Terms of Reference

EU Twinning Project IL/12 CRIS 2015/370-467

11-14 July 2016

Component D: Methodological and – geo-spatial tools for improving the quality and efficiency of field surveys

Activity D.3: Assessment mission - Managing and monitoring field surveys during the collection process using geo-spatial tools

0. Mandatory results and benchmarks for the component

Mandatory results:

- *Optimization of field workload allocation using geo-spatial tools for managing field surveys in designated area*

Benchmarks:

- **ID1:** *Definition of indicators to measure the efficiency of field work and reliability of estimates with a view to reduce costs and improve sample quality developed*.
- **ID2:** *Methodological paper on managing and monitoring field work using geo-spatial procedures during data collection process*.
- **ID3:** *Methodological paper on optimization of workload allocation of fieldwork using geo-spatial procedures and other tools.*
- **ID4:** *Feasibility test for managing and monitoring field work evaluated*.
- **ID5:** Feasibility test for optimizing workload allocation of field work evaluated
- **ID6:** *Design specification of a geo-spatial application, to identify and analyse regional non-response and enable rapid reaction and handling of problematic "hot spots"*
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- **ID7:** Design specification of a geo-spatial application, to optimize allocation of field workers' workload and enable multi-survey sampling

1. Purpose of the activity

The overall purpose of this activity is to present and discuss:

Optimal management of the fieldwork in real time by using geo-spatial tools is needed. The goal is not only to achieve high response rates, but also to identify under-coverage areas and nonresponse in the midst of data collection and reallocate resources for their optimal treatment. In the current situation, problematic areas of coverage are acknowledged only at the end of the fieldwork.

- ICBS will present the current situation and tools for the managing and monitoring field surveys, including geo-spatial tools.
- MS-experts will present EU / MS experience on the same issues focusing on using GIS tools
- MS and ICBS staff will discuss and define various managing and monitoring tools for field surveys during the collection process using geo-spatial tools

2. Expected output of the activity

- Activity report
- Recommendations on methodologies and IT-tools for *managing and monitoring* field work using geo-spatial procedures during data collection process.
- Use cases and requirement specifications for combining GIS – Geographical Information Software and other IT-Tools - with survey methodology
- Revised plan for actions / work in component D

3. Participants

Survey Department ICBS

- **Mr. Nitzan HaCohen**, BC Component Leader , Deputy Senior Director, ICBS Survey Department; nitzanh@cbs.gov.il
- **Ms. Rachel Gur** Senior Director, ICBS Survey Department, Rachelg@cbs.gov.il
- **Ms. Limor Charnotchki,** Director of House Holds Sector**,** limort@cbs.gov.il
- **Mr. Eyal Avital,** Director of Census Field work Sector**,** Eyala@cbs.gov.il
- **Ms. Tzipora Radian** Director of Family's Sector**,** Zipora@cbs.gov.il
- **Mr. Yoel Domb**, Director of field operation Department, Yoeld@cbs.gov.il
- **Mr. Zohar Chessakov**, Director of Call Center Department, zoharc@cbs.gov.il
- **Ms. Tzofit Bartov,** Coordinator Family's Surveys**,** Tsofitb@cbs.gov.il
- **Ms. Dana Levi,** Coordinator Households Surveys, danal@cbs.gov.il
- **Ms. Luba Naidis,** Coordinator Households Surveys, luban@cbs.gov.il
- **Ms. Tamar Bainhaker,** Coordinator Households Surveys, tamarl@cbs.gov.il

IT Department, ICBS

- **Ms. Galina Shienberg,** Director of IT developer for Census**,** Galiash@cbs.gov.il
- **Ms. Anna Binstok Cohen,** Director of GIS for Census division, annabc@cbs.gov.il
- **Mr. Eyal Maharian,** Director of GIS and Geography Sector, eyalm@cbs.gov.il
- **Ms. Rinat Calvo,** Director of GIS-IT Sector, Rinatc@cbs.gov.il

MS experts

- **Mr. Peter Linde,** Head of Division, DST Survey, Statistics Denmark; PLI@dst.dk
  Specialist knowledge: Sampling, estimation, questionnaire design and data collection
- **Mr. Janusz Dygaszewicz,** Director Department of Programming and Coordination of Statistical Surveys, Central Statistical Office of Poland**;** j.dygaszewicz@stat.gov.pl
  Specialist knowledge: Methodologies and GIS tools for managing and monitoring field work, Cenus, Big Data.

Twinning Staff

- **Mr. Yoel Finkel,** BC Project Leader, Associate Government Statistician, yoel@cbs.gov.il, assisted by **Ms. Sigalit Mazeh**, Director, International Relations and Statistical Coordination Department, sigalit@cbs.gov.il
- **Ms. Batia Attali**, RTA Counterpart, BC Component Leader for component A, International Relations and Statistical Coordination Department, batia@cbs.gov.il
- **Ms. Charlotte Nielsen**, Resident Twining Adviser cln@dst.dk , CharlotteN@cbs.gov.il
- **Ms. Tamar Rand**, Resident Twining Adviser Assistant, TamarRa@cbs.gov.il

4. Current Status of Methodological and Geo-spatial Tools for Improving the Quality and the Efficiency of Field Surveys *(quotes from the Twinning contract)*

The ICBS is regularly improving the quality and efficiency of field data collection in surveys. Nonetheless, no attempt was ever made to achieve this goal through optimal use of geo-spatial tools. Geo-spatial tools can support field surveys from the early stage of sample design up to the dissemination phase. In this Twinning project, ICBS seeks to focus on fieldwork management and monitoring, following the recommendations of the experts in the previous twinning project. More specifically: The daily management of field interviews should be improved: Data collection in several surveys should be combined and be performed by the same interviewers; local response rates should be identified by areas, in order to be able to address region-specific problems. Geo-spatial technologies can support the identification and analysis of regional under-coverage, and enable rapid reaction and handling of problematic "hot spots ".

There are two main sampling frames: The Population Register – for sampling individuals and households, and the Dwelling Register for sampling dwelling units. Currently, all field surveys conducted by ICBS are sampled after geocoding of each unit in the sampling frames. ICBS conducts four main field surveys - Labour Force Survey, Household Expenditure Survey, Social Survey and Longitudinal Survey. However, the samples of these surveys are drawn separately for each survey. Moreover, the distribution of the workload units between the field interviewers is also performed independently for each survey, which has its own constraints dictated by its methodology: data collection period, time span feasible for collection, reference period, and so on.

Effective and economic work processes would maximize the time allocated by interviewers to data collection and minimize travelling time. ICBS is looking for a methodology that would yield optimized planning and allocation of workload units to interviewers, to reduce travelling time and increase data collection time, by combining data collection for various surveys while taking into account their respective constraints.

The second possible contribution of geospatial methodology deals with the optimal management of the fieldwork in real time. The goal is not only to achieve high response rates (ICBS enjoys a field response rate of 80% and more), but also to identify under-coverage areas and pockets of nonresponse in the midst of data collection and reallocate resources for their optimal treatment. In the current situation, problematic areas of coverage are acknowledged only at the end of the fieldwork.

Programme for Activity D3: 11-14 July 2016

Methodologies and IT tools for managing and monitoring of field surveys, using geo-spatial tools.

Date	Place	Time	Event
Mon 11/07	CBS – floor 3	09:00	Welcoming, acquaintance, programme of the week (Charlotte Nielsen and Nitzan Hacohen)
		09:15	BC: Introduction to Survey Department (Mrs Rachel Gur)
		09:45	BC: Introduction to component D (Nitzan Hacohen)
		10:30	Coffee break
		11:00	BC: Introduction to and activity D3 (Nitzan Hacohen)
		11:45	BC: Future planning for GIS & GPS tool in upcoming population Census (Nitzan Hacohen).
		12:15	Lunch break
		13:30	Statistics & Geospatial information at ICBS (Anna Binstock cohen)
		14:15	Coffee break
		14:45	Questions, remarks and finalising
Tue 12/07	CBS – floor 3	09:00	BC: Current situation: tools, tables and methods for managing and monitoring field work
		10:30	Coffee break
		10:45	MS: Introduction to field survey in Poland – Part I (Janusz Dygaszewicz)
		12:15	Lunch break
		13:30	MS: Introduction to field survey in Poland – Part II (Janusz Dygaszewicz)
		14:45	Coffee break
		15:00	Questions, remarks and finalising
Wed 13/07	CBS – floor 3	09:00	Methodologies and IT-tools for managing and monitoring field work using geo-spatial tools - Part I (Janusz Dygaszewicz)
		10:15	Coffee break
		10:30	Methodologies and IT-tools for managing and monitoring field work using geo-spatial tools - Part II (Janusz Dygaszewicz)
		12:00	Lunch break
		13:15	BC/MS: Follow up on the D1 report, lessons learned and outcome from the first Mission (Charlotte Nielsen, Peter Linde and Nitzan Hacohen – Social survey demo)
		14:15	Coffee break
		14:30	BC Twinning Team: Defining the needs for methodologies and IT-tools for managing and monitoring field work during the collection process
		15:00	Final remarks
Thu 14/07	CBS	10:15	BC: Presentation of outcome and recommendation. Discussion and comments from the experts and participants
		11:15	Drafting a revised work plan – milestones and time plan for the remaining Twinning project time
		12:15	Final remarks and thanks'
		13:15	Lunch break

Abbreviations:
BC = Beneficiary Country (Israel)
MS = Member State (Denmark, Poland)
ICBS = Israeli Central Bureau of Statistics
IT = Information Technologies
GIS = Geographic information system

Material to be prepared and sent before the Activity: *Presentations.*