



**Republika e Kosovës**  
**Republika Kosova-Republic of Kosova**  
*Qeveria - Vlada - Government*

Zyra e Kryeministrit –Ured Premijera –Office of the Prime Minister  
*Agjencia e Statistikave të Kosovës - Agencija za Statistike Kosova – Kosovo Agency of Statistics*

## **Seria 2: Agriculture and Environment Statistics**

# **Input Price Index in Agriculture 2015-2022 (2015=100)**







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## Foreward

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 77 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 fifty-six (56) 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: [infoask@rks-gov.net](mailto:infoask@rks-gov.net)

### Publication was prepared by:

Bajrush Qevani - Director of Department  
Violeta-Arifi Gashi - Head of Division,

February, 2023

Acting Chief Executive Officer, KAS  
Ilir.T Berisha

## Abbreviations and Acronyms

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

‰ - Promilë

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

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## 1. Methodological explanations

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.

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

$I^t$	-	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

## 2. Input Agriculture Price Index

The data presented in this publication include data on the annual index covering the period 2015-2022. To make the comparisons and to observe the changes, data for 2015-2022 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).

### Annual change of index 2022 compared with 2021 (change in %)

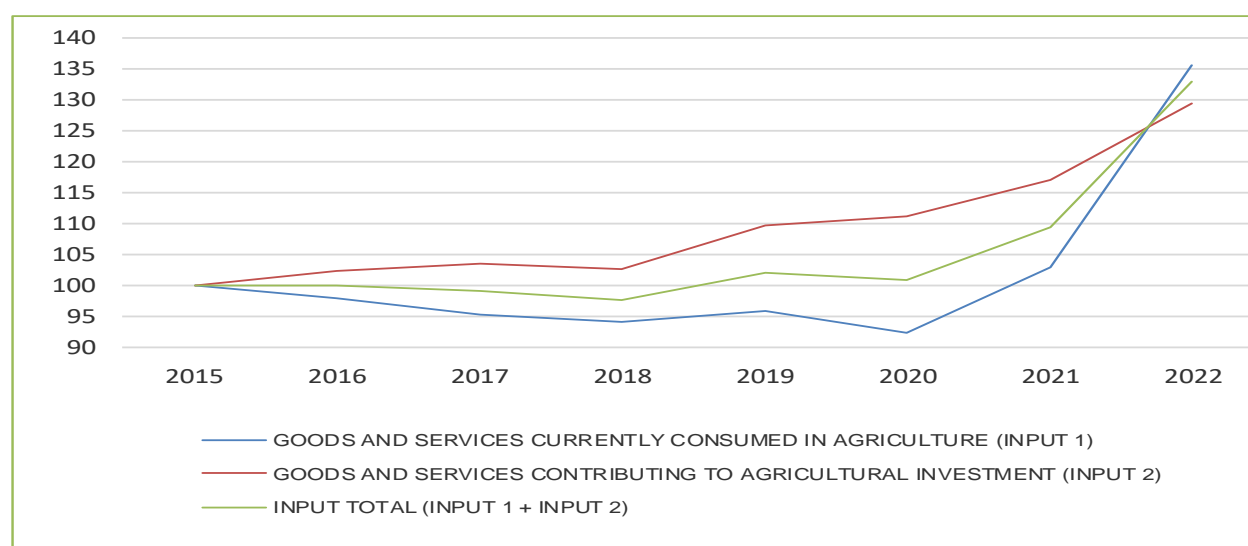
In 2022, the annual price index of **Input 1** increased by 31,55% compared to 2021. The annual Index of Input 2 increased by 10,47 % in 2022 compared to 2021. While, the general price index of agricultural inputs for this period increased by 21,52% in 2022 compared to 2021.

### The annual index changes in 2022 compared to 2015 (change in %)

In 2022, the annual price index of **Input 1** increased by 35,63% for **Input 1** compared to 2015. The index of **Input 2** has i increased by 29,36% in 2021 compared to 2015. Total Input Index (**Input 1 + Input 2**) has also increased by 32,85 % in 2022 compared to 2015.

**Fig. 1: Shows Annual Input Price Index from 2015 – 2022 for Total Input as well as for Input 1 and Input 2 (2015 = 100)**

**Fig. 1: Annual input price Index 2015 – 2022, (2015 = 100)**



### 3. Annual Agricultural Input Price Index 2015-2022

(2015=100) Tab. 1: Annual Agricultural Input Price Index 2015 –

2022(2015=100)

Input 1 (Goods and services currently consumed in agricultural )											
API code	Description	Weight in %	Weight in 1000 Euro	2015	2016	2017	2018	2019	2020	2021	2022
<b>200000</b>	<b>GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1)</b>	<b>556</b>	<b>126.490</b>	<b>100,0</b>	<b>98,1</b>	<b>95,4</b>	<b>94,0</b>	<b>95,8</b>	<b>92,5</b>	<b>103,1</b>	<b>135,6</b>
201000	SEEDS AND PLANTING STOCK	91	20.777	100,0	98,9	87,2	78,1	83,7	82,7	83,5	86,4
202000	ENERGY; LUBRICANTS	103	23.433	100,0	93,7	100,9	106,5	106,3	92,0	105,2	139,8
202100	Electricity	20	4.637	100,0	98,8	106,1	97,6	95,6	95,6	96,3	98,6
202300	Motor fuels	77	17.480	100,0	92,3	100,2	109,9	110,2	90,5	107,8	152,1
202400	Lubricants	6	1.316	100,0	93,8	92,6	92,6	92,8	99,0	102,1	121,2
203000	FERTILISERS AND SOIL IMPROVERS	149	33.958	100,0	97,6	89,5	85,9	88,5	87,3	113,4	203,5
203100	Straight fertilizers	56	12.777	100,0	93,9	87,7	83,5	85,1	84,2	109,0	208,2
203200	Compound fertilizers	93	21.181	100,0	99,7	90,6	87,3	90,5	89,2	116,1	200,7
204000	PLANT PROTECTION PRODUCTS AND PESTICIDES	23	5.137	100,0	104,2	103,8	105,4	106,3	103,5	105,9	115,7
205000	VETERINARY EXPENSES	38	8.732	100,0	98,7	98,0	97,5	99,3	98,0	100,7	104,4
206000	ANIMAL FEEDINGSTUFFS	3	741	100,0	109,5	103,6	103,2	107,6	110,1	120,5	155,9
206100	Straight feeding stuffs	3	630	100,0	111,5	103,4	103,0	107,9	108,9	119,4	157,5
206200	Compound feeding stuffs	0	111	100,0	97,9	104,9	104,7	105,7	117,0	127,1	146,8
207000	MAINTENANCE OF MATERIALS	48	10.883	100,0	100,1	99,9	99,8	99,5	99,2	99,5	103,7
208000	MAINTENANCE OF BUILDINGS	4	833	100,0	98,2	98,8	98,6	99,3	101,5	103,4	113,0
209000	OTHER GOODS AND SERVICES	97	21.996	100,0	99,9	100,8	100,9	101,4	101,3	105,0	105,9
Input 2 (Goods and services contributing to agricultural investment)											
<b>210000</b>	<b>GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2)</b>	<b>444</b>	<b>100.971</b>	<b>100,0</b>	<b>102,5</b>	<b>103,5</b>	<b>102,6</b>	<b>109,9</b>	<b>111,2</b>	<b>117,1</b>	<b>129,4</b>
211210	TRACTORS	208	47.375	100,0	106,9	107,7	105,2	119,0	120,5	130,6	143,3
211290	OTHER	236	53.596	100,0	98,5	99,8	100,3	101,8	103,0	105,2	117,1
Input total (Input 1 + Input 2)											
<b>220000</b>	<b>INPUT TOTAL (INPUT 1 + INPUT 2)</b>	<b>1000</b>	<b>227.461</b>	<b>100,0</b>	<b>100,0</b>	<b>99,0</b>	<b>97,8</b>	<b>102,1</b>	<b>100,8</b>	<b>109,3</b>	<b>132,8</b>

## 4. Annual Agricultural Input Price Index 2022 (EU disposition), (2015=100)

Tab. 2: Annual Agricultural Input Price Index 2022 (EU disposition), (2015=100) 2015 =100

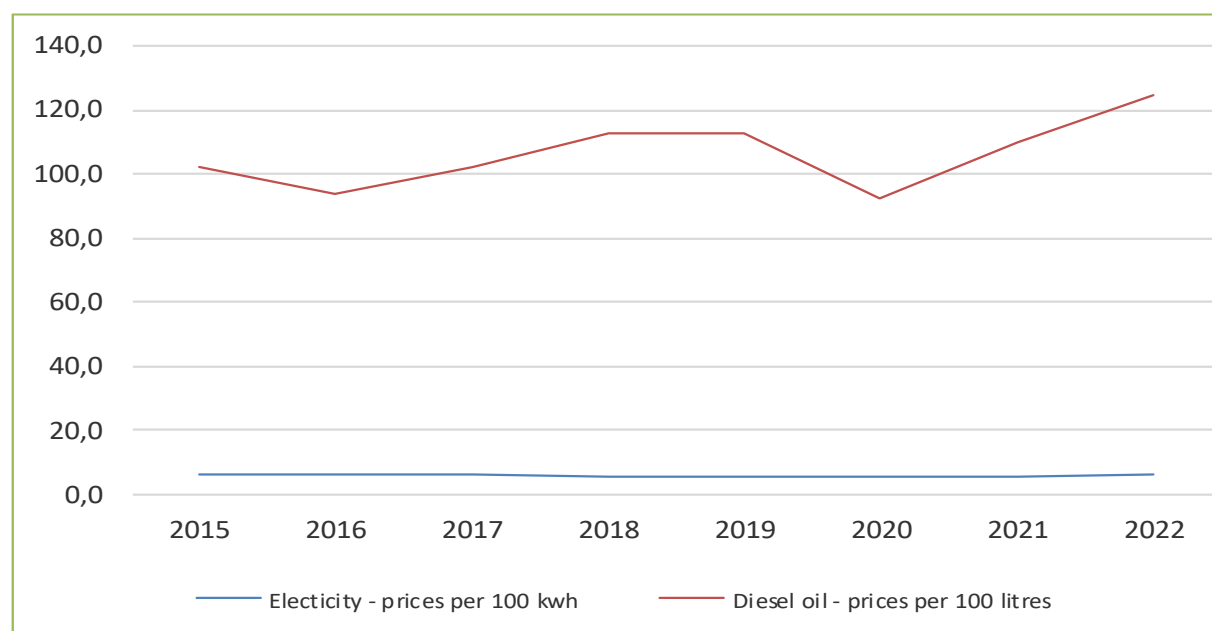
Input 1 (Goods and services currently consumed in agricultural )										
API code	Description	Weight in %	Weight in 1000 Euro	2016	2017	2018	2019	2020	2021	2022
<b>200000</b>	<b>GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1)</b>	<b>556</b>	<b>126.490</b>	<b>98,1</b>	<b>95,4</b>	<b>94,0</b>	<b>95,8</b>	<b>92,5</b>	<b>103,1</b>	<b>135,6</b>
201000	SEEDS AND PLANTING STOCK	91	20777	98,9	87,2	78,1	83,7	82,7	83,5	86,4
202000	ENERGY; LUBRICANTS	103	23433	93,7	100,9	106,5	106,3	92,0	105,2	139,8
202100	Electricity	20	4637	98,8	106,1	97,6	95,6	95,6	96,3	98,6
202300	Motor fuels	77	17480	92,3	100,2	109,9	110,2	90,5	107,8	152,1
202400	Lubricants	6	1316	93,8	92,6	92,6	92,8	99,0	102,1	121,2
203000	FERTILISERS AND SOIL IMPROVERS	149	33958	97,6	89,5	85,9	88,5	87,3	113,4	203,5
203100	Straight fertilizers	56	12777	93,9	87,7	83,5	85,1	84,2	109,0	208,2
203110	Nitrogenous fertilizers	56	12777	93,9	87,7	83,5	85,1	84,2	109,0	208,2
203200	Compound fertilizers	93	21181	99,7	90,6	87,3	90,5	89,2	116,1	200,7
203230	NPK fertilizers	93	21181	99,7	90,6	87,3	90,5	89,2	116,1	200,7
204000	PLANT PROTECTION PRODUCTS AND PESTICIDES	23	5137	104,2	103,8	105,4	106,3	103,5	105,9	115,7
204100	Fungicides	8	1798	104,4	103,6	106,3	101,0	100,8	104,9	119,5
204200	Insecticides	11	2569	106,8	107,2	108,9	115,8	109,7	112,4	121,9
204300	Herbicides	3	771	95,1	92,7	91,6	87,2	88,9	86,7	86,3
205000	VETERINARY EXPENSES	38	8732	98,7	98,0	97,5	99,3	98,0	100,7	104,4
206000	ANIMAL FEEDINGSTUFFS	3	741	109,5	103,6	103,2	107,6	110,1	120,5	155,9
206100	Straight feeding stuffs	3	630	111,5	103,4	103,0	107,9	108,9	119,4	157,5
206110	Cereals and milling by-products	1	296	97,6	90,8	90,8	100,7	104,7	116,6	165,5
206190	Other straight feeding stuffs	1	333	123,9	114,6	113,8	114,3	112,6	121,9	150,3
206200	Compound feeding stuffs	0	111	97,9	104,9	104,7	105,7	117,0	127,1	146,8
206240	Compound feeding stuffs for poultry	0	111	97,9	104,9	104,7	105,7	117,0	127,1	146,8
207000	MAINTENANCE OF MATERIALS	48	10883	100,1	99,9	99,8	99,5	99,2	99,5	103,7
208000	MAINTENANCE OF BUILDINGS	4	833	98,2	98,8	98,6	99,3	101,5	103,4	113,0
209000	OTHER GOODS AND SERVICES	97	21996	99,9	100,8	100,9	101,4	101,3	105,0	105,9
Input 2 (Goods and services contributing to agricultural investment)										
<b>210000</b>	<b>GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2)</b>	<b>444</b>	<b>100.971</b>	<b>102,5</b>	<b>103,5</b>	<b>102,6</b>	<b>109,9</b>	<b>111,2</b>	<b>117,1</b>	<b>129,4</b>
211000	MATERIALS	317	72086	103,9	104,4	103,3	113,1	114,1	121,3	135,1
211100	MACHINERY AND OTHER EQUIPMENT	88	19911	97,4	96,4	98,8	101,2	101,0	102,7	120,4
211110	Rotovators and other 2 wheel equipment	7	1662	97,4	96,4	98,8	101,2	101,0	102,7	120,4
211120	Machinery and plant for cultivation	40	9101	99,0	98,3	103,3	105,7	108,1	109,7	123,4
211130	Machinery and plant for harvesting	14	3107	96,5	98,2	98,7	104,9	107,0	107,2	117,1
211140	Farm machinery and installations	27	6041	95,4	92,5	92,1	92,5	87,1	89,8	117,5
211141	Farm machinery and installations for crop production	13	2967	95,4	92,5	92,1	92,5	87,1	89,8	117,5
211142	Farm machinery and installations for animal production	7	1590	92,0	83,9	82,4	83,4	84,7	82,7	88,9
211149	Other farm machinery and installations	7	1484	99,0	101,7	102,4	102,2	89,8	97,3	148,1
211200	TRANSPORT EQUIPMENT	229	52174	106,4	107,5	105,0	117,7	119,1	128,5	140,7
211210	Tractors	208	47375	106,9	107,7	105,2	119,0	120,5	130,6	143,3
211290	Other vehicles	21	4800	101,1	105,9	103,0	104,9	105,3	107,5	115,6
212000	BUILDINGS	119	27040	98,7	101,0	100,7	101,2	103,5	105,8	114,1
212100	FARM BUILDINGS (NON-RESIDENTIAL)	119	27040	98,7	101,0	100,7	101,2	103,5	105,8	114,1
219000	OTHER	8	1845	102,5	103,5	102,6	109,9	111,2	117,1	129,4
Input total (Input 1 + Input 2)										
<b>220000</b>	<b>INPUT TOTAL (INPUT 1 + INPUT 2)</b>	<b>1000</b>	<b>227.461</b>	<b>100,0</b>	<b>99,0</b>	<b>97,8</b>	<b>102,1</b>	<b>100,8</b>	<b>109,3</b>	<b>132,8</b>

## 5. Average annual agricultural input prices 2015-2021(2015=100)

**Tab. 3: Average annual prices for Electricity and Diesel oil in Euro 2015-2022, (2015 = 100)**

Groups of products	New code	Product	2015	2016	2017	2018	2019	2020	2021	2022
ENERGY AND LUBRICANTS	20210000	Electricity - prices per 100 kwh	6,3	6,1	6,4	5,8	5,6	5,6	5,7	5,9
	20232000	Diesel oil - prices per 100 litres	102,5	93,5	102,1	112,7	113,0	92,6	110,2	124,7

**Fig. 2: Average annual prices for Electricity and Diesel oil in Euro 2015-2022,(2015=100)**



## 6. Questionnaire

Target definition
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Item number	Item name			Quantity	Unit	
	Price Collector			Collection place/ Company		
Date						
Price						

<p>Enumerators notes</p> <ul style="list-style-type: none"> <li>- Detailed description of specific variety selected for re-pricing</li> <li>- Changes in the detailed description, date for changes</li> <li>- Treatment of quality change when description changed (information of over-lap price observation, alt. valuation of quality change)</li> </ul>
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## Kosovo Agency of Statistics: short description

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**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 01.07.2020 the Agency operates in the frames of the Ministry of Finance, Labor and Transfers. 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 and Amendment of Law No. 06/L-058 which entered into force on 17.01.2019 . Programme of Official Statistics 2018/2022 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, Department of 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 156 workers, of whom 115 at the headquarters of the Agency, while in the Regional Offices, 41. Agency's educational qualifying structure is as follows: 123 with university education, 15 with non-tertiary education, and 18 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.



- **Address:** **KOSOVO AGENCY OF STATISTICS**  
Street. "Zenel Salihu", No. 4, 10000 Pristina
  
- **Telephone:** + 383 (0) 38 200 31 129
- **CEO:** + 383 (0) 38 200 31 112
- **Fax:** + 383 (0) 38 235 033
- **E-mail:** [infoask@rks-gov.net](mailto:infoask@rks-gov.net)
- **Web:** <http://ask.rks-gov.net>

