Forwarding Armenian Statistics Through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

on

Quality Management

Training of Staff A4.1

Mission carried out by
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Armenia, 16-20 April 2012

Version: *Final*

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List of Abbreviations

MS   Member State
NSSRA National Statistical Service of the Republic of Armenia
QD   Quality Declaration
QWG   Working Group on Quality
SD   Statistics Denmark

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1. General comments

This report was prepared as the result of the mission to the National Statistical Service of the Republic of Armenia. It was the fifth activity within Component A, and it was devoted to quality metadata and dissemination systems and an update on the work with the quality reports.

The MS Expert would like to express their thanks to all officials and individuals met for their kind support and valuable information, which was received during the stay in Armenia, and which highly facilitated the work.

The views and observations stated in this report are those of the MS Experts, and do not necessarily correspond to the views of Statistics Denmark.

2. Actions and results

NSSRA has decided to use the PC-AXIS software PX-WEB as a dissemination databank on their Internet site and a contract with Statistics Sweden has been signed. The contract entitles the NSSRA to use the software, to receive support from Statistics Sweden, and to participate in the yearly PC-AXIS user group meetings.

Data files to be imported into PX-Web and PC-AXIS should be in a standard format where metadata and data are integrated in one file.

The experts conducted training sessions for the staff (IT, Methodology and Dissemination) where the necessity of coherent structural metadata was stressed, and the need to set up guidelines and rules for the design of tables in order to secure a certain uniform presentation.

The progress of development of quality declarations was thoroughly reviewed with the quality working group.

The following actions were carried out during the mission:
- PX-Web user interface has been translated to Armenian
- PX-Web pilot installation performed on one workstation and one server. It turned out that in order to reuse all the Armenian text files, a system that supports UNICODE is needed. The current version of PC-AXIS supports ANSI. In May a new version of PX-Web in dot.Net will be released. This version supports UNICODE, and it has to be implemented in NSSRA when it is read by the end of May 2012.
- A prototype of dot.Net version was installed on one server and on one workstation
- The prototype installation verified that UNICODE works and fully support the Armenian alphabet in the coming dot.Net version
- It was shown how the NSSRA can translate the user interface of the new dot.Net version
- PX-Edit and PX-Make which are the tools used to create PX-files were installed on the local computers and introduced to the NSSRA staff.
- The staff were trained in the relevant software and in handling of metadata in PX-files
- The importance of coherent meta data was pointed out and discussed.

3. Conclusions and recommendations

- NSSRA should get the latest version of the PX-web which will be released by the end of May. This update is anticipated as being part of the contract. It is a dot.Net version and installing this will overcome the current and specific problems related to the Armenian characters of lacking support of UNICODE. Before the final version is ready, a test can be carried out on the beta version that can be downloaded already. The experts have provided NSSRA with a link to the download site. A test installation of the prototype indicated that it fully supports UNICODE.

- The MS Experts recommend that a number of tables are created for each of the topics mentioned in the quality declarations. To satisfy user expectations and needs, it is advantageous to give the understanding of how broad and all covering the databank will be when fully developed.

- A release date for the PX-Web databank should be settled before the end of 2012, if possible in September 2012.

- The MS Experts consider the cooperation and mutual understanding between staff in IT, Methodology, Dissemination and Subject units important when it comes to deciding and creating tables for the web dissemination. Appointing some "super users" of the PX-software could be advantageous.

- This cooperation across the divisions might require some adaptation.

- It seems obvious that the structure of the databank will follow the structure of quality declarations. This is important for keeping coherence in the publishing as well as it makes correct linking between data and documentation much easier.

- Quality declarations should be linked to relevant tables. This is possible in the PC-Axis file.

- In some subject areas (i.e external trade according to NACE) data are stored in MS-ACCESS. The NSSRA should explore (in dialog with Statistics Denmark) how structured files can be exported from MS-ACESS into PX-Edit.

- In other subject areas tables are produced using SPSS – the NSSRA should explore (in dialog with Statistics Denmark) how files can be exported from SPSS into PX-Edit.

- The progress of development of quality declarations was thoroughly reviewed with the Quality Working Group of NSSRA (QWG). Progress is fully satisfactory and procedures are well designed. It was agreed that the goal should be to have all QDs ready by October 2012. They should be linked to the databank that is simultaneously under preparation.
  The QWG should decide on procedures to ensure future updating of the QDs. Members were well aware of the importance of this updating.
  The importance of sampling assistance to statistics managers was agreed, and NSSRA will nominate a key adviser in this area. This would aim at estimating quality indicators, as well as optimizing sampling. A study visit of the key adviser to Statistics Denmark is foreseen in the coming months.

4. Actions before next activity

- Define naming convention for Databank. This is utmost important if the process of creating tables is decentralized. It means that it must be agreed how to name the subject areas and tables (matrices) both by codes and text (i.e Subject area; FI/ Finance, Matrix/table code FI001, ….FInnn)

- Although the PX-Web dot.Net version is not final yet, NSSRA can start producing PX tables for use in PX-Web

- One table for each subject area before 18 May in Armenian and English by NSSRA (i.e. seven tables)
- Follow up and comments by email from Statistics Denmark before end of May, even on smaller problems encountered during the work.
- Statistics Denmark will provide examples of table structure.
- An installation of the final version of PX-Web dot.Net should be done before end of June
- The NSSRA should investigate how the PX-Web dot.Net version is best adapted to the look and feel of the website: www.armstat.am
- NSSRA should produce 25 or more tables distributed across the topics before end of August
- A coordinating group with people from all the units involved in creating tables, e.i. IT, Methodology and Dissemination) should be established. One of the tasks will be to coordinate the naming of Subject areas, table codes, structural metadata
- Next mission proposed 10-14 September 2012

Annex 1. Terms of Reference

A4.1. 16-20 April 2012

Component A   ***Quality Management***
Component B   Business Register, Structural Business Survey, and Respondent Burden
Component C   Improvement of the Exhaustiveness of GDP
Component D   Agricultural Census
Component E   Harmonized Consumer Price Index
Component F   ICT Society

Activity A4.1   Training of staff (1)

1. Purpose of activity
During activity A4.1 staff of NSSRA will be trained on the two issues below, both to be continued during the later A4.2 activity:
- the practical handling of the meta data that have conceptually been (and will be) developed during the project; and
- installation of the PX-Web / PC-Axis dissemination software.

The use of PC-Axis (PX-Web) as a means of internet based dissemination will make the statistics produced by the NSSRA more accessible to users.

2. Expected output of the activity
The expected output of the activity is:
o   Translation of PX-Web into Armenian;
o   A first version of PX-Web running at NSSRA;
o   NSSRA staff trained in producing PX files
o   Recommendations regarding meta data discipline related to output databases;
o   Relevant staff members of NSSRA trained in the above issues;
o   A decision on the dates of the next activity, A.4.2.

3. Project Participants
Mr Stepan Mnatsakanyan, President of NSSRA (*BC Component Leader*)
Ms Anahit Safyan, Head of International Statistical Cooperation Division
Ms Annegrete Wulff, Head of Dissemination Division, Statistics Denmark
Mr Jesper Ellemose Jensen, Senior Advisor, International Consulting, Statistics Denmark

Other NSSRA staff members taking part in the activity
Mr. Gagik Ananyan, Member of State Council on Statistics
Mr. Vanush Davtyan, Responsible for IT, Member of State Council on Statistics
Ms. Lilit Petrosyan, Head of Methodological Division
Ms. Narine Musheghyan, Head of Dissemination Division
Ms. Vladimir Oboyantsev, Head of IT Department

Annex 2. Programme for the 16-20 April 2012

Time	Place	Event	Purpose / detail
Monday, 16 April Morning	Congress Hotel	Meeting with RTA	To discuss the programme of the week
Afternoon	NSSRA	Meeting with BC Component Leader and Experts	The present internet dissemination at NSSRA (BC presents). Demo of PC-Axis (MS presents). Outline of technical requirements.
Tuesday, 17 April Morning	NSSRA	Meeting with IT responsible and staff	Initiating some tasks prior to installation: 1. translation of PX-Web into Armenian 2. establishing the necessary filestructures and the formation of test (or real) data
Afternoon	NSSRA	Workshop / seminar	Meta data discipline and practical handling of meta data
Wednesday, 18 April	NSSRA	Ad-hoc meetings	Installation of PX-Web / PC-Axis
Thursday, 19 April	NSSRA	Ad-hoc meetings	Installation of PX-Web / PC-Axix
Friday, 20 April Morning	NSSRA	Ad-hoc meetings	Drafting of report and preparation of presentation on conclusions, recommendations and actions to be taken before next mission.
Afternoon	NSSRA	Debriefing with BC Project Leader	Conclusions, decisions and recommendations. Consequences for the next mission and implied work programme for BC Experts

Annex 3. Persons met

To be completed during translation

Mr. Stepan Mnatsakanyan, President of NSSRA (BC Component Leader)
Ms. Anahit Safyan, International Statistical Cooperation Division Head
Mr. Vanush Davtyan, Responsible for IT, Member of State Council on Statistics
Ms. Lilit Petrosyan, Statistical Work Methodology and Classifications Division Head
Ms. Narine Musheghyan, Statistical Information Dissemination and Marketing Division Head
Ms. Armenuhi Arushanyan, IT Development Division
Ms. Ruzanna Petrosyan, Database Development and Programming Division

Annex 4. Metadata in PC-Axis

Metadata and Data integration

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Dissemination principles

- Electronic first
- StatBank is the place for all official statistics
- StatBank is the source for all publications
- StatBank is online available & free-of-charge for everyone
- Simultaneous releases in all media and be pre announced
- …yet still use the same source (data and metadata)

Users' focus

- Response time
- Definitions
- Visualisation, maps and graphics
- Self service
- Integration with own systems

- Presentation, layout
- Documentation
- Coherence
- Long time span
- Search

STATISTICS DENMARK

Online databank

- Cross tabulated tables
- Links to documentation (quality declaration)
- Links to publications
- Output formats: Excel, PC-AXIS, xml, SAS, comma separated, time series,…
- Maps
- Graphs

STATISTICS DENMARK

Examples

Documentation,
quality declaration, graphics
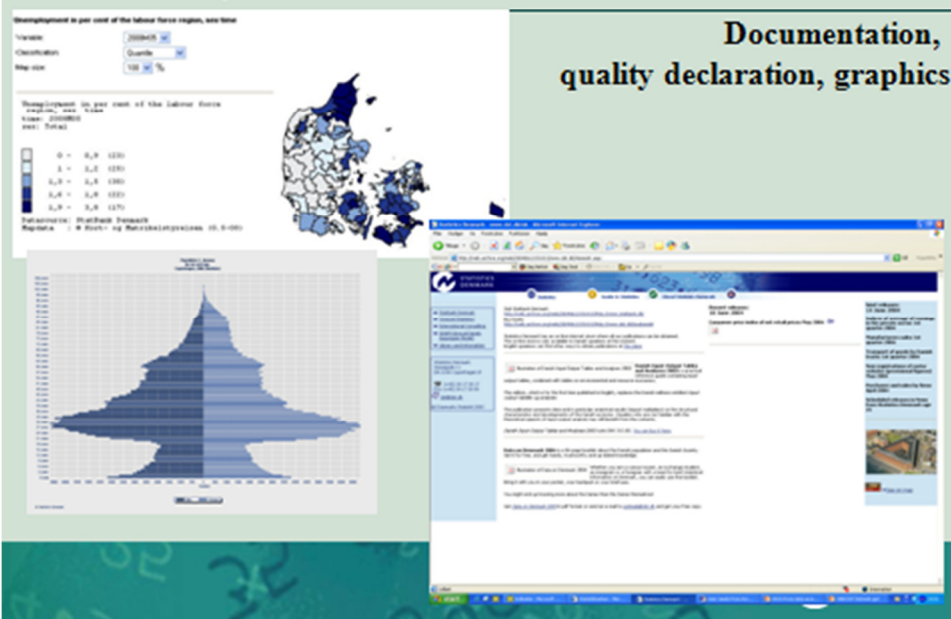
Accessibility:

- Free data
- The "right" media (where the users are)
- Findable
- Understandable

Integration of metadata sources
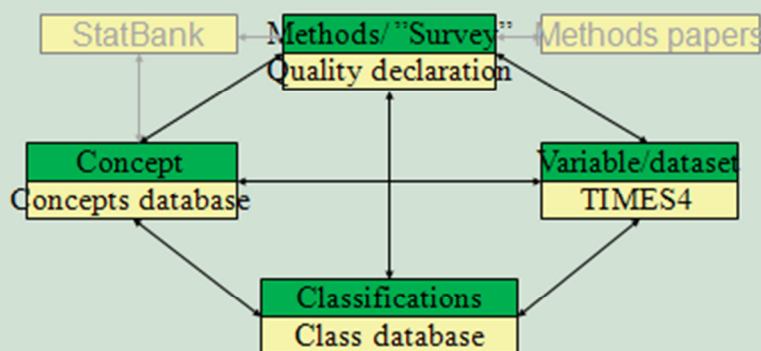
Structural metadata

- Metadata linked to a data in a table:
  - title
  - dimensions/ variables
  - code lists
  - unit

Harmonisation: guide lines or rules are necessary

Reference metadata

- source
- population
- quality
- frequency
- accessibility
- contact
- release info
- definitions
- ......

STATISTICS DENMARK

Organising the work

- Structure like "*Quality declarations*"
- Main subject areas and sub areas
  – Code and text
- Centralised /decentralised
- Global metadata/ local metadata
- Maintenance, update routines

STATISTICS DENMARK

Rules/ guidelines

- How many dimensions
- List of units
- Sorting of tables
- Archieving

PX-File format

- MATRIX="BE001";
- SUBJECT-CODE="BE";
- SUBJECT-AREA="Population";
- TITLE="Population by region, time, marital status and sex.";
- STUB="region";
- HEADING="time","marital status","sex";
- VALUES("region")="Sweden","Stockholm","Örebro";
- VALUES("time")="1990-12-31";
- VALUES("marital status")="unmarried","married","total";
- VALUES("sex")="men","women";
- CONTENTS="Population";
- UNITS="numbers of persons";
- DECIMALS=0;
- DATA=
- 2155484 1842207 1710484 1713821 4244017 4346613
- 167965 162184 110463 111697 316041 358411
- 28909 26791 23822 23982 58352 62592

Languages

- It is possible to have more than one language in a px file. The second (and third) language is repeated for all necessary keywords. CONTENTS="Population";, CONTENTS[dk]="Befolkning";
- CONTENTS[am]="……..";
- etc. Which languages are available are given in the keyword LANGUAGES

STATISTICS
DENMARK
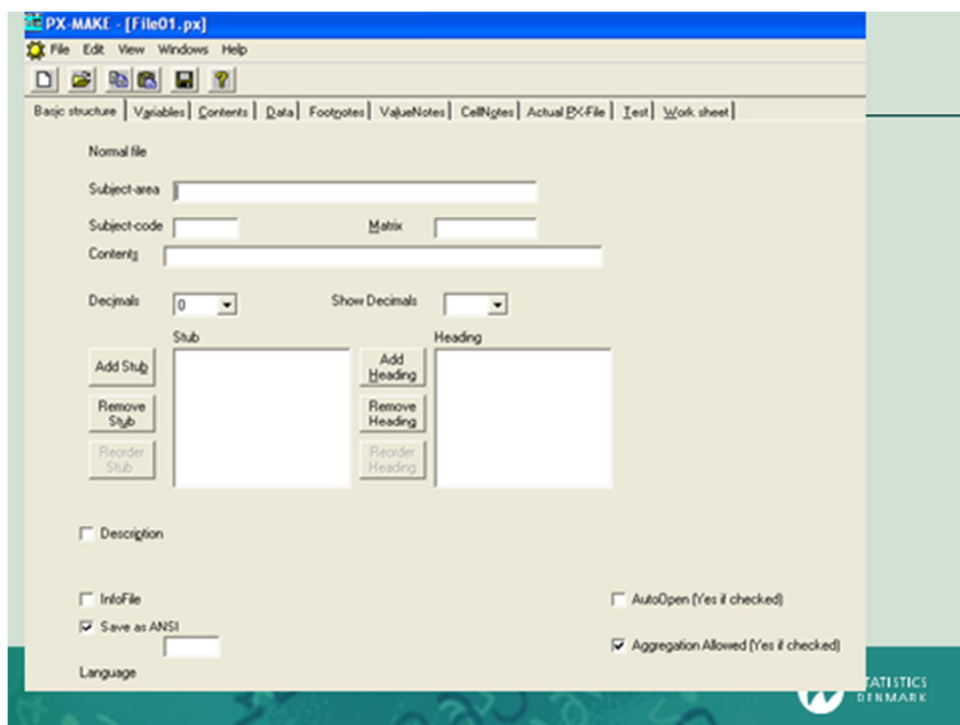
Keywords

- Mandatory
- Optional

- Max length

STATISTICS
DENMARK

Creating a file

- PX-Make
- PX-Edit

PX-Edit