



Exercise: Combining data from multiple sources

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Twinning C2

Topics

- ❖ Data from MARD on crops and potential income
- ❖ Data from ICBS agricultural statistics
- ❖ Financial statements data
- ❖ Selection of the best sources and Data quality
- ❖ Current status of farm register

Data from MARD on crops and potential income

- Data relate to 2012
- Data refer to optimal conditions
- Not all crops are included)level of detail is low)
- Area data are incomplete
- Animal data are partial

Data from MARD on crops and potential income (cont.)

Income	Price per ton	Yield	Average Yield (Kg per dunam)	Area (dunams)	Field crops
259,080,000	1,270	204,000	300	680,000	Wheat for grains
201,536,000	670	300,800	940	320,000	Wheat for feed
23,187,500	1,250	18,550	350	53,000	Barely for grains
7,220,000	760	9,500	950	10,000	Barely for feed
43,450,000	790	55,000	1,100	50,000	Oats
10,780,000	770	14,000	560	25,000	(בקייה) Vicia
33,750,000	750	45,000	600	75,000	(תלתן) Clover
7,425,000	750	9,900	450	22,000	Peas for feed
20,182,500	1,150	17,550	1,950	9,000	(אספסת) Alfalfa
2,808,000	780	3,600	1,200	3,000	Other perennial cereals
1,833,520	820	2,236	860	2,600	Other annual cereals
71,040,000	800	88,800	1,850	48,000	Corn for feed

Challenges

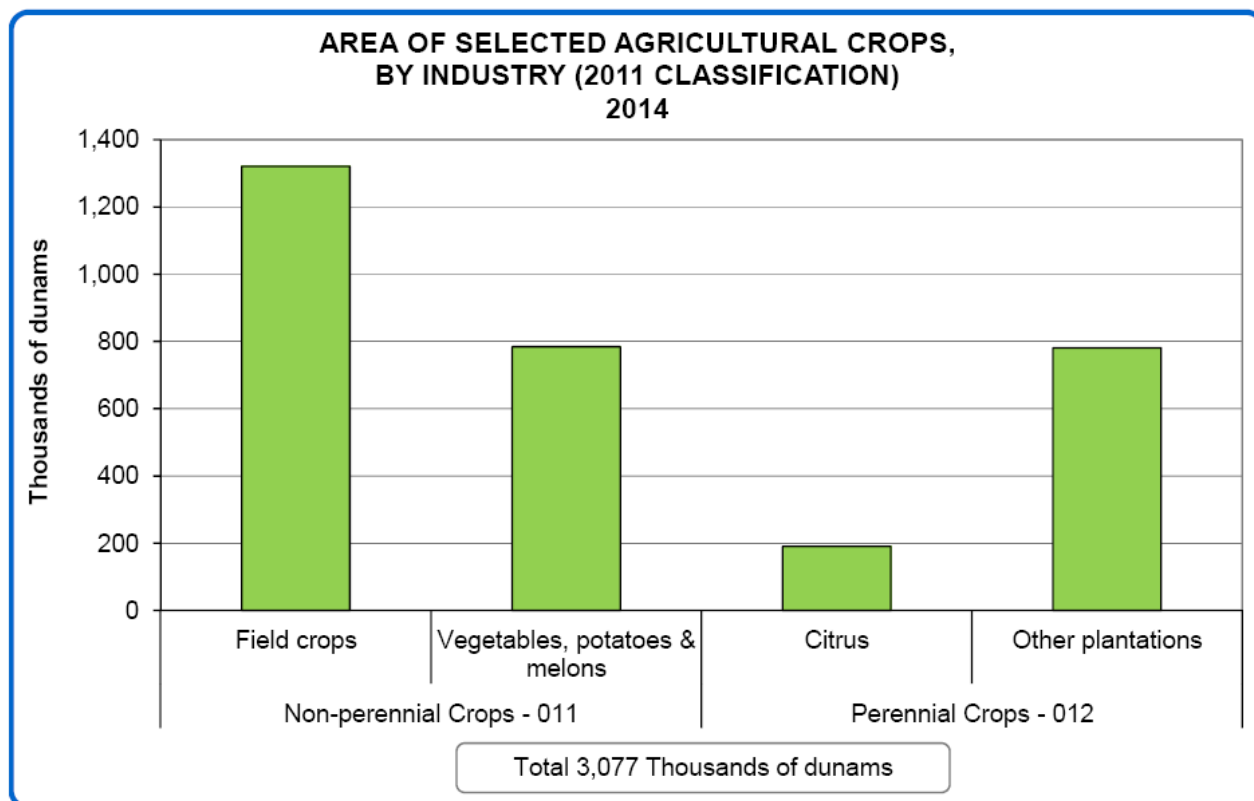
- Not all crops are included
- Area data are not incomplete
- Data are not statistically validated
- Variation of crops yield and income (areas, growing conditions)
- What are these data good for?

Data from ICBS agricultural statistics

- Data are at the macro level only
- Both income and area data are available on an annual basis
- Crop level is much more detailed
- Uncertainty regarding the agricultural area (1 million dunams difference between MARD and the ICBS)
- Could be used to normalize MARD data?

Crop area 2014

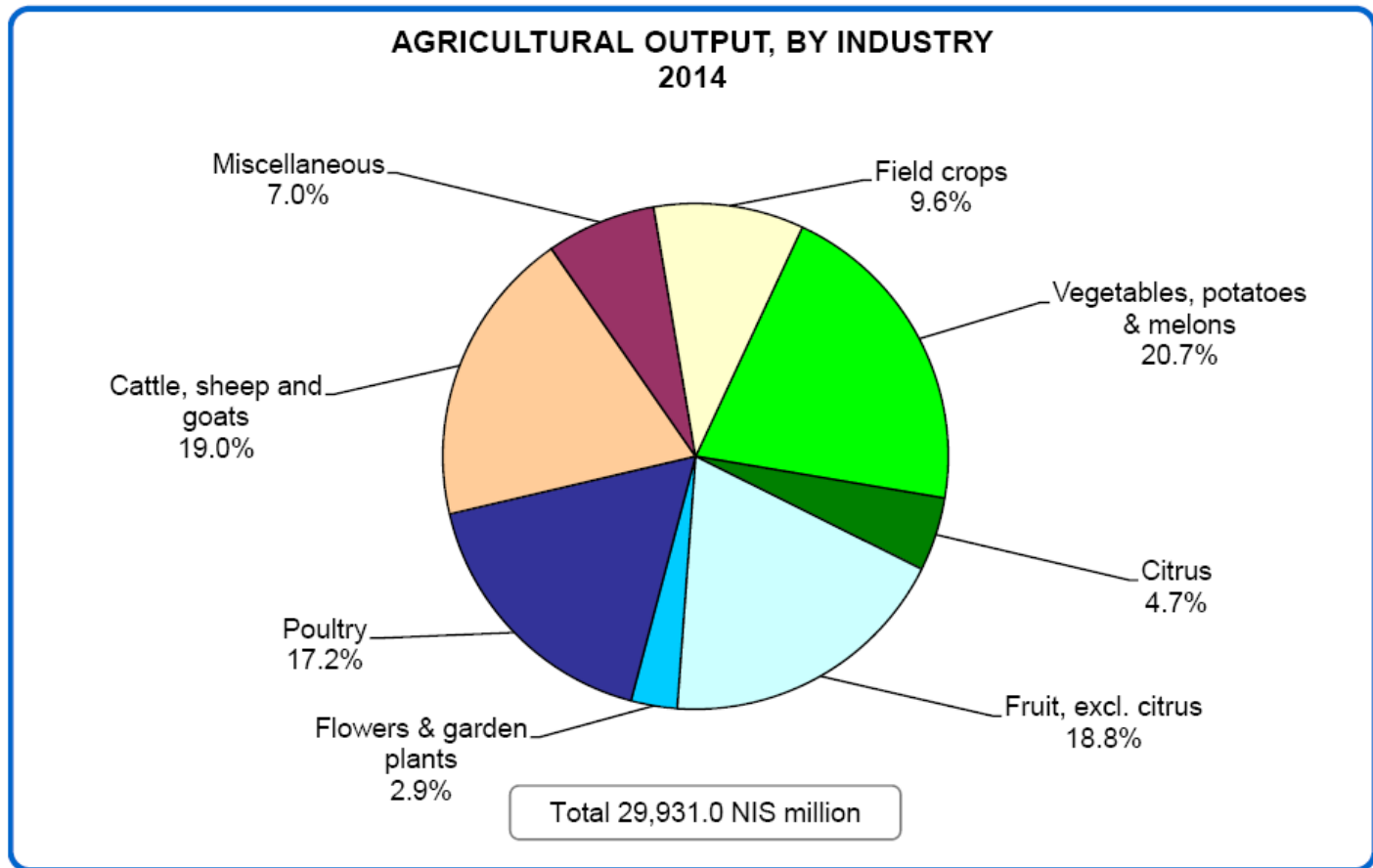
19.01



Data based on: agricultural organizations and the Ministry of Agriculture.
Published: 20.10.2015.

Income area 2014

19.03



Data based on: CBS, Agricultural Produce Survey.
Published: 20.10.2015.

Normative Income

- Crop total income/ crop total area
- For example (2015 data):
 - Wheat for grains
 $141 \text{ mil NIS} / 508,000 \text{ dunams} = 277 \text{ NIS per dunam}$ (629 in the MARD file)
 - Peppers
 $878.2 \text{ mil NIS} / 37,800 \text{ dunams} = 23,227 \text{ NIS per dunam}$ (48,000 in the MARD file)
 - Potatoes
 $1022.2 \text{ mil NIS} / 176,100 \text{ dunams} = 5,804 \text{ NIS per dunam}$ (10,560 in the MARD file)

Questions?

- Why do we have differences between the sources?
- Which source to trust more?
- Is it possible to combine both sources or use them for different purposes?
- Price data- which source to use (maybe the 5 year average?)

Agriculture Statistics vs. Industries Survey

TOTAL	Output		Gross value added		Compensation	
Agriculture, forestry and fishing					for jobs	
NIS million						
	2011	2012	2011	2012	2011	2012
Agriculture Statistics	29,252	28,547	13,623	11,562	5,050	5,146
Industries survey	36,322	38,745	11,882	12,742	6,038	5,969

Financial data - challenges

- Based on business register sample (agriculture is not usually updated in the register)
- Agricultural output is similar but not equal to agriculture annual data
- Classification is different than in the agricultural statistics (services etc.)
- Level of detail in statements is low
- Mixed crops and non-agricultural activity income

Challenges

- How to improve both statistics based on combined forces:
 - Change the sample based on the results of the preliminary survey?
 - Differentiate between services and productive branches in agriculture?
 - Use the administrative data to check the distribution of outputs and inputs in agriculture?

Selection of best sources

- ❖ selection of sources is according to the use
- ❖ Depends on the level of detail needed, data reliability, data updates, data coverage
- ❖ Multiple data sources may help to check data reliability
- ❖ Differences must be better understood
- ❖ Census should be the best option to improve data and help determine the best data sources

Register Updates

- Farm register is crucial to agricultural statistics
- As the census has been temporarily halted, no new operations were taken since the last mission
- The preliminary survey helped update some of the records in the business register
- Urgency to conduct the census ASAP in order to use the preliminary survey's data

Thank you!

The image features the words "Thank you!" rendered in a vibrant, hand-drawn style. The letters are thick and outlined in black, with various internal patterns and colors. The word "Thank" is positioned above "you!". The letters are decorated with patterns like zig-zags, wavy lines, and solid colors. Several stylized flowers are scattered around the text, including a large pink flower with a yellow center and a blue flower with a purple center. The background is a solid light blue.