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Agjencia e Statistikave të Kosovës - Agencija za Statistike Kosova - Kosovo Agency of Statistics

Series 2: Agriculture and Environment Statistics

Input Price Index in Agriculture Q2-2018 (2015=100)



AGJENCIA E STATISTIKAVE TË KOSOVËS
AGENCIJA ZA STATISTIKE KOSOVA
KOSOVO AGENCY OF STATISTICS

Foreword

Kosovo Agency of Statistics, respectively the Department of Agriculture and Environment Statistics, has started to collect data on agriculture output prices since November 2003. At the beginning, the number of items was limited. With the change of the base year from 2003 to the base year of 2005, prices have been collected for 64 different agricultural inputs. Whereas, with the change of the base year 2005 to 2010, prices for 67 agricultural inputs were collected. Currently, with the change of the base year from 2010 to the base year 2015, prices are collected for 73 different agricultural inputs. The plan for the future is to increase the number of inputs. In addition to the input price index is also the output price index

This is the thirty seven (37) publications on Input Price Index and Average Absolute Prices for agriculture inputs produced by Statistical Agency of Kosovo (SAK). In this publication, Input Price Index and prices for some major agriculture inputs are presented.

KAS thanks the Swedish International Development Cooperation Agency (SIDA) for their support for building the agro-monetary statistical system. KAS also thanks all collaborators of its regional offices, other co-operators (respondents) of point-of-sale places such as: agricultural farms, industrial enterprises, trade, etc.

In particular, KAS thanks Swedish price statistics expert, Mr. Anders Grönvall and others who directly or indirectly assisted in finalizing this publication.

Suggestions and remarks regarding this publication can be sent to the department's email address: agriculture@ks-gov.net

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Abbreviations

| | | |
|------|---|--|
| KAS | - | Kosovo Agency of Statistics |
| API | - | Agriculture Price Index |
| EU | - | European Union |
| SIDA | - | Swedish International Development Cooperation Agency |
| Q2 | - | Second Quarter |

Symbols

‰ - Promile

In the tables where figures (weight) have been rounded to the nearest final digit might be a slight discrepancy in the sum.

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Input Agriculture Price Index

The data presented in this publication include data on the monthly index covering the period from April to Jun of the year 2018 with the base year 2015=100. To make the comparisons and to observe the changes, data for the second quarterly (Q2) 2015-2018 are presented in the base year of 2015 (2015 = 100)

The price collection was carried out at agriculture pharmacy enterprises, veterinary pharmacy enterprises, companies, markets, and other places where prices on agriculture input products are available. Some prices on agriculture input products we got from consumer prices (CPI) at KAS. KAS has changed the base year from 2010 =100 in 2015 = 100 according to Eurostat methodology.

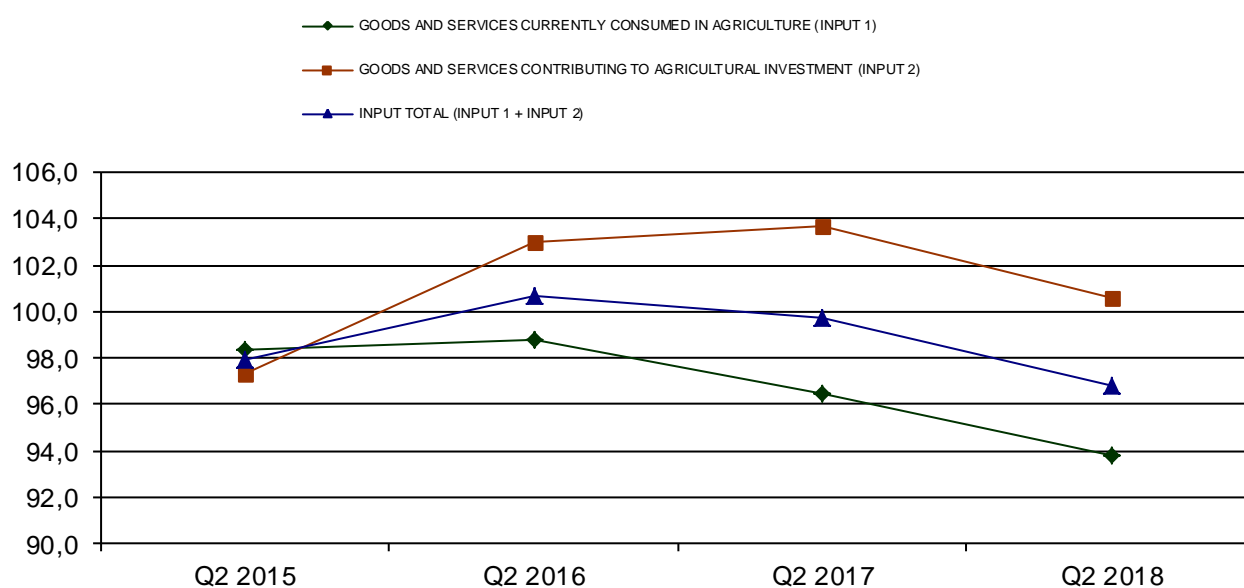
The products which make up the base for the Input Price Index are divided into two main groups: Goods and Services Currently Consumed in Agriculture (Input 1) and Goods and Services Contributing to Agriculture Investment (Input 2). Within Goods and Services Currently Consumed in Agriculture, prices are collected under the following groups; Seeds and Planting Stock, Energy; Lubricants, Fertilizers and Soil Improvers, Plant Protection Products and Pesticides, Veterinary Expenses, Animal Feeding stuffs, Maintenance of Materials, Maintenance of Buildings and Other Goods and Services. Within Goods and Services Contributing to Agriculture Investment, prices are collected for Materials (Machinery and Other Equipment), Buildings and Other (Farm Buildings Non-Residential, other works except land improvements).

Figure 1 shows the second quarter for Input Price Index from 2015 - 2018 for Total Input as well as for Input 1 and Input 2 (2015 = 100).

The index changes in Q2 2018 compared to Q2 2017 (change in %)

In the second quarter 2018 the Input 1 has decreased by (- 2.8 %) compared the second quarter 2017. The Index for **Input 2** has increased by (-3.0 %) compared the second quarter 2017. Total Input Index (**Input 1 + Input 2**) has also decreased by (- 2.9 %) compared to the second quarter 2017.

Figure 1: Q2 Agricultural Input Price Index 2015 – 2018, (2015 = 100)



Agricultural Input price Index Q2

Table 1: Q2 Agricultural Input price Index 2015-2018, (2015=100)

| Input 1 (Goods and services currently consumed in agriculture) | | | | | | | |
|---|---|------------|----------------|-------------|-------------|-------------|-------------|
| API code | Description | Weight | | Q2 2015 | Q2 2016 | Q2 2017 | Q2 2018 |
| | | % | 1000 Euro | | | | |
| 200000 | GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1) | 556 | 126 490 | 98,4 | 98,8 | 96,5 | 93,8 |
| 201000 | SEEDS AND PLANTING STOCK | 91 | 20 777 | 89,3 | 106,1 | 95,9 | 79,3 |
| 202000 | ENERGY; LUBRICANTS | 103 | 23 433 | 101,3 | 90,1 | 99,3 | 104,8 |
| 202100 | Electricity | 17 | 4 637 | 88,9 | 86,4 | 97,8 | 98,2 |
| 202300 | Motor fuels | 137 | 17 480 | 104,8 | 90,9 | 100,2 | 107,5 |
| 202400 | Lubricants | 3 | 1 316 | 98,4 | 93,9 | 92,6 | 92,6 |
| 203000 | FERTILISERS AND SOIL IMPROVERS | 149 | 33 958 | 100,1 | 98,1 | 89,1 | 85,7 |
| 203100 | Straight fertilizers | 56 | 12 777 | 99,8 | 94,1 | 86,8 | 83,2 |
| 203200 | Compound fertilizers | 93 | 21 181 | 100,2 | 100,6 | 90,4 | 87,3 |
| 204000 | PLANT PROTECTION PRODUCTS AND PESTICIDES | 23 | 5 137 | 97,7 | 104,1 | 103,9 | 105,0 |
| 205000 | VETERINARY EXPENSES | 38 | 8 732 | 100,0 | 97,7 | 98,5 | 97,5 |
| 206000 | ANIMAL FEEDINGSTUFFS | 3 | 741 | 97,6 | 113,1 | 102,2 | 103,2 |
| 206100 | Straight feeding stuffs | 104 | 630 | 97,8 | 115,7 | 101,8 | 103,8 |
| 206200 | Compound feeding stuffs | 12 | 111 | 96,6 | 98,4 | 104,8 | 99,7 |
| 207000 | MAINTENANCE OF MATERIALS | 48 | 10 883 | 99,8 | 100,6 | 99,9 | 99,7 |
| 208000 | MAINTENANCE OF BUILDINGS | 4 | 833 | 100,0 | 98,5 | 98,7 | 98,4 |
| 209000 | OTHER GOODS AND SERVICES | 97 | 21 996 | 100,0 | 99,9 | 101,1 | 100,7 |

| Input 2 (Goods and services contributing to agricultural investment) | | | | | | | |
|---|---|------------|----------------|-------------|--------------|--------------|--------------|
| 210000 | GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2) | 444 | 100 971 | 97,3 | 103,0 | 103,7 | 100,6 |
| 211210 | TRACTORS | 208 | 47 375 | 94,8 | 107,0 | 107,8 | 101,6 |
| 211290 | OTHER | 236 | 53 596 | 99,5 | 99,4 | 100,1 | 99,7 |

| Input total (Input 1 + Input 2) | | | | | | | |
|--|--|--------------|----------------|-------------|--------------|-------------|-------------|
| 220000 | INPUT TOTAL (INPUT 1 + INPUT 2) | 1 000 | 227 461 | 97,9 | 100,6 | 99,7 | 96,8 |

Monthly Agricultural Input price Index

Table 2: Monthly Agricultural Input price Index April – Jun 2018, (2015 = 100)

Input 1 (Goods and services currently consumed in agriculture)

| API code | Description | Weight | | 2018 | | |
|---------------|---|------------|----------------|-------------|-------------|-------------|
| | | % | 1000 Euro | Apr | May | Jun |
| 200000 | GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1) | 556 | 126 490 | 94,4 | 93,8 | 93,2 |
| 201000 | SEEDS AND PLANTING STOCK | 91 | 20 777 | 85,5 | 80,0 | 72,6 |
| 202000 | ENERGY; LUBRICANTS | 103 | 23 433 | 102,2 | 104,6 | 107,7 |
| 202100 | Electricity | 17 | 4 637 | 103,3 | 95,6 | 95,6 |
| 202300 | Motor fuels | 137 | 17 480 | 102,6 | 107,8 | 112,0 |
| 202400 | Lubricants | 3 | 1 316 | 92,6 | 92,6 | 92,6 |
| 203000 | FERTILISERS AND SOIL IMPROVERS | 149 | 33 958 | 85,8 | 85,7 | 85,7 |
| 203100 | Straight fertilizers | 56 | 12 777 | 83,3 | 83,2 | 83,2 |
| 203200 | Compound fertilizers | 93 | 21 181 | 87,3 | 87,3 | 87,3 |
| 204000 | PLANT PROTECTION PRODUCTS AND PESTICIDES | 23 | 5 137 | 105,0 | 105,0 | 105,0 |
| 205000 | VETERINARY EXPENSES | 38 | 8 732 | 97,5 | 97,5 | 97,5 |
| 206000 | ANIMAL FEEDINGSTUFFS | 3 | 741 | 102,3 | 102,7 | 104,5 |
| 206100 | Straight feeding stuffs | 104 | 630 | 103,5 | 104,0 | 103,8 |
| 206200 | Compound feeding stuffs | 12 | 111 | 95,3 | 95,3 | 108,4 |
| 207000 | MAINTENANCE OF MATERIALS | 48 | 10 883 | 100,0 | 99,6 | 99,6 |
| 208000 | MAINTENANCE OF BUILDINGS | 4 | 833 | 98,6 | 98,3 | 98,3 |
| 209000 | OTHER GOODS AND SERVICES | 97 | 21 996 | 100,8 | 100,6 | 100,6 |

Input 2 (Goods and services contributing to agricultural investment)

| | | | | | | |
|---------------|---|------------|----------------|--------------|--------------|--------------|
| 210000 | GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2) | 444 | 100 971 | 101,3 | 100,7 | 101,1 |
| 211210 | TRACTORS | 208 | 47 375 | 101,3 | 101,5 | 102,0 |
| 211290 | OTHER | 236 | 53 596 | 101,3 | 100,0 | 100,3 |

Input total (Input 1 + Input 2)

| | | | | | | |
|---------------|--|--------------|----------------|-------------|-------------|-------------|
| 220000 | INPUT TOTAL (INPUT 1 + INPUT 2) | 1 000 | 227 461 | 97,4 | 96,9 | 96,7 |
|---------------|--|--------------|----------------|-------------|-------------|-------------|

Changes in Input price Index

Table 3 ; Changes in Input price Index for same month April – Jun 2018/ 2017 (2015=100)

Input 1 (Goods and services currently consumed in agriculture)

| API code | Description | Wheight | | Apr 17 / Apr 18 Changes. in % | May 17 / May 18 Changes. in % | Jun 17 / Jun 18 Changes in % |
|---------------|---|------------|----------------|----------------------------------|----------------------------------|---------------------------------|
| | | % | 1000 Euro | | | |
| 200000 | GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1) | 556 | 126 490 | -3,1 | -4,0 | -1,3 |
| 201000 | SEEDS AND PLANTING STOCK | 91 | 20 777 | -12,4 | -24,9 | -13,2 |
| 202000 | ENERGY; LUBRICANTS | 103 | 23 433 | 1,1 | 8,2 | 7,4 |
| 202100 | Electricity | 17 | 4 637 | -1,2 | 15,4 | -9,6 |
| 202300 | Motor fuels | 137 | 17 480 | 1,8 | 7,1 | 12,8 |
| 202400 | Lubricants | 3 | 1 316 | 0,0 | 0,0 | 0,0 |
| 203000 | FERTILISERS AND SOIL IMPROVERS | 149 | 33 958 | -4,5 | -3,7 | -3,0 |
| 203100 | Straight fertilizers | 56 | 12 777 | -4,1 | -4,5 | -4,0 |
| 203200 | Compound fertilizers | 93 | 21 181 | -4,8 | -3,2 | -2,4 |
| 204000 | PLANT PROTECTION PRODUCTS AND PESTICIDES | 23 | 5 137 | 2,0 | 0,5 | 0,5 |
| 205000 | VETERINARY EXPENSES | 38 | 8 732 | -1,1 | -1,1 | -1,1 |
| 206000 | ANIMAL FEEDINGSTUFFS | 3 | 741 | -1,4 | 0,0 | 4,1 |
| 206100 | Straight feeding stuffs | 104 | 630 | -1,5 | 2,4 | 5,2 |
| 206200 | Compound feeding stuffs | 12 | 111 | -0,4 | -12,4 | -1,6 |
| 207000 | MAINTENANCE OF MATERIALS | 48 | 10 883 | -0,3 | -0,1 | -0,1 |
| 208000 | MAINTENANCE OF BUILDINGS | 4 | 833 | -0,2 | -0,4 | -0,3 |
| 209000 | OTHER GOODS AND SERVICES | 97 | 21 996 | -0,6 | -0,3 | -0,2 |

Input 2 (Goods and services contributing to agricultural investment)

| | | | | | | |
|---------------|---|------------|----------------|-------------|-------------|-------------|
| 210000 | GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2) | 444 | 100 971 | -3,2 | -3,8 | -3,4 |
| 211210 | TRACTORS | 208 | 47 375 | -6,0 | -5,8 | -5,4 |
| 211290 | OTHER | 236 | 53 596 | -0,5 | -1,9 | -1,6 |

Input total (Input 1 + Input 2)

| | | | | | | |
|---------------|--|--------------|----------------|-------------|-------------|-------------|
| 220000 | INPUT TOTAL (INPUT 1 + INPUT 2) | 1 000 | 227 461 | -3,1 | -3,9 | -2,3 |
|---------------|--|--------------|----------------|-------------|-------------|-------------|

Methodology

Prices and price indices in this publication have been calculated according standards for price statistics in European Union. The project for calculation these Prices and Indices was conducted in the frame of the project of Improving agro monetary statistics” in cooperation with Statistic Sweden and with financial support by SIDA (Swedish International Development Cooperation Agency).

Prices have been collected since 2003 and are collected in seven regions: Pristina, Mitrovica, Peja, Gjakova, Prizren, Ferizaj and Gjilan. Prices are collected around the 15th in every month. Since the start the number of different prices that are collected have increased step by step.

The purpose of Agricultural Input Price Index is to follow the purchase prices of the means of agricultural production. By definition, the index does not cover factors of production. Thus, wages and wage costs, rent, interest payment, purchase of land and fixed asset animals are not part of the field of observation.

To compare the EU index presented in this publication with other countries, the Eurostat website is recommended (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>).

Weights to calculate aggregated indices are mainly based on Agricultural Economic Account 2015, which is the base year in the index (2015=100). These weights are fixed as long as the base of the index is 2015. The index is a price index and is calculated on the basis of the Laspeyres formula

Calculation of elementary Price Index

Calculations of elementary indices are in general done by using following formula, with un-weighted arithmetic mean price.

$$R_i^t = \frac{\frac{1}{n} \sum P_{ij}^t}{\frac{1}{n} \sum P_{ij}^o} \cdot 100$$

R_i^t – Elementary index for month t and product i

P – Collected price

i – Product i

j – Price j recorded for product (in general price for region)

t – Observed month

0 – Base month

Calculation of aggregated Price Index

Calculating aggregated index for total Input or subgroups of Input Index is done using following formula.

$$I^t = \sum \left(R_i^t \cdot \frac{w_i^0}{\sum w_i^0} \right)$$

I^t – Aggregated index for period t

w_i^0 – Weighting factor in base period for product i

i – Product i

t – Observed month

0 – Base month

Questionnaire

Target definition

| Item number | Item name | | | Quantity | Unit |
|-------------|-----------------|--|--|---------------------------|------|
| | Price Collector | | | Collection place/ Company | |
| Date | | | | | |
| Price | | | | | |

Enumerators notes

- Detailed description of specific variety selected for re-pricing
- Changes in the detailed description, date for changes
- Treatment of quality change when description changed (information of over-lap price observation, alt. valuation of quality change)

Kosovo Agency of Statistics

short description

Kosovo Agency of Statistics is a professional institution which deals with collection, processing and publication of official statistical data. As such acts since 1948 and has passed through several historical stages, structured according to state regulation of those times.

On 2 August 1999, the Agency has resumed his professional work (after nine years of interruption of all statistical series detrimental to the interest of Kosovo), as an independent institution under the Ministry of Public Administration. Since 12.12.2011 the Agency operates in the frames of the Prime Minister's Office. Office is funded by the Kosovo Consolidated Budget, but also by donors for specific projects and for technical professional support.

Kosovo Agency of Statistics acts according to the Law No. 04/L-036 which entered into force on 12.12.2011. Programme of Official Statistics 2013/2017 is in implementation for the development of statistical system in correlation with the European Union statistics (EUROSTAT).

Kosovo Agency of Statistics has this organizational structure: production departments; (Department of Economic statistics and National Accounts, Department of Agriculture and Environment statistics and Department of Social statistics. **Support Departments;** Department of Methodology and Information Technology, Department of Policy Planning, Coordination and Communication, Department of Census and survey and Department of Administration. **Within the Agency are also established Regional Offices;** Gjakove, Gjilan, Mitrovica, Peja, Prizren, Pristina and Ferizaj

In KAS are employed in total 147 workers, of whom 100 (68,0 %) at the headquarters of the Agency, while in the Regional Offices, 47 (32,0%). Agency's educational qualifying structure is as follows: 73,5% with university education, 13,6% with with non-tertiary education, and 12.9% with secondary education.

We have professional and technical cooperation with all Ministries of the Government of Kosovo, especially with the Ministry of Economy and Finance, Central Bank of Kosovo, with international institutions, EUROSTAT, International Monetary Fund, World Bank, Sweden's SIDA, DFID, UNFPA, UNDP, UNVEF, and with the statistical institutions of the countries in the region.

Kosovo Agency of Statistics almost completely covers the territory of Kosovo, based on the statistical structure of the enumeration areas as the basic unit and sole in the country from which it gets first hand information. All surveys conducted in the field use the extension of the samples in these enumeration areas but also a statistical methodology according to international recommendations. During the collection of statistical data and reports from reporting entities are involved professionals, technicians, administrators, servants of the country offices, field enumerators from regional offices, etc.

In 2011, the project of Population Census , Households and Dwellings was successfully implemented, and in 2014 was successfully carried out the Agriculture Census. The result obtained from these censuses will have an important role in the development policies.

The mission of the Agency; to meet the needs of users with qualitative statistical data, objective, in time and space so that users have reliable base to conduct regular analysis in the interest of planning and project development at the municipal and country level. To support government institutions, scientific institutes, research academies, businesses in order to provide proper information for decision-makers and other users in Kosovo.

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