



# Forest Carbon Partnership Facility

## **4f. Practical application of the Methodological Framework: Carbon accounting and TA process issues**

Sixteenth Meeting of the Carbon Fund (CF16)

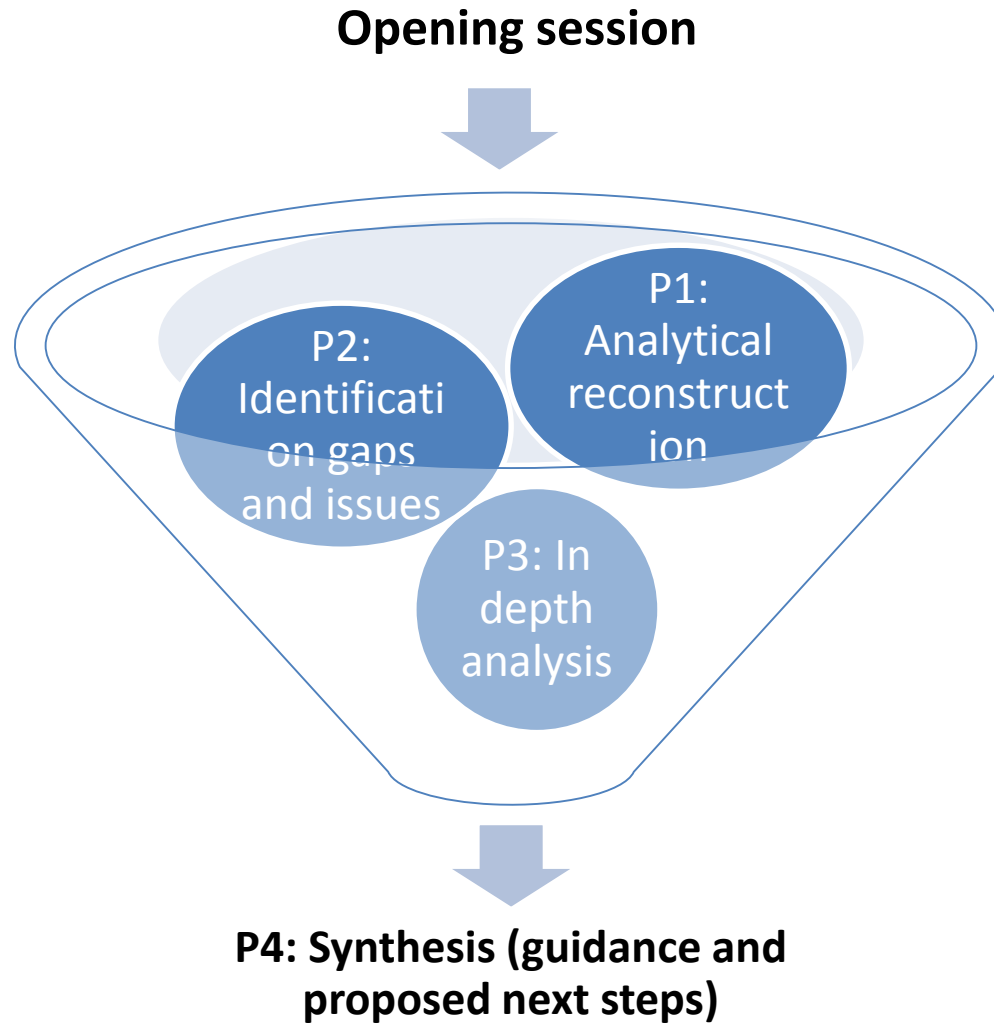
Paris, France

June 19-22, 2017

# Background

- Seven countries have presented/are presenting their ERPDs to the Carbon Fund and have gone through the TAP process.
- A workshop was held in Rome (5-6 April, 2017) to extract useful lessons **on carbon accounting** issues from these seven programs.
  - Thirty individuals from REDD Countries, TAPs and CFPs participated.
  - The objective was to **identify gaps and issues** observed during the preparation and evaluation of ER-PDs **that require further guidance**, when it comes to **meeting the MF criteria and indicators**.
  - The expected **outcome** is to **identify lessons learned** and to provide **good practice guidance** in the use and implementation of the Methodological Framework.
- Disclaimer: This workshop is **not part of a formal process** for revising the MF or providing of guidance.

# Workshop Overview



# Phase 1: Analytical reconstruction

- An **analytical reconstruction** exercise was conducted to allow for the reexamination of past experiences and to extract useful lessons (e.g. successful/unsuccessful activities, strategies, and partnerships).



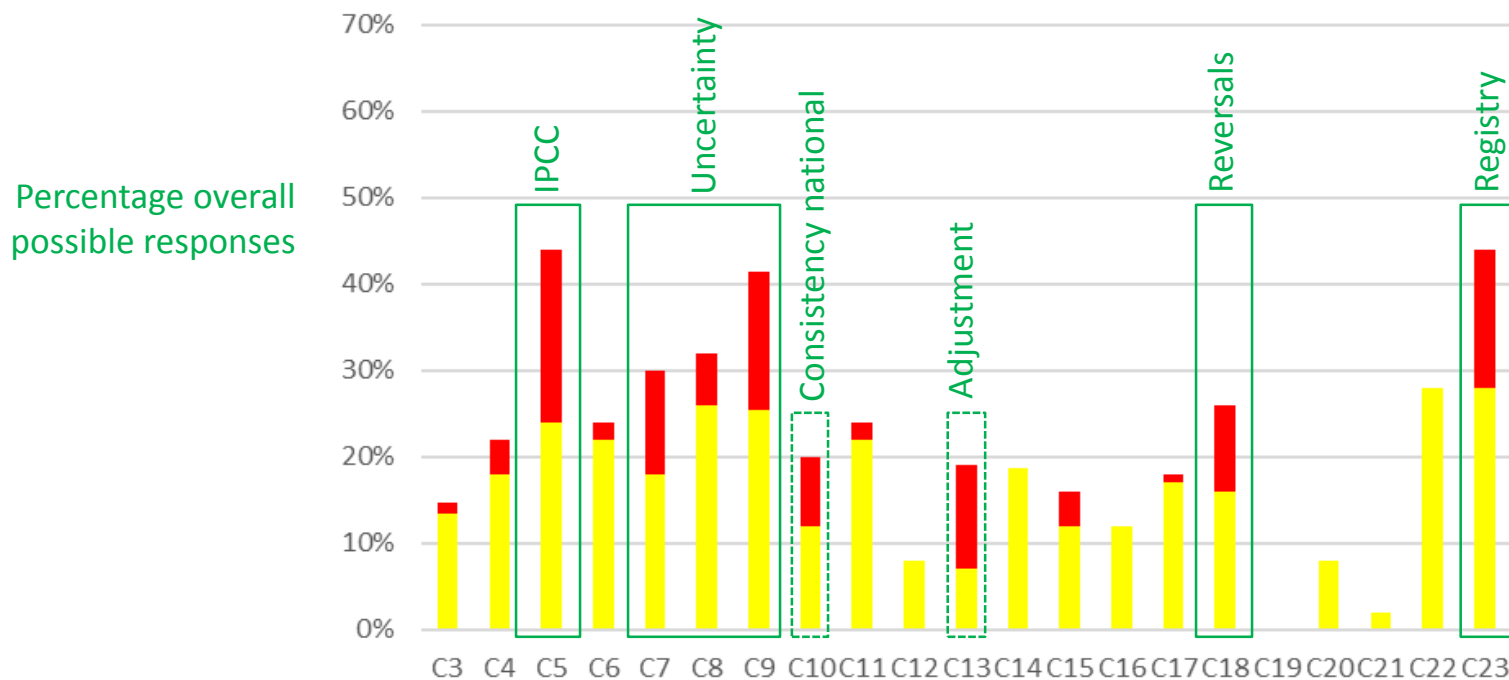
# Phase 2: Identification of gaps and issues

- Participants described the **challenges and difficulties** in addressing C&I related to carbon accounting...
- ... and scored the different C&I using **two different colors**:
  - **Red**: most significant challenges
  - **Yellow**: some difficulties
- Additionally, participants were given the opportunity **to identify process-related issues**, i.e. technical assessment.

3.2 Uncertainties	Countries	Assessment	
		FCP	TAP
Criterion 7: Sources of uncertainty are systematically identified and assessed in Reference Level setting and Measurement, Monitoring and reporting.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 7.1: All assumptions and sources of uncertainty associated with activity data, emission factors and calculation methods that contribute to the uncertainty of the estimates of emissions and removals are identified.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 7.2: The sources of uncertainty identified in indicator 7.1 are assessed for their relative contribution to the overall uncertainty of the emissions and removals.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Criterion 8: The ER Program, to the extent feasible, follows a process of managing and reducing uncertainty of activity data and emission factors used in Reference Level setting and Measurement, Monitoring and reporting.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 8.1: Systematic errors are minimized through the implementation of a consistent and comprehensive set of standard operating procedures, including a set of quality assessment and quality control processes that work within the local circumstances of the ER Program.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 8.2: Random errors and other uncertainties are minimized to the extent practical based on the assessment of their relative contribution to the overall uncertainty of the emissions and removals.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Criterion 9: Uncertainty of activity data and emission factors used in Reference Level setting and Measurement, Monitoring and reporting is quantified in a consistent way, so that the estimation of emissions, removals and Emission Reductions is comparable among ER Programs.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 9.1: Uncertainty associated with activity data and emission factors is quantified using accepted international standards, for example by providing accuracy, confidence interval, distribution of error, and propagation of error. Where errors in data and methods are considered large as defined in IPCC Guidelines, Monte Carlo methods (numerical simulations) should be used to estimate uncertainty.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 9.2: Uncertainty of the estimate of Emission Reductions is quantified using Monte Carlo methods. Underlying sources of error in data and methods for integrated measurements of deforestation, forest degradation and enhancements (e.g. as in a national forest inventory) are combined into a single combined uncertainty estimate and are reported at the two-tailed 90% confidence level.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●
Indicator 9.3: Uncertainty of Emission Reductions associated with deforestation, forest degradation and enhancements are reported separately if measured through separate degradation and enhancements approaches and when degradation is estimated using prove data (i.e., non-integrated) approaches and when degradation is estimated using prove data.	●●●●●●●●●●	●●●●●●●●	●●●●●●●●

# Phase 2: Identification of gaps and issues

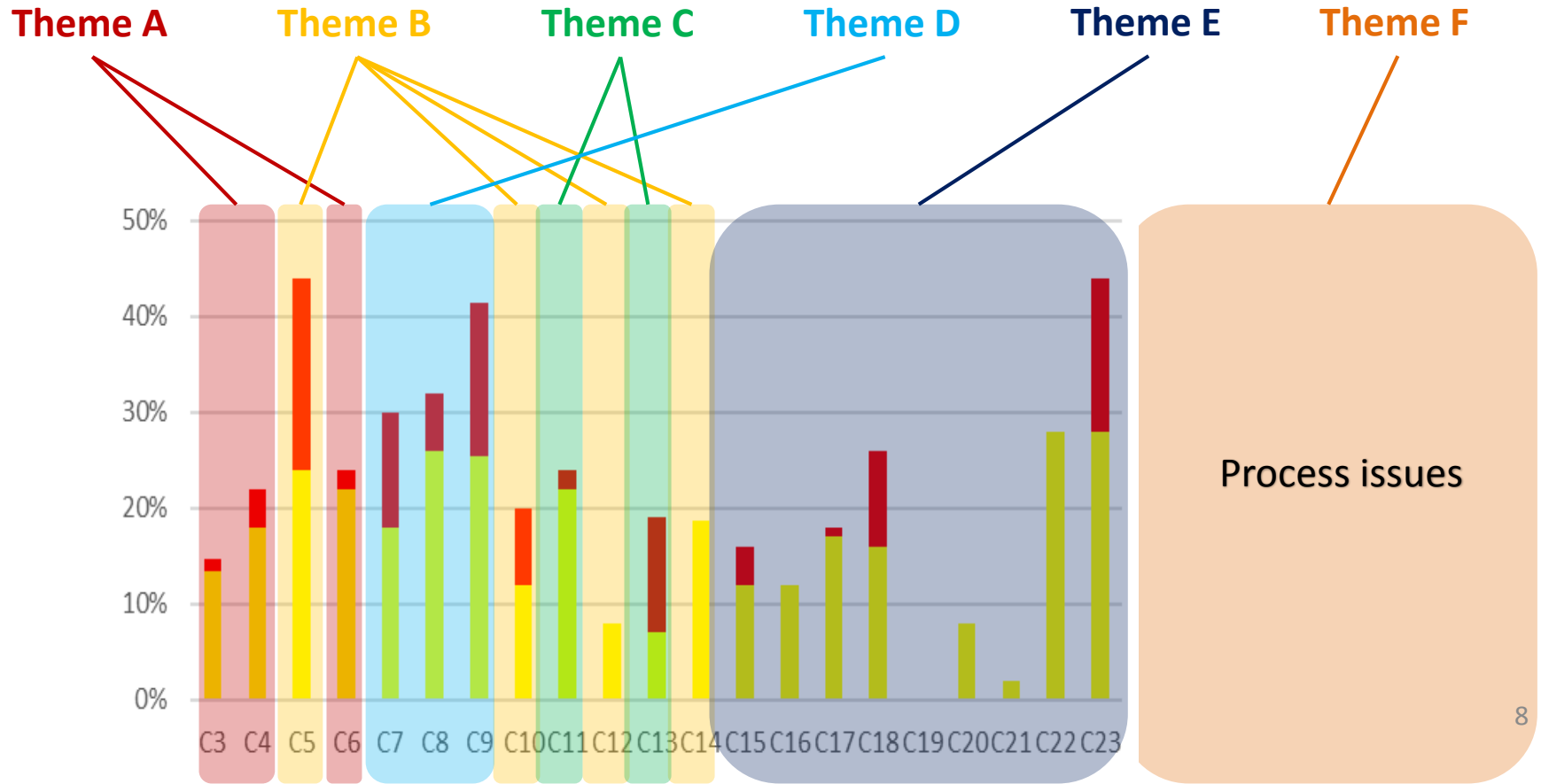
- Most significant challenges/difficulties: **consistency with IPCC guidelines, uncertainty analysis, leakage, and registries** (double counting)
- Other notable challenges: **consistency of RL with national FREL and NGHGI and adjustments**



# Phase 3: In-depth analysis

- Participants identified and discussed gaps and issues on **six** different **themes**:
  - **Theme A**: Program boundaries (selection/identification of activities, key pools and greenhouse gases), transparency, replicability, and completeness
  - **Theme B**: ERPD carbon accounting/MMR, national REDD+ FREL/MMR, greenhouse gas inventories/national processes and links
  - **Theme C**: Establishment of reference levels: eligibility and justification of adjustment, accounting for legacy effects and updates based on new higher quality data
  - **Theme D**: Analysis of uncertainties
  - **Theme E**: Displacement, reversal, proxies, and double counting
  - **Theme F**: Framework issues: technical assessment process and knowledge sharing
- This resulted in the identification of **19 issues**

# Phase 3: In-depth analysis



## Phase 4: Synthesis/ Next Steps

- For each identified issue, participants elaborated preliminary guidance and suggestions on how to move forward.
- This information was captured in a draft report that has been shared with CFPs and Observers.
- Proposed next steps and timeline:
  - CFPs to provide comments to the draft report by **August 15<sup>th</sup>**.
  - FMT to review the report and prepare a plan for integration of lessons learned including specific proposals on how to address the different issues. The revised report and plan to be shared with CFPs by **September 28<sup>th</sup>**.
  - CFPs to provide comments to the plan and proposals by **October 27<sup>th</sup>** so that they can start to be addressed prior to CF18.
  - FMT to report on the progress at CF18.

# Issues for discussion at CF16

- The FMT would like to bring the following themes to the CFP's attention in CF16:
  - **Theme B:** ERPD carbon accounting/MMR, national REDD+ FREL/MMR, GHGI/national processes and links
  - **Theme D:** Analysis of uncertainties
  - **Theme F:** Framework issues: technical assessment process and knowledge sharing
- For each of these themes, we will elaborate on the issues involved and some possible suggestions to address them.
- Other Themes are partially addressed in other presentations (i.e. updates to RL, Registries) or to be addressed post-CF16 (c.f. Annex)
- We would appreciate your thoughtful input on follow-up actions (☑) and questions (?) that will be presented in the next slides

# Themes and issues for discussion

## Theme

## Issue

**Theme B:** ERPD carbon accounting, national processes and links

**Issue 4:** Establishment of the RL can inform or is informed by the development of the national FREL and necessary steps to achieve consistency with the country's GHG inventory

**Issue 5:** Consistency of ER program Forest Monitoring System with Reference Levels and National Forest Monitoring Systems

**Theme D:** Analysis of uncertainties

**Issue 9:** Incorporation of uncertainty analysis as part of the strategic design, implementation, and improvement cycle of the carbon accounting system

**Issue 10:** Identification of sources of uncertainty

**Issue 11:** Assessment of relative contribution of identified sources to overall uncertainty.

**Issue 12:** Accuracy assessment of maps: process to assess the uncertainty of the activity data or a process to estimate the activity data

**Issue 13:** Cases in which Monte Carlo methods are applicable

**Theme F:** Technical assessment process and knowledge sharing

**Issue 17:** TAPs roles and responsibilities

**Issue 18:** Learning from experience in the CF through proper knowledge management mechanisms

**Issue 19:** Completeness and internal consistency in findings of technical assessment reports

# Theme B: ERPD Carbon accounting, National Processes and links

## Issue 4 -5: Establishment of the RL/FMS and consistency with national FREL/National GHG inventory and NFMS


### – Description of the issue:

- Some Countries have developed carbon accounting frameworks **independent** of the development of the national FREL and GHG inventory.
- Some Countries have proposed carbon accounting frameworks that are **not in line with IPCC guidance**, hindering any possible future alignment with the national FREL and GHG inventory.

# Theme B: ERPD Carbon accounting, National Processes and links

## Issue 4 -5: Establishment of the RL/FMS and consistency with national FREL/National GHG inventory and NFMS

### – Key considerations:

- Participants gave **guidance** to Countries to improve consistency of the RL/FMS with the national FREL, National GHGI and NFMS, e.g. use of same definitions and methods.
-  The FMT to prepare technical guidance document summarizing the results of the workshop in order to support countries in improving the consistency with national processes.

# Theme D: Analysis of uncertainties

- **Issue 9-13: Analysis of uncertainty**

- Description of the issue:

- Countries have **not conducted the analysis** uncertainty as an **iterative 3-step process**, that starts to be applied at the beginning of the design process rather than at the end.
- Countries have **not conducted the analysis in a consistent manner** in terms of identification of sources and analysis of their relative contribution to overall uncertainty.
- Countries have presented **inadequate QA/QC procedures and SOPs**
- Countries **have not consistently used the accuracy assessment** data to estimate activity data. This is partly due to limitations derived from the application of existing guidance.
- Countries have generally **not applied Monte Carlo methods** to estimate uncertainty of the RL. Countries have indicated the need for guidance and support for its implementation.

# Theme D: Analysis of uncertainties

- **Issue 9-13: Analysis of uncertainty**

- Key considerations:



- The FMT to prepare technical guidance document indicating how the iterative 3-step process approach should be applied, including the identification of sources and assessment to uncertainty.



- The FMT to prepare a technical guidance document including examples of QA/QC procedures and SOPs in order to support countries.



- The FMT to liaise with GFOI in order to prepare necessary guidance to support
  - Estimation of activity data from accuracy assessment data;
  - Implementation of Monte Carlo methods.

# Theme F: Technical assessment process and knowledge sharing

- **Issue 17: TAPs roles and responsibilities**

- Description of the issue:

- It is often not clear what is expected from TAPs when applying the MF C&I: “expert judgement” vs “following to the letter”. This is challenging as some C&I are open to interpretation, so the burden is on the TAPs and sometimes their judgement is not accepted by CFP.
    - This lack of clarity has been exacerbated by the **YES/NO scoring framework** that does not allow to differentiate between major and minor issues in a nuanced manner.
    - The use of “expert judgement” also means that TAP should have the **required technical capacity**, in order to provide confidence to CFP.

# Theme F: Technical assessment process and knowledge sharing

- **Issue 17: TAPs roles and responsibilities**

- Key considerations:



- FMT to include additional guidance to the technical assessment report template requesting TAP to add their interpretation as part of their assessment.



- FMT seeks guidance on the following options of scoring:

- a) YES/NO → status-quo
    - b) YES/NO, but TAP may indicate whether the NO is a Major or Minor non-conformity.



- FMT seeks guidance on the following options for improving TAPs technical expertise:

- a) One carbon accounting expert per TAP (status-quo)
    - b) Addition of remote support by a remote sensing expert
    - c) Addition of remote support by an expert statistician, i.e. uncertainties

# Theme F: Technical assessment process and knowledge sharing

- **Issue 18: Learning from experience in the CF through proper knowledge management mechanisms**
  - Description of the issue:
    - **Lack of informal and regular communication among parties** – CFPs, TAPs, and Countries – **and the lack of systematic processes of developing learning** and knowledge-sharing, underlie some of the issues identified during the workshop, not only related to the application of the MF but to also CF processes and the UNFCCC processes.

# Theme F: Technical assessment process and knowledge sharing

- **Issue 18: Learning from experience in the CF through proper knowledge management mechanisms**

- Key considerations:



- FMT to continue the discussions between TAP and UNFCCC reviewers and strengthen alignment, e.g. using same roster.



- FMT seeks guidance on the following options for informal exchanges between TAP and CFP:

- a) No informal exchanges during assessment process (status-quo)
- b) Informal exchanges after CFP review period
- c) Informal exchanges prior to CFP review period





- FMT to organize exchange phone calls and in-person meetings between TAPs.

# Theme F: Technical assessment process and knowledge sharing

- **Issue 19: Completeness and internal consistency in findings of technical assessment reports**
  - Description of the issue:
    - There is **lack of consistency in the level of detail** that TAP members provide on their assessment and decision making regarding ERPD compliance with a given criterion or indicator. When enough information is provided, in some cases the conclusions provided in the detailed assessment **are inconsistent with the given score.**

# Theme F: Technical assessment process and knowledge sharing

- **Issue 19: Completeness and internal consistency in findings of technical assessment reports**
  - Key considerations:
    -  FMT to improve the guidance of the technical assessment report template requesting TAP to improve completeness and address coherence between findings and scoring.
    -  FMT to conduct quality assurance procedures to ensure the implementation of this guidance.
    - Note: Allowing TAP not to stick to YES/NO could help with this issue



**Thank you!**

# Recap of questions

Issue 17: TAPs roles and responsibilities

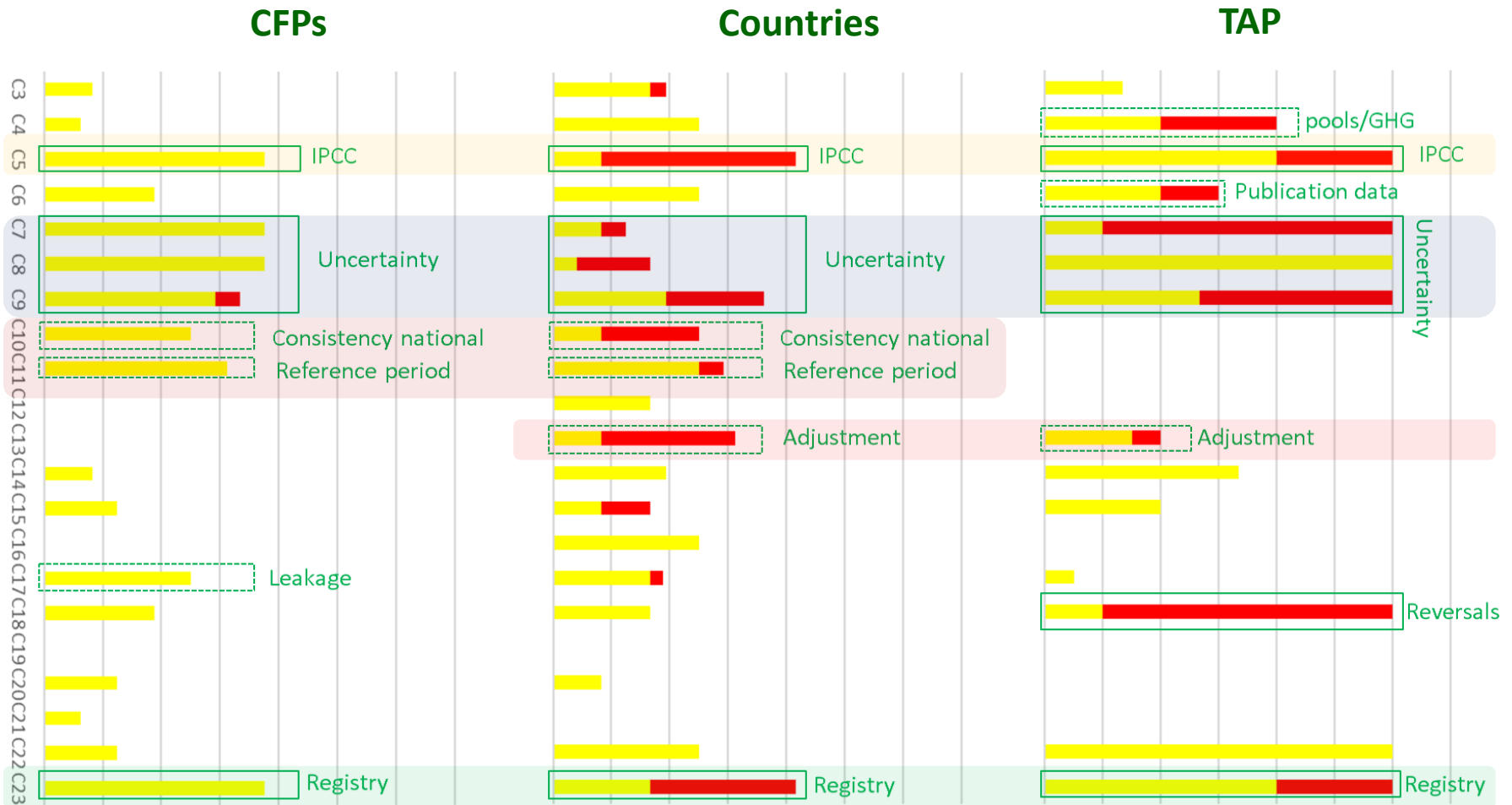
- ? • FMT seeks guidance on the following options of scoring:
  - YES/NO → status-quo
  - YES/NO, but TAP may indicate whether the NO is a Major or Minor non-conformity.
- ? • FMT seeks guidance on the following options for improving TAPs technical expertise:
  - One carbon accounting expert per TAP (status-quo)
  - Addition of remote support by a remote sensing expert
  - Addition of remote support by an expert statistician, i.e. uncertainties

Issue 18: Learning from experience in the CF ...

- ? • FMT proposes the following options for informal exchanges between TAP and CFP:
  - No informal exchanges during assessment process (status-quo)
  - Informal exchanges after CFP review period
  - Informal exchanges prior to CFP review period

# Annex - Phase 2. Identification of gaps and issues – C&I

- Identification of gaps and issues per participant type



# Annex – List of issues

Theme	Issue
<b>Theme A:</b> Program Boundaries, Transparency, Replicability, and Completeness	<b>Issue 1:</b> Estimation and Exclusion of Emissions from Degradation
	<b>Issue 2:</b> Assessment of significance of carbon pools and greenhouse gases and determining if their exclusion is conservative
	<b>Issue 3:</b> Information to enable the reconstruction of the Reference level presented with enough detail and adequate formats
<b>Theme B:</b> ERPD Carbon accounting, National Processes and links	<b>Issue 4:</b> Establishment of the RL can inform or is informed by the development of the national FREL and necessary steps to achieve consistency with the country's GHG Inventory
	<b>Issue 5:</b> Consistency of ER program Forest Monitoring System with Reference Levels and National Forest Monitoring Systems
<b>Theme C:</b> Establishment of Reference levels	<b>Issue 6:</b> Assessment and justification of the eligibility and justification of the adjustment
	<b>Issue 7:</b> Consideration of legacy emissions/removals in the establishment of reference levels and monitoring
	<b>Issue 8:</b> Update of the reference level when better data becomes available during the ERPA term
<b>Theme D:</b> Analysis of uncertainties	<b>Issue 9:</b> Incorporation of uncertainty analysis as part of the strategic design, implementation, and improvement cycle of the carbon accounting system
	<b>Issue 10:</b> Identification of sources of uncertainty.
	<b>Issue 11:</b> Assessment of relative contribution of identified sources to overall uncertainty.
	<b>Issue 12:</b> Accuracy assessment of maps: process to assess the uncertainty of the activity data or a process to estimate the activity data
	<b>Issue 13:</b> Cases in which Monte Carlo methods are applicable
<b>Theme E:</b> Displacement, Reversal, Proxies, and Double Counting	<b>Issue 14:</b> Assessing or building systems that address the risk of displacement of emissions
	<b>Issue 15:</b> Assessing or building systems to address the risk of reversal of emissions reductions
	<b>Issue 16:</b> Double counting as a result of designing MMR systems and registry systems in isolation
<b>Theme F:</b> Technical assessment process and knowledge sharing	<b>Issue 17:</b> TAPs roles and responsibilities
	<b>Issue 18:</b> Learning from experience in the CF through proper knowledge management mechanisms
	<b>Issue 19:</b> Completeness and internal consistency in findings of Technical Assessment reports

# Annex - Definitions of major and minor non conformities, and Observations

- A **major corrective action request** is issued, where:
  - i. the evidence provided to prove conformity is insufficient;
  - ii. mistakes have been made in applying assumptions, data or calculations which could have a material influence on the results;
  - iii. non-compliance with relevant criteria;
- A **minor corrective action request** is issued where:
  - i. the evidence provided to prove conformity is insufficient but does not lead to breakdown in the systems delivery;
  - ii. mistakes have been made in applying assumptions, data or calculations which could have an influence on the future results;
  - iii. if a certain aspect has to be verified in the next verification event (e.g. foreseen modifications, etc.)

An **observation** is issued as team's recommendation in relation to future improvements of the analysis process or the monitoring of the interim measures indicators.