



Constructing and Updating a Farm Register in Israel

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Farm Register in Israel -Review

- Currently there is still no active farm register in Israel
- Efforts are invested since 2015 to construct a census frame that will serve as a basis for a farm register
- The frame is based on a combination of various administrative sources from MARD, farmer organizations and the ICBS
- The quality of the data sources is not inadequate
- The frame suffers from both under-coverage and over-coverage

Data Sources

- The original census frame (2015) was constructed from the following data sources:
 - Agricultural plots (MARD)- 12,366
 - Agri-Insurance -7,473
 - Plants Board – 6,261
 - Cattle Board -6,091
 - Foreign Labor (MARD)- 3,704
 - Business Register (addition) -2,384
 - Agricultural buildings (MARD)- 1,228
 - Milk Board -444

Data Sources (cont.)

- Merging among data sources yielded an initial frame of ~ 40,000 records
- Many records missed identification variables
- Some records were found to be outdated
- Duplications existed within and between data sources
- The frame was divided into organized and unorganized sectors

Organized Vs. Unorganized?

- Organized sector covers most of the agricultural area in Israel and includes:
 - Kibutzim, Cooperative Moshavim (308)
 - Non-Cooperative Moshavim (semi-private farms)
 - Other agricultural cooperatives
- Unorganized sector includes the rest of the farms:
 - Farms in the Arab sector
 - Companies
 - Other private farms

Preliminary Survey in the Organized Sector (2015)

- After a pilot in selected localities, It was realized that the data quality of the frame is very poor and needs to be highly improved for the census purposes
- Therefor it was decided to conduct a survey of the farm cooperatives (483) in order to enhance the quality of data records for these cooperatives
- A survey (funded by MARD) was conducted and yielded an updated frame of ~19,000 farms in the organized sector, not including 308 Kibutzim and Cooperative Moshavim
- More than 10,000 records in the unorganized sector were not treated

The Years 2016-2017

- In the years 2016-2017, negotiations regarding the census budget took place
- As the census did not follow immediately after the preliminary survey, the frame for both organized and unorganized sectors needed to be updated
- After the budget was approved in 2017, it was decided to conduct a phone survey for the enhancing the data of the unorganized sector

Preparations for the census

- The survey in the unorganized sector included ~ 5,000 records after omitting records with ID or sufficient contact information. It yielded ~2,000 active farm records
- However, new administrative files arrived and updated the records of both sectors.
- Some new files arrived: beehives, organic farms, agricultural schools, poultry etc.

Data Treatment

- For updated files:
 - Comparison of each updated file with the old files by ID number in order to add only new records
 - Comparison of the new records with inactive farms found in the preliminary survey in the organized sector
 - Omitting duplications with the old full frame

Data Treatment (cont.)

- For new files:
 - Comparison of all records with inactive farms found in the preliminary survey in the organized sector
 - Omitting duplications with the old full frame
- Records from both sources were compared by id in order to omit duplicates
- The records were compared with population register in order to omit deceased farmers
- The records were also compared with business register in order to add contact information. Business register could not be used to omit closed farms
- Kibutzim, cooperative Moshavim and Druze records were separated out as their data collection will be different

Results for the final frame

- Merging all data sources yielded a frame of ~ 27,000 farms
- However, after examining carefully the records some more records could be omitted:

	Moshavim	Arab Sector	Other Farms-Jewish	Total
Total	15,981	5,668	4,386	26,035
No Phone Info	1,890	2,241	1,382	5,513

- There is still some manual work to check ~ 1,000 records

GIS Cooperation

- MARD is conducting a GIS survey for mapping all agricultural plots
- Three companies were subcontracted to conduct the survey
- Based on Aerial photos, farmers are required to identify their plots on a map
- A cooperation was considered between the GIS survey and the census

GIS Cooperation (Cont.)

- A pilot was conducted in selected localities:
 - Cooperation with farmers in the ICBS is based on legislation. For the GIS survey it is based on voluntary cooperation, except for the foreign labor employers
 - Point of interest: plot vs. farm (economic unit)
 - GIS data missed ID info for many records, not enabling merging into existing frame
 - Technological obstacles such as the lack of integrated data system
 - Therefore it was decided to continue in two separate paths.

The Way Forward

- After the census, how to use the administrative files to update the farm register?
- How to convince data providers to improve and update their records?
- How to integrate GIS into the farm register?
- Coordination with population and business registers?
- Farm register Statistics and publications?

Thank you for your attention!

