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Mechanism and Methodological Foundations of Sustainable Development of Agribuisness

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Abstract:

Purpose: *The study aims to develop amechanism and methodological foundations of sustainable development of agribusiness in Poland and Republic of Belarus.*
Design/Methodology/Aproach: *The research methodology is based on the systematic approach applied to the research of innovative development of food organizations using general scientific methods of analysis, synthesis, comparison, generalization, classification, etc.*
Findings: *The economic mechanism and methodological foundations of sustainable agribusiness development constitute a set of methods, methodologies, and algorithms, with the help of which an influence on their innovative activity is provided to assure their effective activity and achievement of strategic purposes. A new approach to innovations in sustainable agribusiness as an ultimate result of activity, which includes creating and introducing new products, new technology, and management to increase competitiveness and efficiency of organizations of the food sphere, is proved.*
Practical implications: *Recommendations resulting from the conducted research and analyzes may be used by institutions responsible for creating local and regional policies.*
Originality/value: *The scientific novelty of the results obtained consists in the development of the conceptual foundations for the formation of a model of sustainable development and in the development of recommendations ensuring the effective functioning of agribusiness in modern conditions. The object of the research were the organizations of the agro-industrial complex (AIC) of the Republic of Belarus. The subject of the research, in turn, was the formation of a model for the sustainable development of agribusiness based on the principles of "green economy".*

Keywords: *Agribusiness, sustainable development, resources, economic growth, green economy.*

JEL Classification: *Q18.*

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1. Introduction

The transition to sustainable development is rather individual for each particular state, which is not only determined by its place and role in the international economic system, but also by natural resources, political, demographic and other factors. The transition to sustainable development largely depends on the degree of development of the legal system of the state, the characteristics of law-making and law-enforcement processes, flexibility and public readiness for the corresponding transformations of various spheres of the system. The level achieved and targets planned for achieving economic and social development play the main role in the country's transition to sustainable development.

Sustainable development of society is regarded within a hierarchical system having the following stages: geophysical (climate, land, water, natural resources, etc.); ecological (conditions ensuring safety of human environment); technological (all kinds of activities, from agriculture to the system of communication and transmission of energy over a distance with the use of biological and physical methods); demo-economical (includes demographic and economic processes). In accordance with these stages, there are three interrelated problems, the solution of which contribute to sustainable development:

- maintaining a sustainable scale of the economy, which would correspond to its ecological life-sustaining system;
- equitable distribution of resources and opportunities, not only within the current generation, but also between the current and future generations, between humans and other biological species;
- effective distribution of resources in time, which would adequately take into account the natural capital.

2. Scientific Approaches to Sustainable Agribusiness Development

Since the activities of organizations represent a natural transition of the system from one state to another, sustainable development consists of both the sum of the stability of the system and the sustainability of its processes. At the same time, the stability of the processes *"... is characterized by the following parameters: direction (vector), which characterizes spatial movements; duration, speed, adaptability, quality of the transformations taking place in the process of development"* (Kucherova, 2007).

In general, the sustainable development of an enterprise is determined by the following key factors: economic growth, as a determining factor; economic equilibrium (the state of the internal and external environment of the enterprise), which confirms the normal functioning of all subsystems of the enterprise and the level of management, ensuring the harmonious development of the enterprise in the course of its activities (Gerasimov and Rubtsova, 2006).

Sustainable development of an organization is defined as *"... stability, profitability, constant growth based on the results of its activities"* (Price on the consumer market in the Republic of Belarus, 2019), as well as *"the state of an organization in which the social and economic parameters characterizing it retain equilibrium and are within specified limits under the influence of the internal and external environment"* (Bryantseva, 2003).

Based on the analysis of literary sources, the main properties that are most often associated with the concept of "sustainable development of organizations" are highlighted, ability, development, efficiency, productivity, duplication, stability, sustainability and balance, which allowed systematizing the existing approaches to its concept.

In the above definitions, the authors highlighted the main directions of sustainable development of organizations ensuring their functioning in the long term perspective, achieving high quality indicators of workers' living standards and maintaining environmental safety. The analysis showed that the authors use different approaches to the definition of "sustainable enterprise development" such as, integrated (systemic), process-based and resource-based.

Sustainable development of organizations should be studied from the perspective of a systematic approach, since enterprises are an open social and economic system and represent a complex multi-level system with certain properties.

Sustainable development of the agro-industrial complex is determined primarily by objectives of an economic and social nature, the achievement of which provides for "*the widespread use of low-energy and resource-saving, environmentally friendly technologies, and the rational use of biological factors in agricultural production. One of the primary tasks is to provide food for a growing population."* At the same time, one of the main functions of organizations of the agro-industrial complex is *"... ensuring the sustainability of the national food system, that is, the ability of subjects to dynamically maintain rational proportionality between the factors of agricultural production and the necessary rates of its development in a constantly changing external environment for reliable (uninterrupted), sufficient and high-quality satisfaction of needs of the population for life-sustaining food categories"* (Belsky, 2018).

The economic system of sustainable development of organizations of the agro-industrial complex consists of interrelated components of food and raw materials production processes, markets, the mechanism of operation and has the following properties:

- integrity, which characterizes the ability of economic entities united into the system to provide it with qualities that are absent in each separate system-forming element;

- divisibility, which consists in the possibility of separating subsystems and their elements according to their functional, organizational, resource, technological features (economic, social and environmental relations);
- autonomy, involving the study of the system as a whole with the subsequent deeper analysis of functioning of food industry organizations;
- structuredness, allowing to obtain a scheme of vertical and horizontal links between the elements that make up the system, by presenting it in a graphic or logical form, and classify the market according to a territorial basis, subjects of market relations, product groups, market development, economic and legal incentive, food security level (Kondratenko, 2017).

When analyzing the concept of "sustainable development of an enterprise", it is being assumed that this concept is a complex one, covering various aspects of the activity of an enterprise and therefore can be determined by a combination a combination of different forms and elements. As noted above, the economic theory considers the concept of "sustainable development", as a combination of three aspects: economic, social and environmental one.

The scientific literature mentions various elements of the sustainable development of organizations, but the authors provide no unanimous opinion in this regard. Most of them distinguish traditional elements, which are economic, environmental and social ones, while other authors either provide detailed analysis of one economic component or suggest new elements: innovative, investment, marketing, technological, technical, financial, production, reproduction, resource, commercial, organizational, informational, market, scientific and technical, etc.

It is crucial to take into account the structural elements of the sustainable development of enterprises with respect to their functionality. These include production, marketing, financial, innovation, resource, organizational, social, environmental, technological, intellectual, security, personnel, legal, market, interface, management, cultural, information and decision-making, legal, espionage, and energy sustainability (Lyba, 2019).

In order to characterize the sustainable development of agribusiness in connection with the purpose, the following elements were identified: economic, social and environmental sustainability. The economic sustainability of organizations can be described as a stable development of organizations included into the agro-industrial complex that receive income from the production and sale of competitive products (goods, works and services) that create maximum opportunities for realizing the labor capacity and minimizing the negative environmental impact.

Economic sustainability is determined by managerial, production, marketing, innovative, scientific and technical, financial, strategic and other elements of sustainability, as the results of agribusiness organizations' activities depending on their availability and combination (quality of management, production and

organization process, marketing, introduction of innovations, investment implementation, financial resources, etc.).

The major elements of the economic sustainability of the agribusiness organizations are production and financial sustainability. The production sustainability is the ability of agribusiness organizations to maintain stability, implement and improve the technological process, make optimal use of production resources in order to achieve planned results and innovations. Financial sustainability is the ability of organizations of the agro-industrial complex under the influence of external and internal factors to form and efficiently use financial resources aimed at carrying out the process of production and marketing of products. Financial sustainability is an integral part of sustainable development and reflects the results of the entire process of an entity's business.

Social sustainability reflects the degree of employees' social protection in agribusiness organizations as well as personnel stability.

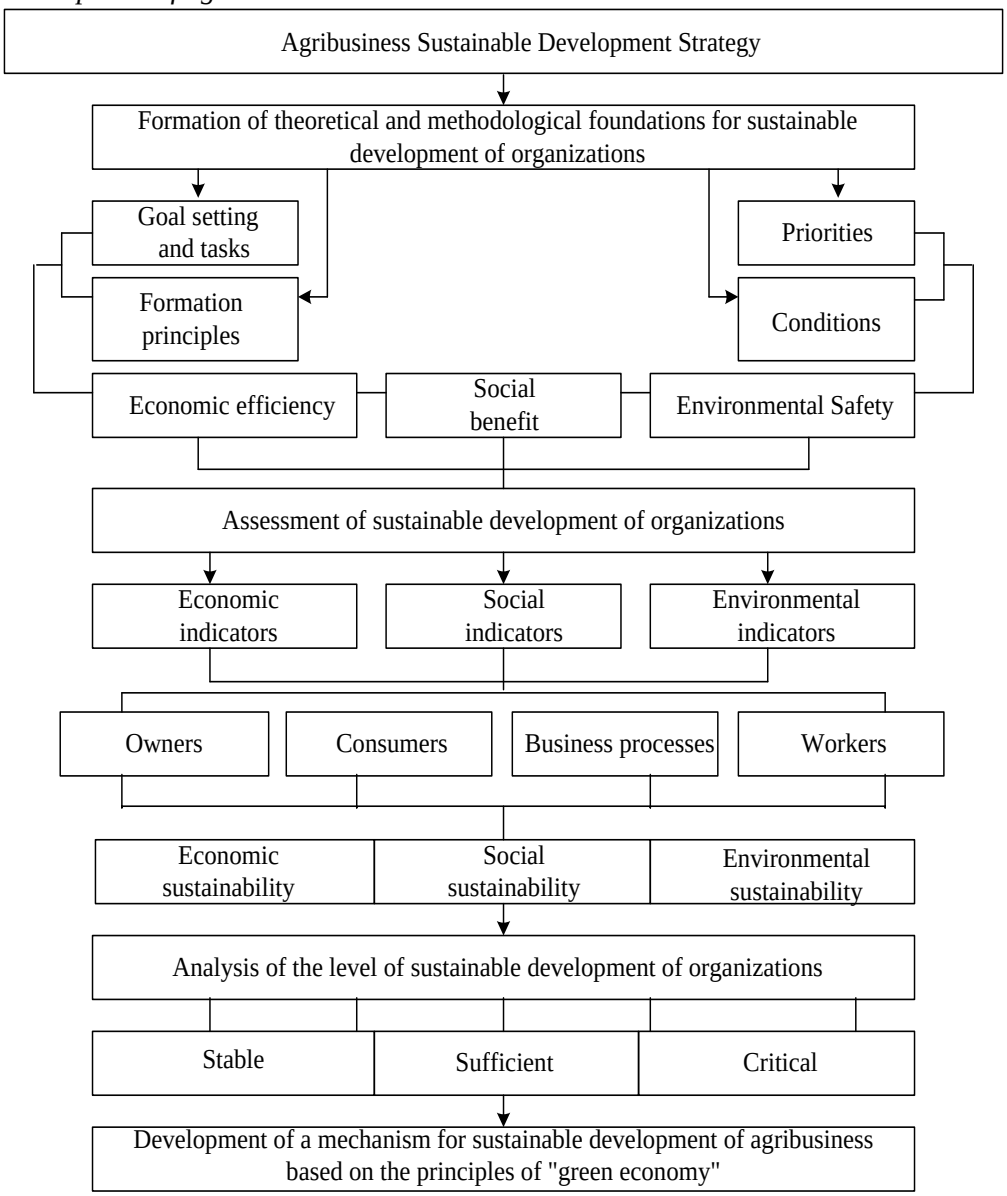
Environmental sustainability is the ability to carry out the production activities of organizations of the agro-industrial complex with a minimum negative impact on the environment.

Thus, the sustainability means the ability of any system to return to a certain state of equilibrium and respond to changes taking into account internal and external factors. However, the category "sustainable development" describing dynamic processes is more acceptable for economic systems (such as enterprises, organizations).

In the mechanism of sustainable development of agro-industrial complex processing organizations, we have identified the main structural elements: principles (consistency, complexity, continuity, competence, adequacy, hierarchy, feedback and efficiency); goals and objectives of management (making a profit, increasing competitiveness, fulfilling social obligations and ensuring environmental safety); objects and subjects of management; methods (economic, administrative and socio-psychological); management functions (planning, organization, motivation and control). The diagram of the formation of the mechanism for sustainable development of agribusiness is shown in Figure 1.

Thus, the mechanism of sustainable development of organizations is the interconnection and interdependence of structural components (economic, social and environmental sustainability), as a whole based on the coordination of the goals set, capable of activating the production and financial activities of the organization, taking into account the fulfillment of social obligations and minimal impact on the natural environment. Unlike existing approaches, the formation of the mechanism is aimed at the balanced development of the socio-economic and environmental sustainability of agribusiness.

Figure 1. *The diagram of the formation of the mechanism for sustainable development of agribusiness*



Source: *Own study.*

3. The Concept of Sustainable Development of Agribusiness in Poland

The modern structure of agribusiness in Poland was formed under the influence of historical traditions of individual households' development (focused mainly on the use of the labor of owners and members of their families) and the subsequent restructuring of the economy based on the principles of market relations.

The elements and factors identified in the research process suggest the need to develop a complex concept of sustainable development, which should take into account the following major directions:

- full utilization of local production resources, taking into account regional characteristics of agricultural production and rational use of agricultural land should be based on the acceleration of the land use consolidation processes;

- the functioning of agricultural production in Poland as part of the European Union dictates the need to increase the production volume of environmentally friendly products taking into account the environmental requirements and the consumers' needs;

- systematic improvement in the agricultural employees' professional knowledge and their cooperation with agricultural advisory services and adaptation of national agriculture to the requirements and conditions of the European Union makes it necessary to change priorities of supporting the agricultural economy sector by the production sector to accelerate development of social infrastructure in the rural areas, meeting the objectives of environmental protection and the restoration of local traditions.

In the agribusiness of Poland the process of transformation continues by creating new forms of management on the basis of private and state ownership. The conditions of agricultural production and processing sectors and industries are changing. The market economy requires strict observance of objective laws and economic development regularities. The research showed that the concept of agribusiness emerged as a subsystem of the economy related to the production and distribution of food products based on the market changes and it was defined and scientifically substantiated as a system of economic links between the agriculture and other sectors of the economy (The European Union in the World Economy, 2020).

The analysis of Polish structural policy showed that its objectives were achieved mainly by:

- increasing the production efficiency through the rational use of resources, improved management and implementing technological changes;

- creating flexibility in the economic system;

- avoiding unnecessary interference into the management of economic sectors.

It is established that the state intervention is expedient to be carried out mainly with the aim of limiting or increasing demand and supply of products and influencing the pricing level (Results of the European Innovation Scoreboard, 2019).

In this regard, the main methodological principles of the sustainable development concept of Polish agribusiness are, the creation of organizational and legal conditions allowing to increase the attraction of investments in agricultural production, to introduce progressive resource-saving technologies, to ensure diversification of rural employment, to optimize the infrastructure of the agrarian market and the production structure of enterprises, the integrated development of agribusiness in the national economy, balance of production by resources, intensification and biologization of production, increase of labor productivity, ensuring sustainability of agribusiness in relation to adverse impact of natural and economic factors, multifunctional development of agribusiness, ensuring high social life standards of the rural population.

4. Model of Sustainable Development of the Republic of Belarus

The model of sustainable development being a part of the National program of sustainable development of the Republic of Belarus for the year 2030, includes a set of principles and requirements for the national social, economic and political systems, the mode of functioning and interaction of their subsystems, ensuring the harmonization of relations in the "man – environment – economy" triad. The systematically important unit ensuring the functioning of the model should be the socially oriented, economically efficient and ecologically secure development of the country, taking into account the needs of present and future generations.

The model of sustainable development included in the application-oriented plan is a way of organizing and functioning of our society, state and economy based on the principles of sustainability, the most important of which are (National Strategy for Sustainable Socio-Economic Development of the Republic of Belarus for the Period up to 2030, 2015):

- a man is in the focus of the progress; the maturity of society, state, its social and economic policy can be measured by the level of human development;
- increase in the prosperity of the people, poverty reduction, improvement of production and consumption profiles;
- high-priority of healthcare, education, culture development as they are the most important areas of society, promoting the long-term growth of labor activity and personal creative development;
- rational use of natural resources, preservation and improvement of the natural environment;
- transition to resource-saving innovative type of economic development within the economic capacity of ecosystems;
- improvement of the management system, mechanisms for making and implementing managerial decisions;
- development of international cooperation and social partnership in order to preserve, protect and restore ecosystems;

- increasing the level of coordination and interaction of the state, private business and civil society in the implementation of the goals and objectives of sustainable development.

At the present stage, sustainable development provides for a complex approach to three components–economic, social and environmental one. The concept of a green economy developed over the past two decades is intended to provide more harmonious coordination of components, which is considered acceptable. The concept of "green economy" includes ideas of many other directions in economic science and philosophy (feminist economy, postmodernism, ecological economy, environmental economics, international relations theory, etc.) related to the problems of sustainable development.

The survival and development of the mankind requires a transition to a green economy, a system of economic activities related to the production, distribution, and consumption of goods and services, which leads to improved human well-being in the long-term perspective without exposing future generations to significant environmental risks.

A wide range of tools are recommended for the transition to a "green economy": sustainable pricing, including the elimination of inefficient subsidies, assessment of natural resources and related taxes; public procurement policy that encourages the manufacture of green products and sustainable production methods; increased state investment in sustainable infrastructure (including public transport, renewable energy, energy-efficient buildings) and natural capital aimed at recovery, maintenance, and growth; targeted state support for research and development related to environmentally friendly technologies; social policies to ensure harmonization between social objectives and existing or proposed economic strategies.

The development of "green" economy involves solving environmental issues while ensuring economic security, social stability and forming auxiliary conditions for the renewal of sustainable economic growth. In many sectors of the economy, there is a real need for modernization of technological processes, the introduction of innovative "green" technologies, allowing to increase ecological sustainability of the economy and employment by improving working conditions, and wide opportunities for doing so.

Taking into account socio-economic conditions, prospects, expediency, international obligations, the priority directions for the development of "green" economy are as follows: development of electric transport (infrastructure) and urban mobility, realization of the "smart" cities concept; development of energy-efficient houses and improvement in energy efficiency of the housing fund; reduction of gross domestic product energy intensity, improvement of energy efficiency, including through the introduction of energy-efficient technologies and materials; improvement in the

utilization capacity of renewable energy, organic production, sustainable consumption and production, ecotourism and agribusiness.

5. Conclusions, Proposals, Recommendations

Based on the analysis of existing definitions, scientific approaches and their systematization, the author has given a definition of the sustainable development of agribusiness.

Sustainable development of the agribusiness is a dynamic process of positive balanced changes of an economic, social and environmental nature, taking into account the influence of external and internal factors aimed at improving production efficiency, rational use of natural resources and social development of the community.

Sustainable development of agribusiness is inextricably linked with the growth of production of ecologically safe food products, the efficient use of economic and intellectual resources, an increase in the public well-being and quality of life, and a stable and balanced environmental management. Sustainable development of organizations of the agro-industrial complex can be ensured only under condition of balanced economic, social and environmental structural components.

The elements and factors identified by us impose an integrated concept of sustainable development, which should take into account the economic condition of the agro-industrial complex, the changes occurring in it, and also features of the country's accession to the European Union. In this regard, the further development of Polish agriculture should take into account the following main directions in the short term perspective:

1. Full use of local production resources, taking into account regional specifics of agricultural production. For example, even unprofitable agriculture regions in the South of Poland, can significantly increase the economy not only of individual economic entities, but also of entire regions by increasing and transforming the land, using innovative cultivation technologies of various crops.
2. The rational use of agricultural land should be based on the acceleration of the land use consolidation processes by reducing fallow land, exclusion of low-productive agricultural land from the agricultural turnover while increasing requirements for agricultural machinery and balanced application of fertilizers and plant protection products from pests and diseases. At the same time, land excluded from agricultural use can be used for afforestation.
3. The functioning of Polish agricultural production as a part of the European Union creates the need to increase the production volume of environmentally friendly products, taking into account the environmental requirements and consumer demands due to the concentration of livestock, especially in farms

with the size of agricultural land between 10 and 50 hectares, because then there is a more rational balance between the number of able-bodied workers and the size of the cultivated area. At the same time, such farms have the greatest unutilized production potential.

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