## Updating the SDMX Templates

The following is a brief guide on how to update the SDMX templates accompanied in the 2023 SDG data requests, for those reporters who choose to submit their data in SDMX using Excel templates[[1]](#footnote-1). UNSD will be happy to help with any issues concerning SDMX data exchange. For support or any queries, please do not hesitate to contact Harumi Shibata Salazar ([shibata@un.org](mailto:shibata@un.org)) and Abdulla Gozalov ([gozalov@un.org](mailto:gozalov@un.org)).

1. These templates have been developed for use with the SDMX Converter software. An online installation is available at <https://webgate.ec.europa.eu/sdmxconverter> (an EU login is required, available to any user). Alternatively, you may wish to download and install SDMX Converter from EU’s [CIRCABC web site](https://circabc.europa.eu/ui/group/088149e5-0472-405b-839b-57d5970052cc/library/e8a55f96-54c4-4648-a2b6-2192dda4229a?p=1&n=10&sort=modified_DESC). We recommend [v9.5.0](https://circabc.europa.eu/ui/group/088149e5-0472-405b-839b-57d5970052cc/library/f087bf9e-47f8-4ed4-862e-320d26d04c4f?p=1&n=10&sort=modified_DESC) (currently a test release) or higher.
2. Each template contains two sheets: “Data” and “Parameters.”
   1. Data in the “Data” sheet are the latest available data in the Global SDG Indicator database – with coding compatible with latest SDG DSD.
   2. The “Parameters” sheet contains the mappings that show how the source data maps to the concepts of the Data Structure Definition (DSD).
3. Updating the data
   1. When updating/adding values to the templates, ensure that each cell in the columns has a valid code. The latest DSD matrix containing the data model, series codes, and the code list of each dimension and attribute in the DSD can be found here (<https://unstats.un.org/sdgs/iaeg-sdgs/sdmx-working-group/>).
   2. If you have an observation that cannot be mapped to the DSD because corresponding dimension or attribute codes are missing, please send an email to UNSD. The codes will be added to the next release of the DSD. In the meantime, please leave the corresponding cells blank; note that such a dataset cannot be converted until the codes have been added to the DSD.
   3. Add column(s) if new dimensions (e.g. Age) or attributes (e.g. bounds) are needed. If you are adding any columns, mappings will need to be updated accordingly in the Parameters worksheet. Please see section 4 below for more information.
4. Mapping the data to concepts in DSD
   1. The “Parameters” sheet already contains the mappings between the data and concepts of DSD.
   2. Examine each mapping and update it as necessary. If new dimension(s)/attribute(s) are added in the “Data” sheet, ensure that the mappings in “Parameter” are updated accordingly.
   3. Since the format is record-based, there will be no concepts that map to rows.
   4. For column positions, you can use either letters, as in the spreadsheet (A, B, C,…) or numbers (1, 2, 3, …).
   5. Be sure to map columns that contain codes, not descriptions.
   6. Each dimension and the mandatory attribute must be mapped!
   7. Find **DataStart** with the cell that contains the first observation value. The column should be the one that contains the observation, and the row should be 2 (since the headers are in the first row).
   8. Since there is only one observation per row, the value in the **NumColumns** field should always be 1.
   9. For more information on configuring the mappings, refer to the attached presentation, and the manual available at the SDMX Converter web site.
5. Transforming data to an SDMX-ML format using Eurostat SDMX Converter
   1. Please use the online SDMX Converter at <https://webgate.ec.europa.eu/sdmxconverter> or download the converter from EU’s [CIRCABC web site](https://circabc.europa.eu/ui/group/088149e5-0472-405b-839b-57d5970052cc/library/e8a55f96-54c4-4648-a2b6-2192dda4229a?p=1&n=10&sort=modified_DESC). We recommend [v9.5.0](https://circabc.europa.eu/ui/group/088149e5-0472-405b-839b-57d5970052cc/library/f087bf9e-47f8-4ed4-862e-320d26d04c4f?p=1&n=10&sort=modified_DESC) (currently a test release) or higher.
   2. To perform the conversion, the SDMX Converter needs an input file (i.e. the updated data template). Please complete the first screen as follows:
      * Choose the **Convert and Validate** option to validate the SDMX file before sending to UNSD
      * Drag and drop the updated template file into the **Input** area.
      * Specify **STRUCTURE\_SPECIFIC\_DATA\_2\_1** as the Output Format. Provide an output file name with extension XML (e.g. “Series.xml”). Click Next.
   3. Provide the structure:
      * Select **Dataflow** as the Structure type.
      * Check **Use registry** and select the Global Registry from the dropdown (**https://registry.sdmx.org/....**) and click **Query Registry**.
      * Select Agency **IAEG-SDGs**.
      * Select Artefact Id **DF\_SDG\_GLH**. You must use this dataflow with global SDG data.
      * Select the latest Artefact Version from the list. As of 22 December 2022, the latest version is v1.11.
      * Click **Next** to proceed to the next screen.
   4. Click **Manual** at the Header Configuration screen and **Next** to proceed to the next screen.
   5. Leave defaults in the Header screen and click **Next** to proceed.
   6. The Converter will now validate and transform the dataset. If no errors are found, click **Download Result** to save the SDMX dataset and email it to UNSD.
6. The Converter will report any errors it finds during the conversion, and cell where the error occurs (in the **Details** column). Table below lists some of the more common error messages and their causes.

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| --- | --- |
| Error Message | Cause |
| Series not allowed in this dataset | The dataset does not conform with the content constrains. This usually means that invalid disaggregation was provided, e.g. SEX=Male with an environment indicator. Please see the **SDG Series Content Constraints matrix** at the [SDMX-SDG web page](https://unstats.un.org/sdgs/iaeg-sdgs/sdmx-working-group/) for detailed information on allowed disaggregation. See the **Details** column on the error screen for address of the offending observation. |
| Dimension XXX is reporting value which is not a valid representation in referenced codelist | An invalid code was used with a dimension or attribute. Please see the SDG DSD Matrix at the [SDMX-SDG web page](https://unstats.un.org/sdgs/iaeg-sdgs/sdmx-working-group/) to check the code list in question. See the **Details** column on the error screen for address of the offending observation. |
| The dataset contains a series with a missing mandatory concept XXX | Missing code for dimension or mandatory attribute; or the dimension or mandatory attribute was not mapped. See the **Details** column for address of the offending observation. |
| Primary Measure OBS\_VALUE is reporting invalid value which should be a floating point number with double precision('Double') | A non-numeric value was used as the Observation value. See the **Details** column for address of the offending observation. |

1. If source data is available in a database, other tools, particularly SDMX Reference Infrastructure (<https://circabc.europa.eu/w/browse/1c958330-ae5b-42e0-b7dd-3d77a0141194>), may be more efficient. They allow for retrieval of SDMX data directly from the database, skipping Excel templates. [↑](#footnote-ref-1)