projects is an issue of internal allocation (see section 9.4), and is not further discussed in this section

Summary of comments on recommendations

Minor changes and clarifications to the right of use requirements were suggested. Clarification has been added with respect to the VCS right of use requirements, which are distinct from establishing legal title to emission reductions/removals. With regard to the ability of a jurisdiction to claim a portion of credits from within project areas, commenters pointed out that many countries will implement laws, regulations or policies that define how benefits must be shared and this must be allowed, provided such regulations are set in a transparent manner. This should be left to a jurisdiction to determine, and therefore the VCS will not specify how this is to be done.

Recommended rules and requirements

Jurisdiction-wide crediting

- 4) A right of use arising by virtue of a statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such right of use).
- 5) An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the plant, equipment or process that generates GHG emission reductions and/or removals which vests the right of use in the project proponent.
- 6) An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG ERRs which vests the right of use in the project proponent.

- Where ERRs from jurisdictional scale activities are spatially explicit, the jurisdiction is required to provide evidence of right of use with respect to ERRs from land or forests where title to that land or forest is held by individuals or groups (eg, privately owned land, community land), or exclude such areas from the jurisdiction's crediting claims.
- In order for a jurisdiction (national or subnational) to be issued with credits, the proponent must demonstrate conformance with the right of use requirements of the current VCS Standard, though the current project-specific definition of right of use needs to be modified, as follows:

In respect of a GHG emission reduction or removal, the unconditional, undisputed and unencumbered ability to claim that the relevant project, or proponent of the jurisdictional crediting scheme, as applicable, will or did generate or cause such reduction or removal.
- Such right may be demonstrated by an additional type of right of use:

A right of use arising from the implementation or enforcement of laws, statutes or regulatory frameworks that implement²⁹ or incentivize activities that generate GHG emission reductions or removals.

Project level direct crediting when nested within a jurisdiction

- If a project is nested within a jurisdictional scheme and right of use can be demonstrated by both the project and the jurisdiction, the credits may be split between the project proponent and the government, where the jurisdictional government implements relevant regulations or legislation, for example, splitting credits according to a set percentage, formula or tax. Setting such policies should be done in compliance with the stakeholder consultation requirements outlined in section 11.

Recommended good practice guidance

None

13.2. Underlying ownership of credits

Issue: Does VCS issuance of VCUs affect title to credits or underlying rights?

If the VCS issues VCUs, what, if anything, does this imply with respect to title or ownership of VCUs or underlying rights?

Summary of comments on recommendations

Several reviewers requested clarity on the distinction between right of use (13.1) and ownership of credits (13.2). The VCS does not require proof that legal title to ERRs is established. Very little law has yet emerged that allows unambiguous establishment of such legal title. Thus legal title is a matter of legal interpretation, about which buyers and sellers may wish to solicit the opinion of a well-qualified lawyer. It is not appropriate for a GHG program to validate such opinions and therefore the VCS instead requires evidence of right of use, as outlined in section 13.1 of this document (and as set out in the VCS Standard) and proponents to sign a representation that they have legal title to the ERRs. This representation provides recourse for buyers in the event of dispute over legal title. The combination of requiring evidence of right of use (and validation of same by a validation/verification body) and the signing of the representation therefore provides a robust approach to the issue of ownership.

Recommended rules and requirements

The party claiming credits is required to apply existing VCS right of use tests, which do not directly address ownership but a right to claim credits. Any local legal requirements falling outside this

²⁹ Implemented in the context of this paragraph means enacted or introduced, consistent with use of the term under the VCA and CDM rules

framework are dealt with between the government and the project per domestic legal requirements³⁰ ie, no new R&R on this topic are adopted.

Recommended good practice guidance

None

³⁰ The current 'right of use' requirements (items 3-4) require that the project proponent has 'not been divested of such right of use' so arguably credits issued under these classifications would need to demonstrate that there isn't a legal restriction on their ownership. However, if you read the 'right of use' definition, it requires that the claimant "will or did generate or cause such reduction or removal" – this might need to be amended depending on the outcomes of the JNRI.

Annex 1: Activity based versus landscape accounting

Activity-based accounting is the traditional approach in mitigation projects. Activity accounting focuses on the activity being implemented and determines the baseline and monitors emissions and sequestration directly associated with the activity. An example is forest management where the activity might be reduced impact logging. In this case an activity-based accounting approach would look directly at direct and incidental emissions and sequestration associated with the felling and extraction of timber trees.

Landscape accounting takes a broader perspective. Inventory plots are established across a Jurisdiction and regularly monitored. Plots are established systematically and at sufficient density to capture stocks and changes in stocks across the Jurisdiction's forests. A landscape approach captures changes that occur in the specific plots and multiply this sample up to the entire forest. In this case emission reductions associated with reduced impact logging would, in theory, be captured alongside all other changes in stocks in the forests because a proportion of the measurement plots would include areas that previously were conventionally logged and now have reduced impact logging.

Annex 2: Comparison of IPCC, UNFCCC, and VCS division of REDD+

IPCC categories	UNFCCC REDD+ activities	Broad jurisdictional and nested VCS REDD+ activities	Major activities	Broad VCS project activities	Specific VCS project activities	
Conversion of forest to non-forest	RED (Reducing Emissions from Deforestation)	Reducing Emissions from Deforestation	Reducing deforestation (conversion of forest to non-forest).	REDD (reduced emissions from deforestation and degradation)	APD (avoided planned deforestation)	
					APD + RDP (avoided planned deforestation plus peat rewetting)	
					APD + CUPP (avoided planned deforestation and peat drainage)	
					AUD (avoided unplanned deforestation)	
					AUD + RDP (avoided unplanned deforestation plus peat rewetting)	
					APD + CUPP (avoided planned deforestation and peat drainage)	
Forests remaining as forests	REDD (Reducing Emissions from Degradation)	Reducing Emissions from Degradation	Reducing emissions from forests remaining forests.		AUDD (avoided unplanned degradation)	
					AUDD + RDP (avoided unplanned degradation plus peat rewetting)	
					AUDD + CUPP (avoided unplanned degradation and peat drainage)	
					IFM (improved forest management)	
					RIL (reduced impact logging)	
					LtPF (logged to protected forest)	
	REDD+ (Sustainable management of forests and enhancement of forest carbon stocks)	Enhancement of forest carbon stocks	Increasing removals from forests remaining forests		ARR (afforestation, reforestation and revegetation)	ERA (extended rotation age)
						IFM + RDP (improved forest management plus peat rewetting)
						IFM + CUPP(improved forest management and preventing peat drainage)
						LtHP (low productive to high-productive forest)
Conversion of non-forest to forest		Increasing conversion to forests.			ARR (afforestation, reforestation and revegetation)	
					ARR + RDP (afforestation, reforestation and revegetation plus peat rewetting)	
					ARR (afforestation, reforestation and revegetation)	
					ARR + RDP (afforestation, reforestation and revegetation plus peat rewetting)	

Annex 3: Planned deforestation

1. Why is location important for deforestation?

Historic analysis will determine a rate at which deforestation is occurring. But that rate can't just be applied to any selected area of forest in the jurisdiction. Large areas of forest have zero risk of deforestation due to distance from the necessary infrastructure that would drive and facilitate deforestation. A deforestation baseline must therefore either identify the specific locations that would be deforested, or require projects to demonstrate that the specific area would have been deforested.

2. Why is it not possible to project the location of planned deforestation?

Just like unplanned deforestation it would be possible to evaluate drivers and factors that would be associated with making an area likely to be subject to planned deforestation. However, this is only a probability of being subject to deforestation. This approach works for unplanned deforestation where there are hundreds of actors each deforesting small areas. In such a case balance of probabilities is effective for demonstrating likely areas deforested in specific years. Across an unplanned deforestation project area there will likely be areas falsely identified to be deforested in the baseline and areas that would have been deforested but were not identified as such. The modeling should ensure these are a small proportion and that false positives and negatives are balanced.

In contrast, large-scale planned deforestation involves few actors deforesting large areas. A spatial projection would be picking specific large parcels for deforestation and thereafter only allowing crediting based on those parcels. The reality is there was a chance alternate areas would have been deforested instead and these areas (where spatial projection occurred) would not be eligible for a carbon project at all while the projected area could generate emission reductions even though the reality would be that no emissions would have occurred.

Effectively the modeling would be predetermining winning landowners or parcels that could participate and excluding all others. The result would likely be a race to sign up these eligible areas.

3. Why it matters if planned and unplanned deforestation are not separated?

One solution would seem to be to just exclude planned deforestation as a project type. The problem here is that the rates of unplanned deforestation are determined from historical analysis of deforestation recorded by remotely sensed imagery. This imagery will include deforestation that occurred in both a planned and unplanned manner. If planned deforestation is not considered, the result is a false elevation of the areas deforested in an unplanned manner in the historical imagery and therefore a falsely high resulting baseline.

4. When is this an issue for VCU integrity?

In any situation in which jurisdictional monitoring and jurisdictional accountability exist then VCU integrity is not threatened. The historic analysis determines total deforestation under business as usual and monitoring reveals deforestation still occurring. Net across the jurisdiction, the number of VCUs can therefore not exceed the difference between business-as-usual and the current monitored situation. This captures Scenarios 2 and 3. To ensure VCU integrity only under Scenario 1 would the division between planned and unplanned be absolutely required. But even under Scenarios 2 and 3 it should be good practice guidance to ensure the buffer is not drained and that jurisdictions do not overcredit projects at their own expense.