



REVIEW

of a dissertation submitted for the award of the educational and scientific degree "Doctor" in: Higher Education Area: 3. Social, Economic and Legal Sciences, Professional Field: 3.8 Economics, Scientific Specialty: Economics and Management (Agriculture)

Author of the dissertation:

Georgi Borisov GEROV

Part-time doctoral student at the Department of Economics, Agricultural University, Plovdiv.

Title of the dissertation:

"Adaptation of Bulgarian Agriculture: Balancing National Interests and the EU's Green Policies"

Reviewer:

Assoc. Prof. Dr. Minko Atanasov Georgiev

Institute of Fruit Growing – Plovdiv, Agricultural Academy Higher Education Area: 3. Social, Economic and Legal Sciences; Professional Field: 3.8 Economics; Scientific Specialty: Economics and Management (Agriculture)

Appointed as a member of the academic jury by Order No. RD-16-969/03.10.2025 issued by the Rector of the Agricultural University.

1. Brief Presentation of the Candidate.

Georgi Borisov Gerov was born on July 30, 1974, in Plovdiv, where he currently lives and works. He holds a Master's degree in Agricultural Economics from the Agricultural University – Plovdiv, and since 2021 has been a doctoral student at the Department of Economics. He has over 20 years of international experience in managing production, logistics, and commercial structures in the food industry, having held executive positions in the Czech Republic, Hungary, the United Kingdom, the Netherlands, and Poland. His expertise includes modernization of production processes, digital planning, business development, and strategic partnerships with leading retail chains such as Tesco, Lidl, and Metro. He is fluent in English, Russian, Czech, and Polish, and possesses strong organizational and communication skills.

The doctoral student was enrolled in a part-time study program following a decision by the Faculty Council of the Faculty of Economics (Protocol No. 202 dated 26.11.2021) and Order No. RD-26-64/08.12.2021. Based on discussions held during the training, his participation in doctoral forums, and personal conversations, I have been impressed by his exceptional erudition, deep understanding of international business models, and highly developed abilities for critical analysis of international policies, including those related to agriculture.

2. Relevance of the Problem.

The research focuses on identifying adaptation mechanisms that take into account the historical, cultural, and structural characteristics of Bulgarian agriculture. The formulated thesis is clearly defined: sustainability is achievable only through

integrated policies that align the economic, social, and environmental dimensions of development. In this context, agriculture is viewed not merely as a production sector, but also as a bearer of social structure, regional identity, and territorial resilience.

3. Purpose, Objectives, Hypotheses, and Research Methods.

The objective of the dissertation is scientifically grounded and thematically relevant to the current challenges facing the agricultural sector in Bulgaria. The research addresses issues related to the adaptation process of Bulgarian agriculture to the European Union's green policies, with a particular focus on the need for a strategic balance between national interests and environmental goals.

The proposed research hypotheses are linked to the trajectory of profound transformations triggered by the Green Deal and the reform of the Common Agricultural Policy. The author argues that a sustainable transition cannot be achieved through the mechanical application of external regulations, but rather requires consideration of the local context, proactive engagement, and institutional preparedness.

The methodological approach is interdisciplinary, combining both qualitative and quantitative methods—from historical, retrospective, and comparative analysis to regression models and index-based assessments. The empirical section provides compelling evidence of the impact of European policies on agricultural output, investment dynamics, and demographic trends, emphasizing the role of small and medium-sized farms and the need for a decentralized, innovative, and more responsive approach.

4. Visualization and Presentation of the Obtained Results.

The dissertation spans 245 pages in A4 format and includes 28 tables and 23 figures. The citation style used throughout the text is APA. Despite the diversity and volume of information, the text is easy to read, which reflects a well-organized structure and academic discipline—an essential quality developed by the doctoral candidate during the course of study.

5. Discussion of the Results and Literature Used.

Chapter One is theoretical. It presents the main conceptual and methodological frameworks related to the adaptation of Bulgarian agriculture to the European Union's green policies. The chapter is structured into five main sections, covering the historical evolution of agriculture in Bulgaria, leading theories of adaptation and sustainability, the goals and instruments of EU green policies, the specifics of national interests, and the areas of tension and synergy between local needs and European regulations.

The theoretical analysis is built on a comparison between classical economic theories and modern approaches such as sustainable development theory, agroecology, and institutional economics. Special attention is given to strategic documents like the "Farm to Fork" strategy and the Common Agricultural Policy, with a critical examination of their limitations in the Bulgarian context—including the uneven distribution of subsidies and deficits in administrative capacity. The analysis is thorough and well-grounded, as the doctoral candidate compares traditional economic paradigms with contemporary interdisciplinary approaches. He traces the historical

foundations of current structural challenges—from feudal legacies and socialist collectivization to the post-socialist fragmentation of agricultural land ownership. This historical perspective is skillfully woven into the mix of modern regulatory and environmental requirements, lending conceptual depth and relevance to the exposition.

This section demonstrates that the doctoral candidate possesses excellent skills in synthesizing and interpreting complex academic concepts. The chapter successfully fulfills its role of laying the groundwork for the empirical research by clearly articulating the choice of research approach.

The methodological part of the dissertation, presented in Chapter Two, is well-structured and demonstrates scientific precision. The methods used—trend analysis, correlation, and multiple regression analysis—are appropriate for the research objectives and allow for the identification of sustainability determinants in the agricultural sector. The author has chosen a quantitative research design based on 42 indicators covering the period from 1990 to 2022, which provides both long-term perspective and analytical depth. Sixteen logically connected hypotheses are formulated to test complex relationships between key factors such as investment, employment, agro-climatic footprint, and demographic changes.

The indicators used in the study are systematized into five main groups: aggregated indices, environmental, economic, demographic, and production-related. This classification facilitates the interpretation of results and contributes to the analytical clarity of the exposition. The application of moving averages and time trends further enhances the reliability of the analysis by allowing the tracking of long-term dynamics and avoiding short-term fluctuations.

The doctoral candidate demonstrates a high level of methodological competence by acknowledging the limitations of the study and providing a critical assessment of the validity of the results. In summary, the methodological framework is constructed with scientific rigor and analytical depth. It provides a solid foundation for the analytical part of the research and supports the formulation of practical recommendations for strategic management of agricultural adaptation in Bulgaria.

The analytical-empirical chapter of the dissertation focuses on examining the factors influencing the adaptation of Bulgarian agriculture within the context of the European green policies. The main objective is to outline long-term trends in the sector through dynamic analysis of key economic, social, and environmental indicators for the period after 1996, seeking an objective basis for the development of sustainable policies.

Section 3.2 presents the results of a correlation analysis, which identifies significant structural relationships between key variables. Noteworthy are the strong positive correlation between energy consumption and greenhouse gas emissions, and the clear negative correlation between demographic decline and the intensity of agricultural activities. These relationships are interpreted in the context of regional disparities and the institutional environment, adding further depth and applicability to the analysis.

Section 3.3 contains regression equations used to test the formulated hypotheses. The author demonstrates strong competence in constructing and interpreting multivariate models, successfully identifying the determinants of

sustainability in the agricultural sector. The models are statistically grounded and clearly linked to the theoretical framework, ensuring logical consistency between the empirical results and the research thesis.

Section 3.4 analyzes structural dependencies and identifies potential policy mechanisms for intervention. The author proposes scenario-based solutions that take into account the nonlinear nature of adaptation and its vulnerability to external and internal factors. This approach is particularly valuable as it goes beyond standard administrative frameworks and offers guidance for the strategic management of the transition toward sustainable agriculture.

The evaluation of the empirical chapter shows that the author possesses in-depth knowledge in the field of economic modeling and statistical analysis. The presented results are interpreted with scientific accuracy, and the conclusions are clearly argued and relevant to the objectives of the dissertation. This chapter represents a significant contribution to the academic debate on agricultural sector adaptation and deserves high recognition for its research maturity.

Chapter Four of the dissertation is constructive and focuses on scenario analysis and policy recommendations for adapting Bulgarian agriculture to the environmental goals of the European Union and Bulgaria. It demonstrates originality and seeks practical applicability of the proposed solutions. Its main task is to formulate integrated strategies for balancing national economic interests with the requirements of the Green Deal.

The author argues for the need to redirect European funds toward national priorities through a differentiated approach to subsidies, taking into account territorial specificities and the adaptive potential of various regions in the country. In this context, an innovative model is proposed that includes decarbonization, large-scale digitalization, precision agriculture, and regulatory measures aimed at demographic and social stability in rural areas.

A notable contribution of the author is the development of new analytical tools, such as the Cooperative Agro-Climatic Index (CACI) and the Carbon-Efficient Agricultural Export Index (CEAEI). These metrics transform theoretical hypotheses into measurable policy instruments that can be used for both monitoring and strategic management of sustainability in the sector.

The chapter is logically and consistently structured, covering key areas such as funding reallocation, territorial consolidation, digitalization, export-environmental synergy, goal integration, sustainability mechanisms, and feedback between theory and practice. Each section is supported by arguments and empirical observations, which strengthens the validity of the proposed recommendations.

The literature used includes 236 sources, both Bulgarian and international. Reports from FAO and documents from European institutions are also cited.

The overall conclusion is that the doctoral candidate is fully prepared to conduct independent scientific research.

6. Contributions of the Dissertation.

The dissertation distinguishes between two types of contributions: scientific and scientific-applied. The doctoral candidate presents them as follows:

Scientific Contributions

First. A comprehensive methodological framework has been developed for analyzing sustainable development in the agricultural sector, based on critical-discursive analysis of a wide range of macro indicators, strategic documents, institutional review, and functional mapping of management processes.

Second. Concepts from institutional theory and strategic management have been integrated into a unified analytical scheme that enables systematic tracking of the relationship between defined goals, selected indicators, and applied instruments for achieving sustainability.

Third. The analytical concept of “forced sustainability” has been introduced and substantiated in the context of EU agricultural policy as a diagnostic tool for the formalization of processes. This concept has potential for application in other areas of public policy where the transfer of external requirements dominates over internal legitimacy.

Fourth. Normative and operational sustainability have been differentiated in the context of Bulgarian institutional constraints.

Fifth. An original definition of sustainability in the agricultural sector has been proposed, with practical application in the evaluation of public policies.

Sixth. A systematic approach has been developed for studying the logical structure of agricultural strategy through structural deconstruction of program documents.

Scientific-Applied Contributions

First. An applicable methodology has been formulated for assessing the degree of coherence between different levels of governance—from national strategies to specific sectoral measures—supported by examples and analyses from the Bulgarian agricultural context. This methodology can be adapted to other highly regulated fields such as energy or natural resource management, thus providing both academic novelty and operational applicability.

Second. A critical analysis of the 2023–2027 Strategic Plan has been conducted, identifying inconsistencies between objectives, measures, and indicators.

Third. The need for reform of the direct payments system has been substantiated. The author explains the necessity of transitioning from a “quantitative model” (based on area) to a “qualitative model” (based on results, commitment, and adaptive contribution). The introduction of “green indicators” as part of the subsidy application process would enhance not only the environmental effectiveness but also the social legitimacy of EU support.

Fourth. An index system has been developed, including three original indices: the Agro-Climatic Footprint Index (ACFI), which combines emissions of harmful elements, energy intensity, and agroecological vulnerability; the Livestock Density Index, which represents the ratio between the number of animals and the area of agricultural land; and the Cooperative Agro-Climatic Index (CACI), which includes indicators such as methane (CH₄) and nitrous oxide (N₂O) emissions, energy consumption, and water footprint.

I agree with the contributions presented by the doctoral candidate Georgi Gerov. I believe that, out of modesty, he has omitted his contribution related to specific

proposals for improving the institutional matrix.

7. Critical Remarks and Questions.

I have no critical remarks. I would, however, like to pose the following questions to the doctoral candidate:

Question 1: *In the context of the doctrinal contradictions already established in the dissertation, arising from the current global technological development and the redistribution of energy resources (in the second half of 2025), what is the expected trajectory of Bulgarian agriculture over the next 3–5 years?*

Question 2: *What approaches are being applied by other European Union member states to address the critical shortages of affordable resources and raw materials essential for agriculture?*

Published Articles and Citations.

The doctoral candidate has presented five scientific publications: three are single-authored, in four he is the first author, one is indexed in the Scopus and Web of Science databases, and two are indexed in CABI (Web of Science). The total score of all articles is 76.66 points, which significantly exceeds the requirements set by the individual plan and the internal university regulations of the Agricultural University – Plovdiv.

The similarity check (potential plagiarism) of the dissertation draft revealed no violations of the law (Protocol No. 30 dated 01.10.2025).

The submitted abstract objectively reflects the structure and content of the dissertation.

Conclusion:

Based on the various research methods learned and applied by the doctoral candidate, the properly conducted experiments, and the formulated generalizations and conclusions, I consider that the presented dissertation meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations of the Agricultural University for its implementation, which gives me grounds to evaluate it **POSITIVELY**.

I take the liberty to propose to the esteemed Academic Jury to also vote positively and to award Georgi Borisov Gerov the educational and scientific degree “**Doctor**” in the scientific specialty: Economics and Management (Agriculture).

Date:
October 21, 2025

REVIEWER:

Assoc. Prof. Dr. Minko Georgiev

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