

**TO THE CHAIRMAN OF THE SCIENTIFIC JURY**

**AT THE NIGGG – BAS,**

**PROF. DR. BOIAN KOULOV**

## **R E V I E W**

by Assoc. Prof. Dr. Poli Nikolova Rukova

National Institute of Geophysics, Geodesy and Geography at the Bulgarian  
Academy of Sciences (NIGGG - BAS)

Member of the Scientific Jury, according to Order № 01-265 /12 November 2021 of the Director of the National Institute of Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences for a competition for obtaining the academic position of "Associate Professor" in Professional field 4.4. "Earth Sciences", Scientific specialty "Economic and Social Geography", for the needs of the Department of Geography at the NIGGG - BAS, announced in State Gazette №86 / 15 Oct. 2021, and Reviewer, according to the decision of a meeting of the Scientific Jury №1 / 17 Dec. 2021.

The sole participant in the competition who submitted documents is Dr. ALEKSANDRA LYUBENOVA RAVNACHKA, Senior Assistant Professor in the "Economic and Social Geography" Division of the Department of Geography at the NIGGG - BAS. The submitted documents and materials for participation in the competition meet the requirements of the Act on Development of the Academic Staff in the Republic of Bulgaria (ADAS), the Regulations for application of the ADAS, the Regulations of the Bulgarian Academy of Sciences on the terms and conditions for obtaining scientific degrees and holding academic positions, and the Regulations for application of the ADAS at the NIGGG - BAS.

### **1. BIOGRAPHICAL DATA ABOUT THE CANDIDATE**

Senior Assistant Professor Dr. ALEKSANDRA LYUBENOVA RAVNACHKA was born on December 16, 1977 in Blagoevgrad. In 2001 she graduated from the Faculty of Geology and Geography at Sofia University "St. Kliment Ohridski", obtaining a Master's degree in Geography, where she specialized

in economic geography, regional studies, and education in geography. She also acquired a qualification as a geography teacher.

Since 2003 Dr. RAVNACHKA has been working as a Research Associate (Assistant Professor) in the "Economic and Social Geography" Division of the Institute of Geography at the Bulgarian Academy of Sciences. Since 2010 the division has been part of the Department of Geography at the NIGGG - BAS. After successfully defending her doctoral dissertation on "Spatial disparities in the demand and supply of labour force in Blagoevgrad district (2001-2011)", the candidate acquired the educational and scientific degree of "Doctor" in 2017 and consequently held the position of Senior Assistant Professor.

Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA speaks English and French to varying degrees. She has excellent organizational, communication and technical skills, as well as teamwork skills, and competencies in the application of various software products in her research. The candidate has actively participated in the implementation of over 20 research and applied projects, funded by various national programs, European Union programs, etc. The result of that activity can be seen in her numerous publications – as a sole author and in co-authorship.

Dr. RAVNACHKA and I have been working together since she started working in the Division. I appreciate her professionalism, ability to work, dedication and ethics.

## **2. CRITERIA FOR PARTICIPATION IN THE COMPETITION**

### ***2.1. Quantitative assessment of the scientometric requirements in accordance with the Regulations for application of the ADAS at the NIGGG - BAS***

The candidate for the academic position "Associate Professor" - Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA - has presented the necessary materials and documents in accordance with the legal and regulatory requirements under Art. 2, item 4.3. of the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at the BAS, and Annex № 1 - Professional field 4.4 "Earth Sciences", and in accordance with Article 2b, para. 5 of the ADAS, and Art. 54 of the Regulations for application of the ADAS at the NIGGG - BAS.

The candidate has held PhD degree since 2017, while a certificate of academic position proves that she has worked as Assistant Professor for 14 years, and as Senior Assistant Professor for 4 years at the NIGGG - BAS.

Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA has submitted a reference for the implementation of the minimum scientometric requirements for holding the academic position of "Associate Professor" at the NIGGG - BAS, which shows that the candidate has gained a higher total score than required minimum. In group A.1 ("PhD degree") and group B.3 (monograph) the number of points corresponds to the normative number. Group C (indicators 7, 8 and 9) contains 21 publications (scientific papers, chapters of monographs, scientific reports) with a total of 241.84 points, or 21.84 more than the required minimum. In group D, 26 citations have been submitted, with the sum for the whole group being 71, or 11 points more than the required minimum. Participation in projects (indicators 15 and 16) – group E, states a total of 40 points, or 10 more than the required minimum.

The candidate participates in the current competition for the academic position of "Associate Professor" with a total of 502.84 points, with a mandatory minimum number of 460 (Table 1).

**Table 1**

Group	Indicators	Required number of points for "Assoc. Professor"	Number of points obtained by the candidate
A	Indicator 1	50	50
B	Indicator 3	100	100
C	Sum of indicators 7, 8 and 9	220	241,84
D	Sum of indicators 10, 11, 12	60	71
E	Sum of indicators 15 and 16	30	40
Total	Sum of A+B+D+E	460	502,84



## ***2.2. Evaluation of the research and scientific contributions***

The candidate - Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA - has provided an authored monograph titled "Demographic situation and labour market in Blagoevgrad and Kyustendil districts", which was published by the National Publishing House for Education and Culture "Az-Buki" in a volume of 216 pages (group B, indicator 3). The monograph consists of an introduction, five chapters, a conclusion, a list of references which includes 99 titles in Bulgarian and English, 33 tables and 42 figures (maps and graphs). The monograph was published after going through two scientific reviews. The monograph does not repeat the candidate's doctoral thesis. The scientific work is original and is the result of the independent research activity of the candidate.

The monograph clarifies and analyzes the specifics of the demographic processes in Blagoevgrad and Kyustendil districts and assesses the impact of those processes on the labour market. The analysis of the interrelation and interdependence between the two research aspects and their socio-economic effect on regional development, covers the administrative territorial units at NUTS 3 level (district) and those at LAU1 level (municipality). The comparative analysis and the typology of the intra-regional features of the studied areas are an important part of the scientific research.

Group C presents a total of 21 publications, two of which fall in indicator 7 - scientific publications in journals that are referenced and indexed world-renowned scientific information databases, 17 in indicator 8 - scientific publications in non-referenced journals, or in edited collective volumes, and two publications represent chapters from collective monographs (indicator 9).

The citations listed in group D are 26 in total, five of which fall in indicator 10 - citations or reviews in scientific journals, referenced and indexed in world-renowned scientific information databases, or in monographs and collective volumes, 4 citations in monographs and peer-reviewed collective volumes, and 17 - citations in peer-reviewed non-referenced journals.

In group E the candidate has indicated participation in three research projects - one international (E.15) and two national ones (E.16).

The scientific contributions of the publications of Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA can be grouped into three research areas of geography - economic-geographical and demographical research, regional labour market research, and application of the concept and methodology for assessing ecosystem services.

### *ECONOMIC-GEOGRAPHICAL AND DEMOGRAPHICAL RESEARCH*

- The parameters of the demographic and socio-economic development of the rural areas and the municipalities in the mountain areas of the country have been determined. An assessment of the scope and intensity of the process of continuing depopulation of the rural areas has been made, highlighting the most vulnerable of them, and identifying those where the process is least intense. A classification of the municipalities in the mountain areas of Bulgaria according to the main demographic indicators (B.3, C8.7, C8.12, C9.1) has been proposed.

- The regional specifics, limitations and challenges of the demographic and socio-economic development of two administrative-territorial units at NUTS 3 level (Blagoevgrad and Kyustendil districts) and their constituent municipalities have been clarified and analyzed. A comprehensive benchmarking analysis has been carried out, which can be applied in the elaboration of regional development policies (B.3).

- The specific characteristics of school segregation and the labour integration of the Roma in Harman Mahala quarter of the city of Plovdiv have been identified. The methodology of Massey and Denton for measuring geospatial segregation according to the conceptual scheme was adapted and tested in the above-mentioned quarter of Plovdiv (C9.2, C8.11, C8.10).

### *REGIONAL LABOUR MARKET RESEARCH*

- A comparative analysis of the regional labour markets in the South Central and the Southwest planning region has been performed. The impact of the EU enlargement on the functioning of the labour market in both regions has been clarified (C8.16).

- A typology of the LAU 1 administrative-territorial units in Blagoevgrad and Kyustendil districts according to the demographic situation and the state of the labour market has been developed. The regional and local changes in the economic activity of



the population have been assessed, as well as the employment and unemployment specifics in the studied areas and their constituent municipalities for the period 2011-2020. The need for the implementation of regional development policies in accordance with the specific conditions of the respective administrative-territorial units has been justified (B.3).

- The regional specifics in the state and development of the labour market in Blagoevgrad district during the different periods of the socio-economic transformation of the country have been analyzed (B.3, C8.3, C8.9, C8.14, C8.17).

### *APPLICATION OF THE ECOSYSTEM SERVICES CONCEPT*

- A model for assessment of ecosystem services through GIS-based mapping in a specific mountainous Bulgarian municipality has been tested. The model was applied for the first time at LAU 1 level in the country (C7.1).

The structure of the studies, the analysis of the results based on information from reliable sources only, the application of modern research approaches and methods, the conclusions made and the contributions of both the monograph and the other publications, prove the high level of professionalism in the research activities of the candidate.

All publications are original, no plagiarism has been detected, and no signals and complaints have been received during the competition.

The predominant number of co-authored publications is a result of the candidate's participation in research teams working on research projects, where the joint publishing activity is an established international practice. Those publications are a positive example of a candidate's teamwork skills.

The presented publications are the result of in-depth research of the candidate in the field of economic and social geography.

### **3. CRITICAL NOTES AND RECOMMENDATIONS**

I have no critical remarks on the presented publications and materials. They fully reflect the scientific interests, the professional qualities and the experience of the candidate.

I recommend to Dr. ALEKSANDRA RAVNACHKA to continue to expand her participation in even more international scientific partnerships and initiatives in her future scientific work.

#### **4. CONCLUSION**

All regulatory requirements of this competition are met.

I have worked many times with Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA on various research projects and publications. She is distinguished by her professional style - accurate and ethical. Over the years, she has continuously developed her research interests and competencies in economic and social geography. The participation of Dr. ALEKSANDRA RAVNACHKA in the competition for obtaining the academic position of "Associate Professor" is the result of her successful research.

Based on the above, I support the candidacy of Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA for holding the academic position of "Associate Professor" under Professional field 4.4 "Earth Sciences", Scientific specialty "Economic and Social Geography" for the needs of the "Economic and Social Geography" Division of the Department of Geography at the NIGGG - BAS. I vote IN FAVOUR and I propose to the esteemed members of the Scientific Jury to support Senior Assistant Professor Dr. ALEKSANDRA RAVNACHKA in their proposal to the Scientific Council of the NIGGG - BAS.

13 Jan. 2022

Sofia

Reviewer:

(Assoc. Prof. Dr. Poli Rukova)