

REVIEW

for the competition for the academic position of "professor" in the professional field 4.4. Earth Sciences, scientific specialty Economic and Social Geography, published in the State Gazette no. 93 / 30.10.2020, p. 35, for the needs of the Department of Geography at the National Institute of Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences, with candidate Assoc. Prof. Dr. Boian Koulov

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The competition for the academic position of "professor" in a professional field 4.4. Earth Sciences, scientific specialty "Economic and Social Geography" was announced in the State Gazette no. 93 on 30.10.2020 and on the website of the National Institute of Geophysics, Geodesy and Geography at BAS with a term of 2 months from its promulgation. Within the two-month period, documents for the competition were submitted only by Dr. Boian Koulov, Associate Professor in the Section of Socio-Economic Geography, Department of Geography at NIGGG. The documents submitted in the competition have been reviewed by a commission, appointed by the Director of NIGGG and comply with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulation for its application and the Regulation for application of the ZRASRB at NIGGG.

The review of the submitted scientific papers was prepared on the basis of Order № 01-266 of 29.12.2020 of the Director of NIGGG for determining of a scientific jury for the competition for the academic position "Professor" (SG No. 93 / 30.10.2020) and a decision of the scientific jury for selection of reviewers (Minutes № 1 / 5.01.2021). It complies with the requirements of the Act and the Regulations for its application in BAS and NIGGG. I declare that I do not have common scientific publications with Assoc. Prof. B. Koulov.

1. Brief biographical data about the candidate

Boian Yordanov Koulov was born on September 8, 1957. He completed his secondary education at English language high school in Plovdiv and his higher education in geography of tourism at the Faculty of Geology and Geography at Sofia University (1983). In 1988, he received the degree of Candidate of Geographical Sciences (now Doctor), and the scientific title of Senior Research Fellow II degree - in 2007. He held the academic position of "Associate Professor" for 13 years - at the Geographical Institute at BAS, and after the merger of the Institute with other academic units (2010), in the Department of Geography at NIGGG (2010-2020). This meets the requirements of Art. 29, para 1, items 1 and 2 of ZRASRB and art. 58, para 1 of the Regulations for its application in NIGGG.

Assoc. Prof. Dr. Koulov is fluent in English and has many years of teaching abroad. From 1990 to 2007, he was a visiting researcher, assistant professor and visiting professor at several American universities - West Virginia University, Morgentown, West Virginia; American University and George Washington University, Washington, DC; George Mason University, Fairfax, Virginia. He has also lectured at Sofia University, and has been a guest lecturer in Greece, Romania, Austria (2011), and the Czech Republic (2014). His work as an editor took place in the editorial boards of Bulgarian and foreign magazines - Problems of Geography,

Chemistry. Natural Sciences in Education (included in ERIH PLUS and Scopus (2006-2017), Istanbul University Journal of Geography, and Spatial Journal of the Department of Geography (Jakarta University), as well as in the editing of books, conference proceedings and others.

His scientific-organizational and administrative activity inside and outside the institute is in different directions. He is Scientific Secretary of the Institute of Geography (2008-2010) and the National Institute of Geophysics, Geodesy and Geography (2010-2014). During the period 2011-2020 he was a member of the Scientific Program Council and Head of scientific program and coordinator "Knowledge Transfer, Business Relations" in the project management team of the Center for Excellence "Heritage BG", Sofia University "St. Kliment Ohridski ". Assoc. Prof. Koulov is one of the few Bulgarian scientific geographers, members of commissions of the International Geographical Union - he is a member of the Steering Committee of the Commission for Local and Regional Development at the IGS (2020-2024). Not directly related to his research work, but important, is his activity in the field of Bulgarian education of Bulgarians abroad: founder, director and chairman of the Board of Trustees of the Bulgarian Educational Center "St. Kl. Ohridski" in Washington, D.C., USA (2002-2008), founder and president of the Association of Bulgarian Schools in the USA (2006-2008), and founder and chairman of the Association of Bulgarian Schools Abroad (2007-2015).

2. Evaluation of the research activity of Assoc. Prof. Dr. B. Koulov

During the period 2008-2020, after his first habilitation (Senior Research Fellow II degree), the candidate has 40 publications, 13 of which have been published in journals referred to in Scopus, Web of Science and ERIH PLUS. Of these, one monograph as a habilitation thesis and 18 scientific articles were presented in this competition. These publications do not repeat the publications, used to acquire a scientific title in 2007 (to hold an academic position, according to ZRASRB). In terms of content, the publications presented in the competition are included entirely in its subject matter. As a very valuable feature of the publications presented in this competition, I note that the predominant part of them - the monograph and 12 of the 18 articles are printed in English, which increases the opportunities for their dissemination. Six of the scientific articles are published in publications, referenced and indexed in world-famous databases of scientific information (4 in Scopus and 2 in Web of Science), one of them in its volume qualifies as a scientific studio (G7_1). One publication is independently written and 5 are collective, and in two of them he is the first author. The other publications are published in non-indexed journals with scientific review - 4 in Bulgarian journals (Problems of Geography, Journal of the Bulgarian Geographical Society, etc.) and 1 in Turkey, as well as in edited collective volumes - 2 publications, book chapters (Bulgaria, Romania) and in 5 conference proceedings in Bulgaria (4) and Austria (1). Five of these 12 publications are independently written. In the documentation on the competition are not presented separation protocols for the participation of the individual co-authors, in the calculations in the reference for the minimum requirements, it is assumed that everybody contributed equally. There is no data for plagiarism in the scientific works of the candidate, which has been proved by the statutory order, which fulfills the requirements of art. 29, para 1, item 6 of ZRASRB.

From the publications from group D, according to the presented reference for the minimum national requirements, more points were collected in comparison with the ones required according to the Regulations for application of ZRASRB in NIGGB (Table 1).

Table 1. Quantitative assessment of the research activity of Assoc. Prof. Dr. Boian Koulov in accordance with the minimum requirements for holding the academic position of "Professor" in the Regulations for application of the ZRARB in NIGGG.

Indicators Group	Contents	Assoc. Prof. Dr. B. Koulov	Regulations for application of ZRASRB in NIGGG
A	Indicator 1. Dissertation for awarding ONS "Doctor"	50	50
B	Indicator 3. Habilitation work - monograph	100	100
D	7. Scientific publication in publications that are referenced and indexed in world-famous databases with scientific information	81,7	
	Indicator 8. Scientific publication in non-referenced journals with scientific review or in edited collective volumes	151,6	
	<i>Total number of points in group D</i>	233,3	220
E	Indicator 10. Citations or reviews in scientific journals, referenced and indexed in world-famous databases of scientific information or in monographs and collective volumes	125	
	Indicator 12. Citation or review in non-peer-reviewed journals with scientific review	6	
	<i>Total number of points for group E</i>	131	120
F	Indicator 14. Guide to a successful defense of PhD dissertation	40	
	Indicator 17. Management of a national scientific or educational project	120	
	18. Management of an international scientific or educational project	80	
	<i>Total number of points for group E</i>	240	150
	<i>Total number of points for groups A, B, D, E, F</i>	754,3	640

The total number of points in group E - citations in scientific journals, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes and in non-refereed journals with scientific review is also higher than the requirements in the Regulations for application of ZRASRB in NIGGG. It should be noted that the required number of points for groups D and E in the Rules of the NIGGG are higher than those at the national level (10% for group D and 20% for group E). The predominant part of the citations of the scientific works of Assoc. Prof. B. Koulov is in refereed editions (in Scopus and Web of Science). Assuming that after the first habilitation, according to additional information from the candidate, in the period 2008-2020, he has 120 citations, of which 42 in Scopus and Web of Science, I think that some of the citations were selected unsuccessfully - several publications published in the 1990s and some of them cited during the same period. I assume that these citations were not used in his habilitation as an associate professor, because in 2007 citations were not of such importance. On the other hand, some of these publications have been cited in recent years (e.g., 10.9 from the citation reference cited in 2019), which shows that they are still relevant to some researchers.

The largest excess in the number of points in group F, where Assoc. Prof. B. Koulov has indicated management of two international and 1 national project, funded by European Commission programs (Horizon 2020 Program, Compass, OP NOIR), of 5 national projects funded by the NSF and guidance of one PhD student that successfully defended their dissertation. The topics of these projects (comparative analysis of territorial governance and planning systems in European countries, use of natural capital in policy and business decision-making, research of mountain areas and the environment, setting-up and development of a center of excellence "Heritage BG" etc.) corresponds to the subject of the competition for professor. On the other hand, the international projects, led by Assoc. Prof. Koulov enable young scientists from the institute to participate in the cooperation within the European scientific space. I draw attention to this fact, as a participant in one of these international projects.

Assessing the activity of the candidate for the academic position "Professor" in consideration of the quantitative assessment presented in the report on the minimum national requirements, it can be summarized that Assoc. Prof. Dr. B. Koulov fully meets the requirements of Art. 29, para. 1 of ZRASRB and of art. 59, para. 3, item 2 of the Regulations for application of ZRASRB in NIGGG.

3. Main scientific contributions of Assoc. Prof. Dr. B. Koulov

In the "Extended reference for the scientific contributions", which is part of the documentation for the competition, contributions in two thematic areas are presented. The evaluation of the published monographic work and -as a whole - of the other publications presented in the competition, according to art. 29, para. 4 of ZRASRB, gives me reason to accept these thematic areas as a good presentation of the scientific contributions of the candidate.

A. Geospatial inequalities and sustainable regional development: theory, tools and policies. The boundaries of the core and periphery of the European socio-economic system and their dynamics in the period 2007-2017 have been identified and mapped and its geospatial elements have been classified. The regions of greatest interest for management practice and regional policy have been identified and mapped. Contribution to the literature for peripheralization and marginalization of certain areas and for

sustainable regional development is the theory proposed by Assoc. Prof. Koulov and tested on the example of Bulgaria for one of the ways of forming regions with relatively lower living standards, introducing and justifying the term "Periphery overlap". It is used as a tool to identify declining regions or so-called regions with specific geographical features (mountainous, border, etc.). On the example of the mountain regions in Bulgaria, the concept of sustainable development and its management is further developed by adding political, cultural and geospatial characteristics. An underestimation of the importance of regional monitoring is established, especially for the peripheral regions and for the purposes of strategic planning and territorial management. In this thematic area Assoc. Prof. Dr. B. Koulov points to 12 publications - the presented monograph (B3_1) and 11 scientific articles, two of which are in publications referred to in Scopus (D7_3, D7_4, D8_1, D8_2, D8_3, D8_4, D8_6, D8_7, D8_9, D8_11, D8_12). The monographic work "Europe's Core-Periphery Relations and Horizontal Disparities", published by the National Publishing House for Education and Science "Az-Buki" at the Ministry of Education and Science (S., 2020, 139 p.) is an interesting and up-to-date study of territorial differences and territorial (horizontal) inequalities in Europe. It is one of the few scientific studies in the field of socio-economic geography in Bulgaria, including the entire European continent. It is developed on the basis of the "core-periphery" model by using the different levels of territorial units (NUTS) defined in the EU and based on reliable information from Eurostat for 2007 and 2017. This allows the author to "track" and analyze changes in territorial inequalities during the study period. The results of the research are useful not only for geographers in Bulgaria, but also for specialists from the country and abroad, interested in the problems of regional development, territorial inequalities and regional policy. Very interesting for readers from other countries is the third part, which emphasizes the peripheral position of Bulgaria in Europe, the overlap of different in nature and genesis peripheries in the southern and eastern part of the continent and in different parts of Bulgaria. The topic of the European periphery is not new for Assoc. Prof. Koulov. He deals with it in several articles, on the example of mountain and border regions in Bulgaria and Southeast Europe (D7_3, D7_4, etc.), and later further develops these research problems in greater depth in his monograph. Another part of his scientific articles is devoted to geographical studies of mountainous regions, which are often regions with special needs, "deep peripheries", to the identification of current problems in them and the need to pursue appropriate policies to solve them. As a separate group, I would like to separate articles that address current issues for the present stage of development of the country as part of the EU, related to research, mapping and assessment of ecosystem services.

B. Application of the concept of ecosystem services, as well as geoinformation technologies for sustainable environmental management and regional development

Based on the application of the MAES (Mapping and Assessment of Ecosystem Services) methodological framework, methodological guidelines for the mapping of ecosystems and the economic evaluation of the services they provide at the local level have been proposed in administrative-territorial units in Bulgaria. In order to develop the theory and practice of the assessment of ecosystem services, the introduction of the term "dysergy" of ecosystem services is defined and proposed. The existing knowledge base is being upgraded, which supports geospatial planning and the sustainable development of territorial units at the local level in mountain systems in Bulgaria. GIS-based approaches, a database and cartographic products have been developed to support the reduction of the risk of dangerous natural phenomena and

technological hazards in connection with the protection of natural and cultural heritage and the life and property of the population of 10 municipalities in Bulgaria. In this thematic area Assoc. Prof. Dr. B. Koulov presented 9 publications (D7_1, D7_2, D7_5, D7_6, D8_3, D8_5, D8_8, D8_11, D8_12), four of which are printed in publications, referenced and indexed in Scopus and Web of Science. It can be summarized that the scientific and scientific-applied contributions in the peer-reviewed works of Assoc. Prof. Dr. B. Koulov, related to the further development of some theoretical concepts, with the application of new methodological tools in geographical research, contribute to the enrichment and development of existing knowledge.

4. Critical remarks and recommendations

I have no substantive criticism of the publications presented, as they are printed in peer-reviewed and indexed editions. As a longtime editor and member of editorial boards of Bulgarian and foreign journals, I would like to recommend to the candidate and the editorial boards of proceedings of scientific conferences to pay more attention to unintentional spelling mistakes in these publications (sometimes a large number), which spoil the good impression of their content side. I would like to recommend Assoc. Prof. Dr. B. Koulov to continue his work on the study of mountains in Bulgaria in the current areas at this stage of development, thus continuing the existing good traditions in geographical research of mountain regions at the Institute of Geography and in the Department of Geography at NIGGG at BAS.

5. Conclusion I know Assoc. Prof. Dr. B. Koulov from our joint work in the section of Socio-Economic Geography at the Institute of Geography and the Department of Geography at NIGGG. The previous research, publication, teaching and scientific-organizational activity of Assoc. Prof. Dr. Boian Koulov presents him as one of the leading scientists in modern Bulgarian socio-economic geography, very well known to the international geographical community. The analysis and evaluation of its activity show that it fully meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, and the Regulations for its implementation at the National Institute of Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences for the academic position of "professor". That is why I give a positive assessment of his candidacy for this academic position. This gives me grounds to recommend to the Scientific Jury to propose to the Scientific Council at NIGGG to vote for Assoc. Prof. Dr. Boian Yordanov Koulov to take the academic position of "Professor" in the professional field 4.4. Earth Sciences, scientific specialty Economic and Social Geography in the Department of Geography of the National Institute of Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences.

January 22, 2021

Signature:

Professor Margarita Ilieva, D.Sc.