Resolving MDG coordination issues using SDMX: international and national experiences
Outline

- Current MDG data exchange/coordination issues at the international level
- Resolving coordination issues using SDMX: international experience
- Country experience in implementing SDMX
Current MDG data exchange/coordination issues at international level – (1)

- Using IAEG agreed Excel format to submit MDG data, selected issues:
  - Country codes are missing for some countries.
  - Country names are different in different agencies, e.g. “Republic of Korea” can be “Korea, Republic of” or “Rep. of Korea”.
  - Category field is not standardized: “Women” can be “Female”, “Both sexes” can be “Total”, etc.
  - Data for “Nature of Data Points” field is missing.
  - Footnotes field has mistakes, such as putting footnote text directly into the cells, or footnote codes are wrong.
Current MDG data exchange/coordination issues at international level – (2)

- Due to resource or other reasons, data are not submitted according to IAEG agreed format, Eg. One agency submitted 1990-2009 data for 4 variables, the file contains more than 240 columns.
- All above -> too much manual work -> prone to error

<table>
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<tr>
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SDMX and exchange of MDG information

To facilitate exchange of data and metadata on indicators for the global monitoring of MDG.

Initial step for future collection of statistical information from countries using SDMX.
Creating a DSD for MDG indicators

- The set of MDG indicators is diverse and covers many social sectors. The challenge was to construct and agree on a DSD and Code Lists that could accommodate this diversity.
- The SDMX Task Team of the IAEG created a DSD that is flexible enough to allow agencies to report MDG data using SDMX.
- This DSD could also be used as the basis for data exchange between countries and international agencies.
## Data Structure for MDG indicators

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>ATTRIBUTES</th>
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<td>Time period</td>
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<td>Source Type</td>
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1. Identifying a data point (concepts that are observed phenomenon).

(For Argentina, in 2009, the **literacy rate of 15-24 years old** women is 99.36 per cent (total - national level).)
2. Recognizing the dimensions (concepts that identify the observation).

For Argentina, in 2009, the literacy rate of 15-24 years old women is 99.36 per cent (total - national level).

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
<th>Year</th>
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3. Recognizing the attributes of the data point (concepts that add metadata).

For Argentina, in 2009, the **literacy rate of 15-24 years old** women is **99.36%**.

- a. Unit multiplier: 0 (unit)
- b. Time period details: NA
- c. Nature of data point: Estimated
- d. Source details: International
- e. Footnotes: NA

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UIS MDG SDMX file

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      <Contact>
        <Name>Adriano Miele</Name>
        <Department>UIS - DPSS</Department>
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        <Telephone>+1 514 343 7764</Telephone>
        <Fax>+1 514 343 5740</Fax>
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UIS MDG SDMX file

- National 1991-2001-2009 data for 16 variables in one file

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UIS experience in education data exchange

- Pilot test for Education Data Exchange between UIS and World Bank
- SDMX at the UIS
  - Provide data for MDGs, UN HDR, UN Data Portal
  - Provide data to / receive data from the World Bank
  - Receive questionnaire data from the OECD
- Build a system that could export any UIS data into SDMX-ML format, using MDG DSD

Source: UIS presentation at 5th meeting of SDMX-MDGs Task Team: SDMX for MDGS
UIS experience in education data exchange – SDMX Processing Flow

**Import**

SDMX-ML File → EStat SDMX Converter → CSV File → SDMX Processor → Database

**Export**

Database → SDMX Processor → CSV File → EStat SDMX Converter → SDMX-ML File

Blue – Generic software  Green – Custom software

Source: UIS presentation at 5th meeting of SDMX-MDGs Task Team: SDMX for MDGs
UIS experience in education data exchange – SDMX Processing / Who does what

**Eurostat SDMX Converter (Java application)**
- Parses DSD
- Provides users with error and info messages
- Reads and writes SDMX-ML format
- Accesses file system (CSV file)

**UIS SDMX Processor (C# Wrapper)**
- Interacts with database

Source: UIS presentation at 5th meeting of SDMX-MDGs Task Team: SDMX for MDGS
UIS experience in education data exchange – Lessons Learned

- Use the generic tools
  - Save you time
  - Help you respect the SDMX standard
- Dive in, together
  - Learn more by doing
  - Work with your partners / colleagues
- MDG DSD is robust
  - Can be used for UIS – Agency data exchanges
  - One size does not best fit all

Source: UIS presentation at 5th meeting of SDMX-MDGs Task Team: SDMX for MDGs
Country experience in implementing SDMX - Mexico

SDMX helps to solve problems in national and international information exchange:

- Difficulties to reach the right informant
- Delays on reaching information delivery deadlines
- Partial information delivery (no matter if it exists or not)
- Heterogeneous quality of exchanged information
- Loss of contacts because of staff changes in institutions
- Set up standard to exchange information

Source: Mexico presentation at 41th session of UNSC: Implementing SDMX in Mexico
Country experience in implementing SDMX – Mexico data exchange mechanism

Source: Mexico presentation at 41th session of UNSC: Implementing SDMX in Mexico
Country experience in implementing SDMX - Mexico Planed Implantation

- **FIRST STAGE:**
  - Information upload in traditional formats (Excel files, Text files, etc.)
  - Skill development on SDMX issues (technical and conceptual) and distribution of the desktop tool

- **SECOND STAGE:**
  - Adopt SDMX standard for exchange within the country.
  - Deposit of information transformed to SDMX files (using internationally defined DSD or generic format)

- **THIRD STAGE:**
  - Incorporation of exchanges with other international organizations

- **FOURTH STAGE:**
  - Automation of the transformation and exchange process (integration to the collaboration network)

Source: Mexico presentation at 41th session of UNSC: Implementing SDMX in Mexico
Country experience in implementing SDMX – Mexico transformation process using SDMX (SDMX 2 Builder)

- Define the message format
- Import or type data (typically both)
- Map data to SDMX tags
- Save the file
- It also generates a script for automatic transformation

Source: Mexico presentation at 41th session of UNSC: Implementing SDMX in Mexico
Country experience in implementing SDMX – Mexico SDMX Features

- Based on SDMX 2.0 version
- Support of “Generic Data”, “Compact Data” and “Cross Sectional Data” message types
- Construction of Data Structure Definitions
- Code lists definition
- SDMX Files Edition
- Multiple sources (Text files, Excel Worksheets, Databases)
- Conversion scripts (for automatic dataflow construction)
- Multilanguage (any language using Latin alphabet can be added)
- Windows XP platform

Source: Mexico presentation at 41th session of UNSC: Implementing SDMX in Mexico