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MISSION REPORT

on

Component C **Infrastructures for agricultural statistics**

Activity C.4 **Economic Accounts for Agriculture**

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List of Abbreviations

BC	Beneficiary country
EU	European Union
EAA	Economic Accounts for Agriculture
FADN	Farm Accountancy Data Network
FSS	Farm Structure Survey
GIS	Geographic information system
IACS	Integrated Agricultural Control System
ICBS	Israeli Central Bureau of Statistics
IT	Information Technologies
MS	Member State (of the EU)
SO	Standard output
ToR	Terms of Reference
GSBPM	Generic Statistical Business Process Model

Executive Summary

The mission was devoted to Economic Accounts for Agriculture (EAA) and association between the EAA and National Accounts (NA). The experts from Denmark presented the setup of the EAA in Denmark, and went into detail with the variables that make up the EAA. Challenges from a Danish perspective was also discussed and compared to those facing Israel. The association between the EAA and NA in Denmark was presented in order to demonstrate and discuss the differences between the EAA and the NA. In Denmark the bridge table has brought increased focus in the gap between the EAA and the NA, and contributed positively in the quality and cooperation between the EAA and the NA. In conclusion the experts recommended following the structure of the European EAA, making it much easier to benchmark against the various European countries of the EU. Furthermore, the establishment of a bridge table was recommended in order to ensure the comparability of the EAA and the NA coverage of the agricultural sector. Furthermore a bridge table reveals and explains the differences or double accounting that there may be. It is a simple way of ensuring high quality data. Finally, the Danish experts recommended to ICBS a new rebasing of prices, as the usability of a base price of 2000 = 100 is very low. Much has happened since then. It is recommended to follow the EU, whose next new basis year will be 2015, so it will be possible to compare with EU. It was concluded that having established a factor income (EAA), Net investments (2015=100) and terms of trade from prices (2015=100) will give ICBS extremely good indicators for the condition of agriculture in Israel. This can used to improve policies and decision making in the agricultural sector.

1. General comments

This mission report was prepared as part of the Twinning Project “*Support to the Israeli Central Bureau of Statistics (ICBS) in Enhancing the Quality of Official Statistics*”. The mission was devoted to Economic Accounts for Agriculture (EAA) and association between the EAA and national accounts within Component C: Infrastructures for Agricultural Statistics.

The main activities of the mission were:

- *Status and challenges of Economic Accounts for Agriculture in Israel with focus on output*
- *General government expenditure for agriculture in Israel*
- *Economic Accounts for Agriculture in Denmark with focus on output*
- *Association between the EAA and the national accounts in Denmark*
- *Input by industry*
- *Capital transfers*
- *Prices*
- *Input/output tables*
- *Dissemination*

The mission assisted the ICBS, MARD and the Twinning Project experts in getting an overview of status and challenges of Economic Accounts for Agriculture in Israel and EU Member States

The experts would like to express their thanks to all officials and individuals met for their kind support and for the valuable information they provided, which highly facilitated the experts' work.

The views and observations stated in this report are those of the consultants and do not necessarily represent the views of EU, ICBS or Statistics Denmark.

2. Assessment and results

All of the foreseen activities were carried out following the plans in the TOR; cf. *Terms of Reference*. Outcomes were favourable, and results and conclusions are described in the following section.

- Status and challenges of Economic Accounts for Agriculture in Israel with focus on output
 - We were presented with the situation in Israel and the difficulties they face, especially with the lack of an actual census, as this has not been performed since 1981.
 - One of the most important challenges is to define the number of farms and the production on these, which is the basis for the EAA.
 - In Israel, in contrast to EU, aquaculture is included in agriculture.
 - There is no information available regarding secondary production, as the data are collected aggregately, based on administrative sources. In the business register the farm is classified according to its main activity.
- General government expenditure for agriculture in Israel
 - Agriculture, Fishery and forestry are all in one and the same category. For outputs it is possible to differentiate between these branches. However it is not possible at the moment to differentiate between the inputs. Rent of land is not included in Consumption in Production, opposite to the agricultural account.
- Economic Accounts for Agriculture in Denmark with focus on output
 - The experts from Denmark presented the setup of the EAA, and went into details with the variables that make up the EAA. Challenges from a Danish perspective was also discussed and compared to those facing Israel. More specific the different methods for collecting data were discussed. In Denmark the use of administrative data and data collected through electronic surveys were dominating, while Israel were forced to use much more data collected through interviews. It will most likely remain so, until Israel has done an agricultural census, as they at the current moment do not hold a complete picture of who their farmers are. Furthermore a census will help Israel distinguish much better between those cases, where it is debatable if it is a farm or not. Finally in Israel the amount of labor hours put in by the owners (unpaid labor) is not measured. This can give erroneous indicator of the farmer's productivity as the whole labor input is not accounted for as it is in the shadow.
 - ICBS presented the Israel Agriculture Account and doing this there were several discussions about the data and challenges in production. There were focus on data sources (different surveys and administrative sources from Ministries) and the different items in the. ICBS made use of estimates, which is also needed sometimes in Denmark, to complete the account. The setup of the Agricultural Account for Israel was discussed, especially in relation to the presentation of it on page 18 in publication no. 1656. In the EAA the focus is on the farmer's factor income, why the balance is without the depreciation and compensation of employees. Furthermore in the ICBS account, rent of land was taken in as an input, in contrast to the EAA. Finally the ICBS account included forestry and fishery, which is not included in the EAA.
- Association between the EAA and the national accounts in Denmark
 - The current situation with a bridge table showing the differences between the EAA and the NA was discussed in details, and also the experiences learned in Denmark from having to conduct a bridge table (Please see Annex C4 – 4). The bridge table exercise has brought increased focus in the gap between the EAA and the NA, and contributed positively in the quality and cooperation between the EAA and the NA
- Input by industry

- Discussions were lively about the possibility of making economic evaluations of the different kinds of agriculture, but as in Denmark, the greatest challenges are inputs. Most inputs are impossible to separate into type of agricultural activity.
- Capital transfers
 - Investment and fixed capital consumption were discussed. In Denmark most of the data on fixed investment comes from the FADN, as do information about machines, buildings – but this information is difficult to acquire in Israel, as they do not have the same possibility, as the reports do not contain these information. So there is a need to find out other solutions on short view. Investment in livestock and change in stock of livestock is calculated in Denmark and an example can be find in Annex C4 - 5 (Animals and Animal products in Denmark EAA)
- Prices
 - Prices are collected from the market, but there are no prices collected directly from the farmer (farm gate prices), which is used in the EAA. An estimation is used to transfer from market to farmer prices.
 - ICBS have plans to use a new base year for their indices (2014), but were not yet ready, as not all data were completed. The main difficulty is to update the input price indices, as there are a lot of queries involved. 2014 will be a preferred base year as this year is also the year of the input-output tables and many of the data needs overlap. Denmark will rebase this year to 2015 = 100, similar to the EU.
- Input/output tables
 - Ms. Haydee Faur presented input / output table for ICBS. There were several fruitful discussions about data, such as definition of data, data coverage and the output of the data, which do not necessarily correspond to output measured by business and economics division. There is need to go into more details, i.e. go through the balance product by product, in order to make sure that the same definitions and means of measurements (kilo, pieces etc.) are being applied.
 - Israel's import is significantly greater than its export, on agricultural products. At the moment there are no information/data about the use at farm and how much the local farmer sell to others farms or at the farmer markets. This makes it difficult to estimate the total production in Israel. Data about production of vegetables, milk and meat exist, but these data do not include self-consumption and black market, which are estimated. Part of data is of less than desired quality, especially on some of the data required from administrative sources. For example fruits quantities are based on estimates. Efforts are made to improve these data.
 - The intermediate consumption was discussed as it is a challenge to ICBS to obtain good quality data. Water is however extremely well covered, and of great importance in Israel. ICBS have data about the buildings, but not the machines. As in Denmark, ICBS has challenges requiring all data needed on intermediate consumption, although greater challenges in Israel than in Denmark, as in Israel the administrative sources contains less detailed information.
- Dissemination
 - The MS-experts show some examples on the dissemination of the Danish data (EAA and prices) at Statistics Denmark homepage (<http://www.dst.dk/en>). The MS-experts stressed the importance of describing the data in the documentations, also the estimations, as this is a big help for the users.
 - The ICBS demonstrated there the web-sites/homepage of Israel. (<http://www.cbs.gov.il>)
 - There were discussions about the possibility to present the data in a more reader-friendly form, in order to reach out to more users and increase the knowledge of all the valuable data being produced.

- The presentation of the Israeli account in its current form, does not compute with that of the EAA, as shown on page 18 in publication no. 1656. Depreciation and compensation of employees are deducted before making a the balance.

3. Conclusions and recommendations

List of conclusions and recommendations related to the activities mentioned in the TOR.

Based on the findings during the mission the MS experts have following recommendation:

It is strongly recommended to conduct an agricultural census in Israel in the near future.

A census will provide the necessary information for establishing a complete and reliable farm register that will facilitate the future work on agricultural statistics in Israel. To make an EAA, which is the total account for the total “agricultural” in Israel, it is necessary to know the total numbers of farms also the small’s ones and the production on these, as it is the starting point for the calculation/EAA. From the survey it will be possible to get the number of livestock, area, crops and so forth, there by laying the foundation for the EAA.

Convert current Agricultural Account to follow the EAA

It is recommended to follow the structure of the EAA, making it much easier to benchmark against the various European countries of the EU as such. Comparability of statistics is of the essence. This includes taking the cost of renting land out of the input, thereby also following the way it is done in the National Accounts of ICBS. Furthermore agriculture, fishery and forestry need to be three separate accounts, although the latter two, are of little economic importance in Israel. It is furthermore recommended to follow the setup of the EAA. This means moving appreciations and compensation of employees to the bottom, giving a balance which will then show the farmers factor income.

Rebase prices

A new rebasing of prices is much needed, as the usability of a base price of 2000 = 100 is very low. Much has happened since then. It is recommended to follow the EU, which next new basis year will be 2015, so it will be possible to compare with EU.

Indicators

Having established a factor income (EAA), Net investments (2015=100) and Terms of trade from prices (2015=100) will give ICBS extremely good indicators for the condition of agriculture in Israel. This can used to improve policies and decision making on the agricultural sector. A list of indicators as an annex will be valuable

Bridge Table

A bridge table is recommended in order to ensure the comparability of the Agricultural Account and the National Accounts coverage of the agricultural sector. Furthermore a bridge table reveals and explains and differences or double accounting that there may be. It is simple way of ensuring high quality data, where data can go both ways.

Dissemination

It is recommended that ICBS puts in an effort to meet the stakeholders and hear what they would want to know more about regarding agricultural statistics. Most likely the data is already there, it just needs to be disseminated in other more user-friendly ways. Furthermore it is recommended that the dissemination of the Agriculture Account follows that one of the EAA, meaning that the balance is

done without deduction depreciation and compensation of employees. This will show the real result of the industry, i.e. the money the farmer has to dispose to pay of himself, his employees and to invest in machines, buildings and livestock. This is the farmers factor income.

Actions needed for moving forward as well as for preparing the next mission –add rows as needed.

Action	Deadline	Responsible Units
Agricultural Census	ASAP	Agriculture, environment and Energy Sector
Remove rent from input	2018	Agriculture, environment and Energy Sector
Bridge Table	2018	Agriculture, environment and Energy Sector and National Accounts Sector
Rebase prices	2018	Agriculture, environment and Energy Sector and Input Prices Sector