



© Alice Thürr / Umweltbundesamt

Transparency Issues

Peter Weiss, LULUCF Webinar, 6.11.2025



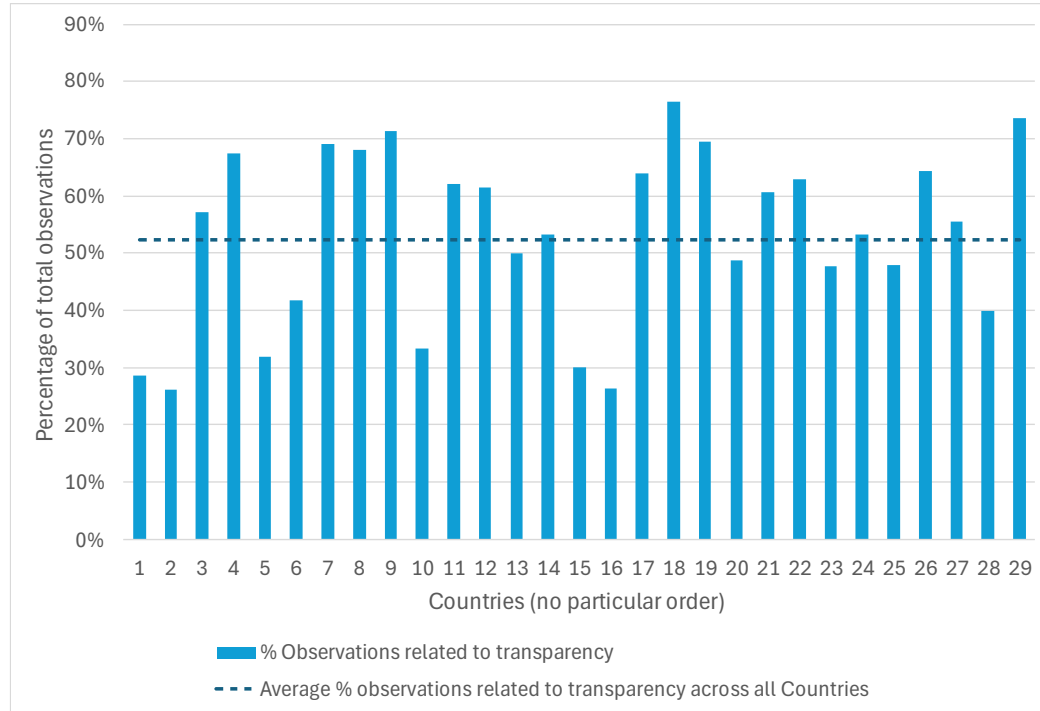
Transparency

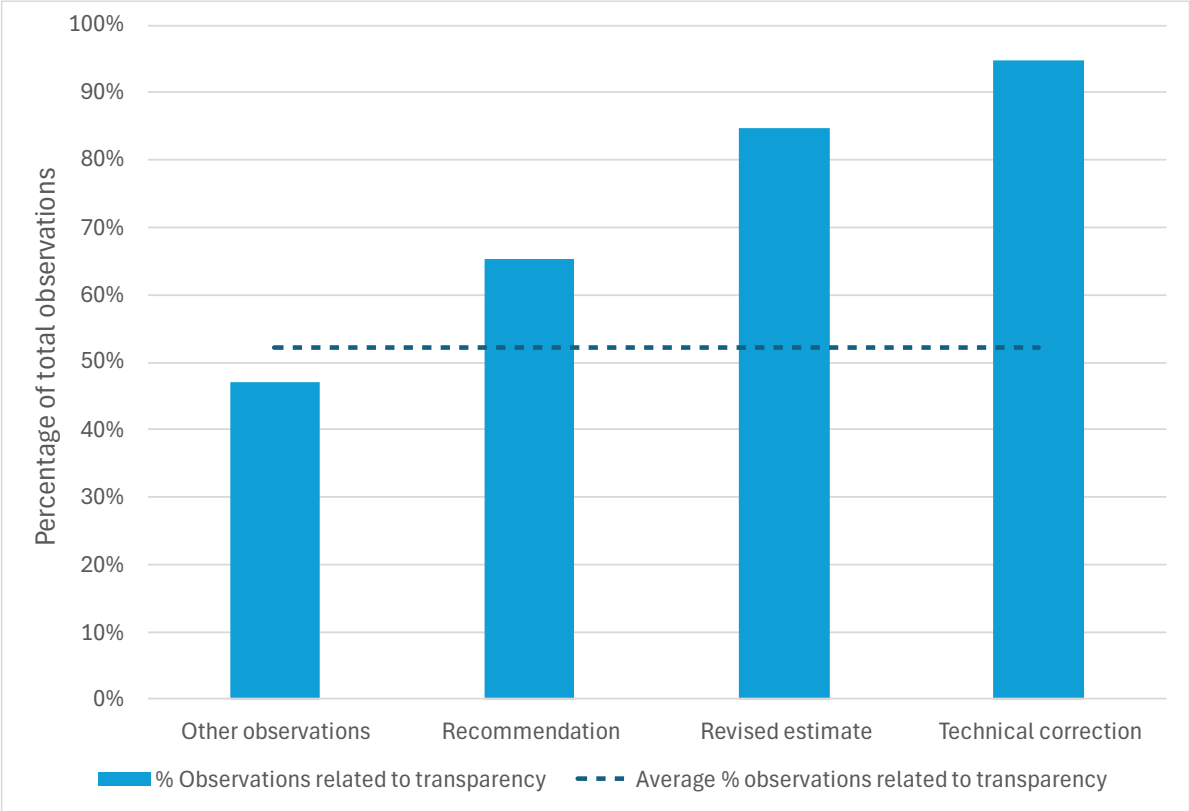
Basic IPCC GL reporting requirement

- LULUCF methods are complicated and vary from MS to MS (IPCC GL just provide a frame)
- MS LULUCF team is familiar with own methods and may not realize the lack of information in the NID to understand the methods and results
- Not straightforward to understand the approach for someone not involved in the MS specific estimates

The more important is a full transparency of the LULUCF methods, input data and (components of the) emission factors in the NID

- From the EMRT analysis, **367 LULUCF observations** were identified as being related to **transparency**. This affects around **52% of the all LULUCF observations**.





Transparency

Obviously, there are still problems in transparency of LULUCF reporting

A high share of observations flagged as related to transparency ended up as a revised estimate or a technical correction

- **Insufficient transparency triggers questions during review**
- **Limited time for review**
- **Q&A loop may not have sufficient time to clarify the issue - as a consequence: unresolved issues, recommendations, technical corrections**

Transparency - needs

Clear and understandable description of

- data sources
- any input data
- methods behind the input data and GHG estimates
- all estimate steps
- equations
- reasoning behind the methods and selected input data

Particularly (but not only) country specific approaches, input data and (components of the) emission factors require detailed presentation and explanation

Transparency – activity data

Description of:

- **Clear definitions of the subcategories**
- **All used input data, the methods in behind (incl. their geographic explicitness), frequency and time period of the surveys**
- **All data gaps, inconsistencies in the data sources and methods to solve these problems**
- **Explanation of all outliers, trends and trend changes in areas of land use, land-use changes, land management, disturbances**
- **Explanation of periods without a certain land-use change or land management and explanation of the absence of (sub-)categories and activities**
- **Explain the (missing) relationship between trends of activity data and emission results, trends and outliers**

Transparency – emission factors (EF), emission results

Description and presentation of:

- **Clear definitions of the pools**
- **All EF (including default ones), the surveys, methods and input parameters in behind country-specific EF, their appropriateness for the used situation, the reasons for their choice**
- **Explanation of all outliers, trends and significant trend changes in the EF, emission results**
- **Interlink the explanations, e.g. explanations of the trends and outliers of EFs with those of the emission results and/or those of area trends; explain incongruous trends (e.g. forest area decreases while removals increase)**
- **All data gaps, inconsistencies in the EF data sources and methods to solve these problems**
- **Detailed presentations of re-calculations: Reasons, methods, changed input data, deviation to previous results**
- **Detailed sub-division of input data and results into related sub-subcategories (repeat or reference to chapter if EFs are used for various subcategories)**

Transparency – default method

Description and presentation of:

- the used default method
- the used equations of the IPCC GL
- the used default emission factors and the reasons for their choice

Transparency – country specific methods

Need a particularly detailed, transparent and understandable description in the NID

Provide a structured description of the approach according to the order of the methodological steps

All key elements of the method need to be described in the NID

Describe relationships between pools and their methodological treatment in the estimates (e.g. between biomass and dead wood; between dead wood and litter and soil; between harvest and HWP production)

It is not sufficient to reference papers (time constraints during review), but provide a description in the main chapter and use an annex of the NID for more details of the method

Transparency – Tier 3 models

Conclusions from the Lead reviewer meeting 2020, how such methods should be described in the NID:

- Reasons for selecting the particular model
- Area of application of the original model and how it has been adapted
- Main equations/processes
- Important assumptions made in developing and applying the model
- Description of the range of conditions for which the model has been developed for application
- How the model parameters were estimated
- Description of key inputs and outputs
- Details of calibration and evaluation using calibration data and independent data
- Description of the approach undertaken for the uncertainty analysis and for the sensitivity analysis, and the results of these analyses
- Quality assurance (QA) and quality control (QC) procedures applied and findings from these procedures
- Comparison of the results from models, tier 3 methods or country-specific approaches with the results from lower-tier or default approaches
- References

Transparency – natural disturbance events

Natural disturbances – major events

Consequences differ from case to case and from MS to MS

Not self-explaining

Therefore, explain the major events and all consequences and impacts in detail in the NID, including those to other related pools or emission subcategories, e.g. harvest rate, DOM, HWP

In the review week there may be not sufficient time to clarify these things

Knowledge of the specific mechanisms and consequences of the cases may not be in the LULUCF expert team, but at the (regional) forest authorities and should be described in the NID

Proposal for checking transparency before submission

Before submission ask a LULUCF expert not involved in the estimates of a specific pool or subcategory for reading the LULUCF NID chapters and checking for sufficient transparency and understandability

Carry out a Q&A loop with this expert referring the method

If the expert addresses difficulties to understand the approach or if the expert is not able to repeat the approach correctly with his own words, improve the description in the NID

Note, that insufficient transparency makes it also more difficult to the LULUCF team itself to identify and correct mistakes, gaps and methodological errors before the submission and review

Contact & Information

Peter Weiss

+43 (0)664-88622384

Peter.weiss@umweltbundesamt.at



 www.umweltbundesamt.at

 bsky.app/profile/umweltbundesamt-at.bsky.social

 www.linkedin.com/company/umweltbundesamt

LULUCF Webinar

6.11.2025