Appendix 4: Instructions on necessary information in each data field

IMPORTANT! - Data fields are classified into 2 categories.

<Mandatory fields> (Bolded in Table 1)

These fields must be specified since they are deemed essential in order for EFDB users to examine the applicability of the data record to their national GHG inventories. If you submit your data without appropriately specifying the mandatory fields, you will be prompted to fill those fields by the EFDB or by the Technical Support Unit of the IPCC-NGGIP.

<Optional fields>

These fields can stay empty, but it is recommended for you to provide as much information as possible also in these fields in order to facilitate EFDB users' consideration.

Table 1 (pages 2-4) provides guidance in detail on the necessary information in each data field.

Table 1 Instructions on necessary information in each data field

Data Field	Instructions
Administrative information	
Data Provider **Data Provider Country**	**MANDATORY FIELDS** ➢ These fields will be automatically filled with the information you gave when you registered yourself as a data provider.
Data Provider Contact	➢ You are encouraged to show your e-mail address. If you wish, however, you can conceal your e-mail addresses from EFDB users by removing the tick in the checkbox. In this case, ipcc-efdb@iges.or.jp will be shown in this field so as to enable EFDB users to contact you (the data source) via Technical Support Unit of the IPCC-NGGIP.
Date calculated	➢ This field can be left blank if the information is not available.
Technical information	
Properties	**MANDATORY FIELD** **See Appendix 5: Guidance on the "Properties" field.** ➢ "Properties" define what EFDB users might see as important information after the categorisation stage in searching or inputting data. ➢ This field consists of 5 sub-fields as shown below. Necessary information should be fully described in appropriate sub-fields. • Technologies/Practices • Parameters/Conditions • Region/Regional Conditions • Abatement/Control Technologies • Others ➢ Information to be included as properties varies from one source category to another. **Detailed guidance is provided in Appendix 5**.
Description	**MANDATORY FIELD** ➢ This field should provide enough description to tell the user basically what the value presented is, without being too wordy or generic. ➢ You should follow, to the extent possible, the terminology used in the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (*IPCC Guidelines*) and the report on *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* (*GPG2000*).
Value	**MANDATORY FIELD** ➢ Values should be precisely indicated. ➢ If the proposal is a range of value rather than a single value, it should be indicated as "10 – 20" for example. ➢ A range of value should be distinguished from uncertainty ranges. (Uncertainty ranges should be indicated in Upper and Lower Confidence Limit fields.)

	➢ The appropriate unit should be chosen from the drop-down list. If there is not any appropriate unit in the list, "New" button should be clicked to type the new unit in the field.
Value in common unit	➢ If the value is presented with such a unit that is not used in the *IPCC Guidelines* (e.g., barrel or gallon for petroleum) in the "Value" field above, you are encouraged to convert it into a value in unit commonly used in the *IPCC Guidelines* (e.g., tC/TJ for Carbon Emission Factors for Fuels) and indicate it in this field.
Equation	➢ If the proposed data fit an equation presented in the *IPCC Guidelines* or *GPG2000*, the following information should be clearly indicated for users' convenience. 1) Equation number (if applicable) 2) Page number 3) *IPCC Guidelines* or *GPG2000* ➢ For example, "Equation 4.15 on Page 4.30 of the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories" ➢ *GPG2000* should be referenced when the same equation is presented in both of the *IPCC Guidelines* and the *GPG2000*. ➢ If no IPCC equation fits, it is desirable to refer to technical reference or source of data where equation is found and can be used.
IPCC Worksheet No.	➢ If the proposed data fit a worksheet of the *IPCC Guidelines* (Vol.2, Workbook), correct worksheet numbers should be indicated for users' convenience. (For example, "Worksheet 4-1, Sheet 1 of 2") ➢ If the data are not applicable to any IPCC worksheets, then this field should be "Not applicable".
Source of data	**MANDATORY FIELD** ➢ Reference should be made precisely. ➢ E.g, scientific literature, official national inventory reports, etc.
Technical Reference	**MANDATORY FIELD** ➢ Technical reference should be quoted fully and precisely.
Reference Language	**MANDATORY FIELD** ➢ It should be indicated in which language the technical reference is available.
Abstract in English	➢ You are encouraged to provide the abstract in English of the technical reference in order to enable EFDB users to better understand the nature of the data.
Upper confidence limit (95% confidence interval)[1]	**MANDATORY FIELD** ➢ If no information on the upper confidence limit is available, "Unknown" should be ticked. ➢ Do not confuse with a range of value which should be indicated in "Value" field.

[1] Confidence limits give the range within which the underlying value of an uncertain quantity is thought to lie for a specified probability. This range is called the confidence interval. The *IPCC Guidelines* suggest the use of a 95% confidence interval which is the interval that has a 95% probability of containing the unknown true value. (Chapter 6 "Quantifying Uncertainties in Practice", *GPG2000*)

Lower confidence limit (95% confidence interval)	**MANDATORY FIELD** ➢ If no information on the lower confidence limit is available, "Unknown" should be ticked. ➢ Do not confuse with a range of value which should be indicated in "Value" field.
Data quality	➢ If data quality ratings have been made by yourself according to your own standard, the information can be quoted here. The explanation of the standard used should be also provided. ➢ No new quality rating scheme will be developed specifically for the EFDB.
Distribution shape	➢ If applicable, appropriate information should be chosen from the drop-down list.
Data quality reference	➢ Reference should be indicated if it is different from the technical reference presented above.
Other information on data quality	➢ Other information relevant to the data quality, if any. ➢ For example, clarification of the following points could be given. • Are the measurement techniques including raw data validated and/or verified? • Are the modelling techniques including supporting data validated and/or verified? • Is the extrapolation from the model assumptions or measurement conditions to annual emissions factors sufficiently treated?
Usage/Review information	
Measurement technique/ standard Periodicity of measurement External quality control performed Date of measurement	➢ **These fields will appear only when the data provider choose "Measured" as "Type of parameter".** ➢ You are highly encouraged to provide appropriate information (e.g., description about representativeness of sampling) unless it is not available at all. ➢ In particular, clarification of the following points should be given in the field "Measurement technique/standard". • Are measurement techniques/standards used comparable with national or internationally recognised standards? ➢ In particular, clarification of the following points should be given in the field "Periodicity of measurement". • Have measurements been made on multiple systems or sites and over sufficient time and range of conditions to capture the variability of emissions and to provide a stable annual average?
Comments from Data Provider	➢ Any other information relevant to the proposed data can be provided in this field. ➢ For example, you are highly encouraged to provide additional description of emission factor development where needed to elaborate. ➢ You can also provide information on further improvement need to be done and describe what measures could be taken to improve its accuracy and applicability. ➢ In the case that you have not directly consulted the original author, it should be mentioned in this field.
Comments from Others	➢ You should leave this field blank.