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FARMS AS THE BASE OF SUSTAINABLE AGRICULTURE: UKRAINE REALITIES AND INTERNATIONAL EXPERIENCE

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ФЕРМЕРСТВО ЯК ОСНОВА СТАЛОГО РОЗВИТКУ АГРАРНОГО СЕКТОРУ: УКРАЇНСЬКІ РЕАЛІЇ ТА СВІТОВИЙ ДОСВІД

The role and the value of the farms in the modern economic system and development of the agriculture sector have been evaluated in this article. The place of the farms in the foreign agriculture systems and in the national agriculture sector has compared. The need of the development of farmers and small enterprises as a necessary step to the sustainable agriculture growth and booming has been proved. Moreover, it has been indicated that the problem of the decrease of small farmers is becoming more and more important all over the world, as well as the number of huge agricultural enterprises and latifundios is growing faster than ever before is creating the challenges for the sustainable agricultural and economic development. The aim of the article was to determine the modern trends in the farms development in Ukraine and foreign countries, as well as to identify the issues and suggest the system of the methods to support the farmers in Ukraine that are based on the implementation of international experience.

During the research the statistics of information that presents a great number of the farms in Ukraine during the previous years have been analysed and the main issues of the farm development have investigated in this article. The comparison of numerous farms in Ukraine and in the USA has been done. The experience of the USA in the methods, tools and programmes of the government support of farms and agricultural sector at all levels have presented. Such programmes as "Broadband", "Drought", "Insurance Programs", "Conservation" that are being used in the USA for the farmers support have been presented and analysed by their influence on the farm-development has been investigated. The agricultural extension service work and its influence on the farmers have been presented.

The perspectives of farm development in Ukraine and the methods of governmental support that can be implemented in the country have indicated and have presented as the results of the research in this article.

У статті визначено роль та значення фермерства в сучасній економічній системі і розвитку аграрного сектора. Досліджено місце фермерства в закордонних сільськогосподарських системах, та в національному аграрному секторі. Доведено необхідність розвитку фермерства і малих сільськогосподарських підприємств як основи стійкого та стабільного розвитку сільського господарства України. В ході дослідження виявлено, що у всьому світі проблема зменшення кількості дрібних сільськогосподарських підприємств та фермерів набуває все більшого значення, з урахуванням фактору зростання земельних площ та кількості латифундій, що створює загрозу для сталого розвитку сільського господарства, сільських територій і економічного добробуту країни. Метою статті було визначення сучасних тенденцій розвитку фермерських господарств в Україні і за кордоном, виявлення проблем та розробка систем методів для підтримки фермерів в Україні на основі впровадження міжнародного досвіду.

У статті було досліджено кількість ферм в Україні протягом останніх років та виявлено основні перешкоди розвитку фермерських господарств, здійснено співставлення кількості ферм в Україні та США. Вивчено досвід США щодо методів, інструментів і програм державної підтримки фермерських господарств і аграрного сектору. Проаналізовано роботу дорадницьких служб у США та її позитивний вплив на діяльність фермерів. У результаті проведеного дослідження представили перспективи розвитку фермерських господарств в Україні і методи державної підтримки, розроблені на основі світового досвіду, які можуть бути реалізовані в країні.

Keywords: *Farming, sustainable development, agriculture, economic development, agriculture policy, governmental support.*

Ключові слова: *фермерство, сталий розвиток, сільське господарство, економічний розвиток, аграрна політика, державна підтримка.*

The Problem Statement. Agriculture faces many challenges, making it more and more difficult to achieve its primary objective feeding the world – each year. Population growth and changes in diet associated with rising incomes drive greater demand for food and other agricultural products, while global food systems are increasingly threatened by land degradation, climate change, and other stressors [1].

The ways to achieve higher efficiency of agriculture production is one of the most important questions all over the world. A lot of scientists have agreed that the development of the farmers and small enterprises is necessary step to sustainable agriculture growth and booming. But, all over the world the problem of the decrease of small farmers is becoming more important as well as the number of huge agricultural enterprises and latifundios is growing.

A major explanation for the relative economic inefficiency of farming the fertile land on the latifundios is simply that the wealthy landowners often value these holdings not for their potential contributions to national agricultural output but rather for the considerable power and prestige than they bring (Michael P. Torado, 2015). At the same time, we must take into consideration that latifundio transaction costs, especially the cost of supervising hired labor, are much higher than the low effective costs of using family labor on family farms or minifundio [2].

To sum up, the agriculture needs the governmental influence that can be realized through the agriculture policy. Modern agriculture policy should be aimed to support of small and medium-size farmers and create the balance between different types of enterprises.

Previous Researches and Publications. Different aspects of the farming development and sustainable agricultural have been analysed by national and foreign scientists. The biggest contribution into the methodology and practice of farm development in Ukraine have been made by Petro Sabluk, Mykhailo Kropuvko, Grygoriy Kaletnik, Vasiliy Andriichuk, Borys Pashaver, Olena Shubravska. A lot of attention to sustainable agriculture and agriculture policy was paid in the investigations of Michael P. Torado David Norman, Rhonda Janke, Stan Freyenberger, Bryan Schurle, and Hans Kok.

The Purpose of the Article is to determine the modern trends in the farm- development in Ukraine and foreign countries, identify the issues and suggest the system of the methods to support farmers in Ukraine based on the implementation of international experience.

The Essence of the Article. Many definitions of sustainable agriculture have been proposed, but one of the first to be adopted in the US was published by the American Society of Agronomy: "A sustainable agriculture is one that, over the long term, enhances environmental quality and the resource base on which agriculture depends; provides for basic human food and fiber needs; is economically viable; and enhances the quality of life for farmers and society as a whole."

The following year, the United States Congress also defined sustainable agriculture in the 1990 Farm Bill. Under that law, the term sustainable agriculture means an integrated system of plant and animal production practices having a site-specific application that over the long term will:

- Satisfy human food and fiber needs.
- Enhance environmental quality and the natural resource base upon which the agricultural economy depends.
- Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls.
- Sustain the economic viability of farm operations.
- Enhance the quality of life for farmers and society as a whole.

Thus, the official, or legal, definition has five parts, emphasizing productivity, environmental quality, efficient use of nonrenewable resources, economic viability, and quality of life.

In 1996, focus group discussions were held with some Kansas farmers who are practicing sustainable agriculture. For them, agricultural sustainability consists of three components: ecological, economic, and social/institutional (quality of life). In order to achieve these, they recognized three important "processes": full use of the natural biological cycles, reducing as much as possible the use of purchased inputs, and reducing the frantic work schedules of many farm families. Thus, their perception of sustainable agriculture is similar to the more formal definitions mentioned earlier [3].

In conclusion it must be said that the success of agricultural development and its sustainability depend from efficient farming and resources using. A thriving smallholder farm sector can be an engine for rural development that is more equitable, sustainable, and productive than one based on a large-scale farm model. Currently, the world's 500 million smallholder farmers, farmers who manage less than 10 hectares of land, produce as much as 80 percent of the food consumed in Africa and Asia.

In fact, studies from around the world focused on the relationship between farm size and agricultural productivity have repeatedly shown that, in general, small farms are more productive than large farms [4].

As the experience of the EU showing, the EU farmers have the special role in rural development and economics growth. Today's generation of farmers combines the roles of farmer, steward of the countryside and entrepreneur. The reforms made farmers more market-oriented. Some of them process food on the farm and sell it locally, boosting the rural economy. Farmers support their communities through rural tourism, new business creation and cultural activities. In the process they help secure the future for coming generations of farmers [5].

The agriculture is the base sector of the economic development in Ukraine. More than 35 % of the total export of Ukraine has consisted of agricultural products and food in 2015. As a result, future growth of the country's economy depends a lot from the successful agriculture development.

The strategic direction of the development of the Ukrainian's economy create the need to transform the agriculture into the highly competitive sector of the economy, it should be able to integrate into the global agricultural market system. As the result it is necessary to providing of agrarian formations that would most fully answered market changes and be competitive. The investigation that have organized by national and foreign scientists shows that sustainable agricultural production should be based on the principles of entrepreneurship including proper place of the farming [6].

Small-scale producers and small farmers make a substantial contribution into the total production of agricultural products. Of the total value of gross agricultural production, which in 2013 amounted to 252 859 millions, the total contribution of households and farms was 135 359, 5 millions or 53,5%, when the inputs of the big agricultural enterprises was 117499, 5 that is equal – 46,5 % [7]. The structure of the agricultural enterprises in Ukraine according to the types is presented in Figure 1.

As the Figure 1 shows, farms are the largest group between the other organization forms in agriculture, it is more than 75 percent. As the result, farmers are perspective form and need governmental support and stimulation for development.

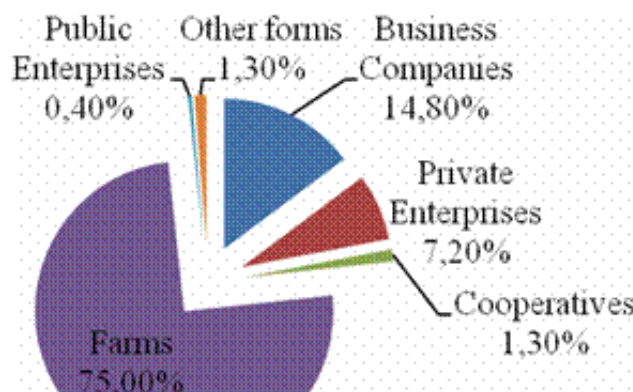


Figure 1. Structure of the Agriculture Enterprises in Ukraine, 2016
[Design by Author based on Resource 8]

As Dr. Lupenko has shown in his research: “A major challenge to the sustainable agriculture development is reducing of the number of small (especially farmers) - entities.. The rapid decline in income of domestic consumers is hindering the growth of prices of domestic agricultural markets. This is more vulnerable in the face of rising prices for means of production and deteriorating financial software industry is small agricultural producers” [9].

Figure 2 is presented that the number of farms in Ukraine during the last four years has become less. Such tendency of the development approves the need of stimulation farming growth.

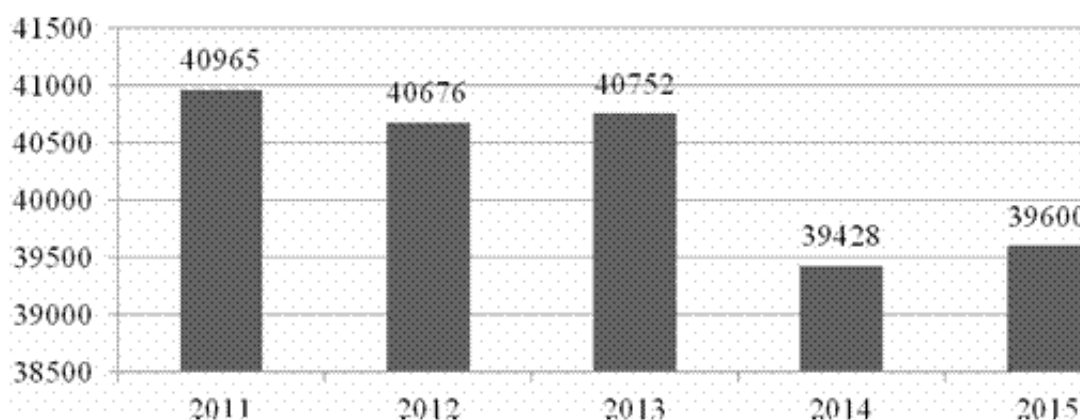


Figure 2. Number of the Farms in Ukraine, 2011 – 2015
[Design by Author based on Resource 8]

The result of investigations, provided by Dr. Kornilov and Dr. Abramovich shows that the main problems that hinder and inhibit the development of farms are:

- the weak financial and credit support to farmers from government;
- the problems with access to the markets;
- disparity in prices for crop and livestock production;
- the lack of adequate quantities of seed capital to create a farm;
- weak material and technical base of farms;
- the lack of the funds for renewal of the equipment, techniques and technologies;
- high percent for loans;
- low and ineffective information and advisory providing farmers [10].

Great experience of support and developing farms has the USA. Today in the USA small farms account for 91 percent of all farms and 23 percent of agricultural production. Small commercial farms have a product mix distinctly different from that of larger farms: small commercial farms focus on commodities that do necessarily require a full-time commitment of

labor-poultry, beef (generally cow/calf or stocker enterprises), hay, and grain/soybeans. High-value crops (vegetables, fruits and tree nuts, and nursery and greenhouse products) and dairy play a minor role in farm production on small commercial farms, but make up 44 percent of production on very large farms.

Table 1.
Number of Farms and the Average Farm Size in the USA, 2009 – 2015

| Year | Number of farms, thousand | Average farm size, acres/ hectares |
|------|------------------------------|---------------------------------------|
| 2009 | 2 169 | 423/ 171,2 |
| 2010 | 2 149 | 426 / 172,4 |
| 2011 | 2 131 | 429/ 173,6 |
| 2012 | 2 109 | 433/ 175,2 |
| 2013 | 2 102 | 435 / 176,0 |
| 2014 | 2 085 | 438 / 177,3 |
| 2015 | 2 067 | 441/ 178,5 |

[Design by Author based on resource 13]

The USA farm production continues to shift to larger operations, while the number of small commercial farms and their share of farm sales continue a long-term decline.

The U.S. government heavily subsidises grains, oilseeds, cotton, sugar, and dairy products. Most other agriculture including beef, pork, poultry, hay, fruits, tree nuts, and vegetables (accounting for about half of the total value of production) receives only minimal government support. U.S. farm programs have cost about \$20 billion per year in government budget outlays in recent years. But budget costs are not a particularly useful measure of the degree of support or subsidy. Some subsidy programs, such as import tariffs, actually generate tax revenue for the government but also impose costs on consumers that exceed the government's revenue gain [12].

Moreover, Government of the USA provided different programmes to support the rural development and farmers, such as:

1. **Broadband.** This program is designed to provide loans for funding, on a technology neutral basis, for the costs of construction, improvement, and acquisition of facilities and equipment to provide broadband service to eligible rural communities.

2. **Drought.** Natural disaster is a constant threat to America's farmers and ranchers and rural residents. USDA provides assistance for losses that result from drought, flood, fire, freeze, tomadoes, pest infestation, and other calamities.

3. **Insurance Programs.** To help users better understand crop and livestock insurance, USDA provides critical tools and policy and reinsurance agreement information and details the insurance cycle from the application process to the claims process.

4. **Conservation.** Conservation programmes within USDA assist owners of America's private land with conserving their soil, water, and other natural resources. Certain programs also provide financial assistance for agricultural producers to rehabilitate farmland damaged by natural disasters and pests [13].

One powerful tool that helps farmers in the USA be successful and efficient is agricultural extension services. Agricultural extension educational programmes around the world have developmental roots, utilising applied research knowledge to help farmers deal with identified problems focusing primarily on production practices. The approach is on problem solving in response to a learner-defined obstacle (pests, disease, low yields) with the intent of improving learners' welfare (increased yields, higher net returns). The initial focus of extension work is on the adoption of fixed, generalizable research-based practices and decisions such as technology adoption and adjustments to deal with common farming problems.

In the U.S, nearly 550 university affiliated economists currently support the mission of the Cooperative Extension Service; 21 per cent are marketing economists and 9 per cent hold agribusiness appointments. Extension economics work focuses on integrating knowledge generation, information dispersion, and choices for farming and agricultural business decision making. This work integrated contemporary issues including market structural change and public policy influences and impacts on the farmer's management decisions [14].

Conclusion. To sum up the results of the research, farms are the most important organisation form in agricultural sector. Efficient farm-development is the base of sustainable agriculture and economic booming. Ukrainian economics and agricultural growth depend from farm-productivity. It is create the need of the governmental support and use of different methods and tools of stimulation. The author is convinced that the most efficient method of the stimulation of farm-development is Extension Services that are able to provide the support and give advices or the farmers. Furthermore, according to the international experience Ukraine needs to create different Programmes to support the farmers: such as low percent loans and insurance Programmes.

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Вропу

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