SDMX-SDGs Metadata Application Programming Interface

V1.1

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I.   Introduction

Global SDG Metadata is available in an SDMX format and has been published at an SDMX-based Application Programming Interface. Since the SDG Global Database is also available at an SDMX API, both global SDG data and reference metadata are now available in a machine-readable format and can be easily cross-referenced and visualized.

The purpose of this document is to provide guidelines on the use of the SDG Metadata API. Since SDG Reference Metadata applies to SDG indicators/series, SDG metadata sets link to SDG series and other components of the global SDG DSD. For further detail on the global SDG Data Structure Definition and Dataflows, Metadata Structure Definition, and UNSD SDMX API, please visit the SDMX-SDGs web page at https://unstats.un.org/sdgs/iaeg-sdgs/sdmx-working-group/. Guidance on the global SDG Metadata Structure Definition is available at the page in a separate document.

II.   Metadata target

The metadata API uses the *KeyDescriptorValuesTarget* defined in the SDG MSD. As described in the Guidelines on the Global SDG MSD, this target links a metadata set to an SDG indicator/series, and is composed of 3 dimensions defined in the SDG DSD: **REPORTING_TYPE**, **SERIES**, and **REF_AREA**. Together, codes for the 3 dimensions define the indicator/series to which the metadata pertains, and whether the metadata is linked to a harmonized series provided by an SDG Custodian Agency, or a country series provided by the government of the country.

III.   SDG Metadata API location and syntax

The end point of the SDMX Metadata API is located at
https://unstats.un.org/SDGMetadataAPI/api/Metadata/SDMXReport/.

The API can be used to query the global SDG metadata base. The metadata base contains all global SDG metadata submitted by the SDG Custodian Agencies as well as national metadata submitted by individual countries. Global and national metadata can be specified using the REPORTING_TYPE and REF_AREA parameters as described below.

The API can be queried using the following syntax:
https://unstats.un.org/SDGMetadataAPI/api/Metadata/SDMXReport/{REPORTING_TYPE}.{SERIES}.{REF_AREA}

Where

- {REPORTING_TYPE} is one or more valid codes from the CL_REPORTING_TYPE code list of the SDG DSD. At this time, this parameter can take the value of either **G** or **N**, which can be combined as described below. Queries for the global metadata use the code G, and queries for national metadata use the code N.

- {SERIES} is one or more valid codes from the CL_SERIES code list of the SDG DSD. Series codes can be combined, and all series requested as described below.

- {REF_AREA} is one or more valid codes from the CL_AREA code list of the SDG DSD. Reference area codes can be combined, and all areas requested as described below. Please note the following:

  o The SDG Global database and metadata database use M49 (numeric) codes. Only M49 codes can therefore be used querying the SDMX API.

  o Global reference metadata use refence area code 1 (World). All queries for global metadata should therefore use this code. Queries for national metadata should use the country's M49 code.

  o Code 999 is used for metadata availability query.

Combining codes
Codes can be combined using the plus sign (+). For example, using **SI_POV_DAY1+SI_POV_EMP1** in the SERIES parameter will request the two series with corresponding codes, for indicator 1.1.1.

Requesting all codes
Using the **all** keyword in any of the parameters will request all codes for corresponding dimension. This removes a filter on the dimension.

Availability query
Using special code **999** in the REF_AREA parameter returns metadata sets with only the targets and no metadata reports. This makes it possible to quickly and easily determine whether metadata set(s) exist for specified series, by returning a small metadata set containing only targets.

IV. Response
The API returns metadata in the SDMX 2.1 **GenericMetadata** XML format.

Zero or more **MetadataSet** elements can be returned depending on results yielded by the query. Each **MetadataSet** contains a **Report** element. The **Report**, in turn, contains:

1. A **Target** element, composed of codes for the SDG reporting type, series, and reference area as described above. The target links the metadata set to an SDG series.
2. An **AttributeSet** element, which contains **ReportedAttribute** elements with metadata text in metadata attributes defined in the SDG MSD. The contents of each attribute is HTML wrapped in a CDATA section. Images are provided as inline objects, and formula as MathML.
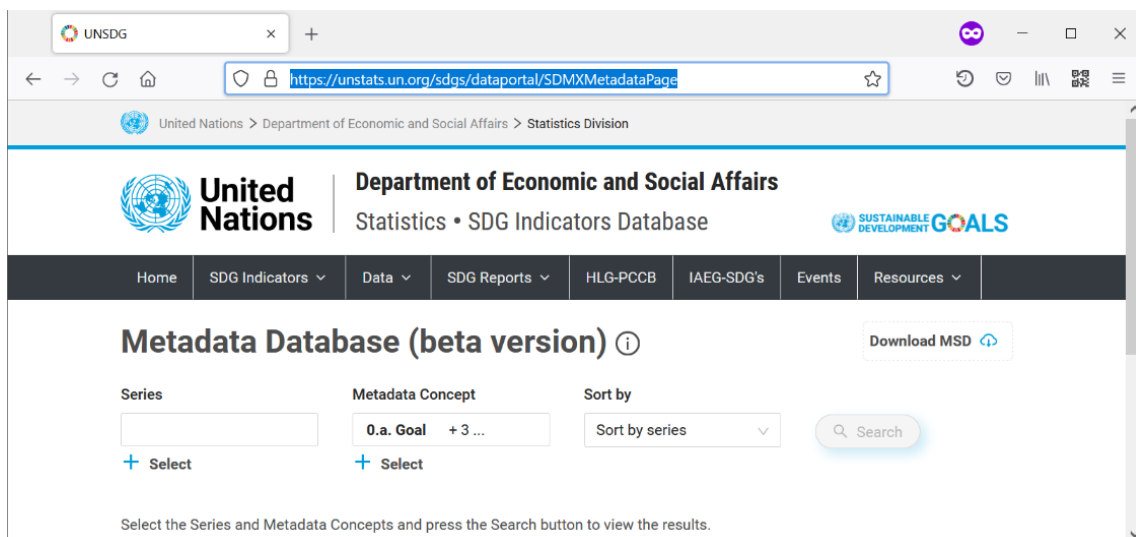
AttributeSets are not returned when availability is requested. **Target**s are always returned.

For further information, see the SDMX 2.1 Specification, Guidelines for the Global SDG DSD, and Guidelines for the global SDG MSD.

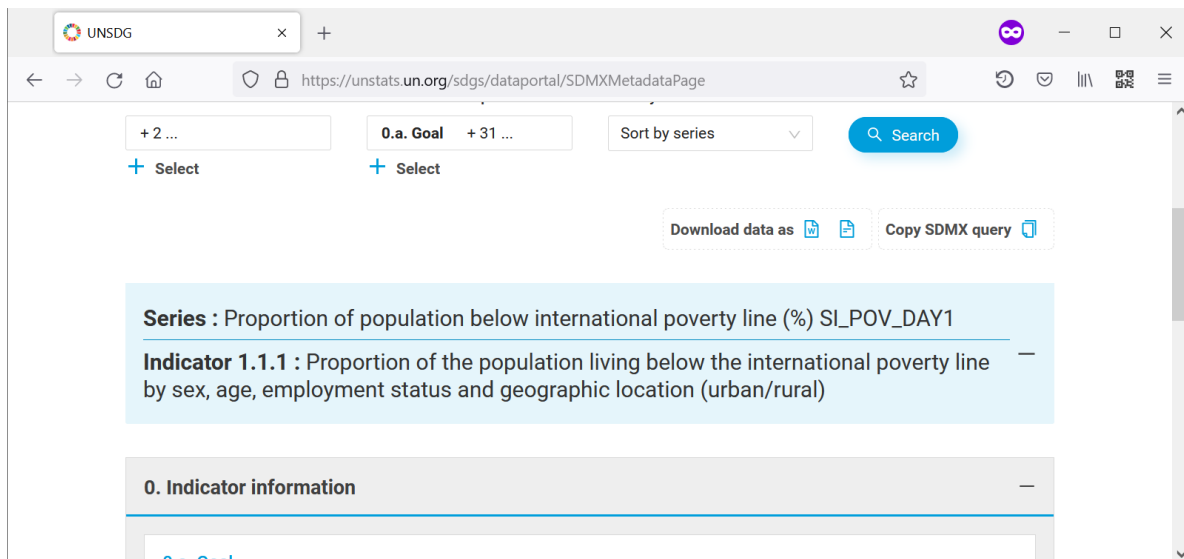## V. Constructing metadata queries with the SDMX Metadata Database page

The UNSD SDG Metadata Database page can be used to retrieve global metadata submitted by SDG Custodian Agencies from the SDMX API and construct metadata API queries through an interface.

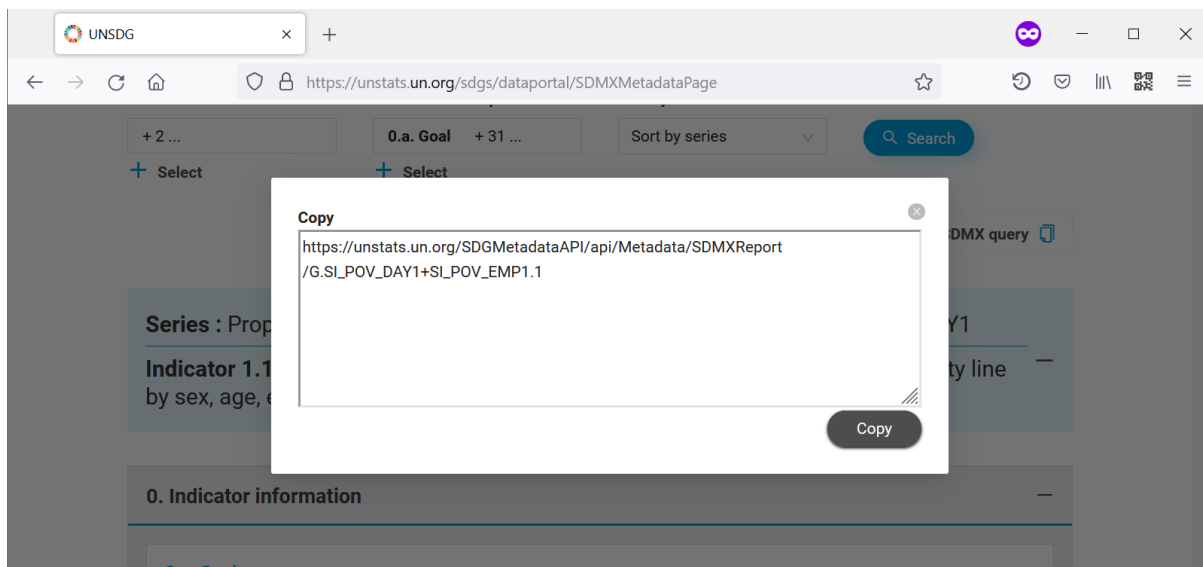1. Open the SDG Metadata Database page at
   https://unstats.un.org/sdgs/dataportal/SDMXMetadataPage

2. Use the ➕ Select buttons to select Series and metadata concepts of interest. NB: there is no selection for Reporting Type and Reference Area because this page is only used to visualize global SDG metadata submitted by the Custodian Agencies, therefore these parameters are fixed, i.e. REPORTING_TYPE=G and REF_AREA=1.

3. Click [🔍 Search] to retrieve metadata. The metadata is retrieved.

4. Click [Copy SDMX query 🗗] A window comes up that displays the query.

5. Select and copy the query to the clipboard, then use it in a browser or your application. The query can also be edited as appropriate.

VI. Example queries

1. Retrieve metadata sets for indicator 1.1.1 (series SI_POV_DAY1 and SI_POV_EMP1):

https://unstats.un.org/SDGMetadataAPI/api/Metadata/SDMXReport/G.SI_POV_DAY1+SI_POV_EMP1.1

This query will return global metadata (REPORTING_TYPE=G) for the two series: *Proportion of population below international poverty line* and *Employed population below international poverty*

line (SERIES=SI_POV_DAY1+SI_POV_EMP1), for reference area World (REF_AREA=1, used with all global metadata).

2. Retrieve all national metadata submitted by Kyrgyzstan (REPORTING_TYPE=N, SERIES=all, REF_AREA=417):

https://unstats.un.org/SDGMetadataAPI/api/Metadata/SDMXReport/N.all.417

3. Return availability, but not actual metadata, for all global series (REPORTING_TYPE=G, SERIES=all, REF_AREA=999):

https://unstats.un.org/SDGMetadataAPI/api/Metadata/SDMXReport/G.all.999

VII. Links and contact information

Further information and materials can be found at the official SDMX-SDG page hosted by the United Nations Statistics Division.

Please contact **sdmx @un.org** with enquiries regarding the SDG Data Structure Definition and related SDMX artefacts.