

Forest Carbon Partnership Facility (FCPF)

Working Group on the Methodological and Pricing Approach for the Carbon Fund of the FCPF (WG)

2nd conference call (February 14, 2012)

Background Note #2

Carbon Accounting Aspects for the Methodological Framework of the Carbon Fund of the FCPF

The objective of this note is to provide background information to the Working Group (WG) on topics for potential principles for the Methodological Framework (MF) for the Carbon Fund (CF), to help structure discussion, by: 1) summarizing discussion to date, 2) proposing a revised set of key “elements” to guide the MF for your consideration, and 3) reviewing the UNFCCC and other climate policy regimes’ use of principles in an Annex.

1. Discussions on the Carbon Fund methodological framework to date

1.1 Purpose of the methodological framework

The purpose of the methodological framework (MF) was outlined in WG Background Note #1 and discussed on the first call of the WG on January 11, 2012.¹ The methodological framework would allow:

- a) comparison across ER Programs which come from different countries and consist of different activities, and of how they meet the required characteristics and standards;
- b) consistency in the determination of the quality of ERs expected from the ER Programs; and
- c) provide guidance to FCPF REDD Country Participants in the preparation of ER Programs (e.g., what methods and issues they need to focus on, or what is expected by the CF).

The Issues Note of the CF² reflects inputs from meetings of entities interested in the CF held over the course of 2009-2010, in Participants Committee meetings (PC4, PC5, PC6 and PC7), and exchanges with Indigenous Peoples and civil society in Washington and Accra. With regard to the MF, the Issues Note states that “the selection of ER Programs into the portfolio of the Carbon Fund will be based on the following characteristics:

[Note: those marked with an “A” indicate potential MF accounting elements; those marked with a “P” indicate potential programmatic elements. The underlining is added here to help clarify the A or P notation.]

1. (P) Be submitted by the governments or government-approved entities of countries that are FCPF REDD Country Participants, i.e., countries that were selected into the Readiness Mechanism of the FCPF;

¹ WG Background Note #1 is available at:

<http://www.forestcarbonpartnership.org/fcp/sites/forestcarbonpartnership.org/files/Documents/PDF/Jan2012/Working%20Group%20key%20issues%20and%20proposed%20schedule%20final.pdf>

² The Issues Note is available at <http://www.forestcarbonpartnership.org/fcp/node/277>.

February 7, 2012

2. (A) Be based on performance, i.e., payments for ERs relative to an agreed reference emission level (REL) and/or forest reference level (FRL);
3. (A, P) Generate high-quality and sustainable ERs (including environmental and social benefits, and minimization of the risk of non-permanence);
4. (P) Be consistent with emerging compliance standards under the UNFCCC and other regimes, as applicable;
5. (P) Be based on transparent stakeholder consultations;
6. (P) Use clear and transparent benefit-sharing mechanisms with broad community support. Adequate governance and financial management arrangements for a transparent benefit sharing will need to be in place prior to the effectiveness of the ERPA; and
7. (P) Generate learning value by testing and demonstrating different approaches that are proposed by REDD+ countries, and learn from them in order to inform the international community on their feasibility.

For sub-national ER Programs, these should also:

8. (P) Be undertaken at a significant scale, e.g., at the level of an administrative jurisdiction within a country or at the national level, in line with the proposed national REDD+ management framework;
9. (P) Be consistent with the (emerging) national REDD+ strategy and recognized as such by the appropriate national authority;
10. (A) Demonstrate capacity to measure and report on ERs. The system should be consistent with the (emerging) national REDD+ MRV system;
11. (A) Be consistent with the national REL/FRL, or with the national approach establishing it;
12. (P) Be integrated in a national institutional framework that will manage and coordinate sub-national programs; and
13. (A) Provide for an assessment of and measures to minimize the risk of displacement of emissions (leakage), reversals (non-permanence) and other relevant risks.

1.2 CF and PC discussion of MF issues to date, and FMT Proposal of Key Elements

The CF's video-conference September 1-2, 2011, and the FCPF PC and CF meetings in Berlin in October 2011, exchanged views on the MF among participants and early ideas presented by the FMT, which included an early proposal of six methodological "elements" (shown in Table 1 below), as well as six major "programmatic characteristics" pertaining to ER Programs (shown in Table 2 below).

Table 1: Potential ER Quality Elements Proposed to the CF and PC (Berlin, October 2011)

1	Data quality: Accuracy, IPCC Tier, etc.
2	Methods quality: Capacity to measure and report ERs, methods for REL/FRL, etc.
3	Consistency with national reference emissions level (REL/FRL)
4	Consistency with national MRV system
5	Measures to address risk of reversals of ERs (non-permanence)
6	Measures to address risk of displacement of emissions (leakage)

The term “elements” was used by the FMT to clarify that these proposed key building blocks of a standards approach for the CF are derived from principles of the UNFCCC (and other climate policy regimes) – but that the abstract UNFCCC principles have been reworked to be more operational and tailored to the needs of the CF MF. These proposed elements of a MF summarize the CF Issues Note lists reviewed just above.

A distinction was proposed between the quality of the ERs an ER Program would generate (reflected in the six elements addressing carbon accounting mostly), versus a second set of six programmatic characteristics that reflect the quality of the ER Program. These latter program characteristics consider issues like consistency of the ER Program with emerging compliance standards, and were presented as pass or fail list where a defined high-quality minimum standard would need to be met. The proposed set of programmatic elements in the FMT presentations in October 2011, is below, to illustrate the relationship between carbon accounting and program elements. Please note that a revised version of the carbon accounting and programmatic elements is presented in section 2.2 below; and that discussion of program topics, including social and environmental benefits, is scheduled for the WG’s latter consideration, likely in call #3.

Table 2: Potential Programmatic Characteristics Proposed to the CF and PC (Berlin, October 2011)

1	Submitted by government-endorsed entity
2	Consistent with emerging UNFCCC compliance standards (and other regimes, to extent feasible)
3	Transparent stakeholder consultations
4	Social and environmental safeguards and clear and transparent benefit-sharing mechanisms
5	Integrated in national framework managing sub-national programs
6	Consistent with emerging national REDD+ strategy

1.3 Key views expressed in the discussions held in October 2011 included the following:

1. Support for building on existing UNFCCC and other major climate regime principles as much as possible, while adapting them for the CF needs and adding as needed—thus a mix of support for general principles but recognition of the CF’s more operational requirements;
2. General support for using a principles/standards/indicators approach for the MF (as opposed to a very detailed, technical method like those for CDM or VCS projects), with some methods guidance or development needed. The FCPF Readiness Fund has used a standards approach to assess R-PPs. Many countries and experts find CDM-like detailed methodologies are difficult and hard to find in-country data for;
3. Interest in the six ER quality elements, and in the six programmatic characteristics, proposed by the FMT for consideration. However not enough discussion to reach any consensus on which were appropriate. Consideration of these elements or other principles is the focus on this WG call;
4. MF should help determine if a proposed ER Program (ERP) meets a high minimum standard;
5. MF could be useful to distinguishing levels of quality of ERPs presented. Significant debate developed over whether a single, high-quality standard should be developed by the CF, or if the MF and pricing approach should be designed to distinguish two or possibly three levels of quality as proposed by the FMT presentations. The term ‘stages’ was used to capture a combination of two or more quality levels, and an evolution over time in the quality of ERPs, as countries improve their data, methods, programs, offer additional benefits, and reduce risks. Some CF participants generally leaned towards a single quality, while others were open to the need to allow for multiple quality graduations for ERPs, which are likely to be very diverse. This needs further discussion;
6. Range of views on whether and how additional benefits of ERPs like biodiversity conservation or enhanced safeguards could distinguish quality across ERPs. This topic needs further consideration in both the MF and pricing WG discussions;
7. Some felt that the MF should set high standards so that compliance-grade ERs would be generated, while others felt that a wide range of characteristics of ERPs is desirable, and that determining how to comply with standards being discussed by other climate regimes like the California Climate Action Registry or the VCS is desirable, though it may be challenging and complex for the CF MF to be consistent with multiple such programs;
8. The relationship of the discussion of R-Package content to the CF development was recognized, although a range of views exists regarding if or how the CF could link its methods and pricing development to the standards proposed for the R-Package draft’s current nine components.

2. Considerations for establishing guiding principles for the methodological framework

2.1 Role of principles in the methodological framework

The MF is anticipating using a standards approach to assist countries developing ERPs, and the CF and PC in assessing them, to achieve comparable compliance with the CF selected characteristics listed above. Most standards (such as VCS) are based on a set of principles which represent fundamental statements about the desired outcome of the program, often elaborated as follows:

- **Principles** are the ‘intent’ level of a standard which elaborate on the objectives of the standard and define the scope. They are fundamental statements about the desired outcome and are not designed to be verified.
- **Standards (or criteria)** are the ‘content’ level of a standard which set out the conditions which need to be met in order to deliver a principle. It can be possible to verify criteria directly but they can also be further elaborated through indicators.
- **Indicators** are quantitative or qualitative parameters which can be achieved and verified in relation to a criterion.

Thus the CF may use a generic standards approach, which incorporates a second, more specific use of the term standard, as the metric against which a principle is evaluated.

2.2. Potential carbon accounting topics to consider for principles for the methodological framework

While UNFCCC abstract principles have proven useful, they are difficult to define and to operationalize in the CF setting, where ERPs would be developed and contracts signed for them. Principles often are applicable to multiple issues or methodological considerations, where more specific guidance would be useful to the CF MF. Thus a more pragmatic set of principles related to carbon accounting and program eligibility aspects of ERPs may be more effective.

Tables 3 and 4 below offer the revised proposal for CF consideration of principles (updating the two sets of elements presented to the CF in October). Based on a review of UNFCCC principles and CF needs, the tables combine several principles into more general categories that mix principles and other guidance, called “elements” here. For example, the CF element entitled “data quality” discussed in the Berlin meetings tries to simplify and combine the UNFCCC individual principles of relevance, consistency, completeness, and accuracy.

These accounting and programmatic elements could form the foundation for the development of the CF MF, and are offered for WG consideration. The key question essentially is: Do these two sets of elements capture the major potential principles needed for the CF?

Table 3: Revised FMT Proposal: ER Accounting Elements

1	Data quality: Accuracy, IPCC Tier, etc.
2	Methodological capacity to measure and report ERs
3	Methodology for estimating REL/FRL, and consistency with national REL/FRL approach
4	Methodology for measurement and reporting ERs, and consistency with national MRV approach
5	Measures to address risk of reversals of ERs (non-permanence)
6	Measures to address risk of displacement of emissions (leakage)

Table 4 below provides a revised and renamed version of the ER Programmatic Characteristics discussed in Berlin. This topic is introduced here as part of the overall MF, and will be discussed in WG call #3. A new short background paper will be produced by the FMT prior to that call.

Table 4: Revised FMT Proposal: ER Programmatic Elements

1	Submitted by government-endorsed entity
2	Consistent with emerging compliance standards of UNFCCC and/or other regimes
3	Transparent stakeholder consultations
4	Social and environmental safeguards met; and clear and transparent benefit-sharing mechanisms
5	Integrated in national framework managing sub-national programs
6	Consistent with emerging national REDD+ strategy

The table below compares these proposed CF elements with individual UNFCCC principles, as discussed by the CF meetings in September and October.

(Annex I offers background information and some questions for reflection, if needed, on UNFCCC and other principles that were the basis for this table.)

Table 5: UNFCCC Principles Compared with Potential CF Carbon Accounting Methods “Elements “

UNFCCC Principles re Carbon Accounting	Potential CF Carbon Accounting Methods “Elements “
Transparency	<ol style="list-style-type: none"> 1. Data quality 2. Methodological capacity to measure and report ERs
Relevance Consistency Completeness	<ol style="list-style-type: none"> 1. Data quality 2. Methodological capacity to measure and report ERs 3. Methodology for estimating REL/FRL, and consistency with national REL/FRL approach
Accuracy	<ol style="list-style-type: none"> 1. Data quality
Conservativeness	<ol style="list-style-type: none"> 1. Data quality 2. Methodological capacity to measure and report ERs 3. Methodology for estimating REL/FRL, and consistency with national REL/FRL approach 4. Methodology for measurement and reporting ERPs, and consistency with national MRV system approach

UNFCCC Principles re Carbon Accounting	Potential CF Carbon Accounting Methods “Elements “
Measurable and reportable consistent with reference level	3. Methodology for estimating REL/FRL, and consistency with national REL/FRL approach 4. Methodology for measurement and reporting ERPs, and consistency with national MRV system approach
Address reversibility and displacement	5. Measures to address risk of reversals 6. Measures to address risk of displacement

Figures 1 and 2 below summarize two options for establishing a relationship between the methodological framework and the pricing approach (see more details on the two options in Background Note #3). Achieving a common understanding of how the two aspects are interconnected will inform WG and CF discussions, and work developing the MF over the months ahead. Note that some decisions made on principles for the MF or policy guidance for the pricing approach could have lasting implications for the CF, and ERPs that are submitted to it.

Figure 1: Pricing Based on Single High-Quality Standard

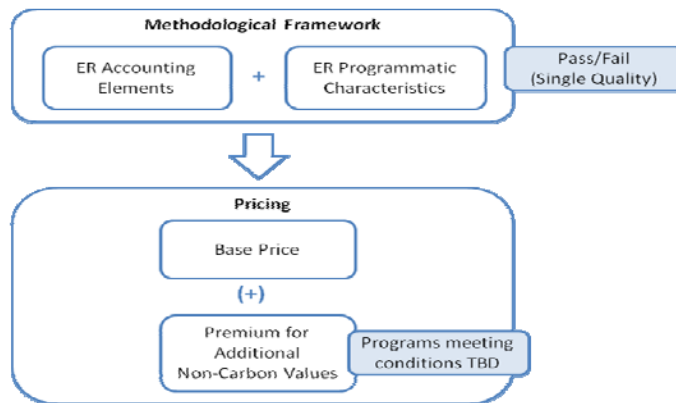
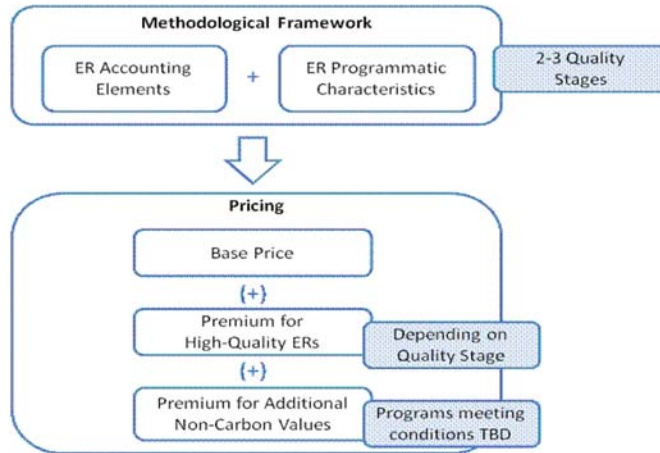


Figure 2: Pricing Based on Differentiated Quality



3. Proposed WG discussion approach

The following approach is proposed for the WG discussion in call #2:

- a. Briefly discuss the basis for selecting principles for the MF. For example, the WG could either:
 - 1) Propose several general principles like the UNFCCC ones (e.g., accuracy, completeness), or a single principle including many of them (and leave their operational application to the CF); or
 - 2) Propose more operational principles to address carbon accounting, like the set of ER Accounting and ER Programmatic elements presented just above.

- b. Review these elements, and determine if they are reasonable basis for developing the MF? Is anything not needed? Or is anything important missing?

- c. Key decisions facing the WG include:
 - 1) How much guidance to offer at this stage of CF development?
 - 2) Should more general principles, or more operational guidelines, be offered, or should operationalization of general guidance be left to the CF to define in its MF?

ANNEX I:

Comparison of the Use of Principles in Greenhouse Gas Mitigation or Accounting Programs

1. Principles in other Greenhouse Gas accounting programs

While the Kyoto Protocol's flexible mechanisms, e.g., the Clean Development Mechanism (CDM), have not defined formal principles for their operation, the UNFCCC does regularly refer to general principles for climate mitigation activities in its negotiating and final texts and in the IPCC Good Practice Guidance. Other climate mitigation programs that have defined principles that reflect their objectives, which offer a useful starting point for MR principles.

Annex Table 1 (at the end of this note) lays out some of the principles being used by three carbon forestry programs (VCS, California Climate Action Registry, and EU ETS). It is a long, inclusive list of fourteen principles, including ones that tend to overlap or be more difficult to operationalize.

One recent survey paper on "Effectiveness and legitimacy of forest carbon standards in the OTC voluntary carbon market," by Eduard Merger and Till Pistorius, notes in its conclusions:

"Despite the fragmented and immature state of the OTC [over the counter] market, standards act as 'market-making' intermediaries and contribute to the quality and transparency of the OTC market...Despite the lacking legitimacy of the standards, pressures from the institutional environment on standards ensure a minimum quality of carbon credits (including positive social and environmental impacts of carbon credits) that serves as an insurance mechanism for the integrity of standards... [V]oluntary standards imply a more innovative certification approach, [as] [than] one legal authority could do, because standards have to compete for adopters backed by civil society organisations." [edits in brackets are added for clarity]

Annex Table 2 defines some of the principles that are being used by other programs. This review covers the CDM Afforestation/Reforestation project guidance plus five other forest carbon standards. It lumps many carbon accounting principles into one category (quantification and accounting of greenhouse gases (GHGs)); and includes verification, accreditation of verifiers, prevention of double counting, an independent registry for GHG mitigation activities, and guidance on the ownership and liabilities for any reversals of GHG mitigation.

Both of the tables offer more expansive lists of potential principles than the six elements discussed by the CF during the video-conference and Berlin meetings.

2. Potential carbon accounting principle topics to consider for the methodological framework

Below, each UNFCCC or other major principle is discussed as a topic for consideration for CF principles. The term "topic" is used for a mix of principles and other programmatic guidance subjects, any of which could form the basis for a CF principle:

Topic 1: Relevance: Use data, methods, criteria, and assumptions appropriate to the intended use of the reported information.

UNFCCC COP texts continually state that IPCC Good Practice Guidance should be the basis of methods for REDD+ activities, although little detail or additional guidance has yet emerged. A principle could state this. It also or alternatively could state that ERPs should use data, methods, criteria, and assumptions appropriate to the intended use of the reported information.

Specifically, the CF design includes Tranche A (for unrestricted use of the ERs, which can be used for compliance purposes or for resale), and Tranche B (where ERs must not be used for compliance purposes, nor for resale, and will be cancelled by the Trustee). The general consensus of CF discussions in September and October was that a single quality ERP would be used by both Tranches. One question raised in the last WG call, however, was whether the same choices in data, methods, and assumptions would apply to both Tranches. If any further discussion of this topic is warranted, it could occur in the CF discussions as the MF is developed; or potentially in the WG if it rises to the level of a general principle.

Potential Discussion Points
<ul style="list-style-type: none">• Is a principle needed on this topic?• Is it adequate or even necessary to state that IPCC data and calculation methods in the GPG should be followed? Is this even feasible in most potential REDD CF host countries (given limited data, experience, and incomplete guidelines regarding REDD+ to date)?

Topic 2: Completeness: Consider all relevant information that may affect the accounting and quantification of GHG emission reductions, and complete all requirements.

Estimated GHG emission reductions should not be an artifact of incomplete or inaccurate accounting. Various COP texts have stressed the need for REDD+ activities to follow IPCC approaches. Completeness may be interpreted as a principle to assure they all consider the same carbon pools, and emissions or leakage sources in the accounting for and implementation of REDD+ activities. Completeness may be an important principle that would allow for comparing performance across different ERPs.

For MRV, for example, the COP (in Decision 4/CP.15) requested Parties to use “the most recent Intergovernmental Panel on Climate Change guidance and guidelines, as adopted or encouraged by the Conference of the Parties, as appropriate, as a basis for estimating anthropogenic forest-related greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes”.

Potential Discussion Points
<ul style="list-style-type: none">• Is a principle needed on this topic? Could it be combined with other topics?• Is it adequate or even necessary to state that IPCC data and calculation methods in the GPG should be followed? Is this even feasible in most potential REDD CF host countries (given limited data, experience, and incomplete guidelines regarding REDD+ to date)?

Topic 3: Accuracy: Reduce uncertainties as much as is practical.

COP Decision 4/CP.15 requested countries to “provide estimates that are transparent, consistent, as far as possible accurate, and that reduce uncertainties, taking into account national capabilities and capacities”.

Accuracy describes agreement between the true value and repeated measured observations or estimations of a quantity. The accuracy principle is thus most relevant for quantitative estimates of carbon stocks and flows (remote sensing and inventories) – the more accurate the estimate, the higher the potential value of carbon assets. The IPCC defines inventories consistent with good practice as those which contain neither over- nor underestimates so far as can be judged, and in which uncertainties are reduced as far as practical. Uncertainties are associated with (i) area estimates (standing forest or change in forest area), and (ii) estimates of carbon stock (emission factors).

For the REL/FRL, accuracy is important for determination of historic deforestation, and for any assumptions used to project future deforestation. REDD+ countries are often restricted by the quality and accuracy of the data available to them for doing this analysis.

For MRV, if IPCC guidelines are used as basis for determining emission reductions, different IPCC Tiers have different accuracy associated with them. If other methods than IPCC will be used, comparison of accuracy between programs might become difficult.

Potential Discussion Points

- For the REL, is some kind of guidance required to assure consistent and comparable accuracy levels or is this left to the countries?
- If a common accuracy level is required, can this be based on a lowest level of accuracy that all countries could comply with, or should countries strive for the highest possible accuracy under their specific circumstances?
- If for the MRV, IPCC is used as (part of) a standard for the CF, which IPCC Tier would be considered adequate in terms of accuracy?

Topic 4: Consistency: Use data, methods, criteria, and assumptions that allow meaningful and valid comparisons across ERPs

Consistency entails the transparent documentation of data, project/program boundaries, methods, or any other relevant factors that allow meaningful and valid comparisons. Consistency is both between ERPs, and for one ERP program over time. Consistency across ERPs would result from a combination of topics discussed here, including relevance and completeness discussed above. Consistency over time is challenging, since the CF is designed as a learning-by-doing pilot activity, where REDD+ countries are likely to improve their ability to measure and report ERPs carbon and other metrics over time.

Subtopic 4a: Measurable and reportable ERs consistent with REL/FRL

The performance of ERPs is measured against a pre-established REL and/or FRL.³ A variety of possible approaches exist to estimate REL/FRL that vary in complexity and sophistication, ranging from simple extrapolation of historical observations to spatially explicit land-based or economic models. Achieving consistency between ERs from different countries or regions likely would require, for example, documentation of the data and methods used (including data and method or model uncertainty).

Subtopic 4b: Consistency with the emerging national/subnational MRV system

Sub-national ERPs should be consistent with the (emerging) national and subnational REDD+ MRV system. Quantification of ERs (relative to the baseline) can be performed by the MRV system with different approaches involving field-based inventories and remote sensing techniques, combining a) estimates of forest cover change (activity data), and b) carbon density (emission factors). To generate reliable emission estimates, data sources and field protocols need to be internally consistent to avoid biased estimates of emissions.

Potential Discussion Points
<ul style="list-style-type: none">• Is consistency by itself an important principle for the CF? Or should this topic be addressed in more specific language such as that offered in subtopics a) and b) (e.g., consistency with the emerging national/subnational MRV system)?• How could it be expressed in a way that informs the operational needs of the CF?• Should this topic be left to the more detailed methodology that will evolve over time by the CF?

Topic 5: Transparency: Provide clear and sufficient information for reviewers to assess the credibility and reliability of GHG reduction claims.

Transparency is a general principle of many climate regimes and many aspects in them. Transparency generally refers to disclosure of sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence, and reviewers to assess the credibility and reliability of GHG reduction claims. E.g., the COP in Decision 4/CP.15 requested countries to establish forest monitoring systems that are transparent and their results are available and suitable for review as agreed by the Conference of the Parties.

³ The terms REL and FRL remain fluid and not entirely cleared defined in the UNFCCC context. The CF Issues Note in footnote 8, p.4 uses the following general definitions: “The reference emission level (REL) is the amount of gross emissions from a geographical area estimated within a reference time period; the forest reference level (FRL) is the amount of net/gross emissions and removals from a geographical area estimated within a reference time period”.

Potential Discussion Points

- Should there be a principle regarding disclosure of information? E.g., Will the outcome of the process and the ER calculations (including the independent verification) be made public?
- Should the role of stakeholders in the process be addressed via a principle?

Topic 6: Conservativeness: Use conservative assumptions, values, and procedures when uncertainty is high, and do not overestimate GHG emission reductions.

Use conservative assumptions, values, and procedures to ensure that GHG emission reductions or removal enhancements are not over-estimated. Methods for quantifying ERs should be conservative to avoid overstating a project's effects.

Potential Discussion Points

- Is conservativeness an important principle at this stage of the Carbon Fund or could this hamper interest and innovation?
- If conservativeness is important, what can be considered as conservative? E.g., this could range from the use of existing IPCC default values to applying discount factors where uncertainty is considered to be specifically high.

Topic 7: Measures to address risk of reversals of ERs (non-permanence).

In order to function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions.

Potential Discussion Points

- Is a principle needed on this topic?
- If so, should it simply state that this issue needs to be addressed in some transparent manner, and then leave the details up to the CF's development of the MF?

Topic 8: Measures to address risk of displacement of emissions (leakage).

The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as “leakage”).

Potential Discussion Points
<ul style="list-style-type: none">• Is a principle needed on this topic?• If so, should it simply state that this issue needs to be addressed in some transparent manner, and then leave the details up to the CF’s development of the MF?

Topic 9: Additionality: Should GHG emissions reductions be additional to what would have occurred in the “Business as Usual” scenario?

The topic of additionality has been a general principle that has inspired widespread debate since the earliest days of the CDM. Numerous evolving methods have been proposed or introduced to try to address it operationally, with g very mixed results. This remains a challenging concept to quantify, since it requires estimation of what GHG emissions would have occurred in the absence of the mitigation activity proposed, or of a market for GHG reductions generally.

Potential Discussion Points
<ul style="list-style-type: none">• Is a principle needed to address ERPs relative to a “Business as usual” scenario of emissions and GHG reductions?• If so, can a principle be articulated that can be operationalized for the CF? Will necessary data, emissions projection capacity, etc. be available?

Topic 10: Verifiability: Emissions reductions result from activities that have been verified.

Some carbon forestry or climate mitigation programs require that GHG reductions should result from activities that have been verified on an ex post basis (i.e., after the activity has occurred, at some periodic interval of time). Verification generally requires third-party review of monitoring data for a project to ensure the data are complete and accurate.

Potential Discussion Points
<ul style="list-style-type: none">• Is a principle needed on this topic?• Is guidance needed on who should be considered eligible to perform verification of CF ERPs ERs?

Topic 11: Evolution over time of the quality of ERPs.

Early CF discussion in the considered the idea of “stages” of ERP quality, in order to capture a combination of two or more quality levels, and an evolution over time in the quality of ERPs, as countries improve their data, methods, programs, offer additional benefits, and reduce risks. Is such a principle or concept needed in the MF or principles for it?

A second concept reflecting potential evolution is ensuring consistency with the emerging regulatory frameworks in the UNFCCC or other climate policy regimes, which continually revise guidance and technical guidelines on how to implement guidance.

Potential Discussion Points
<ul style="list-style-type: none">• Should the evolution over time in the quality of ERPs be the focus of a principle? If so, how best to state that objective?• Should the MF be structured to either require or reward countries whose ERPs evolve from say mixed IPCC Tier I and II, to say robust Tier II and some Tier III methods and data?• Should the MF state that its guidance is static, and applies over the life time of the ERP?, or should it include consideration of principles from, for example, the EU ETS such as ‘improvement of performance in monitoring and reporting emissions’ over time to allow improvements?• Should there be some principle to ensure consistency with the continually evolving regulatory frameworks in the UNFCCC or other climate policy regimes (e.g., requiring an ERP to come into compliance with major changes in such guidance within some set period)?

Annex Table 1: Overview of principles used in different standards

	VCS	CAR	EU ETS monitoring and verification
Relevance: select the GHG sources and sinks, data, methods, criteria, and assumptions appropriate to the intended use of the reported information	✓		
Completeness: include all relevant GHG emission and removals that may affect the accounting and quantification of GHG reductions. Include all relevant information to support compliance with requirements	✓		✓
Consistency: Use data, methods, criteria, and assumptions that allow meaningful and valid comparisons	✓		✓
Transparency: Provide clear and sufficient information for reviewers to assess the credibility and reliability of GHG reduction claims	✓		✓
Accuracy: reduce bias and uncertainties as far as is practical	✓		
Conservativeness: Use conservative assumptions, values, and procedures to ensure that GHG emissions reductions or removals enhancements are not over-estimated	✓		
Additional: GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. “Business as usual” reductions – i.e., those that would occur in the absence of a GHG reduction market – should not be eligible for registration		✓	
Permanent: any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions		✓	
Verified: GHG reductions must result from activities that have been verified on an ex post basis. Verification requires third-party review of monitoring		✓	

	VCS	CAR	EU ETS monitoring and verification
data for a project to ensure the data are complete and accurate			
Owned Unambiguously: No parties other than the registered project developer must be able to reasonably claim ownership of the GHG reductions		✓	
Trueness. Emission determination is systematically neither over nor under true emissions. Sources of uncertainties shall be identified and reduced as far as practicable. Due diligence shall be exercised to ensure that the calculation and measurement of emissions exhibit highest achievable accuracy			✓
Cost effectiveness. In selecting a monitoring methodology, the improvements from greater accuracy shall be balanced against the additional costs. Hence, monitoring and reporting of emissions shall aim for the highest achievable accuracy, unless this is technically not feasible or will lead to unreasonably high costs			✓
Faithfulness. A verified emissions report shall be capable of being depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent			✓
Improvement of performance in monitoring and reporting emissions. The process of verifying the emission reports shall be an effective and reliable tool in its support of quality assurance and quality control procedures, providing information upon which an operator can act to improve its performance in monitoring and reporting emissions			✓

Annex Table 2: Effectiveness and legitimacy of forest carbon standards in the
Over the Counter (OTC) C voluntary carbon market

(from: Eduard Merger and Till Pistorius, "Effectiveness and legitimacy of forest carbon standards in the OTC voluntary carbon market," *Carbon Balance and Management* 2011, 6:4

<http://www.cbmjournal.com/content/6/1/4>

Table 1 Overview fundamental components of forest carbon standards

Standard	A/R CDM	American Carbon Registry (ACR)	CarbonFix Standard (CFS)	Climate Action Reserve (CAR)	Climate, Community & Biodiversity Standards (CCBS)	ISO 14064-2/3:2006	Plan Vivo Standards	Social Carbon Standard	Verified Carbon Standard (VCS)
Eligible project location	Non-Annex I countries	Globally	Globally	United States of America	Globally	Globally	Developing countries	Globally	Globally
Baseline/Additionality	✓	✓	✓	✓	✓	o	✓	o	✓
Leakage	✓	✓	✓	✓	✓	o	✓	o	✓
Quantification and accounting of GHGs	✓	✓	✓	✓	✓	✓	✓	o	✓
Permanence	✓	✓	✓	✓	Not applicable	o	✓	Not applicable	✓
Environmental and social performance	✓	✓	✓	✓	✓	o	✓	✓	✓
Monitoring guidance	✓	✓	✓	✓	✓	✓	✓	✓	✓
3 rd -party validation/verification	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accreditation of validators/verifiers	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prevention of double counting	w	✓	✓	Not applicable	Not applicable	Not applicable	✓	Not applicable	✓
Independent registry	✓	✓	✓	✓	Not applicable	Not applicable	✓	✓	✓
Guidance on ownership & liabilities for GHG reversals	✓	✓	✓	✓	✓	Not applicable	✓	Not applicable	✓

✓ = The standard sets regulation on the fundamental component

✓ = The standard partially sets regulation on the fundamental component

o = The standards does set regulation on the fundamental component

Not applicable = Due to the scope of the standard, this criteria does require regulation

The table is based on the review of the respective standards documents and the respective websites of each standard [16-28]