

# SAMPLING OF DATA AND INFORMATION ON AGRICULTURE ON THE REGIONAL SCALE IN ARMENIA

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## Introduction

The wide range of problems regarding the sampling of data and information on agricultural scale brought into existence of different factors characterizing the agricultural sector. Wide variations of Armenian economy in 1990-2018 gave birth to new approaches for studying Armenian agricultural sector's data and information.

Present paper is based on the research aimed at data sampling and collecting strategy to identify information required for the quantitative assessment of factors characterizing Armenian agricultural sector. The study of the data and information on agricultural scale has been implemented taking into consideration requirements of contemporary methods and means of data collection. The study has been focused on the examination of data and information collection strategies in Armenian agricultural sector concerning domestic production, state trade, marketing/ processing and consumption of agricultural products. The study carried out the analyze of post status of Armenian agricultural sector since receiving of the independence in 1991.

## Background

### AGRICULTURAL SECTOR:

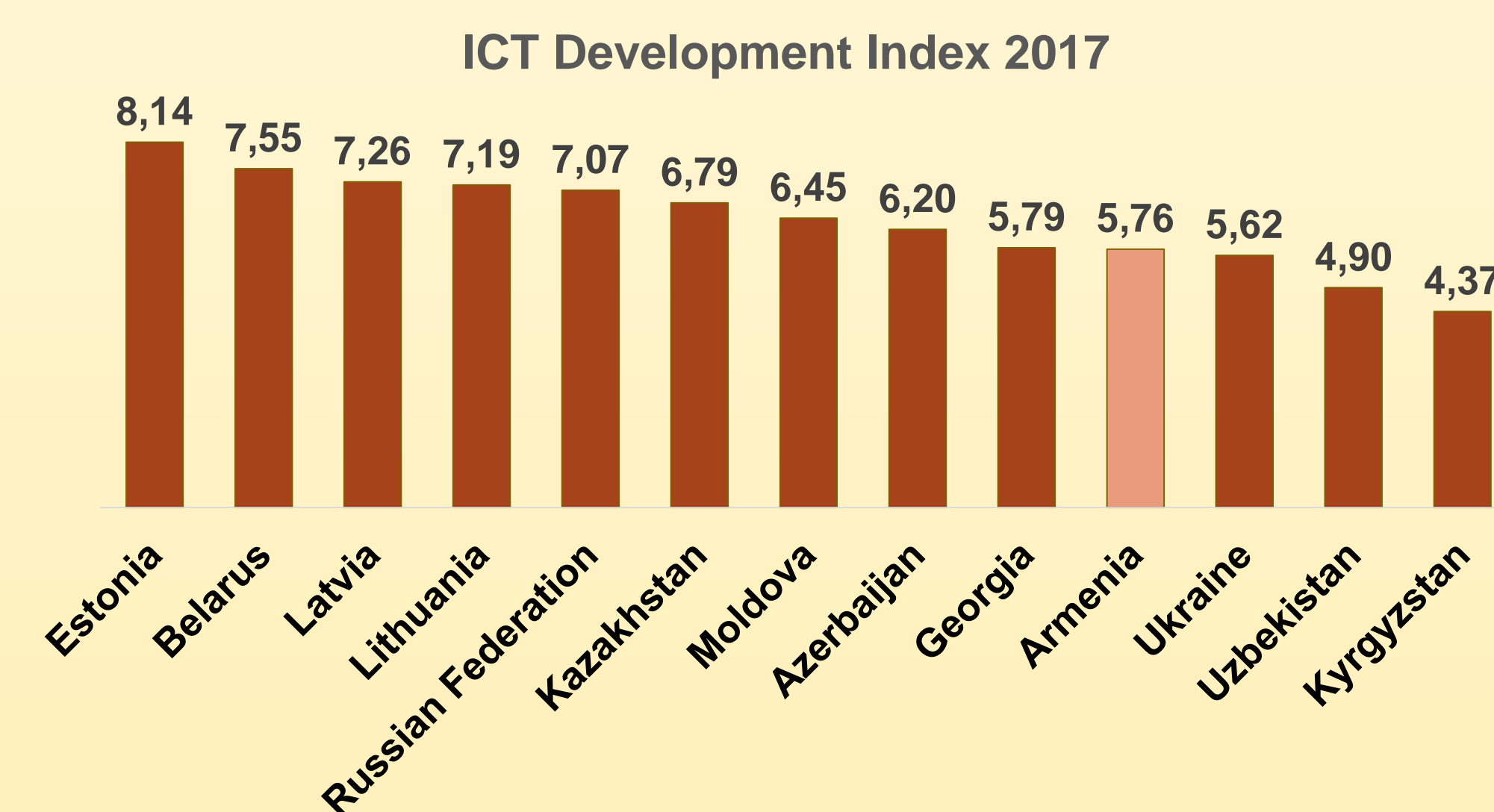
- 317,346 family farms with average of 1.48 ha of lands.
- 342 commercial farms, with average of 65 ha of lands.
- 1.2 million land plots.

### AGRICULTURAL DATA COLLECTION METHODS:

- State Statistical committee
  - standard paper forms to family and commercial farms, regularly,
  - paper based sample surveys, regularly,
  - agricultural census (2014)
- Private organizations - quantitative and qualitative surveys, not regular.

### ICT DEVELOPMENT:

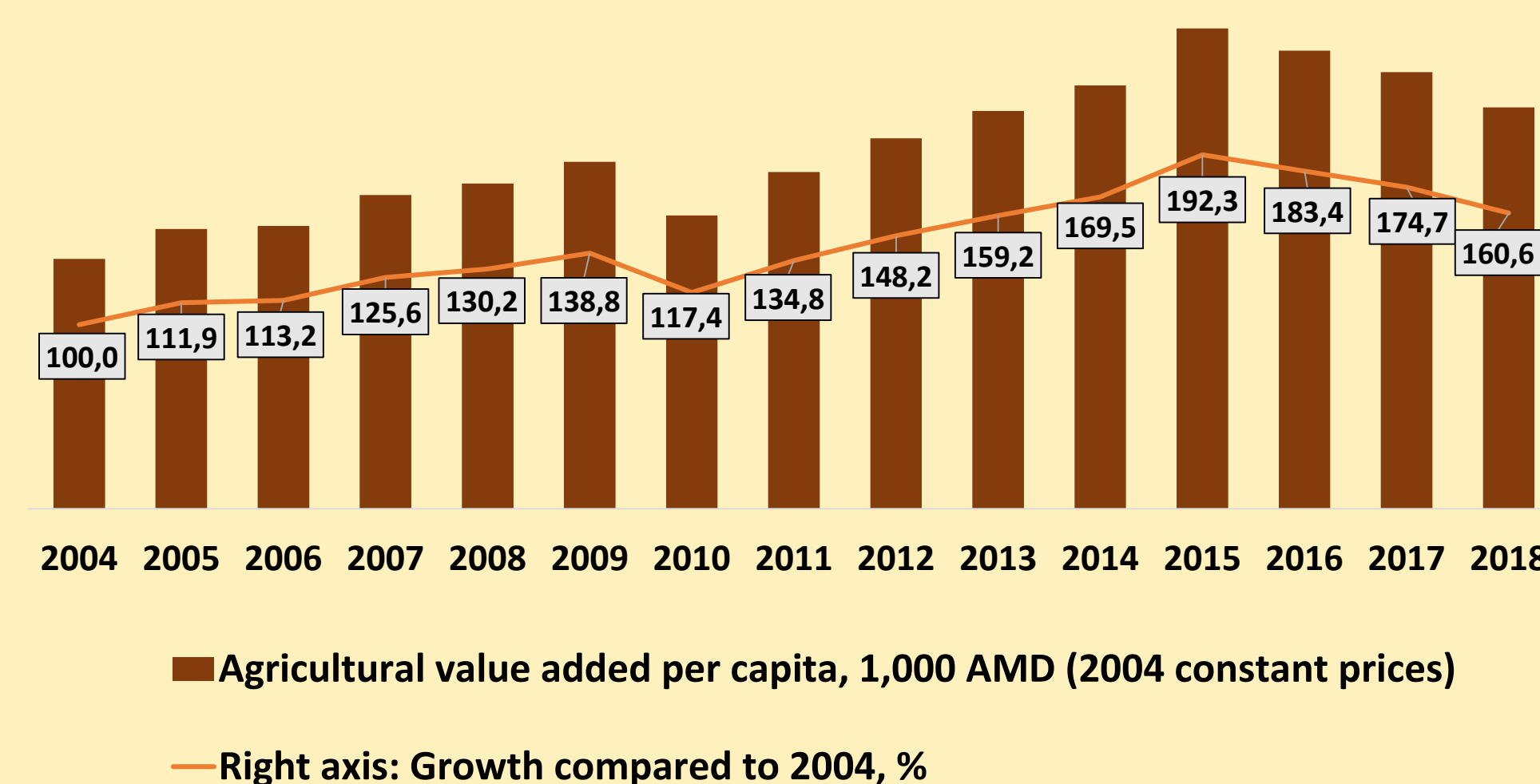
- In 2017, Armenia has the value 5.76 of ICT Development Index, making it 75<sup>th</sup> in the total of 176 countries.



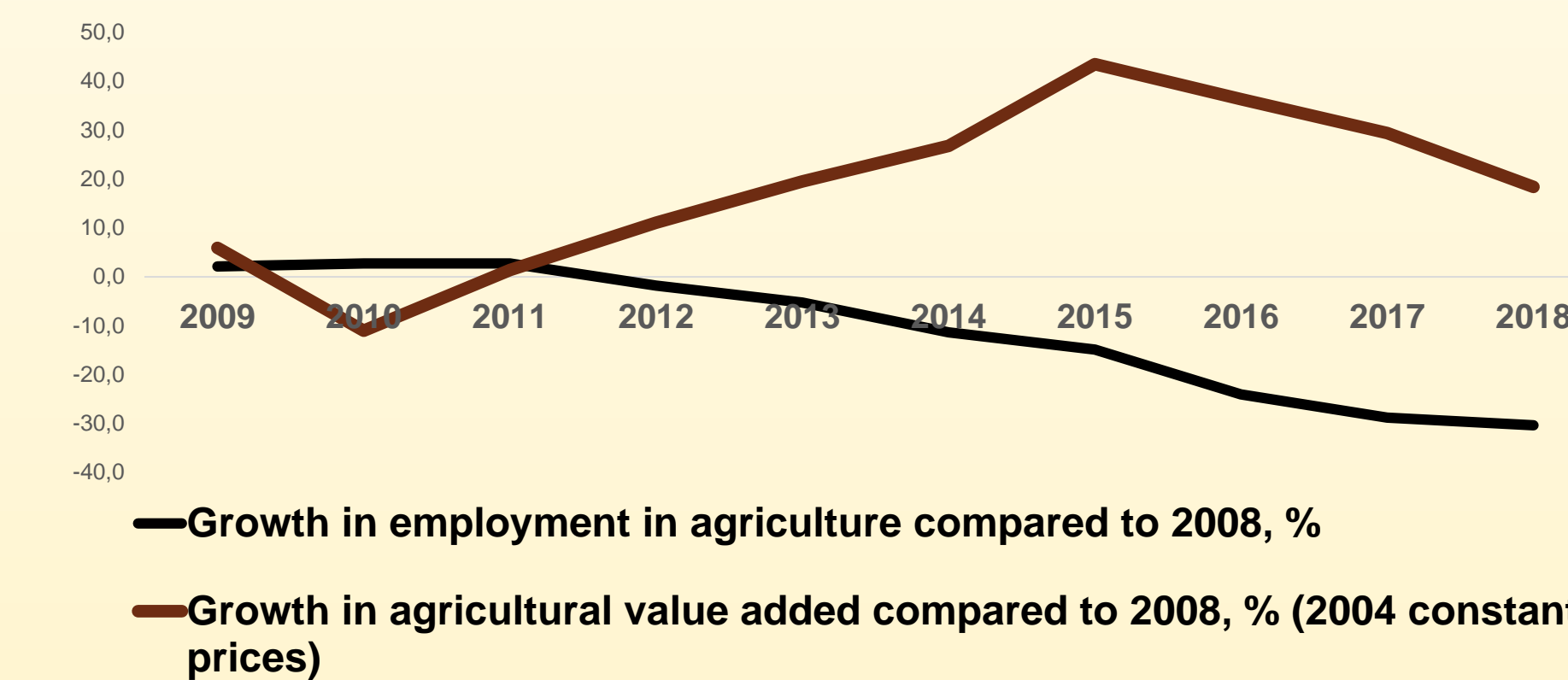
## Results

### AGRICULTURAL PRODUCTION:

- Per capita agricultural value added in Armenia increased by 60.6% during 2004-2018 and the share of agricultural sector in GDP comprised 14% in 2018.
- Family farms produce 96-97% of gross agricultural output in Armenia.



- In 2008-2018 the number of employed in agriculture decreased by 30%.
- Agriculture value added increased by 18% in 2008-2018.
- Thus, the labour productivity in agriculture increased 1.7 times in 2008-2018.



- Average family farms in Armenia face the problem of financial instability due to the low cash flows, high levels of internal consumption and low level of marketability.
- One of the factors which negatively affects agricultural production of family farms is the **crop pattern**.
- 73% of lands owned by family farms are arable lands, 37% of which are used for wheat and barley production, with the smallest monetary income generation and marketability amongst all the other products.

	Lands under cultivation, 1000 ha	Average harvest per ha, ton	Price per unit, AMD 1,000	Total income per ha, AMD 1,000	Marketability, %
Wheat	83,451.9	3.4	118.0	405.9	30.8
Barley	45,056.9	2.9	121.0	346.1	30.8
Potatoes	21,536.5	22.9	140.0	3204.6	51.8
Cabbage	2,239.0	38.1	78.0	2974.9	82.9
Cucumber	1,694.4	31.1	151.0	4690.1	82.9
Tomato	3,510.3	42.9	89.0	3817.2	82.9
Obergine	1,416.3	29.7	94.0	2793.7	82.9
Carrot	648.0	26.9	191.0	5145.5	82.9
Onion	1,174.8	25.5	136.0	3468.0	82.9
Garlic	518.8	13.4	1014.0	13607.9	82.9
Green Beens	1,389.6	8.8	356.0	3143.5	82.9
Water melon	3297.2	42.3	60.0	2540.4	93.1
Melon	917.6	42.3	99.0	4191.7	93.1
Apple	7588.7	10.5	191.0	1999.8	64.5
Pear	976.2	10.5	291.0	3046.8	64.5
Apricot	9293.2	10.5	220.0	2303.4	64.5
Peach	3999.6	10.5	210.0	2198.7	64.5
Cherries	1507.7	10.5	243.0	2544.2	64.5
Plum	1984.9	10.5	132.0	1382.0	64.5
Nuts	1278.5	10.5	1101.0	11527.5	64.5
Grapes	14137.6	18.8	156.0	2935.9	90.0

- Despite Armenia's relatively strong agricultural performance since 2000 and substantial increase in self-sufficiency of main food products, the food availability in the country still relies on imports of basic food products, and thus depends on shocks and price volatility in external food markets. Small sizes and fragmentation of agricultural lands restrict the opportunities for agricultural productivity and sufficient agricultural incomes of agro-producers.

## Conclusions

- The lack of telecommunication systems and remote sensing equipment causes difficulties to provide efficient agricultural monitoring.
- Lack of usage of contemporary methods and means of data collection, including ICT hampers precise agricultural data and information transfer.
- We argue that the approach of the research is in line with dynamics of the Armenian Agricultural sector development. Consequently data and information collection mechanism is important and significance for current stage of Armenian economic development.
- We argue, that the study of comparative advantage of Armenian agricultural production allows to specify agricultural subsectors promoting Armenian export. In line with this argument the data concerning to the state of these subsectors production program combining irrigation system, farm mechanization and production marketing and export supply are given in present research.
- We argue also that data and information on Armenian agricultural scale must be based on the current Armenian economy development targeted to the attraction of foreign direct investments and especially in agricultural sector as one of driving engines of Armenian economy.

