



COOPERATION AS A FACTOR FOR SUSTAINABLE AGRICULTURE

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ABSTRACT

The cooperative as a legally organizational form of farming in agriculture is directly related to the social and economic development of the regions and the country. Not only large producers, but also small farms can participate in cooperation, which contributes to increasing their competitiveness. The cooperative is a good form of interaction between agricultural producers and an effective way to ensure sustainable development of agriculture. The purpose of this paper is to explore the possibilities of the cooperation of different individuals with aim to achieve sustainable agriculture.

Key words: cooperative, sustainability, agriculture, trends, cooperation, unification.

INTRODUCTION

The cooperative, as a form of association, can consist of different number of individuals with the purpose of mutual assistance, support, cooperation and satisfaction of different interests, having a different object of activity. (1) In addition to agricultural cooperatives, there are labor cooperatives, consumer cooperatives, housing cooperatives and others. The main aim of cooperatives is satisfying the needs of its members. Through proper and successful cooperation it is possible to develop sustainable agriculture.

In the period after Bulgaria has been admitted in the European Union, a number of projects and financings are being developed to stimulate agriculture in the country

METHODS

The following methods and approaches are used to achieve the purpose of the study: systematic and comparative analysis; Method of statistical groupings, inductive and deductive methods for generalizing summaries.

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RESULTS

of the "Law on Cooperative Associations" from 1907 can be identified as a fundamental factor for cooperation through legal forms. The first Bulgarian cooperative is the Mirkovo's Loan, Savings and Agricultural cooperative "Oralo", which was established on October 26, 1890 in the village of Mirkovo, Sofia region. (2)

In the period from 1992 to 1994, the land was returned to its real boundaries to its owners. In this period, many landowners took action to alternatively unification of agricultural territories and other resources into agricultural production cooperatives.

The cooperative as a form of organization of production became preferred due to a decrease in the local population in the villages and the low average size of land ownership. Due to this reason it is difficult to organize the production of agricultural products, which is vitally important for feeding the population.

In the period after the 1990s, an increase in agricultural cooperatives was observed, caused by the unstable economic conditions and the advantages of cooperatives. A trend that gradually stabilized and the number of cooperatives decreases until 1999.

During this period, a deterioration of the economic indicators of the cooperatives was observed, as a

result of unfavorable climatic conditions, low purchase prices, weaknesses in marketing, inconsistent state policy in the grain yield sector, etc. The lack of interest in the development and improvement of the material base and the modernization of technologies is growing, which contributes to a continuing tendency of decreasing the number of cooperatives after 1999. Legislation is constantly being improved, but this does not contribute to improving the conditions of agricultural production and the negative trends proceed to develop. (3)

According to a census and the summarized data from the Agrostatistics Department of the Ministry of Agriculture, the number of agricultural farms continues to decrease, including the number of cooperatives - **Figure 1** Change of number of producers according to their legal organisation.

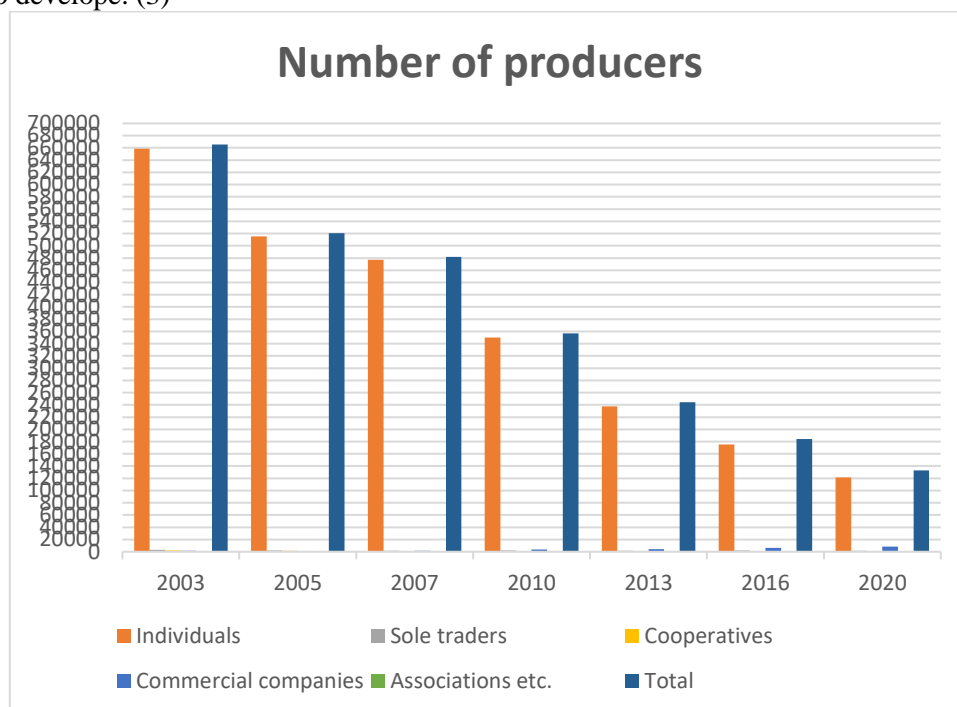


Figure 2. Change of number of producers according to their legal organisation

Source: Ministry of Agriculture, "Agrostatistics", Results of census of agricultural holdings in Bulgaria in 2007, 2010, 2013, 2016, 2020

A trend for a constant and smooth decrease in the number of cooperatives can be distinguished as the figure shows **Figure 3** Change of number

of cooperatives during the period 2003 – 2020. Sources: (4), (5)

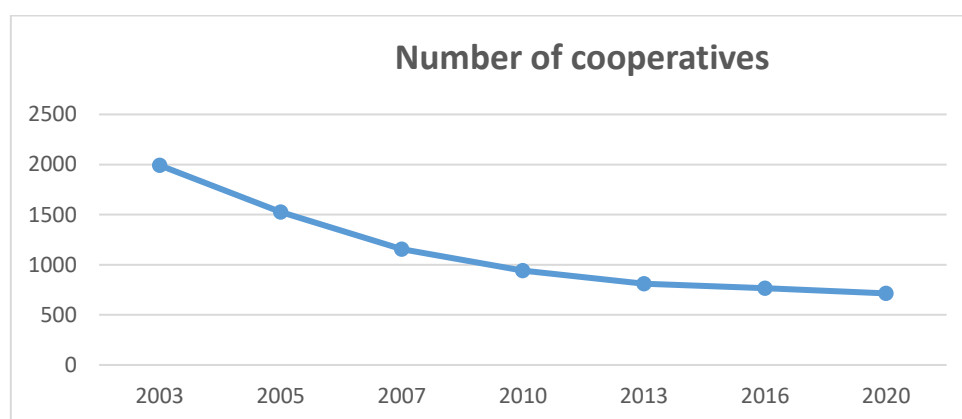


Figure 4. Change of number of cooperatives during the period 2003 - 2020

Source: Ministry of Agriculture, "Agrostatistics", Results of census of agricultural holdings in Bulgaria in 2007, 2010, 2013, 2016, 2020

On the basis of past statistical data for the period from 2003 to 2020, a forecast was prepared using a linear trend to predict the development of the number of cooperatives by averaging data on the number of cooperatives for the past period while excluding other variables. When

applying the model, the following estimated development of the number of cooperatives for the period from 2021 to 2030 is established as results **Figure 5** Forecast of numbers of cooperatives for the period from 2021 to 2023.

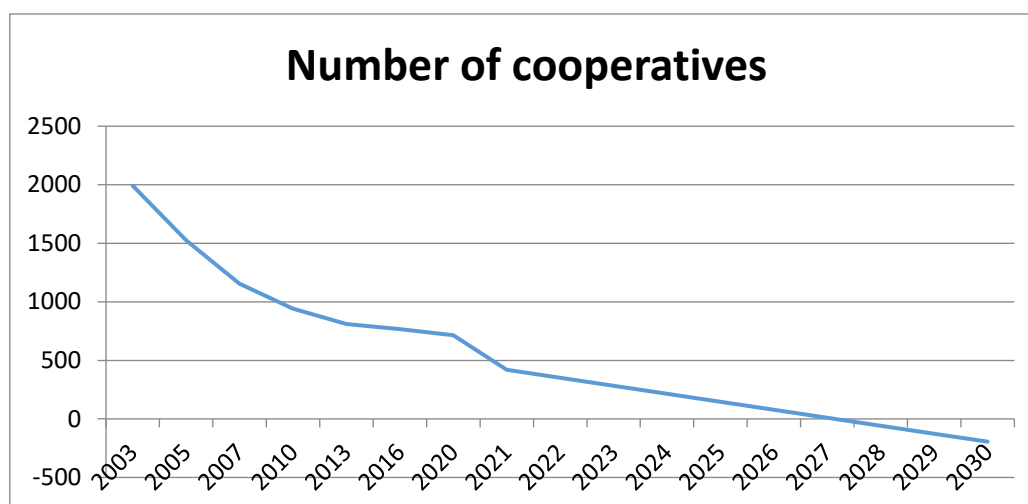


Figure 6. Forecast of numbers of cooperatives for the period from 2021 to 2023

Source: Ministry of Agriculture, "Agrostatistics" and own calculations

The results show that if conditions of development and financial stimulation of Cooperatives from before 2020 are maintained, the number of Cooperatives will continue to decrease. The forecast is made without taking into account other external factors and the influence of financial aid. The forecast data is based on trends and changes in the number of cooperatives for the period from 2003 to 2020. Statistical data shows that after Bulgaria has joined the EU and the implementation of the CAP (common agricultural policy) the number of cooperatives continues to decrease, while their cultivated area also reduces. (6) There is a decrease in the number of agricultural farms and their unification. (7) The decreasing trend of cooperatives is maintained even after 2016, with the number decreasing respectively from 941 in 2010 for the whole country to 714 in 2020. This represents only 0.5379% of all types of organizational agricultural forms in 2020.

The number of cooperatives changed in the following percentages over the years: in 2005 - a decrease in the amount of 33% compared to the number of cooperatives in 2003, in 2007 - a decrease in the amount of 42% compared to the number of cooperatives in 2003, in 2010 - a decrease in the amount of 53% compared to the number of cooperatives in 2003, in 2013 - a

decrease of 59% compared to the number of cooperatives in 2003, in 2016 - a decrease of 61% compared to the number of cooperatives in 2003, in 2020 - a decrease of 64% compared to the number of cooperatives in 2003. In the period after 2016, the number of cooperatives continues to lower drastically. This decline can be explained by the implementation of new financing schemes for agricultural producers in Bulgaria.

Despite the advantages of cooperatives as legal organizations, the construction of sustainable development and the support measures under the CAP, which are also applied to cooperatives, the decreasing trend in the number of cooperatives and the size of their cultivated lands still continues. The weak impact of the CAP policy on the incomes of agricultural land owners is explained by the accumulation of benefits from users (tenants, commercial companies, cooperatives). As of 2016, cooperatives' dependence on subsidies is high. Dependence of income in agricultural cooperatives is strongest from the support under the 1st pillar of the CAP. As in 2016, the average net income without subsidies was a negative value - -442.90 leva . Therefore, without financial support from the state,

cooperatives won't be able to continue to operate. (6)

In order to stimulate the development of cooperative forms and to stimulate their number, a larger amount of funds should be granted and the development of a sustainable agricultural system should be a priority.

To achieve a sustainable agricultural system, it is necessary that producers receive a reasonable return for their labor and risk, and the consumers have to be given the opportunity to purchase agricultural products at an acceptable price. (8)

Sustainable agriculture is most often defined as the "new" approaches that focus on ecological, organic, biological, alternative, natural, biointensive, biocontrolled, low-cost, conservation, regenerative and community-supporting agriculture. In different regions, different problems can be determined for the establishment of sustainable agriculture. Goals and priorities also change over time.

The main goals of sustainable agriculture are shifting towards: product quality, diversity and safety, environmental goals, protection of producer incomes, diversity and market orientation, animal care and preservation of rural communities.

According to Bashev, the problems that prevent the construction of a sustainable agriculture can be summarized as follows:

- Lack of actuality of the specific conditions in a certain region;
- Denial of modern approaches;
- Lack of assessment of the contribution of a given strategy for sustainable development, as the approach is used in defining sustainability;
- Making mistakes when denying theses that help sustainability and implementing such theses that reduce long-term sustainability.;
- Ignores the economic dimensions that determine the development of sustainable agriculture
- Ignores important external factors such as the institutional environment (public standards and restrictions, public support for certain sectors and producers), the development of markets (level of demand for organic farm products), the

macroeconomic environment (opening of high-paying jobs in other industries) (9)

Sustainability is also influenced by the specific socio-economic and natural environment in which it develops. This explains the positive impact of the CAP on the activity of large farms and its weak impact on small farms.

We can also talk about sustainability as "the ability to satisfy multiple goals over time." The main conflicts arise when setting priority goals. (9)

In order for an agricultural system to be sustainable, it is necessary to limit the use of non-renewable resources by utilizing substitute resources or ceasing a certain input of a resource. In order to successfully and sustainably develop the agricultural system practically, it is necessary to engage and motivate not only individual farmers but also groups and society as a whole.

The basic principle of the cooperative of social mutual aid is the basis of sustainable agriculture. Unlike other economic forms, cooperatives also pursue social goals. Thanks to the democratic way of decision-making in cooperatives, it is possible to pay attention to social issues and aspects, and not only to the financial ones. Due to these characteristics, cooperatives can be the main driving force for building sustainable agriculture in the country. The main guiding principle of the cooperative is care for society, which also gives rise to care for environmental protection and sustainable development. (8)

CONCLUSION

The cooperative operates on the basis of joint ownership, democratic participation and control by members. They rely on their own financial resources and this makes them more flexible and innovative. Cooperatives aim to achieve economic and social sustainability for their members. The activity of the cooperative is related to the local territory in which they operate. Cooperatives have economic and social activities in rural areas, thereby reducing migration and preserving work places. Although the cooperative possesses invariable qualities for the construction of sustainable agriculture, this form of legal association is unattractive to farmers. Proper financial stimulation of cooperative forms is necessary for their stabilization and effective operation.

ACKNOWLEDGEMENT

This publication was developed in accordance with the implementation of the work program under the project "Cooperative models for doing business in Bulgaria and their potential for implementing innovative management solutions", financed by the "Scientific Research" Fund, "Fundamental Scientific Research-2022" competition. Contract No. KII-06-H65/1 -12.12.2022. We express our thanks to FNI.

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