



Forwarding Armenian Statistics Through Twinning

AM09/ENP-PCA/TP/04

MISSION REPORT

on

Quality management

Implementation of Solutions A3

Mission carried out by
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Armenia, 26 – 30 September 2011

Version: 1st draft

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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

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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 third activity within the Component A, and it was devoted to quality reports, quality metadata and dissemination systems.

The MS Expert would like to express their thanks to all officials and individuals met for the 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

During the mission the experts were involved in different kinds of actions:

- Meeting with RTA and BC Component Leader: overview of actions done since previous activity and agreement on the work programme for the week.
- Meeting with *Working Group on Quality (QWG)* concerning the evaluation of the quality reports.
- Presentation on metadata and metadata systems to the QWG as well as employees of NSSRA Business Statistics unit, Finance Statistics unit and Methodology unit on Structural Business Statistics.
- Meeting with Stakeholders – Central Bank, Ministry of Finance, Ministry of Economic Affairs and NSSRA head of Divisions
- Presentation to the head of IT, head of dissemination system and other staff of PC-AXIS/PX-Web
- Development of draft roadmap for Component A.
- Meeting with the BC Component Leader: summary, presentation of results and recommendations. Agreement on next steps.

3. Conclusions and recommendations

All activities foreseen in activity A2 had been carried out by NSSRA.

Quality Declarations

The work on Quality Declarations is managed by a steering group chaired by the Head of Methodology Lilit Petrosyan. This group will also have the responsibility for setting up procedures for monitoring maintenance. The group will meet every quarter to review updates and to send relevant reports to stakeholders.

The following subject areas had completed their quality declarations:

- Consumer Price Index
- Labour market
- Production of industrial output
- Agricultural machinery
- National accounts.

So far only Price statistics and Industry had been translated into English, thus these were the basis for comments from the experts. Price statistics had been the first to draft a quality report which had been sent to MS experts for comments. All comments had been taken into account by NSSRA, and the revised Quality Declaration had been used as a 'template' for the rest to follow.

The product list showing 131 products had been finalised and approved.

Presentation to stakeholders and staff

A presentation on metadata was given by MS experts to external key users and heads of divisions. Metadata is a challenge to all statistical organizations and is regarded as a complex work to implement. However, it is very important to the users in order to be able to understand and analyze the data.

One precondition for solid and reliable statistics is the recognition of the importance of having one source for official statistics, in the case of Armenia the NSSRA. This is also the essence of the UN Fundamental Principles of Official Statistics.

Metadata is at the same time considered to support the role of official statistics making statistics comprehensible and accessible.

External users counted The Central Bank, Ministry of Finance and Ministry of Economic Affairs. They all expressed a need for detailed documentation and metadata as well as an easy-to-use tool to retrieve and download data. They found the structure in the Quality Declaration fulfilled their needs and supported strongly the continuous work on metadata going on in NSSRA.

Organisation

A meeting with staff involved in metadata work was organised, discussing the above-mentioned points. Organizing the metadata work, MS experts advised to have a decentralized responsibility for content and central tools, rules, guidance and follow-up as there will be continuous update and revisions.

Dissemination tool

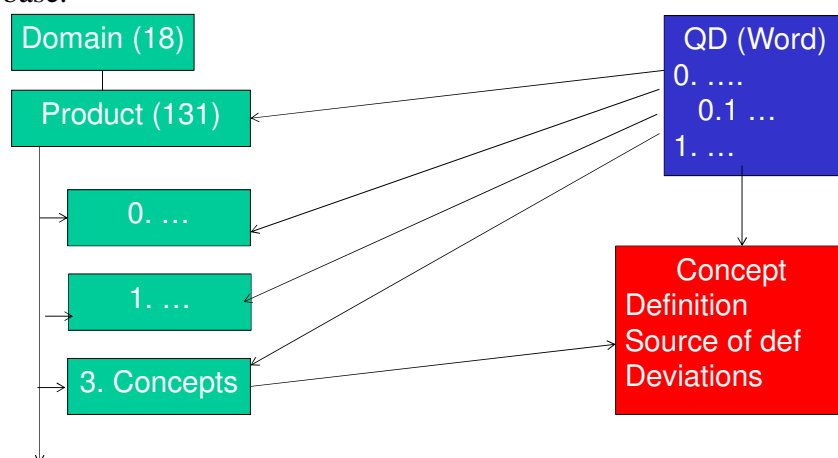
The PC-Axis suite of tools used to present data in an interactive database on the web was introduced. It builds upon multidimensional tables (cubes), however, it can also accommodate time series and indicators. The web version, PX-Web can link data to metadata. PC-Axis/PX-Web is used by around 50 statistical offices and international organizations and is continuously developed according to the users' needs. The software can be downloaded and a test, free of charge, for a trial period and a test database is available too. It was suggested that NSSRA study the possibilities – also by visiting websites of statistical offices that use PX-web. The license fee is less than 1,000 USD a year or approx. 2,000 USD for a one-time-license. The presentation was attended by staff from IT, Dissemination and Library. The impression is that they found it very useful. A decision is foreseen by January 2012

4. Recommendations

It is recommended to continue implementing the *Quality Declarations* simultaneously for all products, aiming at full implementation for all products in Armenian language in one year. Thus, the speed should be around 30-40 declarations to be finalized in Armenian each quarter. At a meeting in October 2011, the Quality management working group will invite all heads of units to start preparing the reports in parallel and set goals for the coming quarter.

NSSRA should establish a pilot study on setting up the terms to be defined in a concept database (Price statistics could act as a pilot).

It is recommended that the Quality Declarations now being written as Word documents should soon be converted into a *Quality Declarations Database*, where each section is a unit on its own, as illustrated below. The green boxes symbolize the Quality Declarations Database.



This will allow these paragraphs to be used independently in different places in the web site of NSSRA, as well as in web sites of other organisations. Once all Word documents (blue in the above figure) have been transformed and a reporting facility for the database has been put in place, the Word documents are obsolete.

It is recommended to start now the development of a *Concept Database* (see red box in above figure) and to link from concept names in the Quality Declarations Database to definitions etc. in this Concepts Database.

Finally it is recommended to set up a *dissemination database* that will eventually contain all statistics published by NSSRA in real time, and will be the main source of statistics for most users. The hypothesis is that this database will be set up using the PC-AXIS tool and the related PC-Axis suite of tools, whereby NSSRA would also become a member of the world-wide PC-Axis family.

5. Actions before next activity

During the week following the mission MS experts should receive the English version of pilot Quality Declaration no. 3-5 from NSSRA. No. 1 (prices) has already been reviewed and finalized, and the experts should review and comment on no. 2-5 during the following weeks.

By Mid January 2012, NSSRA should finalise and review internally another 30 quality declarations in Armenian, of which 10-15 should already be translated into in English. The ultimate goal is to have all Quality Declarations in both languages.

All these quality declarations should be posted on the web site on a "Documentation page". NSSRA should set up the template for the Concepts Database and produce draft entries for at least the concepts related to price statistics. NSSRA is welcome to send a number of sample concept definitions to MS experts for review and comment.

The NSSRA should test PX-Web during the rest of 2011 and make a decision by January 2012 on the use of PC-Axis /PX-Web as database dissemination tool. If the decision is positive, the activity A4 can be carried out as planned, otherwise the activity should be redefined.

Next missions: A new activity *A3.1 Metadata follow-up* is introduced and will expectedly be carried out in Mid January 2012 by a short mission by one MS expert to Armenia. During this mission, progress on Quality Declarations and Concepts Database will be reviewed. The mission *A4 PX-Web installation and training* is scheduled for April 2012.

Annex 1. Terms of Reference

Terms of Reference (A.3); 26 – 30 September 2011

<i>Component A</i>	<i>Quality Management</i>
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 A.3 Implementation of solutions

1. Purpose of activity

The purpose of this third activity within component A is to follow up on the on the issues discussed and the implementation of solutions recommended in the reports from the first two activities. Specifically, the drafted product list and quality reports will be discussed and final recommendations provided, and also metadata and metadata systems as well as dissemination related topics will be discussed.

2. Expected output of the activity

The expected outputs of the activity are:

- A presentation by MS on metadata and metadata/dissemination systems;
- Further consultations with external stakeholders;
- Final approval of principles regarding product list and quality reports;
- Concrete decisions on systems concerning dissemination and quality management;
- Adjustments of the road map for component A;
- A decision on the dates of the next activities, A.4.1 and A.4.2.

3. Project Participants

Mr. Stepan Mnatsakanyan, President of NSSRA (*BC Component Leader*)

Mr. Artashes Shaboyan, Head of Methodological Unit, Member of State Council of Statistics

Ms. Anahit Safyan, Head of International Statistical Cooperation Division

Mr. Lars Thygesen, Director of Sales and Marketing, Statistics Denmark (*MS Component Leader*)

Ms. Annegrete Wulff, Head of Dissemination Division, 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. Natalia Poghosyan, Head of IT Department

External Stakeholders taking part in the activity

The State Register of Enterprises of the Ministry of Justice of RA

The State Revenue Committee of RA

The Central Bank of RA

Annex 2. Programme for the mission 26–30 September 2011

Time	Place	Event	Purpose / detail
Monday, 26 Sept. Morning	Congress Hotel	Meeting with RTA	To discuss the programme of the week
Afternoon	NSSRA	Meeting with BC Component Leader and Experts	Current status. Developments since last activity and follow up on the reports: 1. The NSSRA working group on quality 2. Quality reports and product list 3. Other developments related to the two reports from activities A.1 and A.2
Tuesday, 27 Sept. Morning	NSSRA	Meeting with Methodology and relevant subject matter divisions	Discussion of the product list and the drafted quality reports: 1. Problems encountered 2. Overall evaluation by MS Experts 3. Training of staff and other next steps
Afternoon	NSSRA	Workshop	MS presentation on meta data and meta data/dissemination systems.
Wednesday, 28 Sept. Morning	NSSRA	Meeting with external stakeholders	To obtain input from major users of the official statistics produced by NSSRA: 1. Quality reports/declarations 2. Periodical meetings with users 3. Dissemination methods/tools
Afternoon	NSSRA	Meeting with Dissemination Division	Discussion on desirable and possible IT solutions with respect to dissemination (PC Axis?)
Thursday, 29 Sept. Morning	NSSRA	Meeting with IT Department and Methodology Division	Discussion on a quality reporting system. What is needed and desired, what kind of (decentralized?) updating routines is envisaged, budget issues.
Afternoon	NSSRA	Ad-hoc meetings	Reviewing and updating the road map for component A
Friday, 30 Sept. 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

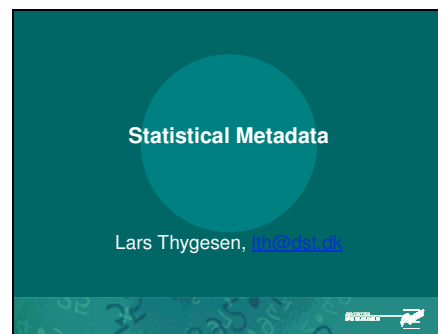
Mr. Stepan Mnatsakanyan, President of NSSRA (BC Component Leader)
Mr. Gakik Ananyan, Member of State Council on Statistics
Ms. Anahit Safyan, International Statistical Cooperation Division Head
Mr. Gurgen Martirosyan, Price statistics and International Comparisons division
Mr. Vanush Davtyan, Responsible 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. Lusya Khachatryan, Macroeconomic Indicators and National Accounts Division Head
Mrs. Haykush Titizyan, Finance Statistics Division Head
Ms. Anahit Harutyunyan, Trade and Other Services Statistics Division Head
Ms. Lusine Kalantaryan, Labour Statistics Division Head
Ms. Julieta Mirzoyan, Chief Adviser to the President of NSSRA
Mr. Laert Harutyunyan, Business Register Division Head
Mr. Ashot Ananyan, Industry Statistics Division Head
Mr. Arsen Avagyan, Agriculture Statistics Division Head
Mr. Georgi Torosyan, Transport and Communication Statistics Division Head
Ms. Susan Hunanyan, Labour Statistics Division
Ms. Armenuhi Arushanyan, IT Development Division
Ms. Ruzanna Petrosyan, Database Development and Programming Division
Ms. Gayane Sargsyan, Statistical Work Methodology and Classifications Division
Ms. Nelly Baghdasaryan, Social Sphere and Nature Protection Division
Ms. Mariam Petrosyan, Construction Statistics Division
Ms. Silva Ulubabyan, Statistical Information Dissemination and Marketing Division
Ms. Hasmik Matinyan, Finance Statistics Division
Ms. Kristine Malakyan, Statistical Work Methodology and Classification Division
Ms. Laura Beybutyan, Foreign Trade Statistics Division
Ms. Anna Grigoryan, Population Census and Demography Division

External users

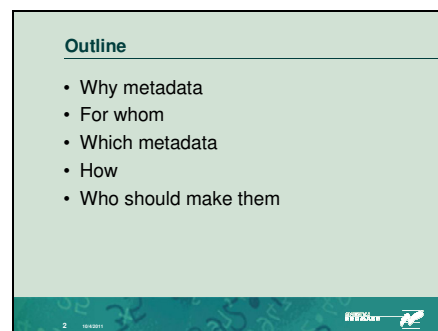
Lili Karapetyan, RA Ministry of Finance
Liana Harutyunyan, RA Ministry of Finance
Artak Chilingaryan, RA Ministry of Economy
Lusine Harutyunyan, RA Central Bank
Lusine Hayrapetyan, RA Central Bank

Annex 4 Metadata presentation to staff 28 September 2011

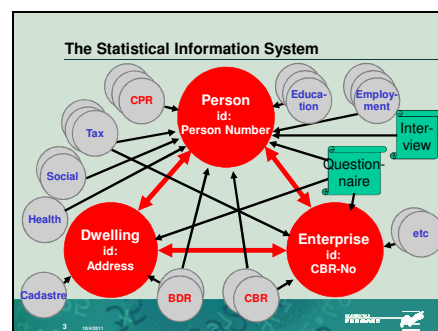
Dias 1



Dias 2



Dias 3



Dias 4

A treasure!

- Data quality
- Coverage
- Coherence
- Combining & linking
- Longitudinal studies

www.dst.dk/declarations



4

Dias 5

Why Metadata

- allow user to find data for his **task**
- Allow to determine if data are suited
- determine whether data in the archive could be recombined to create new knowledge, e.g. to confirm or reject certain hypotheses
- Internal as well as outside users claim metadata is the most important problem

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Dias 6

For whom

- Outside users
- Understand why and how they need statistics
- Metadata to fit their tasks
- Listen to them!

6

Dias 7

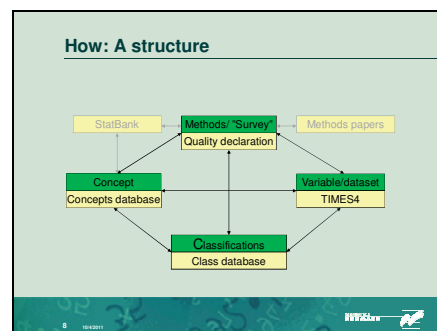
Which metadata

- What are the statistics all about
- Concepts, definitions
- Quality: accuracy, comparability
- The data, variables
- Where can I find it

- Searchable

7

Dias 8



Dias 9

A good example: Portugal

- http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_main&lang=en


9

Dias 10

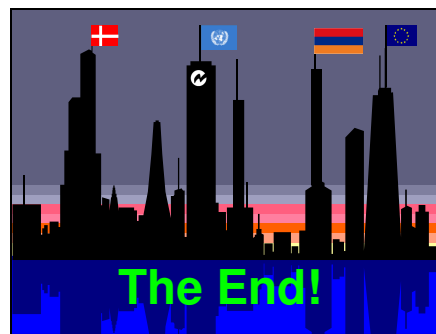
Who should make them

- Decentral production responsibility
- Central guidance, tools, rules and quality assurance
- The Metadata Working Group

- Constant updating
- Listen to feedback from users

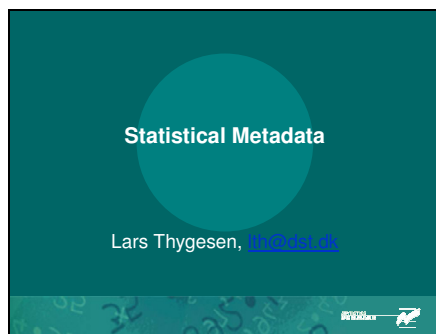
10 10/02/2011 WIKIMANIA 

Dias 11

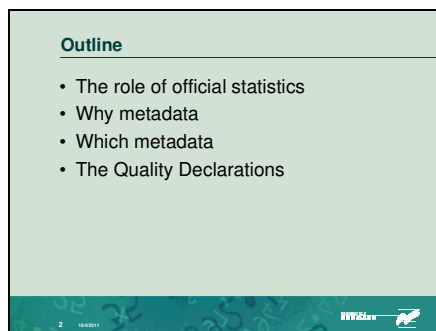


Annex 5 Metadata seminar with users, 28 September 2011

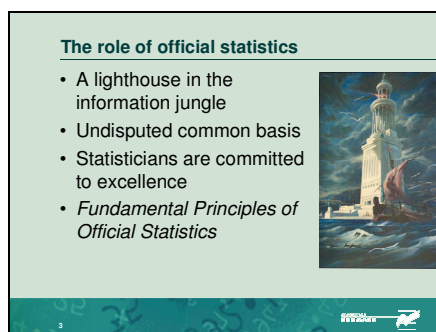
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Dias 2

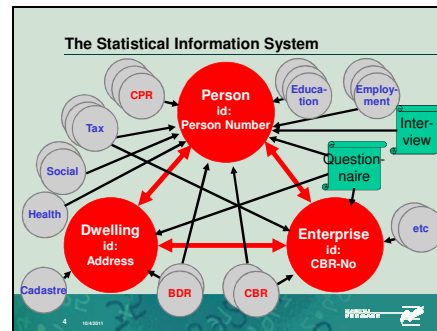


Dias 3



The problem is not that we have too little information – on the contrary. But it is difficult to find the right information among the weeds. We want to make sure that people actually get to the good data. This presupposes that they know about it and think it is important

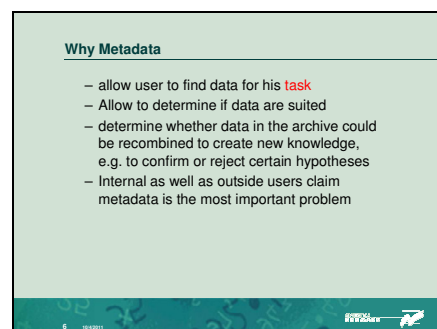
Dias 4



Dias 5



Dias 6



Dias 7

Which metadata

- What are the statistics all about
- Concepts, definitions
- Quality: accuracy, comparability
- The data, variables
- Where can I find it

- Searchable

7

WUOLIA

Dias 8

Quality Declarations

- A fixed structure
- Describing each of 200 products
- Examples

8

WUOLIA

Dias 9

Discussion

- Will this be useful?
- Will you use them?
- What is your dream of the ideal?

9

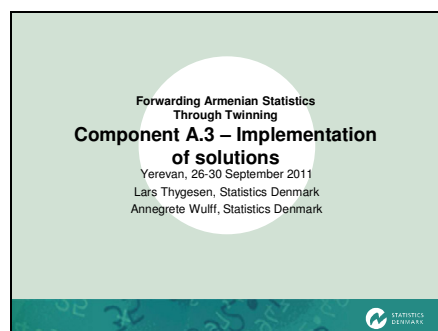
WUOLIA

Dias 10

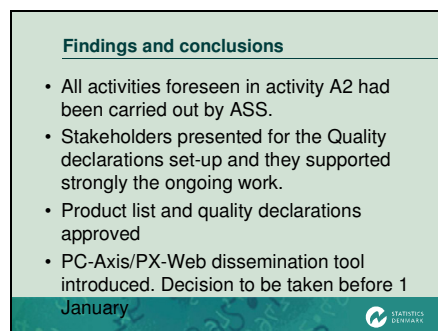


Annex 6 Conclusions of Mission 26-30 September 2011, 30 September 2011

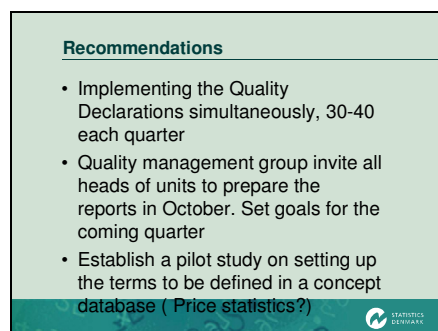
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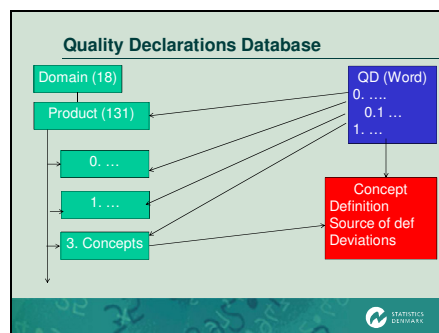
Dias 2



Dias 3



Dias 4



Dias 5

Actions before next activity

- 30 quality declarations in Armenian, 10-15 in English
- Existing quality declarations posted on the web on a "Documentation page"
- Decision on the use of PC-Axis /PXWeb as database dissemination tool by January 2012
- Concept database. Start a pilot with definitions
- Next missions: Metadata follow-up, January, PX-Web installation and training April

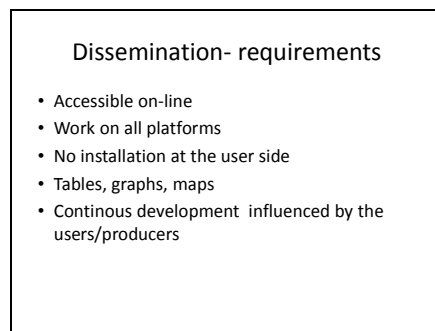
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Annex 7 Internet database PX-Web – PC-Axis

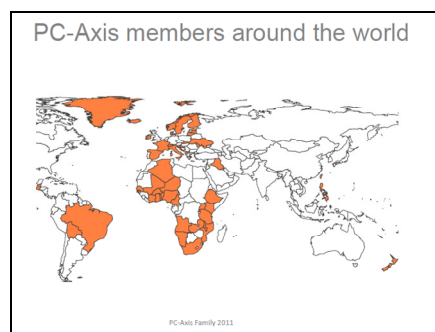
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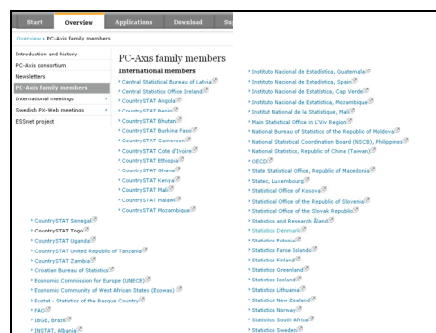
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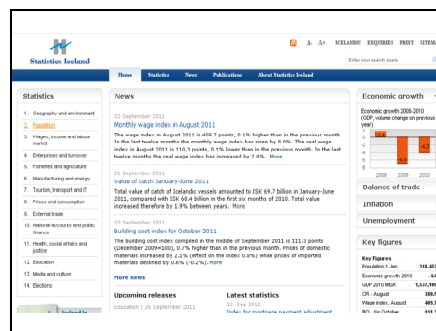
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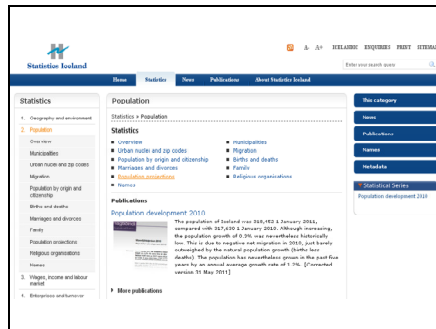
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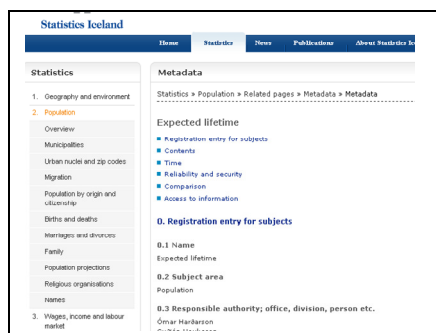
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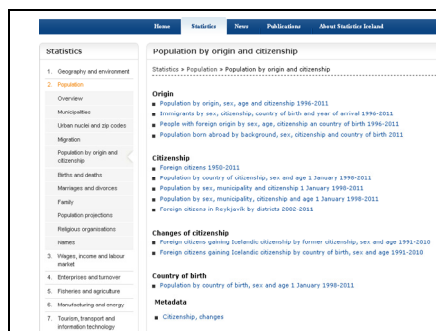
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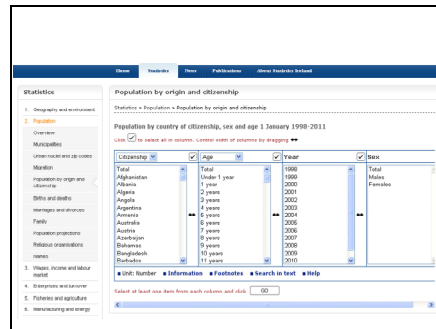
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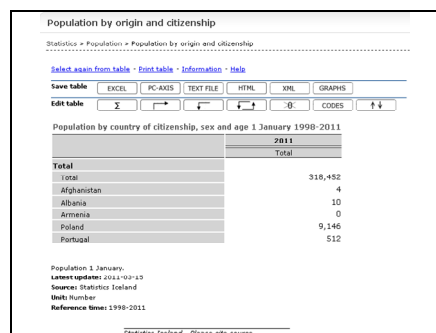
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Dias 10



Dias 11



Dias 12

