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REVIEW

by Assoc. Prof. Dr. Nikolay Neykov

on the dissertation work of Eng. Stefan Petrov Bechev, full-time doctoral student at the University of Forestry, Sofia

on the topic:

"Study of the management of municipal forest territories in Bulgaria" for the acquisition of the educational and scientific degree "doctor" in the professional field 3.7 Administration and Management, scientific specialty Economics and Management (Forestry and Forest Industry)

This review is based on the order appointing the jury for the public defense of the dissertation, Order ZPS 668/24.11.2025, and the order for expulsion with the right to defense of Eng. Stefan Petrov Bechev, Order ZSD 32#1/20.02.2025.

1. Biographical data of the PhD candidate

PhD candidate Stefan Petrov Bechev completed his higher education at the University of Forestry – Sofia, where he successively obtained the educational and qualification degrees Bachelor in Forestry, Master Engineer in Forestry with specialization "Forest Management", as well as Master in Business Administration. Since 2021, he has been a PhD student at the University of Forestry in the professional field "Economics and Management (Forestry and Forest Industry)".

His professional experience is closely related to the practical management of forest territories and local administration. He has held managerial and expert positions in Rodopi Municipality, including Head of the Department "Forestry and Ecology" and Chief Expert – Forester, being responsible for the planning, organization, and control of activities related to the management of municipal forest territories. Since 2022, he has been registered as a court-appointed expert in forestry technical expertise at the District Court – Plovdiv.

The PhD candidate also holds additional professional qualification as a certified forest land valuer, as well as experience in research activities as a junior researcher at the University of Forestry. By combining solid theoretical training with long-term practical experience in forestry, his professional biography demonstrates a strong connection between the dissertation research topic and real management processes in the sector.

2. Evaluation of the dissertation

2.1. General characteristics of the dissertation

The dissertation is developed in a total volume of 191 pages and includes an introduction, three chapters, conclusion, references, and appendices. The structure of the dissertation is logically consistent and corresponds to the stated objective, research thesis, and formulated tasks.

The first chapter has a theoretical and methodological character and is devoted to the conceptual foundations of sustainable forest management, as well as to systems of criteria and indicators for its assessment. It also presents and substantiates the methods used in the empirical sociological research and the normalized scoring evaluation.

The second chapter has a descriptive and analytical character and examines the management of municipal forest territories in Bulgaria from a historical and structural perspective, as well as the dynamics of timber utilization. A comparative overview of municipal forest ownership in selected Eastern European countries is also presented.

The third chapter represents the analytical core of the dissertation, in which an assessment of sustainable management of municipal forest territories in Bulgaria is carried out on the basis of empirical research, normalized scoring evaluation, and analysis according to the six criteria for sustainable forest management.

The dissertation includes 42 tables illustrating and summarizing the analytical results, as well as one figure supporting the visual presentation of key relationships and results. The analytical toolkit is limited and applied only to the extent necessary for presenting the methodological apparatus, which is consistent with the applied nature of the research.

The literature used covers a wide range of national and international sources, including regulatory documents, strategic materials, and scientific publications, demonstrating solid theoretical preparation and in-depth knowledge of the research field.

2.2. Relevance of the problem and research objectives and tasks

The chosen dissertation topic – "Study of the Management of Municipal Forest Territories in Bulgaria" – is undoubtedly relevant and socially significant. Municipal forest territories occupy a substantial share of the forests in the country and perform key economic, ecological, and social functions, especially in the context of sustainable development, climate change, and increasing public expectations regarding natural resource management. In this sense, the focus on municipal forest ownership management is timely and corresponds to contemporary challenges facing the forestry sector in Bulgaria.

The relevance of the research is further strengthened by the need to introduce and apply scientifically grounded criteria and indicators for assessing sustainable forest management, which is clearly justified in the introductory part of the dissertation. The PhD candidate convincingly substantiates the importance of sustainable forest management in national and European contexts, correctly emphasizing the role of municipalities as the largest non-state forest owners and active participants in forest policy implementation.

The formulated research thesis is clearly defined and logically linked to the subject and object of the dissertation. It reflects the understanding that the existence and application of a system of practice-oriented criteria and indicators for sustainable management is a key prerequisite for improving management decisions in municipal forest territories.

The objective of the dissertation is clearly and concretely formulated – to assess the management of municipal forest territories in Bulgaria and to propose guidelines for its improvement. The formulated tasks are logically consistent, cover theoretical, methodological, and applied aspects of the research, and ensure the achievement of the main objective. They are adequate to the chosen scientific problem and correctly aligned with the structure of the dissertation.

In summary, the dissertation addresses a relevant and significant scientific-applied problem, and the defined objective, tasks, and research thesis are clearly formulated, logically connected, and fully consistent with the content and orientation of the research.

2.3. Theoretical state of the problem

The first chapter of the dissertation aims to build the theoretical and methodological framework of the research and is developed in a scope and depth corresponding to the requirements for a doctoral dissertation. The PhD candidate demonstrates very good orientation in the essence and evolution of the concept of sustainable forest management, consistently tracing its development in international, European, and national contexts.

Section 1.1 presents an in-depth theoretical analysis of the concept of sustainable forest management, examining the main conceptual approaches, principles, and interpretations adopted in scientific literature and international policy processes. The candidate correctly applies established definitions and approaches, including the pan-European process and other international initiatives, demonstrating the ability to critically summarize and systematize a substantial body of scientific material.

Particularly positive is the detailed analysis of regional and international systems of criteria and indicators for sustainable forest management. The presentation of the pan-European process, the Montreal Process, and other international initiatives is systematic and clearly distinguishes their scope, objectives, and applicability, providing a solid basis for the subsequent adaptation and analysis of the system adopted in Bulgaria.

In Section 1.2, the PhD candidate justifies the selection of methods for assessing sustainable management of municipal forest territories by combining theoretical postulates with practically applicable tools. The presentation of the empirical sociological survey and the normalized scoring evaluation reflects an integrated approach that allows quantitative and qualitative assessment of management practices. The methodological choice is well substantiated and aligned with the specifics of the research object and subject.

Overall, the first chapter successfully fulfills its role as the theoretical and methodological foundation of the dissertation. The exposition is logically structured, terminologically accurate, and supported by rich and appropriate scientific literature, providing the necessary basis for subsequent empirical analysis and the formulation of sound conclusions and recommendations.

2.4. Analysis of the management of municipal forest territories in Bulgaria

The second chapter of the dissertation, "Characteristics of the Management of Municipal Forest Territories in Bulgaria", has a clearly expressed descriptive and analytical character and fulfills the important function of placing the research problem in a historical, institutional, and practical management context. Through this chapter, the PhD candidate creates the necessary empirical and factual basis for the subsequent analytical framework developed in the third chapter.

Section 2.1 presents a consistent historical overview of the management of municipal forest territories in Bulgaria, covering the main stages from the end of the nineteenth century to the present. The candidate correctly identifies key changes in ownership, management models, and institutional framework, clearly distinguishing the specific characteristics of individual historical periods. The analysis demonstrates a good ability to synthesize normative, administrative, and economic aspects of forest management.

Particularly positive is the examination of the period after 1990, when significant transformations occurred in the management of municipal forest ownership. The candidate convincingly presents the processes of decentralization, property restitution, and the increasing role of municipalities as active actors in forest policy. This adds high practical value to the exposition and emphasizes the connection between historical processes and contemporary management challenges.

Section 2.2 analyzes timber harvesting from municipal forest territories in Bulgaria based on current statistical data for the period 2014–2023. The presentation of the dynamics of timber utilization is accurate and informative, providing a clear picture of the economic importance of municipal forests and their role in meeting local needs. This section contributes to a better understanding of the economic functions of municipal forests and serves as an empirical basis for the subsequent assessment of sustainability.

Section 2.3, devoted to a comparative study of municipal forest ownership in selected Eastern European countries, broadens the analytical perspective of the research and places Bulgarian practice in a wider regional context. Although limited in scope, this comparative element contributes to a better understanding of the specific characteristics and challenges of municipal forest management in Bulgaria.

In summary, the second chapter is logically structured, clearly presented, and maintains an appropriate balance between descriptive and analytical elements. The presented data and analyses provide a solid basis for the in-depth analysis of sustainable management in the third chapter. The chapter successfully fulfills its role as a transition between the theoretical-methodological framework and the empirical research and contributes significantly to the overall argumentation of the dissertation.

2.5. Experimental part of the dissertation

The third chapter represents the main analytical core of the dissertation, in which the PhD candidate practically implements the theoretical-methodological framework developed in the first chapter and uses the empirical material presented in the second chapter. Through this chapter, a direct link is established between the concept of sustainable forest management and real management practices in municipal forests in Bulgaria.

Section 3.1 presents the information support of the analysis, clearly defining the sample used. The study covers a representative set of municipal forest territories in Bulgaria, using official data, documents, questionnaires, and results from an empirical sociological survey. The selection of the sample (118 respondents from the Association of Municipal Forest Enterprises and the Executive Forest Agency) is aligned with the research objectives and allows for national-level generalization regarding the management of municipal forest ownership. The use of real management data and official sources increases the reliability and validity of the obtained results.

The applied normalized scoring evaluation method, combined with analysis by individual criteria and indicators, is appropriate to the research problem and allows comparative assessment of sustainable management across different municipal forest territories. The methodological approach is consistent and transparent, enabling traceability, interpretation, and potential replication of results in future studies.

Sections 3.2–3.7 contain a detailed analysis according to the six criteria for sustainable management adopted within the pan-European process. The PhD candidate systematically examines the application of each criterion, combining quantitative and qualitative assessments. This allows identification of both strengths and problem areas in the management of municipal forest territories. The analysis demonstrates good ability to interpret results and relate them to specific management practices.

Particularly positive is the structured approach to the socio-economic and ecological functions of municipal forests, which goes beyond purely economic interpretations of management and corresponds to contemporary concepts of multifunctionality and sustainability. The presented results clearly show that sustainable management of municipal forest territories is a multi-layered process dependent on both institutional framework and the capacity of local administrations.

Regarding the reliability of the analysis, it can be concluded that the applied sample and methodology provide sufficient representativeness and analytical depth to draw well-grounded conclusions and recommendations. The limitations of the research are typical for this type of empirical studies and do not compromise the main results, but rather outline opportunities for future development and further research.

In summary, the third chapter demonstrates the PhD candidate's ability to independently apply scientific methods, analyze empirical data, and derive well-argued evaluations of the state of sustainable management of municipal forest territories in Bulgaria. The chapter makes a significant contribution to achieving the objective of the dissertation and represents its strongest analytical part.

2.6. Conclusions and recommendations based on the conducted analyses in the dissertation

The conclusions formulated in the dissertation are logically grounded, clearly structured, and directly derived from the conducted theoretical and empirical analyses. The PhD candidate consistently summarizes the obtained results and successfully synthesizes a substantial volume of empirical material into clear and well-argued conclusions regarding the state and specificities of the management of municipal forest territories in Bulgaria. The conclusions are correctly related to the stated objective and research tasks and demonstrate good analytical thinking and scientific interpretation.

Particularly positive is the fact that the conclusions do not remain at a purely theoretical level but reflect concrete management practices, institutional constraints, and structural problems in the management of municipal forests. This gives the dissertation a clearly expressed scientific-applied character and increases its practical significance.

The proposed recommendations are adequate, targeted, and realistic, clearly linked to the conclusions and the results of the analysis based on the criteria and indicators for sustainable management. They are formulated at a strategic and management level, making them applicable in the practice of municipal administrations and bodies responsible for forest management. The recommendations cover both institutional and organizational aspects, as well as issues related to planning, control, and long-term sustainability of management decisions.

At the same time, it may be noted that some of the recommendations are formulated at a more general strategic level, which is typical for dissertation research with national scope and does not diminish their scientific and practical value. On the contrary, this creates opportunities for future development through more detailed management models and instruments at local level.

In summary, it can be concluded that the conclusions and recommendations are well-argued, consistent, and clearly practice-oriented, contributing significantly to the achievement of the dissertation's objective and to the enrichment of scientific and applied knowledge in the field of management of municipal forest territories in Bulgaria.

2.7. Sources of information

The literature used in the dissertation is extensive, thematically relevant, and well selected, covering a wide range of scientific, regulatory, and applied sources related to forest management and sustainable forestry. This demonstrates solid theoretical preparation and good knowledge of the research field on the part of the PhD candidate.

The bibliography includes classical and contemporary scientific publications in forestry, forest policy, sustainable management, and statistical analysis methods. Particularly positive is the use of established Bulgarian authors and sources reflecting national practice and regulatory framework, as well as the inclusion of international documents and publications related to the pan-European process and criteria and indicators for sustainable forest management.

The literature review shows a good balance between scientific publications, regulatory acts, strategic documents, and practical materials, including forest management plans and reports used in the analysis, which significantly contribute to the practical justification of the research. This is particularly important given the applied nature of the dissertation and its orientation toward real management processes in municipal forest territories.

At the same time, it may be noted that the share of the most recent international scientific publications (from the last 5–7 years) is relatively limited, which is typical for studies with a strong national and institutional focus, but represents an opportunity for future enhancement of the theoretical framework. This circumstance does not compromise the scientific value of the dissertation, as the main sources used are directly related to the subject and objectives of the research.

3. Abstract

The abstract is prepared in full and complies with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and its implementing regulations. It clearly and consistently presents the relevance of the topic, the research thesis, object, subject, objective, and tasks of the dissertation, as well as the applied research methods.

The structure of the abstract correctly reflects the logic and content of the dissertation, presenting the main highlights of the three chapters, the obtained results, conclusions, and practical recommendations. The exposition is clear and systematic and enables the scientific community to gain an objective and sufficiently complete understanding of the scientific and applied results of the research without the need to consult the full text of the dissertation.

The abstract contains all mandatory formal elements required by academic practice – data on the volume and structure of the dissertation, the literature used, the applied methods, and the scientific supervisor. The presentation complies with established standards for abstracts submitted for the defense of the educational and scientific degree "Doctor".

4. Contributions

In the abstract, the PhD candidate clearly formulates the main scientific and scientific-applied contributions of the dissertation, which collectively reflect the achieved results of the conducted research. The presented contributions are logically linked to the objective, tasks, and applied methodology and correctly reflect the content of the dissertation.

First, positive evaluation should be given to the systematization and adaptation of criteria and indicators for sustainable management of municipal forest territories, tailored to Bulgarian institutional and management conditions. This contribution has a clearly expressed scientific-applied character and represents a useful tool for analyzing and assessing management practices in municipal forests. At the same time, it may be noted that the contribution is more a methodological development and application of established international approaches rather than an entirely new theoretical model, which is fully acceptable and appropriate for a dissertation with applied orientation.

An important contribution of the dissertation is the conducted empirical research on a relatively large sample of municipal forest enterprises, which allows drawing well-grounded conclusions about the state of management of municipal forest territories in Bulgaria. The obtained results contribute to filling an existing gap in systematized empirical information in this field. Critically, it may be noted that the analysis could be further deepened through clearer differentiation of results by regional characteristics, which would enhance the analytical value of the contribution.

Another scientific-applied contribution is the identification of the main problem areas and management deficits in municipal forest management, as well as the formulation of recommendations for their mitigation. These contributions have practical significance for municipal administrations and bodies responsible for forest policy. However, some of the recommendations are formulated at a more general strategic level, leaving room for future specification and operationalization.

In summary, it can be concluded that the contributions presented in the abstract are real, well-grounded, and correctly formulated, with their main value lying in the scientific-applied domain. They meet the requirements for a dissertation for awarding the educational and scientific degree "Doctor" and outline opportunities for future development and further research by the PhD candidate.

5. Publications related to the dissertation

The publications of the PhD candidate are thematically linked to the dissertation and reflect the main directions of the conducted research – the management and sustainable use of municipal forest territories. They demonstrate consistency in scientific pursuits and represent an academic validation of part of the obtained results. The publications are predominantly scientific-applied in nature, which corresponds to the subject and objectives of the dissertation. At the same time, it may be noted that publication activity is mainly concentrated in Bulgarian journals, which does not reduce its relevance. In summary, the publications are sufficient in volume and content and meet the requirements for awarding the educational and scientific degree "Doctor".

6. Notes on the dissertation

The following critical remarks may be made regarding the presented dissertation research with a view to its further improvement for future scientific publications and studies:

- Part of the theoretical review in the first chapter has a more descriptive character and could be enhanced by clearer articulation of the author's position and critical comparison between the examined conceptual approaches.
- The empirical analysis in the third chapter could be further enriched through more in-depth differentiation of results by types of municipal forest territories or regional specificities, which would increase the analytical value of the conclusions.
- Some of the recommendations are formulated at a more general strategic level, which is understandable given the national scope of the research, but their practical applicability would be improved through more specific management instruments or implementation mechanisms.

7. Questions to the PhD candidate

- Which of the identified problems in the management of municipal forest territories do you consider to have the highest priority for resolution, and why?

- How do you assess the applicability of the system of criteria and indicators for sustainable management in the context of future regulatory changes and climate challenges?

Final evaluation

The presented dissertation entitled "Study of the Management of Municipal Forest Territories in Bulgaria" represents a comprehensive and independent scientific study by PhD candidate Eng. Stefan Petrov Bechev, containing contributions relevant to both theory and practice of forestry management in Bulgaria. I highly evaluate the dissertation with the grade "Very Good" and consider that the PhD candidate has fulfilled all requirements. I propose that the esteemed scientific jury, following a successful public defense, award Eng. Stefan Petrov Bechev the Educational and Scientific Degree "Doctor" in Professional Field 3.7 Administration and Management, Scientific Specialty "Economics and Management (Forestry and Forest Industry)".

Reviewer:

Assoc. Prof. Nikolay Neykov

05.01.2026

University of Forestry, Sofia