

STATEMENT

on the materials submitted for participation in a competition for the academic position "**Associate Professor**" in professional field 6.5 "Forestry", scientific specialty "Forest reclamation, forest protection and special uses in forests", announced by the Forest Research Institute - BAS in SG no. 56 / 23.06.2020

Candidate for participation in the competition: Ch. Assistant Dr. Svetozar Ivanov Madzhov
Prepared by: Prof. Dr. Maria Grozeva Sokolovska, appointed a member of the Scientific Jury by Order № RD 15-311 / 31.08.2020 by the Director of IG-BAS

1. Brief biographical data.

Ch. Assistant Dr. Svetozar Madzhov graduated from the University of Forestry, specialty Forestry, in 2000 and received the qualification of forestry engineer. Since 2001 he has been a doctoral student at the University of Forestry, Sofia, and in 2006 he defended a PhD Thesis on "Research and optimization of the parameters of the system for distribution and management of the stock of spare parts for engines of tractors TK-80" and acquired educational and scientific grade "Doctor" in scientific specialty 02.01.32 "Machinery and equipment for forestry, logging, woodworking and furniture industry". In the period from 2004 to 2006 he worked as a chief engineer in the company "Petkova Consult" EOOD, and from 2006-2009 he was a commercial director successively at "Stroyrent" OOD and Technowood "EAD". During this period, from 2007-2009, he completed a master's degree in Business Administration at the University of National and World Economy, Sofia. After 2009 he worked as a sales manager in the company "Europrefabricated Bulgaria" AD, and in the period from 2011 to 2014 he was head of machinery and equipment for rent in "Kirov" AD, and then manager in "Petkova Consult" Ltd. In 2014 he started working at the Forest Research Institute at the Bulgarian Academy of Sciences as a forestry engineer. He has acquired a specialization (2014-2015) on the topic "Design and construction of roads" at UACEG, Sofia. The candidate has enriched his knowledge by participating in several training courses: Application of statistical methods in the quality management system in 2014; Mold Fungi - Evaluation of Mold Risk, Bangor University Wales, UK in 2015; Current changes in the law on spatial planning in the field of construction control in 2016. Since 2016, after a competition under the Law on Forest Management at the Forest Research Institute-BAS, he holds the academic position of "Chief Assistant" in "Land Reclamation, Forest Protection and Special uses in forests", a position he still holds today. He speaks French and English very well and Russian.

2. Compliance of the submitted documents and materials of the candidate with the minimum requirements, according to the Regulations for acquiring scientific degrees and holding academic positions at the Forest Research Institute - BAS.

The submitted documents and materials of the competition are in accordance with the requirements of the Law on the Application of Scientific Degrees and Academic Positions of R of Bulgaria, the Regulations for its implementation, and the Regulations for the terms and conditions for acquiring scientific degrees and for holding academic positions at the Institute of Forestry at the Bulgarian Academy of Sciences. According to the report - self-assessment of the minimum national requirements for scientific and teaching activities for the academic position of "Associate Professor" Dr. Madzhov exceeds the required points for the five groups of indicators (A, B, Г, Д, E). The sum of the points is a total of 1886, with a required minimum of 500 points. The excess is greatest in group B and group E. The indicated scientometric indicators contain some inaccuracies (subgroup B4), such as incorrectly cited places of publication of articles, wrong titles of

publications. In the additional requirements of OIC-BAS the candidate has presented information about his participation in scientific forums, scientific-applied development / implementation, lectures. I must point out that there is no evidence for the first and third projects referred to in subgroup E18.

In the attached Habilitation Extended Reference for Scientific Contributions are identified 11 scientific publications (№B4.1 to B4.11 of the List) in editions, which are referenced and indexed in the world databases Web of Science and Scopus, as equivalent for equating to a monographic labor, a requirement under Note 12 of the Annex to the Regulations for application of the Law on the Protection of Human Rights and Fundamental Freedoms. The candidate is the author of 9 of these 11 articles published in English. The habilitation report presents the most significant personal contributions of the candidate related to the design, construction and maintenance of forest roads, construction of technological schemes and maintenance of the equipment in forestry, creation and maintenance of stocks under optimal conditions. In 5 of the articles (B4.5-8; B4.11) the necessity of management of the technical condition of the machines in forestry by the methods and means of the technical diagnostics is substantiated and the numerical characteristics of the indicators of reliability of the elements of the machines for their efficient use. The group also includes articles for optimizing the stock of spare parts at uniform and uneven consumption for maintenance of machinery in forestry (B4.1 and B4.2), for utilization of forest resources through the use of modern mechanized technologies (B4.9 and B4.10) and those for the condition and maintenance of the forest-road infrastructure (B4.3 and B4.4.), as the latter are thematically more peripheral than the general context of the reference.

3. General description of the submitted materials.

Ch. Assistant Dr. Svetozar Madzhov presented a complete set of materials for the competition, according to the requirements of the Law as well as according to the Rules of the Forest Research Institute - BAS. The Commission for Acceptance of Documents at FRI-BAS has not found any discrepancies and reports a complete set of the applicant's materials. The summary list of scientific productions contains a total of 59 scientific articles or conference reports. Of these, 7 publications are related to the receipt of PhD, another 4 are presented in the competition for chief assistant, and the other 48 publications are subject to review in this competition and they are from group indicators B (subgroup B4) and Г (subgroups Г5 and Г8). One of the publications (subgroup Г5) is an independent monograph with scientific review. The candidate has 19 independent publications, and in 10 he is a leading author (as required for 5), there are 11 publications in journals indexed in Web of Science and Scopus (as required for 3), and in 9 of them the candidate is a single author. All submitted scientific papers are published - 39 in Bulgarian and 9 in English and are on the topic of the competition. The candidate actively participates in the promotion of the results of his work through 14 participations in international and 19 in national scientific forums.

4. Main directions in the research work of the candidate and the most important scientific and scientific-applied contributions.

The contributions in the scientific publications submitted for participation in the competition, other than those included in the habilitation report, are related to enrichment of scientific knowledge or obtaining confirmatory data, are well structured and are summarized in three areas: Repairment, maintenance and development of the forest road network; Technology and mechanization of forestry; Logistical support of forestry. I accept the presented scientific-fundamental, scientific-applied and methodological contributions in the form in which they are presented in the Reference. In the first direction are identified the contributions related to the development of methods for repair and maintenance of the existing road network in forest areas, the parameters of the damages on the roadway, the reasons for their occurrence and their main

characteristics; the types of road works during the different seasons of the year are substantiated and systematized depending on the atmospheric conditions, temperatures and precipitation and the methodology for determining the optimal road scheme such as density and location of the road network in the forestry has been improved. In the second direction a classification of the main specialized machines, which are used mainly in the logging industry, is presented, the means for complex mechanization of logging in forestry are analyzed and proposed, technical and economic analyzes of the various technological schemes of logging are prepared. methods for improving the work of the used mechanization. In the third direction, issues related to the transport and forwarding insurance, the volumes of transport, determination of the optimal routes are considered; Significant reduction of costs in the service complex of the machines has been proven by optimizing the structure and parameters of the system for maintenance and repair of equipment with different methods and models, ensuring their efficient use. An important positive aspect in the scientific work of Dr. Madzhov is the desire and ability to draw from the theoretical results useful conclusions and recommendations for practice.

5. Reflection of the candidate's scientific publications in the bibliography.

The list of detected positive citations (group of indicators \mathbb{D} has been reduced to a total of 64, most of them in monographs or collective volumes with scientific review ($\mathbb{D}14 - 63$), for which detailed evidence is presented. One of the citations ($\mathbb{D}13$) is in a journal, referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus). Three of the citations cited by the applicant are defined as self-citations and are not taken into account in the current assessment. The total number of points for category \mathbb{D} exceeds several times the required minimum of 100 points for this group of indicators. Most of the references are to articles for which the candidate is the leading or single author. This characteristic shows the relevance and importance of the research, as well as that the scientific production of Chief Assistant. Madzhov is well known by the scientific community at home and abroad.

6. Participation in research projects.

According to the "Self-assessment report for scientometric indicators" presented in the documents, group E - management and participation in projects, Dr. Madzhov is the manager (E20) of 2 projects (at least one is required) from the budget subsidy of BAS. Participates in the development of 4 more national projects (E18), funded by various state institutions (SWDP - Blagoevgrad, MES). From 2016 until now, the candidate is a member of the Management Committee of five COST actions related to the theme of the competition. Participates in the implementation of an educational project under the cross-border cooperation program Interreg-IPA "Bulgaria - Serbia" (E19). This shows that the candidate has the capacity to develop projects and is sought after as an expert to work in international research teams.

7. Teaching and learning activities (supervisor / consultant of doctoral students, student training, etc.)

No documents are provided by the candidate for teaching and learning activities.

8. Assessment of the personal contribution of the candidate.

The personal contribution of the candidate in the presented scientific production is significant - 19 of the publications are independent, and in 10 he is the first author, which in total represents more than 61% of his total production. This proves the candidate's ability to work independently in the areas of his research. The other publications show Dr. Madzhov's ability to work in scientific teams. In all co-authored materials, due to the absence of separation protocols, I accept that the participation of the authors is equal.

9. Critical remarks and recommendations.

I have no significant critical remarks on the candidate's works. Some inaccuracies of a

stylistic, editorial or technical nature have been found, which do not diminish my positive assessment of his scientific output. I recommend Dr. Madzhov to intensify his publishing activity in renowned foreign scientific journals in order to find his works more widely recognized.

10. Personal impressions.

I know Ch. Assistant Svetozar Madzhov since his appointment in the Forest Research Institute - BAS in 2014. In his scientific and applied research, Dr. Madzhov is distinguished by good creative activity, professional competence and collegial ethics, with a reasoned and definite position on current scientific problems.

11. Conclusion.

The candidate Dr. Madzhov covers the mandatory conditions and scientometric indicators for holding the academic position of "Associate Professor" at FRI-BAS, which is evident from the submitted documents, supporting materials and scientometric references. In connection with the above, I propose *Ch. Assistant Dr. Svetozar Ivanov Madzhov* to be elected "Associate Professor" in professional field 6.5 "Forestry", scientific specialty "Forest reclamation, forest protection and special uses in forests".

Date: 29.10.2020

Prepared by:
(Prof. Dr. Maria Sokolovska)