FAO Metadata Standards

SDMX implementation experience in FAO

by

Julia Stone

SDMX work @ FAO

1. Overview of SDMX related initiatives in FAO
2. Main Objective
3. How is FAO working toward this objective?
4. Opportunities
5. Challenges

SDMX work @ FAO

- Implementation of SDMX for FAOSTAT (exchange statistical data and metadata on agricultural production and land use with the Central Bureau of Statistics of Israel)
- Implementation of SDMX for CountrySTAT (exchange statistical data and metadata from Burkina Faso and Mali with FAOSTAT)
- Development of OpenSDMX (a java software suite for registering and publishing data in SDMX. It provides a REST based data exchange and it conforms to the community's evolving SDMX REST specification)
- Implementation of OpenSDMX for iMarine (an open and collaborative initiative to establish a data infrastructure in support of the Ecosystem Approach to fisheries management and conservation of marine living resources)
- New FENIX metadata structure compatible with SDMX

Objective

Increase opportunities to exchange statistical data and metadata at international and national levels by promoting and facilitating the adoption of standard specifications

How?

Help countries to adopt standard specifications designed to describe statistical data and metadata and facilitate their exchange. SDMX aims at reducing development, maintenance and operation costs through the following:

•Logical unification of data through a common logical data model

•Deliver efficient and intuitive search and discovery

•Harmonization of statistical metadata (e.g. code lists) and use of pre-defined objects (e.g., schemes, data structure definitions)

•Reduction of diversity among statistical data and metadata formats for exchange

•Use of standard software specifications and data model allows machine-to-machine communication.

•Discovery and unification of distributed data shaped according to standard logical model

Opportunities

- Enabling efficient data exchange between national agencies, as well as between national and regional/international organizations

- Provide guidelines and technical elements to coordinate data harmonizing and structuring across agencies

- Involve national and regional organizations in international forums on open data sharing

Challenges

- SDMX-based output in XML is easy to implement, but it may be difficult to implement SDMX-compatible metadata
- Difficulty to agree on standardized code lists in order to establish data compatibility and harmonization
- Elements can not have more than one measurement unit. This is a considerable limitation, especially when the system is used at national level
- Resources needed to implement and roll-out SDMX in the countries and regions, including training
- Difficulties to apply SDMX to existing systems; the system needs to be specifically designed for SDMX use

Thank you!