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AGRICULTURE OF UKRAINE: STATE AND DEVELOPMENT PROSPECTS

У статті представлено стан та проблеми розвитку агропродовольчого виробництва в Україні. Досліджено основні чинники, що блокують економічний розвиток аграрної сфері, зокрема: диспропорції між окремими галузями АПК, недостатня забезпеченість фінансовими ресурсами, низький рівень технічного та технологічного оснащення, значний обсяг імпорту продовольства, скорочення частки державної підтримки тощо.

Обґрунтовані основні напрями державного регулювання аграрного виробництва в частині фінансової підтримки виробників через механізм здешевлення кредитів, виплати дотацій, що сприятиме підвищенню окупності витрат та прибутковості. Особливий акцент зроблено на розвиток аграрної освіти та науки.

Ключові слова: сільське господарство, перспективи розвитку, економічний ріст, диспаритет, державне регулювання, аграрна освіта та наука.

Problem definition and its relation to important scientific or practical issues. Agriculture may stop being a source of growth of the national economy. Apart from the obvious scales of the industry and its ability to ensure the economic growth demonstrates the potential of market and non-market sub-sectors of agriculture which stimulates high growth in other sectors of the economics through the multiple effect. According to the World Bank estimations based on a comparison of the world countries rates, GDP growth due to the growth of agriculture, is at least twice as efficient in poverty reducing as GDP growth obtained in other industries.

Analysis of recent researches and publications. The problem of the Ukrainian agricultural development efficiency has been discussed in the papers of famous national economists like O.Shubrasv’ka, B.Pasxaver, V. Andrijchuk, O.Shpy’chak, P. Sabluk, L. Moldavan etc. But nowadays, the problem of forming an efficient mechanism which will create opportunities for economic development of agrarian sphere is still unsolved.

Aim of the our research is identify of main development prospects of domestic agriculture sector for create opportunities of economic growth in national economy.

The main results of research. Agriculture is the foundation of the economy of any country. Even the most progressive industrial countries invest big money into domestic agriculture development. It provides vital human products like food and raw materials for the consumer goods production.

In Ukraine agricultural sector has always occupied a leading position in solving its economic and social problems. It is agriculture growth that we hope to provide poverty overcoming and to take our country among industrialized countries.

The agricultural sector concentrates natural resource potential, varied favorable climatic conditions which creates opportunities for the production of high-quality agricultural products, food security, positioning the country in the global food market. In the 2013 year 17,53 % of the employed population are engaged in agriculture; 9,1% of gross domestic product is produced in it.

In addition, its development is important in the view of the preparation of Ukraine's accession to the EU since agricultural products and food industry make a significant part of Ukrainian exports. Nowadays food products exports has replaced the decrease in exports of Ukraine traditional industries like metal manufacture and chemical industry.

Land is one of the key factors in the development of agricultural. Ukraine is the world second country in terms of arable land share in the total area of the country. Arable land makes 56% of total area of the country. The bigger is the share only in Denmark – 58.9 % of the area is cultivated [ 1 ]. By the beginning of 2014 the total agricultural land area was 41525,8 thousands hectares (70,8% of the total in Ukraine) of which 32525,5 thousands hectares was made up by arable land [2].

The industry has been in a very difficult financial and economic conditions recently, and it has faced a number of significant challenges like:
- extremely limited opportunities in drawing investments and loans;
- ineffective system of registration of leasing rights of agricultural land;
- excessive regulation in economic activity, which creates opportunities for corruption;

- the lack of legislation aimed to the facilities economic activity in agriculture;
- disparity in prices for inputs in agriculture: fertilizers, pesticides, fuel and agricultural products.

However, even under a deep crisis, the industry keeps growing (Figure 1).

Analysis of dynamics of agriculture production is shows that in 2013 year the indices of gross agriculture production increased in comparison with the 2012.

Specifically, in 2013 the gross production volume in agricultural sector amounted to UAH 253.7 billion, which exceeded the record of 2011 by $20 billion when the amount of agriculture products made 233.7 billion. USD. (in prices of 2010) [2].

However, this growth in agriculture can not be considered sustainable because it is provided due to large agricultural market enterprises - holdings - and favorable conditions in world commodity markets, while the most advantageous in terms of the strategic objectives of investment in modern technology, innovation, and science are not implemented.

A large-scale concentration of land use has been taking place since 2004. It is evident in leased land area increase, as well as in new holdings rapid creation, vertically and horizontally integrated structures, which include not only agricultural formation, but also processing enterprises, elevators, transport and trade organizations, research institutions and others.

![Figure 1. Agricultural production Dynamics (comp. with the previous year)](image-url)

They concentrate hundreds of thousands of hectares of land and monopolize the benefits of international trade in agricultural products and food. Most of them use IPO to raise funds for further development and expansion, alongside with the possibility to register the parent company offshore to optimize their financial flows.

Nowadays there are 75 holdings in Ukraine, their land banks size has reached about 6 million hectares, or 16% of the total area of agricultural lands owned and used by agricultural enterprises and individuals. A typical feature of economic holdings is unsustainable land use, crop rotation failure, excessive use of pesticides, herbicides and crop protection products. Increasing exports of grains and oilseeds reinforces the image of Ukraine as a supplier of raw materials.

As to the environmental situation, it is characterized with catastrophic state of the soil (almost a third of all arable land is eroded), depletion of land resources by the tenants. Breaking crop rotation and rational crops structure demands they have been growing the most profitable crops – wheat, barley, sunflower and canola, corn for years.

Financial position of the agricultural sector deteriorates with the increase in incomes of agricultural holdings, grain traders, processors, and other agribusiness representatives, their development potential is exhausted, the level becomes threatening rural communities development level is getting worse, only 20% of population are employed in agriculture. 26 villages disappear annually from the map of Ukraine [3]. Unemployment level has been rising.

The agricultural holdings reduce labor costs through the wide decrease in the number of employees (they provide employment only to one fifth of the working-age rural population). The industry is
characterized with the lowest wages among other labor activities (except for fishing and hunting) which is lower than the average national salary.

Table 1. – Average monthly nominal wage by type of economic activity (hryvnya)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>2239</td>
<td>2633</td>
<td>3026</td>
<td>3265</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>1472</td>
<td>1853</td>
<td>2086</td>
<td>2340</td>
</tr>
<tr>
<td>including agriculture</td>
<td>1430</td>
<td>1791</td>
<td>2026</td>
<td>2270</td>
</tr>
<tr>
<td>Industry</td>
<td>2570</td>
<td>3107</td>
<td>3478</td>
<td>3763</td>
</tr>
<tr>
<td>of which food, beverages and tobacco goods production</td>
<td>2138</td>
<td>2545</td>
<td>2891</td>
<td>3110</td>
</tr>
<tr>
<td>Constructions</td>
<td>1758</td>
<td>2270</td>
<td>2516</td>
<td>2702</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>1877</td>
<td>2342</td>
<td>2704</td>
<td>3010</td>
</tr>
<tr>
<td>Transportation and storage, postal and courier activities</td>
<td>2658</td>
<td>3071</td>
<td>3412</td>
<td>3589</td>
</tr>
<tr>
<td>Accommodation and food service activities</td>
<td>1455</td>
<td>1777</td>
<td>2055</td>
<td>2249</td>
</tr>
</tbody>
</table>

Source: Developed by Statistical Yearbooks of Agriculture in Ukraine [3].

The real and hidden unemployment raises the population migration and the subsequent deformation of its sex and age structure. The birth rate in the rural population per 1000 people dropped from 12.7 in 1990 to 11.4 persons in 2012 while the mortality rate increased from 12.1 to 14.5 thus making the natural increase negative (3.1 persons per 1000) [4]. As a result, villages are becoming depopulated, some of them even disappear. There are 8 thousand villages in Ukraine which have lost the opportunity of the population self-reproduction.

The social infrastructure in rural areas has been getting deteriorated significantly. During 2000-2013 the number of preschool institutions decreased by 46%, district hospitals - by 41.5%, shops - by 53.4%, restaurant industry objects - by 25.2%.

Only 22% of villages have electricity and only 2.6% of the are equipped with drainage system. Nowadays 1087 villages are not covered with regular bus service, 109 of them have no paved entrances. Modern private sector is represented mainly with small private farms (over 9 million of rural and urban households with land-use, including 4.5 million of private households) owning 55% of the industry gross production.

Low efficiency of agricultural production is typical of most farms as the yield of grain and leguminous crops in Ukraine was 39.9 cent / ha, average milk yield per cow in Ukraine was 4446 kg while in the abovementioned the figures were 8202, 9593, 7083, 6242 kg, respectively [2].

As to the financial results of the agricultural enterprises before taxation, they were 29602,8 mln hrn in 2013 which was 72281,9 mln hrn less than in 2012.

Table 2. – Financial results before taxation by type of economic activity (millions hryvnya)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial results before taxation</td>
<td>58334,0</td>
<td>122210,0</td>
<td>101884,7</td>
<td>29602,8</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>17291,8</td>
<td>25565,9</td>
<td>26992,7</td>
<td>16005,4</td>
</tr>
<tr>
<td>including agriculture, hunting and respective services</td>
<td>17305,2</td>
<td>25345,4</td>
<td>26843,1</td>
<td>15859,1</td>
</tr>
<tr>
<td>Industry</td>
<td>31221,1</td>
<td>58662,3</td>
<td>21333,4</td>
<td>13204,5</td>
</tr>
<tr>
<td>Construction</td>
<td>-4418,2</td>
<td>-3845,8</td>
<td>-71,1</td>
<td>-5547,2</td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>14883,5</td>
<td>21591,5</td>
<td>9608,0</td>
<td>-8572,5</td>
</tr>
<tr>
<td>Transporting and storage, postal and courier activities</td>
<td>5058,9</td>
<td>8341,4</td>
<td>7524,9</td>
<td>2470,1</td>
</tr>
</tbody>
</table>

Source: Developed by Statistical Yearbooks of Agriculture in Ukraine [3].

Among the main factors that block economic development of agrarian sector are: disparities between different areas of agriculture, insufficient provision with financial resources, a large volume of food imports, reducing the share of government support, poor technical and technological outfit etc.

The discrepancy in prices for raw industrial resources and the goods sold resulted in a capital outflow from the agricultural sector, it inhibits the development of relations between agriculture and other sectors. For example, prices for basic grains have grown by 12 times, on diesel fuel – by 86 times, and electricity prices have increased by 152 times over the past 15 years. Under constantly rising prices for energy, fuel and lubricants, fertilizers and farm machinery, under low purchase prices for agriculture products, many companies pull out their previous activities.

Poor equipment and technology and technology level which decelerates efficient functioning of the agrarian sector is a direct factor blocking economic growth under the current development of agriculture.
The amount of all tractors decreased by 54.21% during 2000-2013, grain harvesters number - by 53.8%, milking machines – by 66.56% (tab. 3).

Table 3. – Agricultural machinery in agricultural enterprises

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Tractors, thsd. pcs</td>
<td>318.9</td>
<td>216.9</td>
<td>151.3</td>
<td>147.1</td>
<td>150.1</td>
<td>146.0</td>
</tr>
<tr>
<td>per 1000 ha of arable land, pcs</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Grain harvester combines, thsd. pcs</td>
<td>65.2</td>
<td>47.2</td>
<td>32.8</td>
<td>32.1</td>
<td>32.0</td>
<td>30.0</td>
</tr>
<tr>
<td>per 1000 ha of grain sown area (without maize), pcs</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Maize harvester combines, thsd. pcs</td>
<td>7.9</td>
<td>4.8</td>
<td>2.5</td>
<td>2.3</td>
<td>2.1</td>
<td>2.0</td>
</tr>
<tr>
<td>per 1000 ha of maize sown area, pcs</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Potato harvester combines, thsd. pcs</td>
<td>3.6</td>
<td>1.9</td>
<td>1.7</td>
<td>1.7</td>
<td>1.6</td>
<td>1.5</td>
</tr>
<tr>
<td>per 1000 ha of potatoes sown area, pcs</td>
<td>13.5</td>
<td>11.7</td>
<td>9.9</td>
<td>9.8</td>
<td>9.9</td>
<td>13.0</td>
</tr>
<tr>
<td>Beet diggers, thsd. pcs</td>
<td>13.0</td>
<td>8.5</td>
<td>4.2</td>
<td>3.8</td>
<td>3.6</td>
<td>3.0</td>
</tr>
<tr>
<td>per 1000 ha of sugar beet (factory) sown area, pcs</td>
<td>16</td>
<td>17</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Flax harvester com-bines, thsd. pcs</td>
<td>1.7</td>
<td>1.0</td>
<td>0.5</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>per 1000 ha of flax sown area, pcs</td>
<td>72</td>
<td>41</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Milking, equipment, thsd. pcs</td>
<td>33.5</td>
<td>16.8</td>
<td>10.9</td>
<td>10.8</td>
<td>11.2</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Source: Developed by Statistical Yearbooks of Agriculture in Ukraine [3].

The main causes of the agriculture enterprises poor logistics are:
- lack of equity funding sources for technical re-equipment.
- increase in prices for new farm machinery. The average tractor price in 2013 increased by 59.34% compared to 2010, grain harvesters price - by 40.27%, corn harvesters price - by 94.14%, feed harvesters - by 32.03%, beet harvesters - bt 180.23%.
- reduce in the state support for machinery park modernization by means of financial leasing program. According to the Ministry of Agrarian Policy and Food of Ukraine, AIC needs 40 thousand tractors [5].

Organic fertilizers volumes are reduced due to the financial economic crisis in Ukraine. Also, agricultural products procurement and marketing infrastructure is poor, which causes significant losses in storage and transportation. Most elevators, built during the Soviet era, have outdated equipment and do not meet modern requirements for grain storage.

All the abovementioned factors indicate a lack of targeted policy measures aimed at ensuring the sustainability of the national food market and using potential benefits from Ukraine's presence in the world food markets.

Another major problem for farmers in the Ukraine is the high loan interest rates.

According to the NBU, in 2013 interest rates on agriculture loans amounted to 22-24% per annum. Ukraine has no agriculture insurance protection system against weather risks. In agriculture insurance risks are covered for less than 5% of the total acreage area, while for most leading countries this figure rises to 70-80%.

Thus, due to considerable number of unprofitable enterprises and comparatively low standards for agriculture production profit, the productive capital slow turnover, due to significant difference between the production time and work periodas well as poor protection of investors rights there is a low level of investment of the agricultural sector in Ukraine.

To solve the problem we need: to increase and ensure the appropriate use of funds for state support of agricultural sector; to take steps to mitigate inter-sectoral imbalances in economic relations and to create conditions for their alignment to ensure profit margins in agriculture at the level which is not lower than the average national economies.

To improve the financial condition of agricultural enterprises we need to improve credit policy, the essence of which is to reduce interest rates and to stimulate long-term loans. Implementing Institute of land sale and mortgage in Ukraine will open new opportunities for agricultural producers as well. It will allow implementing new financial schemes by purchasing agricultural machinery, in particular, to get a loan for purchasing necessary equipment by private owners is possible with a loan against privatized land.

State regulation of the sustainable development of agrarian sphere is reasonable to carry on under the following approaches:
- strict management of critical aspects of agricultural activities (using pesticides, herbicides, fertilizers, environmental impact of large livestock farms, compliance with crop rotation etc.);
- to introduce legislative techniques of financial and economic incentives for economic agents, subject to crop rotation, under implementation of measures preventing soil degradation and to legitimize responsibility for the requirements non-compliance.
For example, government support may be granted only to producers who observe crop rotation, take measures to prevent land degradation, and use well-handled fertilizers and pesticides. Farmers can expect to receive budget support for any government program if they follow rules and requirements of sustainable agriculture farming.

However, at the current stage of development of our state budget in the absence thereof budget funds we need to improve significantly the environmental responsibility of all business entities, nature users and nature contaminants on the legislative level. Violation of the requirements of resource and environmental security should be punished with administrative, economic and criminal liability for the environmental damage caused.

It should be noted that at present the main directions of state regulation of agricultural production in Ukraine are: financial support to producers through the cost reduction mechanism; milk and meat subsidies payments; surcharges for increased weight condition young cattle, conditioned pigs and broilers, thereby increasing profitability and recovery cost.

State support of agricultural education and science is rather important for the economic growth of agricultural production because through generation of educated professionals for sustainable development we can get weighty guarantees of balancing economic growth and sustainable use of the environment for present and future generations.

Ukraine must seek to expand exchange programs that allow young Ukrainian students to undergo practical training in agriculture and to attend technical colleges and universities abroad.

Thus, the current state of agricultural production in Ukraine needs to complete the agrarian reform urgently.

Ukrainian agrarian producers set great expectations that the new government that will act prudently and transparently. Ukraine has every chance to be transformed from a raw appendage into a major player in the global food market. Agricultural production is our perspective which can proved by the work of Bila Tserkva National Agrarian University with its modern teaching and research center where innovative technologies in animal husbandry and crops production are implemented and the students have the opportunity to study here.

Conclusions of this research and prospectives for further research in this direction. To achieve economic growth Ukraine should overcome a number of problems precluding agriculture growth, particularly declarative nature and ineffectiveness of state programs of agriculture development, poor market infrastructure, informational vacuum of rural population, lack of finance, agriculture machines park deficiency (about 10 thousand units), prices instability, technologies obstacles, instable and ineffective legislation etc.

LITERATURE

REFERENCES

Сельское хозяйство Украины: состояние и перспективы развития

В статье представлены состояние и проблемы развития агропродовольственного производства в Украине. Исследованы основные факторы, блокирующие экономическое развитие сельского хозяйства, в частности: диспропорции между отдельными отраслями АПК, недостаточная обеспеченность финансовыми ресурсами, низкий уровень технического и технологического оснащения, значительный объем импорта продовольствия, сокращение доли государственной поддержки и т.д. Обоснованы основные направления государственного регулирования аграрного производства в части финансовой поддержки производителей через механизм удержания кредитов; выплаты дотаций для способствования повышения окупаемости затрат и прибыльности. Особый акцент поставлен на развитие аграрного образования и науки.

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Ключові слова: сільське господарство, перспективи розвитку, економічний ріст, диспропорція, державне регулювання, аграрне освіта та наука.

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