WAYS OF INNOVATIVE DEVELOPMENT OF ANIMAL HUSBANDRY

Abstract: Abstract. This article explores innovative ways of livestock sector development. The author analyzes the investment projects for the construction, reconstruction and modernization of new enterprises for deep processing of agricultural products in 2016-2020 and provides forecasted increase in livestock production in the country in 2016-2020.

Key words: agriculture, livestock, fodder, feed crops, poultry, fishing, beekeeping.

Language: English

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Introduction

The Action Plan for 2017-2021 calls for the implementation of the following objectives for livestock development and development:

- Improvement of normative and legal documents on livestock and veterinary medicine;
- Development of the breeding base, creation of modern breeding and genetic centers on the basis of pedigree farming and improvement of the technical and technological equipment of the breeding, expansion of scientific research works in the field;
- Breeding of food bases, expansion of areas for food production, fodder extinction, urinary seeding;
- The state budget will allocate 21 400.0 mln. soms spend;
- Improvement of veterinary norms and regulations and adjustment of veterinary drugs and food products certification rules.

Construction, modernization and technical re-equipment of flexible poultry enterprises, equipped with state-of-the-art technology;

- Stimulation of a system of degradation of livestock products processing, production of ready-made products;

- Attraction of highly qualified specialists in the field of human resources, in particular, with the assistance of zootechnics and veterinarians;

- Development of poultry, beekeeping, beekeeping and silkworm breeding.

As a result of bunting, poultry production will increase by 42.4% during 2016-2020, meat production by 21.4% and seeds by 39%.[2]

Analysis and results

The village is based on the deep restructuring of agricultural products, with the semi-finished and ready-to-use and re-purposed modernization of existing and renovated existing high-tech production facilities.

President of the Republic of Uzbekistan March 5, 2016 "Efforts to develop the raw-material base of fruit and vegetable and meat and dairy products for 2016-2020, deep processing, production and export of high-quality goods." According to the Decree, more than 180 investment projects totaling $ 595 886.3 thousand equals for the construction, renovation and modernization of existing facilities for deep processing of agricultural products. The breakthrough occurred in the basin (Table 1).
Impact Factor:

ISRA (India) = 4.971  SIS (USA) = 0.912  ICV (Poland) = 6.630
ISI (Dubai, UAE) = 0.829  PHHH (Russia) = 0.126  PIF (India) = 1.940
GIF (Australia) = 0.564  ESJI (KZ) = 8.716  IBI (India) = 4.260
JIF = 1.500  SJIF (Morocco) = 5.667  OAJI (USA) = 0.350

Table 1. Investment projects on construction, reconstruction and modernization of deep agricultural products in 2016-2020

| Projects number                                      | Projects overall cost | Including financing: |
|------------------------------------------------------|-----------------------|----------------------|
|                                                      |                       | Own finance | Bank    | Foreign  |
| All (180 projects)                                   | 595 886,3             | 242 916,7   | 189 461,6 | 163 508,0 |
| Including                                            |                       |           |         |          |
| New construction (141 projects)                      | 463 267,3             | 169 714,7   | 144 324,6 | 149 228,0 |
| Reconstruction and modernization (39 projects)       | 132 619,0             | 73 202,0    | 45 137,0 | 14 280,0  |

According to the decision, the processing of fruits and vegetables in 2016-2020 will reach 99 100 tons, meat products processing - 16,500 tons - 46 tons, milk products - 34,850 tons 79 and more. - 153 new enterprises were put into operation in the food processing industry with the capacity of 26,840 tons. [3]

The modernization of the livestock industry and the overall development of agriculture are an important part of the development strategy. It is advisable to work out the tasks identified in the country by upgrading the livestock industry to identify specific problems and elimination measures that have a significant impact on the development of the branch network. According to the research, today there are some problems with the livestock breeding network:

- Fodder fields for livestock are drastically reduced;
- Fertilization of fodder, coarse and concentrate feeds, where there is little interference with the required volume of installation;
- livestock buildings, structures, food shops, feeding lines and bottlenecks;
- The main activities in the sector are accomplished, with a low degree of mechanization of business processes;
- Livestock breeding, low morbidity and local breeds;
- Creation of modern farms and breeding complexes specializing in meat and milk processing is not required.[4]

Modernized branching is important in cattle-breeding and fructose breeding. After all, the foreign cigars get 4 to 5 liters of steam at a rate of 15-20 liters per day. Due to this, breeding stock is being brought from the developed countries and the emphasis is placed on the cultivation of livestock. According to the Ministry of Agriculture of the Republic of Uzbekistan, in the period 2006-2016, 69,472 free-flowing cattle were imported to the country from abroad. [5]

In 2016, 2,616 zoo veterinary services were provided with artificial insemination and 2465,000 heads of breeding cows and 610 breeding farms in the direction of cattle breeding and sold to the population and livestock farms through auctions. In 2016-2020 it is planned to establish 1533 new breeding farms. (table-2).

![Figure 1. Predicted indicators of the creation of cattle breeding farms in the Republic in 2016-2020](image)

The Decree of the President of the Republic of Uzbekistan dated December 29, 2015 № PP-2460 "On measures to intensify and develop agriculture reforms for 2016-2020" will increase the number of cattle by 3 165 thousand heads, sheep and goats in 2016-2020.
It is planned to increase the number of poultry by 4,281 and number of poultry by 31,200.[1]

As a result, meat production (live weight) for the last 5 years was 519.0 thousand, milk - 4 177.0 thousand, fish - 90.0 thousand, honey - 13.7 thousand tons and eggs - 4 100.0 million. per unit grain.[6]

The Action Plan for the further development of animal husbandry in 2017-2021 is planned to perform the following tasks:

1. Expanding the range of feed crops for livestock and veterinary medicine;

2. Systematize and increase the volume of feed crops for livestock and veterinary medicine;

3. Increase by 42.4% in 2016 concentrated feed and natural fertility of the land.

4. Expanding the range of feed crops for livestock and veterinary medicine.

As a result, the number of poultry is expected to increase by 42.4% in 2016-2020, meat production by 21.4% and eggs by 39%.

In our opinion, we believe it is expedient to take a comprehensive systematic approach to the more intensive development of the livestock sector. Including:

1. Expanding the range of feed crops for livestock in the composition of crops. To do this, farms will introduce 7-10 field crop rotation schemes, with corn cultivation of at least 5-10% of cultivated land, and 10-15% of alfalfa planting, which will help to strengthen the livestock feed base and increase the natural fertility of the land.[11]

2. Systematize and increase the volume of concentrated feeds enriched with nutrients, vitamins, macro-micro elements and other nutrients on the basis of JSC "Uzdonmahsulot" and other private grain processing enterprises. Free sale of cotton seeds and sheets to farmers, dehkan farms and population through the shops and taking measures to reduce prices.

3. Provide up to 20% of the cost of private investment in the establishment, construction and equipping of livestock and meat breeding complexes in each district with at least 2-3 large dairy farms (20% covered in the Russian Federation) by commercial banks, to provide up to 50% of credit interest payments from the state budget to commercial banks to encourage the attraction of loans (up to 80% for dairy farming in Russia and 100% for meat).

4. Supporting the activities of breeding farms and research centers through subsidies from the state budget, expanding the sale of pedigreed livestock and their offspring to farmers, dehkan farms and the public.

5. Increasing incentives for farmers and dehkan farms to insure livestock and poultry against various diseases and natural disasters by covering up to 50% of the state budget (up to 50% in the Russian Federation).

6. Ensure that each area has a veterinary clinic for vaccination, monitoring and treatment of livestock for various diseases, and that vaccination is funded from the state budget.

7. State financing and systematic work on restoration of pasture condition and productivity, creation of amenities for grazing livestock (water supply, restrooms, etc.).[9]

One of the promising areas of development of the country is the implementation of investment projects for the construction, reconstruction and modernization of existing processing facilities, equipped with the modern high-tech equipment for the production of semi-finished and ready-made food and packaging products based on deep processing of agricultural products. [10]

Decree of the President of the Republic of Uzbekistan dated March 5, 2016 No PP-2505 "On measures for further development of raw material base of fruits and vegetables, meat and dairy products for 2016-2020, deepening their processing, increasing production and export of food products” In accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan the total number of investment projects on construction, reconstruction and modernization of existing enterprises for the total amount of $ 595 886,3 thousand Adaptation is planned (Table 2).
Impact Factor:

| Impact Factor | ISRA (India) | SIS (USA) | ICV (Poland) | ISI (Dubai, UAE) | PHHH (Russia) | PIF (India) | GIF (Australia) | ESJI (KZ) | IBI (India) | SJIF (Morocco) | SIS (USA) | RIHNC (Russia) | ICV (Poland) | OAJI (USA) |
|----------------|-------------|-----------|--------------|------------------|---------------|-------------|----------------|-----------|-------------|----------------|----------|----------------|--------------|-----------|
|                | 4.971       | 0.912     | 6.630        | 0.829            | 0.126         | 1.940       | 0.564          | 7.716     | 4.260       | 1.167          | 0.350   | 0.126          | 0.564        | 0.350     |

Table 2. Investment projects on construction, reconstruction and modernization of new enterprises for deep processing of agricultural products for 2016-2020

| Number and direction of projects | Total cost of projects | Including by sources of financing: |
|---------------------------------|------------------------|-----------------------------------|
|                                 |                        | Own finance | Bank credits | foreign investment and loans |
| Total (180 projects)            | 595 886.3              | 242 916.7  | 189 461.6   | 163 508.0 |
| including                       |                        |           |            |            |
| New Construction (141 projects) | 463 267.3              | 169 714.7  | 144 324.6   | 19 828.0 |
| Reconstruction and modernation (39 projects) | 132 619.0      | 73 202.0  | 45 137.0   | 14 280.0 |

According to the resolution, in 2016-2020 138 fruit and vegetable processing capacities will be 138 with 99 100 tons, 46 for processing meat products with 16 500 tons, 79 for dairy products and 34 850 tons. - commissioning of 153 new food processing enterprises with the capacity of 26 840 tons.[12]

Livestock breeding is one of the main and large agricultural sectors. This sector accounts for about 39% of gross agricultural output. The development of the livestock sector will help meet the population's demand for meat and dairy products, supply the processing industry with raw materials, and ensure employment and income growth.[13;14]

As a result of radical economic reforms and structural changes in the sector and the implementation of government programs, the sector has been developing dynamically. In particular, in recent years there has been a steady increase in the number of livestock in Uzbekistan (Table 3).

Table 3. Dynamics of livestock population growth in the Republic (at the end of the year in all categories of farms), thous

| Indicators          | 2006 y | 2008 y | 2010 y | 2012 y | 2014 y | 2016 y | 2016 y. to 2006 y., % |
|---------------------|--------|--------|--------|--------|--------|--------|-----------------------|
| Cattle and cattle cows | 7044.6 | 8026.3 | 9094.7 | 10141.3| 10995.2| 12181.4| 172.9                 |
| Sheep and goats     | 12016.2| 13523.3| 15340.9| 17128.8| 18438.9| 19697.9| 163.9                 |
| Pigs                | 93.1   | 97.8   | 100.0  | 95.2   | 87.8   | 85.6   | 91.9                  |
| Birds               | 24188.4| 29505.4| 37733.3| 47485.8| 56276.3| 67037.7| 277.1                 |
| Horses              | 162.4  | 175.8  | 187.3  | 202.2  | 213.4  | 221.4  | 136.3                 |

Source: State Committee on Statistics of the Republic of Uzbekistan. Compiled on the basis of statistical collections of agriculture in Uzbekistan

The total number of cattle in the country for the period 2006-2016 increased from 7,044,600 to 12,181,400, or by 72.9%, including 2,292,500 and 4,177.3 thous., By 4%, number of sheep and goats from 12 016,2 thousand to 19 697.9 thousand or 63.9%, number of poultry from 24 188,4 thousand to 67 037.7 thousand or 177.1%, number of horses - 162 , An increase from 4,000 to 221.4 thousand, or by 36.3%.

As a result of the increase in number of livestock and modernization of the industry, meat production in all categories of farms in 2006-2016 increased by 90.6%, milk - by 99.8%, eggs - by 89%. Positive results were achieved by 1%, wool - by 73.4%, leather - by 45.2% and cocoons by 30.0% (Table 4).
It is not a secret that, despite the fact that the livestock sector of the country is one of the fastest growing sectors, there are some problems in the industry that are still awaiting their solution. These include the lack of high-yielding and disease-resistant breeds of livestock and the creation of a sound animal feed base.[15]

**Conclusions**

In our opinion, we believe it is expedient to take a comprehensive systematic approach to the more intensive development of the livestock sector. Including:

1. Expanding the range of feed crops for livestock in the composition of crops. To do this, farms will introduce 7-10 field crop rotation schemes, with corn cultivation of at least 5-10% of cultivated land, and 10-15% of alfalfa planting, which will help to strengthen the livestock feed base and increase the natural fertility of the land.

2. Systematize and increase the volume of crop rotation schemes, with corn cultivation of at least 5-10% of cultivated land, and 10-15% of alfalfa planting, which will help to strengthen the livestock feed base and increase the natural fertility of the land.

3. Provide up to 20% of the cost of private investment in the establishment, construction and equipping of livestock and meat breeding complexes in each district with at least 2-3 large dairy farms (20% covered in the Russian Federation) by commercial banks, to provide up to 50% of credit interest payments from the state budget to commercial banks to encourage the attraction of loans (up to 80% for dairy farming in Russia and 100% for meat).

4. Supporting the activities of breeding farms and research centers through subsidies from the state budget, expanding the sale of pedigree livestock and their offspring to farmers, dehkan farms and the public.

5. Increasing incentives for farmers and dehkan farms to insure livestock and poultry against various diseases and natural disasters by covering up to 50% of the state budget (up to 50% in the Russian Federation).

6. Ensure that each area has a veterinary clinic for vaccination, monitoring and treatment of livestock for various diseases, and that vaccination is funded from the state budget.

7. State financing and systematic work on restoration of pasture condition and productivity, creation of amenities for grazing livestock (water supply, restrooms, etc.).

**References:**

1. Campbell, R. M., Stanley, L. B., Sean, M. F. (2012). *Microeconomics: Principles, Problems and Policies.* (pp.392-395). New York. The McGraw-Hill Companies, Inc.

2. Asteriou, D., & Hall, S. G. (2007). *Applied econometrics. A modern approach using Eviews and Microfit. Revised edition.* Palgrave Macmillan, (p.397). New York.
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3. Abduganiev, A., & Abduganiev, A.A. (2011). *Agricultural Economics*. Textbook. (p.63). Tashkent: Adib.
4. Bunkina, M.K., Semenova, A.M., & Semenov, V.A. (2000). *Makroekonomika: Uchebnik*. - 3-e izd. (p.512). Moscow: “Delo i servis”.
5. Vakhabov, A.V., Khajibakiev, S.H., & Muminov, N.G. (2010). *Foreign investment*. Tutorial. Under the general editorship of Doctor of Law, Professor AV Vakhabov(Ed.). (p.256). Tashkent: Finance.
6. Granberg, A.G. (2003). *Fundamentals of the regional economy*. (pp.113-114). Moscow.
7. Gutman, G.V., et al. (2002). Management of the regional economy / G.V. Gutman, A.A. Miroedov, S.V. Fedin; under the editorship of G.V. Gutman (Ed.). (p.176). Moscow.
8. Dehkanova, N. (2007). *Economic geography*. Methodical guide. Tashkent State University. (pp.8-9). Tashkent.
9. Idrisov, G.I. (2016). *Russian industrial policy in an open economy*. The dissertation for the degree of Doctor of Economic Sciences. (p.38). Moscow.
10. Kuznetsova, A.I. (2010). *Infrastructure: Issues of theory, methodology and applied aspects of modern infrastructure arrangement*. Geoeconomic approach. Ed. 2nd. (p.456). Moscow: KomKniga.
11. Kayumov, A., Nazarova, H., Egamberdiev, F., & Yakubov, U. (2004). *Regional Economy*. Tutorial. NUU named after M.Ulugbek. Tashkent.
12. Artykov, A. (2009). "*Industrial Economics*". Textbook. (p.304). Tashkent: TDIU.
13. (2011). The main trends and indicators of the economic and social development of the Republic of Uzbekistan over the years of independence (1990-2010) and the forecast for 2011-2015. Stat. Sat. (pp.70-71). Tashkent: Uzbekistan.
14. Pakhomova, N.V., & Richter, K.K. (2010). *The economics of industry markets and government policy*. (pp.586-590). Moscow: MSU.
15. Porter, M. (2000). *Competition*. (p.235). Moscow: Williams Publishing House.