TWINNING CONTRACT

JO/13/ENP/ST/23

Strengthening the capabilities of the Department of Statistics in Jordan



MISSION REPORT

on

Activity: 4.11 Follow-up on work done and recommendation for future work

Mission carried out by

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List of Abbreviations

DoS Department of Statistics of Jordan

ToR Terms of Reference

1. General comments

This mission report was prepared within the Twinning Project "Strengthening the capabilities of the Department of Statistics in Jordan". It is the final mission to be completed within Component 4: Online Dissemination of the project.

The purposes of the mission were:

- To discuss any outstanding issues with relation to the topics in the component
- To discuss the status regarding the component at the beginning of the project
- To discuss the status of the project results
- To prepare recommendations regarding the sustainability of the achievements
- To prepare recommendations for the future work
- To identify needs for further support

The consultant would like to express his/her thanks to all officials and individuals met for the kind support and valuable information which he/she received during the stay in Jordan and which highly facilitated the work of the consultant.

This views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of EU, DoS, Statistics Denmark or Istat.

2. Assessment and results

This mission was devoted to follow up the topics referred to the Component 4: On line Dissemination. The expected outcomes are:

- o Recommendations prepared for outstanding issues with relation to the topics in the component
- o Description of the status regarding the component at the beginning of the project
- Description of the project results
- o Recommendations prepared on the sustainability of the achievements
- o Recommendations prepared on the future work
- Description of needs for further support

The main topics of the components are: database structure, online dissemination, web site technology, IT-security.

The situation at the beginning of the project is presented for each topic.

Database structure

Data are stored in different systems. Each system has its own methods of selection and presentation for the end users. Some produce HTML while others return PDF (or shp from the GIS). In some cases the results are static tables and in other cases there is a dynamic selection process. However, the structure and formats of the resulting data tables are not flexible for the end users, as they cannot be flexibly filtered, modified or downloaded.

Having many different systems, the cost for data maintenance and updating is high and end users couldn't easily find data.

Online dissemination

On the web site the external users have access to the published statistics in Arabic and English. It is presented according to the production, like *Surveys, Census, Jorinfo and Trade and Investment Information System*.

Web site technology

The current Jordan DoS website is made by two environments, internal (for control and evaluation of contents) and external (on the internet) at DoS.

The used technology is based on HTML language and the website is made through static and dynamic pages. The HTML pages are made by using Dreamweaver and FrontPage suite and the dynamic pages are based on Oracle procedures. There is a scheduled calendar for data dissemination. The layout is projected by the Dissemination Department. Today the web site is build and maintained manually without a CMS. The content is to a large intent stored in Oracle and the presented tables created from Oracle procedures.

Administrative systems

They regarded staff, salary and other administration. From the presentation it became clear that these were irrelevant for the main project. Thus there will not be any more work around that in this component.

During the project, the following improvements were suggested by the Experts.

Suggested solution for Database component

It was identified that a "hub with aggregated statistics" on the most detailed level possible, for each statistical domain, could be a solution. Such a system would, to a large extend, give both internal and external users the possibility to filter out the data they request by themselves, and download it in the format they require. Such a common data warehouse for aggregated statistics (macro data warehouse) could be built from existing data resided in Oracle. Newer data are available in a well defined structured form. For older data, the accessibility of data is depending on the structure of micro data and the level of documentation. However, when it concerns older data two types of challenges were addressed: 1) data from some previous surveys have got different questions, categories and structure. A direct comparison with the following survey is therefore not possible in the detail. Nevertheless these data can be disseminated as a time series if only the common data are shown, or presented at a higher aggregation level. 2) the second challenge is harder to overcome as it concerns surveys where the documentation is lost: There is no information on the content of the survey neither on the content of rows and columns. A solution could be to go to the printed publications of the old surveys, create the relevant tables in the database and enter the data manually.

Suggested solution for Online Dissemination component

It will be an improvement to have all statistical subjects in a common database to replace the current mix of HTML tables and pdf documents. It seems that no dissemination policy is in place to support the way content is presented on the web. Never the less, the IT staff study other statistical institutions website to get inspiration about best practice. Dissemination in Statistics Denmark and in Europe in general builds European Practice statistics. on the Code of for (http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-32-11-955). Main principles on dissemination are accessibility and clarity. It is not sufficient that data are on the web site. External end users should be able to find them understand them and retrieve and use them correctly. This has to do with metadata. It is recommended that standardized structural metadata (lables and names for variables, values etc) are taken into account when creating tables for the internet site. Reference –or explanatory- metadata are handled in another component in the project-

Suggested solution for Web Site technology component

The current challenge for DoS is to adopt a WCMS, to better manage the web site.

A trend today among statistical offices – and in general - is to build the website in a CMS (content management system).

In this way it is possible to separate the content from the design which make upgrading or design changes easier. And even decentralized maintenance can be carried out outside IT directly by subject matter staff. It also allows for making applications in CMS e.g. to secure a punctual update of the site.

Other issues to be addressed (which are not included in the ToR)

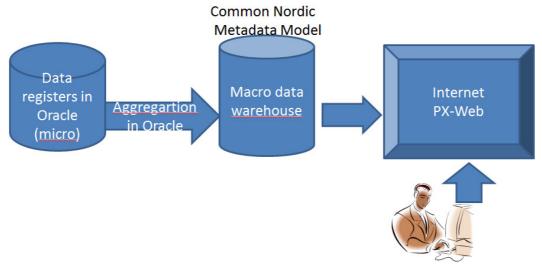
During the project it was clear **the lack of governance rules in the processes of each component**. A strong work has been done on this point. The outcomes are tangible and intangible: a RACI matrix was proposed to establish responsibilities and procedures to realize the new DoS web site; a new working style model was introduced by involving General Director and Statistical, Planning and IT Directors; the new working style was tested during the DoS web site implementation.

According to the plan, at the end of the project the following outcomes have been achieved.

Database component

The task was divided into two separate items. One was to setup (design and implement) a common dissemination data warehouse for aggregated statistics (macro data), that have the ability to contain all different type of statistics on time series basis. The second item concerned with populating the system with data. Which data can be loaded into the system depends on the availability of source data (microor macro data).

Finally, the suggested model was implemented, as shown below.



PC-Axis software was tested and found compatible with existing data.

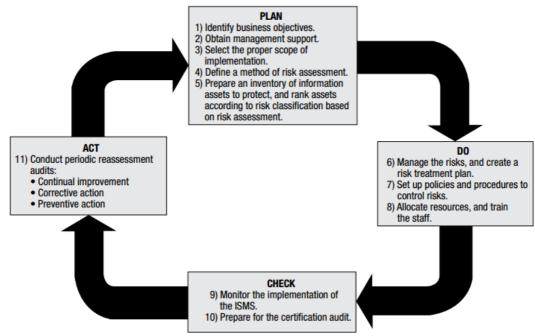
Dissemination component

A model of dissemination policy was given.

Web site component

The new DoS website was implemented with WordPress CMS and released at the link http://www.dos.gov.jo (see Annex 4). The new Census web site was designed and implemented with the same technology (see Final Mission Report 4_13)

Governance rules were discussed and introduced. A focus on IT security has been done. A plan to implement it was suggested, as shown below.



The main task to guarantee the <u>sustainability</u> of the project achievements is to deepen governance aspects. Only by radically changing the working style it will be possible a real improvement of DoS. The main difficulty is to pass from a "stove pipe", hierarchical model, where each Department works for itself, to a matrix model, where each Department works together to the others to reach the DoS goals. A key point is to take value from IT initiatives to improve the statistical processes. This is possible if the IT processes are strategically aligned with statistical business.

An other important item is to invest on people training courses, in particular on DBA and IT security.

The third point is to invest on hardware to improve servers and network.

3. Conclusions and recommendations

Action	Deadline	Responsible person
It is recommended to work	June 2015	DoS ICT Director
through the content and data		
quality on the web site		
It is recommended to install a	June 2015	DoS ICT Director
web analyser tool to monitor the		
web site visiting		
It is recommended to buy	July 2015	DoS ICT Director
software to improve web		
security and User eXperience		
(e.g.: <u>owasp</u> , <u>user test</u>)		
It is recommended to	July 2015	DoS ICT Director and
disseminate data with PX-Web		Statistical Directors
and to extend the use of PX-		
Web for all DoS data		
It is recommended to	Dec 2015	DoS General Director and DoS
implement a change		top management
management project for DoS.		
It is recommended to formally	Dec 2015	DoS General Director and ICT
require further supports from		Director
EU to improve ICT governance		
and ICT security sectors in ICT		
Direction.		
It is recommended to	Dec 2015	DoS General Director and DoS
implement a IT security process		top management
to make DoS ISO 27001:2005		
compliant.	7 2017	2 6 6 12
It is recommended to invest on	Dec 2015	DoS General Director
communication at strategic		
level, for exemple by		
introducing a Communication		
Directorate or by extending the		
role of the current International		
Relation Office	Dag 2015	Doc Compand Discotors and Doc
It is recommended to	Dec 2015	DoS General Director and DoS
implement an internal and		top management
external stakeholder analysis	Dag 2015	DoS General Director
It is recommended to employ a	Dec 2015	Dos General Director
web designer	Dag 2015	Dog ICT Discotor
It is recommended to organize	Dec 2015	DoS ICT Director
training courses on PHP,		

JavaScript	i	and	IT	security
(ISO27001)).			

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project JO/13/ENP/ST/23

12-16 April 2015

Component 4: IT and Online Dissemination

Activity 4.11: Follow-up on work done and recommendation for future work

0. Mandatory results and benchmarks for the component

- New database structure defined and online dissemination improved (Apr 2015)
- Assessment report on current situation (Jan 2014)
- Develop a plan for the database structure (July 2014)
- Improve the IT-security (Jan 2015)
- Improve the online dissemination (Apr 2015)

1. Purpose of the activity

- o To discuss any outstanding issues with relation to the topics in the component
- o To discuss the status regarding the component at the beginning of the project
- o To discuss the status of the project results
- o To prepare recommendations regarding the sustainability of the achievements
- o To prepare recommendations for the future work
- o To identify needs for further support

2. Expected output of the activity

- o Recommendations prepared for outstanding issues with relation to the topics in the component
- o Description of the status regarding the component at the beginning of the project
- Description of the project results
- o Recommendations prepared on the sustainability of the achievements
- o Recommendations prepared on the future work
- Description of needs for further support

Annex 2. Programme for the mission

Time		Place	Event	Purpose / detail
Sunday, morning	08.30 - 10.00	DoS	Meeting with RTA	To discuss the programme of the week
Sunday, morning	10.00 - 12.00	DoS	Meeting with BC Component Leader	Discussions of the week's programme
			and BC Experts	Discussions of any outstanding issues regarding the topics in the component and especially related to the website.
	12.00 - 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Sunday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Discussions regarding the status of the topics in the component at the beginning of the project
	03.30 - 04.00		Preparations / Report writing	Preparations / Report writing
Monday, morning	08.30 -	DoS	Preparations /	Preparations /
	09.00		Report writing	Report writing
	09.00 – 12.00		Meeting with BC Component Leader and BC Experts	Discussions of the status of the project results
	12.00 - 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Monday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	03.30 - 04.00		Preparations / Report writing	Preparations / Report writing
Tuesday, morning	08.30 -	DoS	Preparations /	Preparations /
	09.00		Report writing	Report writing
	09.00 – 12.00		Meeting with BC Component Leader and BC Experts	Discussions on how the achievements can be sustained
	12.00 - 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Tuesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	03.30 - 04.00		Preparations / Report writing	Preparations / Report writing

	09.00		Report writing	Report writing
	09.00 - 12.00		Meeting with BC Component Leader and BC Experts	Discussions about future work
	12.00 - 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Wednesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Discussions of needs for further support
	03.30 - 04.00		Preparations / Report writing	Preparations / Report writing
Thursday, afternoon	01.00 – 02.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
			Ad-hoc meetings	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
Thursday, afternoon	02.30 - 03.00	DoS	Meeting with BC Component Leader	Presentation for BC Project Leader
Thursday, afternoon	03.00 - 04.00	DoS	Debriefing with BC Project Leader	Conclusions and decisions and their consequences for the work ahead

Annex 3. Persons met

DoS:

Qassem Al Zoubi, General Director Abdel Wadood Matouk, Assistant of General Director Mohammad Haloush, Head of Public Relations Moawiah Zghool, Head of National Account Bassam Al Zina, Head of Department of Agricolture Shaher Shawabka, Head of Department of Economics Abduallah Al Zoubi, Head of Census Department Ahmad Mowafi, Sampling Department Mr Tayseer Deeb, Director of Information Technology (Component Leader) Hussam AbuShukur, Head of Web Dissemination/IT Ahlam Al Rosan, Head of Program and Analyst/IT Abdullah AlSous, Web Dissemination section/IT Manal Khuffash, Web Dissemination section/IT Tamara Wadi, Web Dissemination section/IT Wafaa Hasouneh, Web Dissemination section/IT Rania Abu Dhaim, Program and Analyst/IT Mostafa Hiyari, Program and Analyst/IT Mohammad Sakhrieh, Security/IT Yasser Nasserallah, Security/IT

External stakeholders:

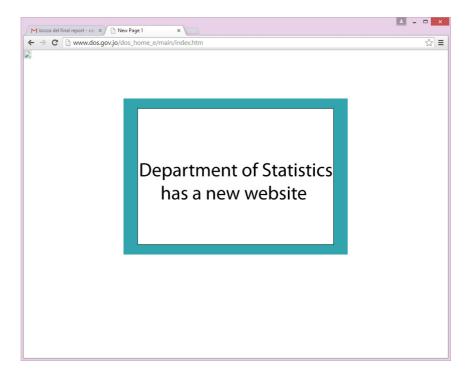
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RTA Team:

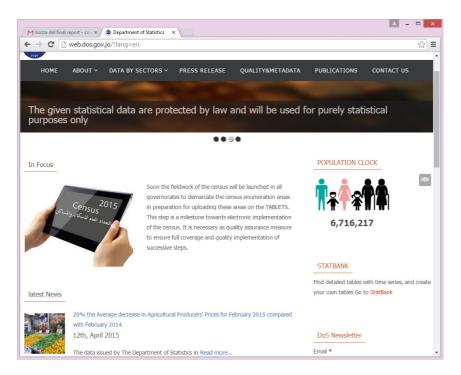
Thomas Olsen Christine Salman Deena Moghrabi, Translator

Annex 4. DoS website

To release the new DoS website, a redirect page was introduced, in Arabic and English languages



By clicking on the image, the home page appears



By clicking on the toolbar it is possible to navigate the web site, as shown, for exemple, in images below

