

Review Handbook: Refresh and Renew

Refresher Seminar
Bonn, Germany, 13 March 2019



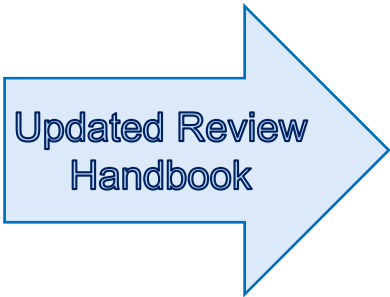
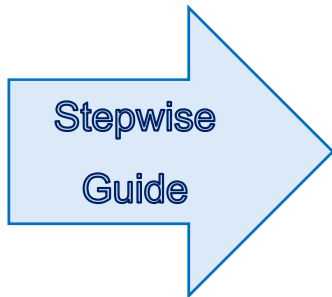
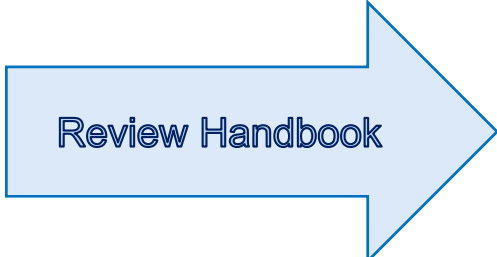
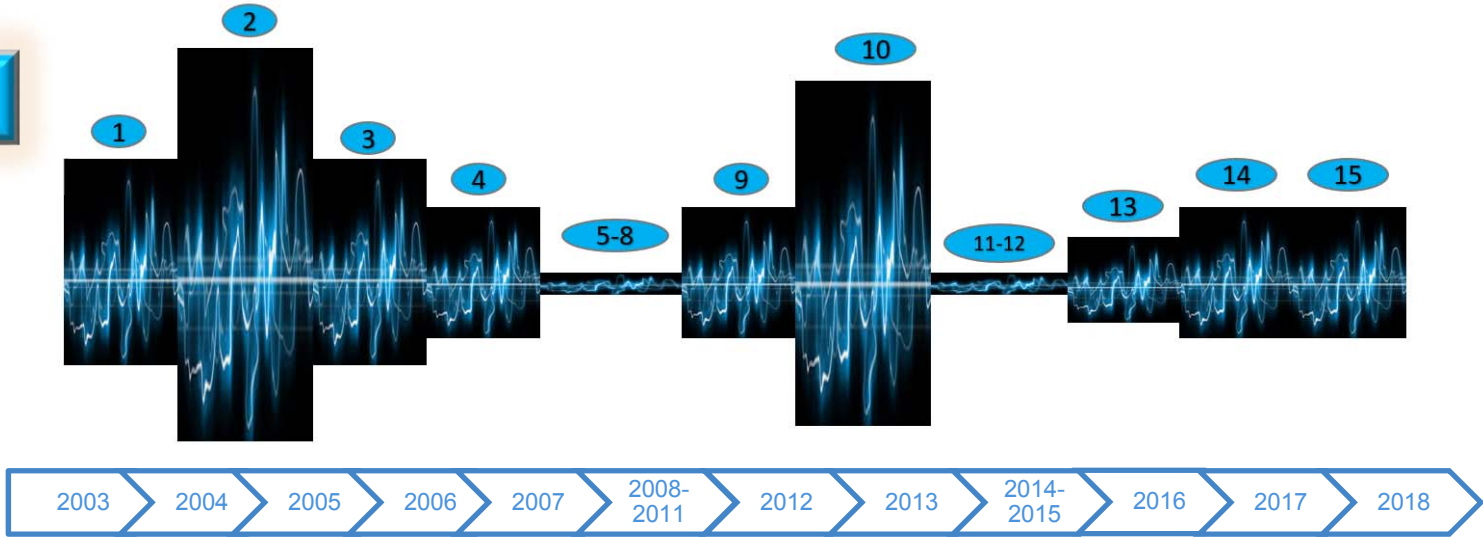
Outline

- Refresher on the Review Handbook
 - a) History: LR conclusions over time
 - b) Approach: Purpose and objectives
 - c) Contents: Scope of the handbook
- Discussion
 - a) How *has* the Review Handbook been used?
 - b) How *could* it be used to facilitate your work?



History of LR Discussion

Meeting of LRs



Key LR conclusions

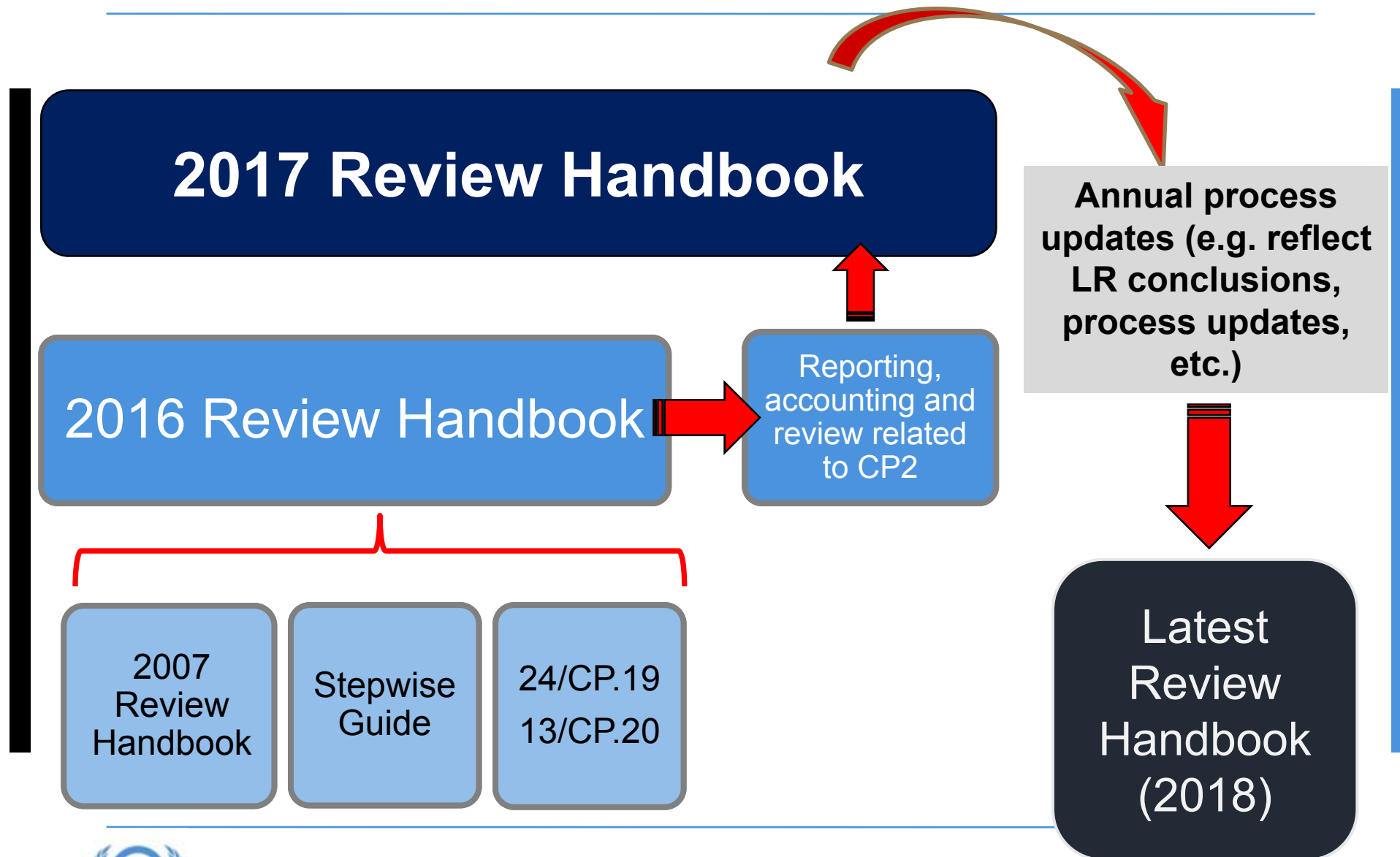
LR1: Welcomed efforts to make Handbook more reflective of GPG and consistent across sectors...suggested to include relevant LR conclusions.

LR9 (para. 21): Develop a stepwise approach to the review, providing clarity on what needs to be done and when.

LR13 (Para. 25): Welcomed updated Handbook as a useful resource to new and experienced reviewers. Strive to make document as concise as possible.



Approach to Current Review Handbook



Objectives and Principles of the Handbook

Objective: Be a concise, user-friendly tool to help guide review experts, particularly new experts, through the review process (before, during and after the review week).

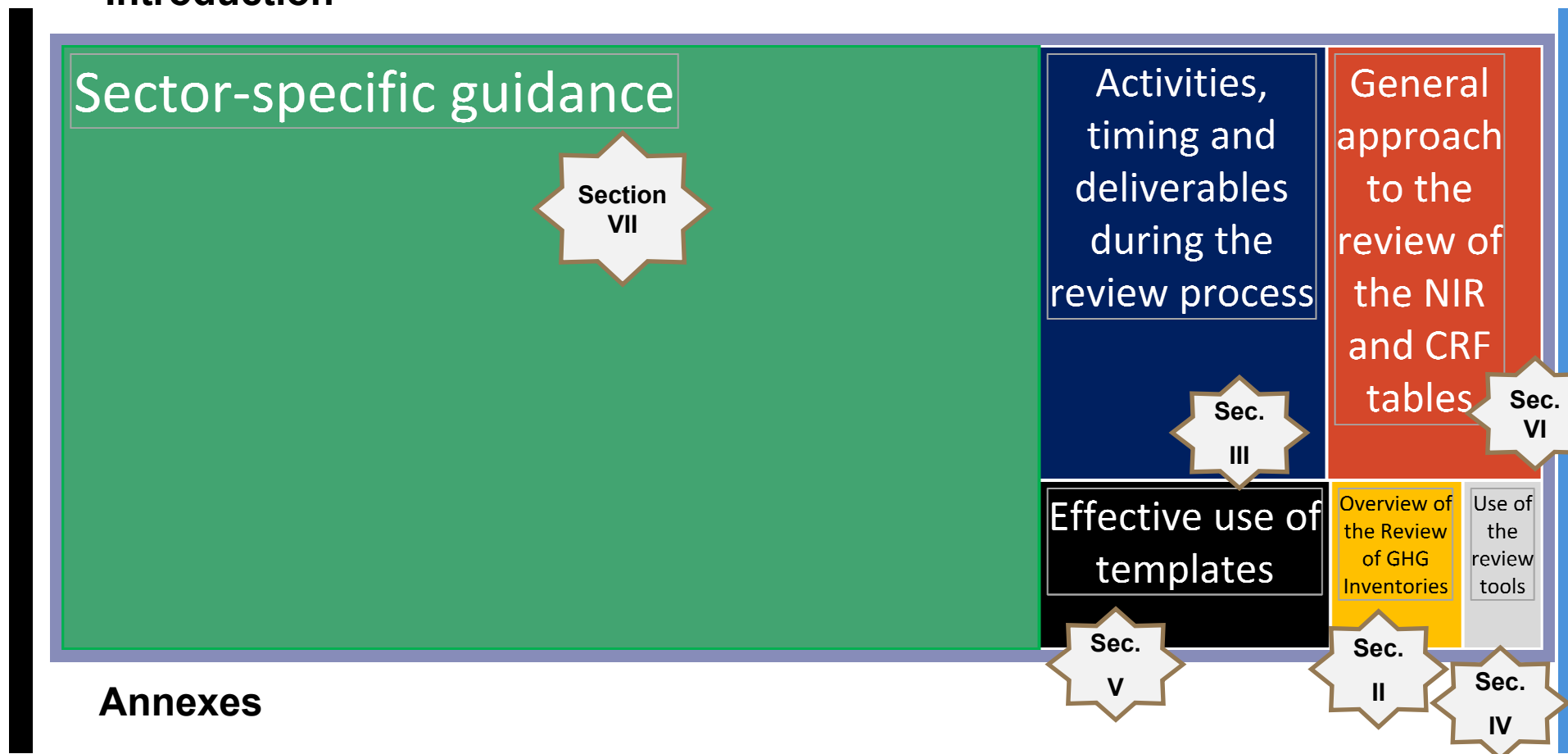
Principles:

- 1 Be **relevant for all** (a “refresher”), and **particularly useful for new reviewers**.
- 2 A **“one-stop” shop**. Combined relevant content of earlier Review Handbook + Stepwise Guide
- 3 Be **consistent with**, but **not replace**, the relevant UNFCCC decisions and IPCC Guidelines



Substantive Contents of Review Handbook

Introduction



Sec. III: Activities, timing and deliverables during the review process

Why should you care?

Before Review Week

- Expectations and timelines particularly for new reviewers/ LRs
- How to draft questions

Review week

Less needed; talk to your colleagues

After review week

- Timelines and tasks for finalizing ARR and documentation
- Plain language refresher on adjustments



Sec. VI: General Approach to Review of NIR/CRF Tables

Why should you care? Guidance for all that does not exist elsewhere.

- How to use the Status and Assessment Reports (Tables 6-1 and 6-2)
- Guidance to assess status of previous recommendations (Fig. 6-2)
- What is the appropriate notation key (Table 6-3/ Fig. 6-3)
- Use of significance threshold in reporting & review (Fig. 6-4 + new)
- Guidance on reviewing Tier 3 models (Fig. 6-5)
- Other cross-cutting guidance applicable to all (Table 6-5)



Sec. VII. Sector-specific Guidance

Before asking why should you care, let's really look what is here, as it comprises over half of the review handbook.

Generalists	Sector experts
<ul style="list-style-type: none">- Tables with checks to review mandatory and non-mandatory elements of national inventory arrangements/systems (e.g. Tables 7-1, 7-2).- Compiles in one place mandatory elements of reviewing KCA, Uncertainties and QA/QC, along with suggestions for issues to examine (“should” elements).- How to assess registry requirements (where to look in the SIAR), CPR and Article 3.14.	<p>For each sector:</p> <ul style="list-style-type: none">• Allocation for reporting, including interaction of the sector with other sectors – (e.g. Fig. 7-1) or a specific category and other categories in the sector (e.g. Figure 7-2).• Mandatory gases for reporting (e.g. Table 7-9).• Category-level tables with specific questions the ERT can consider when reviewing a Party’s submission (e.g. Table 7-10).



Sec. VII Sector-specific Guidance: Examples

Figure 7-9: Overview of interaction between IPPU with other inventory sectors

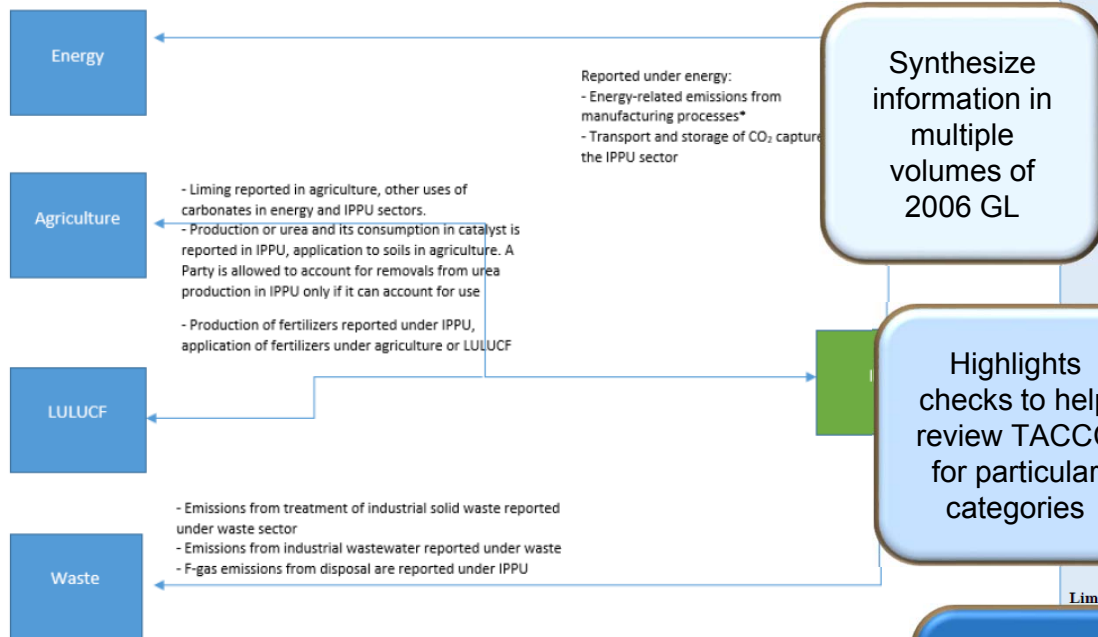


Table 7-4: Possible actions by the ERT ...

Subcategory	Action by the ERT, task
	Carefully check any deviations from IPCC defaults, because the emissions are due to chemical processes and large deviations should not occur
	Has the Party correctly reported only process emissions under IPPU and included the relevant energy-related emissions in the energy sector (under non-metallic minerals)? This is particularly relevant if company-provided data are used
	If the Party reports amount of CO ₂ captured, is the estimate based on plant-specific data?
	If the Party reports amount of CO ₂ captured, is the estimate consistent with the reporting under CO ₂ transport and storage? If not, has the Party explained the reasons for any differences (e.g., there is commercial use of the CO ₂)?
	If CO ₂ is reported to be captured in processes involving both combustion and process emissions reported under the energy sector and the IPPU sector, respectively, has the Party ensured that the amount captured is not double counted?
	Are final emissions reported in CRF table 2(I).A-H after subtracting the amounts of emissions recovered, oxidized, destroyed or transformed?
	If the Party is using tier 1, are all imports and exports or clinker taken into consideration?
	Has the Party excluded any re-absorption of atmospheric CO ₂ due to free lime released during the curing of concrete? Inclusion of such absorption is not in accordance with good practice
	Has the Party appropriately corrected for emission from cement kiln dust (CKD) production (added emissions from CKD if applying a tier 2 method and subtracting CKD if applying a tier 3 method)?
	Does the AD cover both marketed and non-marketed lime? Possible industries producing non-marketed lime are metallurgy (e.g. steel production and copper smelters), pulp and paper, sugar mills, production of calcium carbide, synthetic soda ash, magnesia and magnesium metal or artisanal production of lime for sanitation purposes or for whitewash
	Does the Party use AD separately for high-calcium, dolomitic and hydraulic lime? If not, are any assumptions well justified and in accordance with the 2006 IPCC Guidelines?
Lime	If lime production is corrected for hydrated lime, has the Party first established whether the lime to produce hydrated lime is included in total lime production statistics to avoid double counting?
	Has the Party excluded any removals of CO ₂ which are due to the carbonation reaction that occurs when lime-based mortars used in construction gain their strength through the absorption of CO ₂ ? Inclusion of such absorption is not in accordance with good practice
	Has the Party reported emissions from glass production separately (a new category in the 2006 IPCC Guidelines)?

Highlights checks to help review TACCC for particular categories

Provide fundamental questions that reviewer /LR could consider



Sec. VII: Sector-specific Guidance: LULUCF

Table 7-55
Tier 1: mandatory reporting according to the 2006 IPCC Guidelines

Tier 1	Carbon pool - GHG	Land use												
		FL		CL		GL		WL		SL		OL		
		FL-FL	L-FL	CL-CL	L-CL	GL-GL	L-GL	WL-WL	L-WL	SL-SL	L-SL	OL-OL	L-OL	
Living biomass	Above-ground	M	M	M ^a	M ^{a,c}	M ^{a,c}	M ^{a,c}	M ^a	M ^a					
	Below-ground		M		M ^{a,c}	M ^{a,c}		M ^a	M ^a				M ^a	
Dead organic matter	Deadwood		M ^b		M ^a	M ^a						M ^a	M ^a	
	Litter		M		M ^a	M ^a						M ^a	M ^a	
Soil organic matter	Mineral	M	M	M	M	M						M	M ^a	
	Organic	M	M	M	M	M	M					M	N/A	
HWP		M (may be assumed 0 if net carbon stock change is judged insignificant)												
N ₂ O	Direct	Fertilization ^a	M	M							M	M		
		N mineralization		M		M	M	M						Y
		Drainage	M	M					M			M	M	
	Indirect	Burning	M	M	M	M	M	M	M			M	M	Y
		Fertilization ^a	M	M								M	M	
CH ₄	Burning	N mineralization	M	M		M	M	M				M	Y	
			M	M	M	M	M	M			M	M	M	

Note: M = mandatory, grey shading = not applicable, blank = not mandatory.

Table 7-59
Carbon stock changes in pools and associated GHG emissions/removals that have to be estimated for forest land

Estimations at the tier 1 level								
	Biomass (B) ^a		Dead organic matter (DOM)		Soil organic matter (SOM)		Harvested wood products (HWP)	Other emissions
	Above (AB)	Below (BB)	Dead wood (DW)	Litter (L)	Mineral soils (MS)	Organic soils (OS)	HWP	
FL-FL	Net carbon stock change (2.7)							CH ₄ and N ₂ O emissions from biomass burning (2.27)
	Carbon stock gain (2.9, 2.10)	0	0		0	CO ₂ emissions from drained organic soils (2.26)	Assumed 0, if judged insignificant (i.e. annual net carbon stock change in HWP pool, is less than the size of any key category), otherwise default tier 1 methods provided in the 2006 IPCC Guidelines (volume 4, chapter 12) Note that HWP are reported altogether regardless of the land of origin of wood	N ₂ O emissions from drained organic soils (11.1)
	Carbon stock losses (2.11, 2.12, 2.13, 2.14)					CO ₂ emissions from drained organic soils (2.2)		N ₂ O emissions from N inputs (11.1.11.3)
					On-site CO ₂ emissions from drained organic soils (2.3)	N ₂ O emissions from SOM mineralization (11.8) ^(a)		
L-FL	Net carbon stock change (2.4)					Off-site CO ₂ emissions from drained organic soils (2.4, 2.5, 2.4.1)	Note that HWP are reported altogether regardless of the land of origin of wood	CH ₄ emissions from drained organic soils (2.6)
	Carbon stock gain (2.9, 2.10)		0 ^(a)	Net carbon stock change (2.23)	Net carbon stock change (2.25)	CO ₂ emissions from burning of drained organic soils (2.8)		N ₂ O emissions from drained organic soils (2.7)
	Carbon stock losses (2.11, 2.12, 2.13, 2.14) ^b					CO ₂ emissions from rewetted organic soils (3.3)		CH ₄ emissions from burning of drained organic soils (2.5) ^(a)
						On-site CO ₂ emissions from rewetted organic soils (3.4)		CH ₄ emissions from rewetted organic soils (3.8)

What is mandatory under Tier 1 and Tier 2? (Tables 7-55 and 7-56)

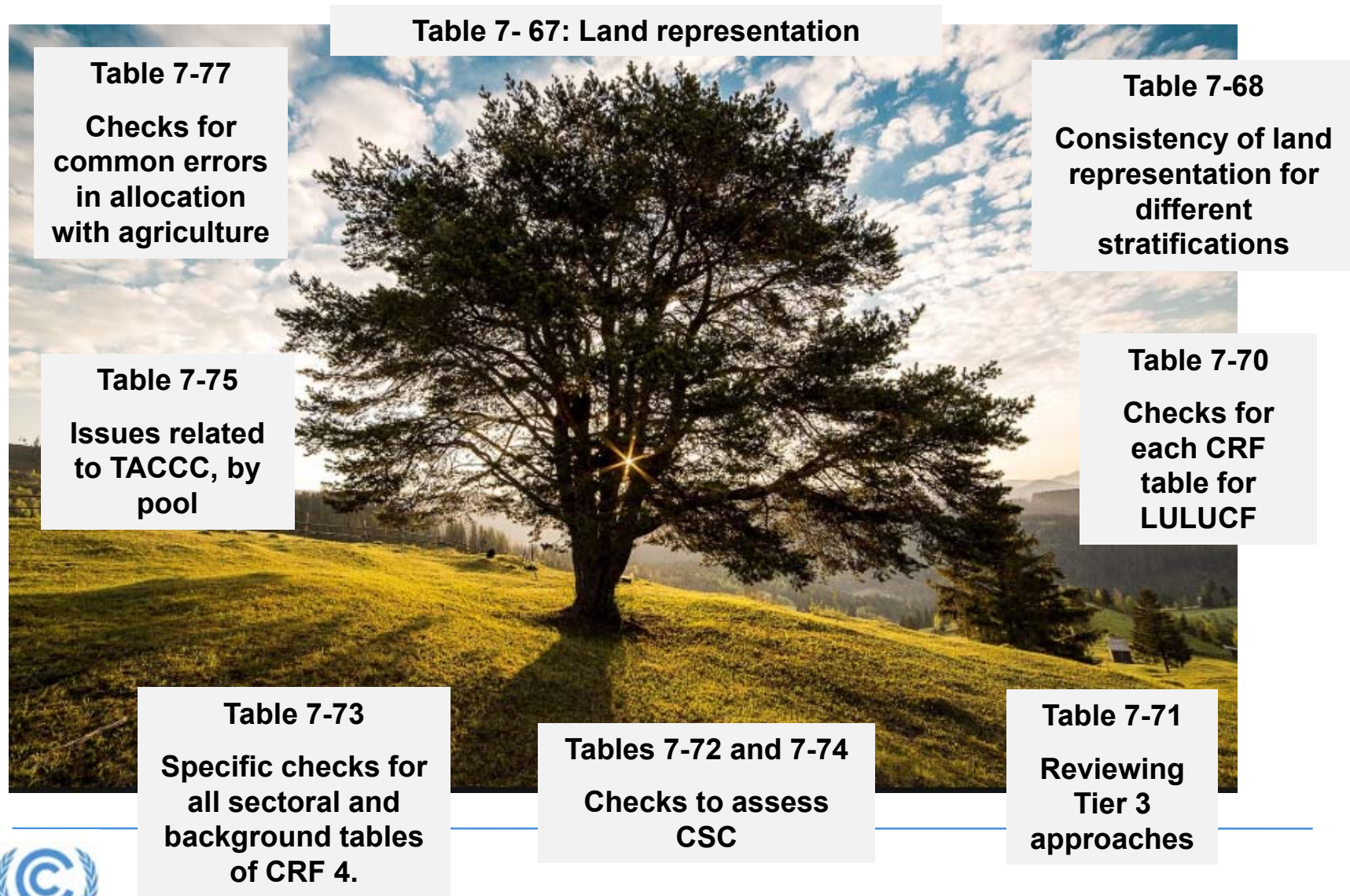
What is mandatory if Party claims to be following the Wetlands Supplement for a category (Table 7-57)



- Cross-walk to where the relevant methods can be found when implementing a Tier 1 and Tier 2 (Tables 7-59 to 7-65). Determine whether Party is using correct method?

-Determine when it is appropriate to assume carbon stocks are in equilibrium?

Sec. VII: Sector-specific Guidance: LULUCF



Sec. VII: Sector-specific Guidance: KP-LULUCF

Tables to help understand decisions: 16/CMP.1, 2/CMP.6, 2/CMP.7, 2/CMP.8 (Tables 7-87 through 7-90)

- References include both the content of the paragraph, and further explanation where possible.

Checks for consistency among KP-LULUCF tables (Table 7-91)

- There are specific checks here that a non-LULUCF expert could do if the team is struggling to review the sector.

Checks related to technical corrections to the FMRL (Table 7-92)

- Points you to the KP Supplement, and how to check if a technical correction is needed. When should it **not** be applied?
- How to ensure methodological consistency between the FRML and current estimate.

Checks related to natural disturbances (Table 7-93)

- How to review the background level? How to handle legacy emissions?



Summary: Using the Review Handbook Throughout

- Guide reviewers on expectations and tasks
 - How to use assessment report to draft questions.
 - What to check?
- Help LRs check questions are well written.
- Refresher for all
- Focus here is team discussion, not reading handbook, but...
- Resource for struggling reviewers
- Use checks as a QC-are relevant questions considered?
- May refer to the handbook for more targeted issues, including stemming from QA
- May be helpful in case of adjustments.

Before.....

During.....and

After review week



CONSIDERATION

YOUR TURN



Feedback of LRs in Preparation for 16th Annual Meeting

Feedback received directly or indirectly addressed by current Review Handbook

Comments around the expectations of various actors (namely Parties, ERTs, LRs and secretariat) in different parts of the process:

- * Preparations prior to the review week: e.g. establishing expectations and time keeping
- * Applying a standard review format and methodology
- * Clarifying the role of the generalist and the LRs

This is covered by section III of the RH (Activities, timing and deliverables ...) and was based on the content of the previous "Stepwise Guide".

Identifying approaches for drafting findings and recommendations-

*The general comment was made, but specific ideas were also raised that are currently not included in the RH (e.g. handling multiple issues in a paragraph; finding ways to distinguish more important from less important issues (e.g. by indicating whether issue affects a key category)).

Figures 5-4 and 5-4 as well as Table 5-2 of the RH and accompanying text of RH address this.

Suggestions for step-by-step guidance on tools.

Some material was added to section IV (Effective Use of the Review Tools) of the RH in response to a previous LR conclusion⁴ but, is it more practical for the ERT to consult the RH or the user guidance for a specific tool?

Call for consistency in applying significance thresholds

Figure 6-4 of RH addresses and will be supplemented with the decision tree outlined below.

Ensuring that all recommendations in the ARR are related to mandatory language

Figure 5-2 of the RH intended to address this

What are the most common crosscutting findings that ERTs need to look out for

Covered by section VI of the RH (General approach to the review of the CRF and NIR)



What are standard review tests to perform, typical issues to look out for, especially given the range of approaches taken by Parties .

Covered by section VII of the RH (sector-specific guidance)

How to review the accuracy of tier 3 methods or complex models?

Figure 6-5 and accompanying text of the RH was intended to address this

Calls for a number of clarifications for LULUCF / KP-LULUCF: - When is the Wetlands Supplement mandatory? Key issues to examine for HWP and differences for between Convention and KP reporting, minimum requirements for reporting LULUCF? Clarifying applicable issues for CP2?

Covered by sections VII.F (LULUCF) and VII.H (KP-LULUCF) of the RH

Source: Consistency Paper prepared for the 16th Meeting of Lead Reviewers



For Discussion

1. Have you read/skimmed the Review Handbook :
Yes / No?
2. Have you used the Review Handbook yourself:
Yes / No?
3. As a LR, have you ever recommended the use of
the Handbook to a reviewer: Yes/ No?



For those who said “Yes”

- Under which circumstances have you used the Handbook?
Did it work?
- What is your overall impression of the Review Handbook?
- Can you share any feedback received from your ERTs?



For those who said “No”....

- Why have you not used the Review Handbook?
- Based on the presentation of the contents of the Handbook today, can you share examples of specific circumstances you have faced where, looking back, the Review Handbook could have helped?
- As a group, brainstorm response to the following:

The Top 3-5 ways I will use, or refer to, the Handbook in 2019 are....

1.

2.

3.

4.

5.



Going Forward

- Refresh yourself: Read/skim the handbook
 - a) Know the overall contents
 - b) Know its overall potential to help you achieve your goals
- During the LR meeting, think about which conclusions, if any, may be helpful to include in the Handbook
- Communicate to your team the potential for the Review Handbook as a reference during the ERT's kick-off call.



Thanks!

For further suggestions, talk to us this week, or

follow up with an email to

GHGReviews@unfccc.int

