#### **REVIEW**

By: Prof. Ivan Stoykov Kanchev, Dr. Habil. Scientific specialty Economics and Management

Regarding: competition for the academic position of associate professor for the "Regional and Sectoral Economy" section of the Institute for Economic Research of the BAS in professional field 3.8. Economy - Agrarian economy, announced in the State Gazette No. 33/29.04.2022

Grounds for participation in the scientific jury - Decision of the SC protocol 10 of 15.06.2022 and Order of the Director No. 282/27.06.22

### 1. Information about the candidate in the competition

Senior Assistant Dr. Petya Hristomirova Branzova is the only candidate for the position of "Associate Professor" according to the announced competition.

The submitted information on the competition has been prepared in accordance with the Law on the Development of the Academic Staff of the Republic of Bulgaria and Article 86 of the Regulations for the Acquisition of Scientific Degrees and the Occupancy of Academic Positions at the Institute for Economic Research of BAS and in accordance with the decision of the National Assembly of the Institute for Economic Research of BAS - Protocol from 15.06.2022.

The educational status of the candidate includes consecutively: completed higher education at UNSS - bachelor's degree in economics (2004-2008) with acquired specialization "Agrarian Economics"; master's degree in economics at UNSS in "Agrarian Business" (2008-2009) and full-time doctoral studies at UNSS (2010-2013) with the acquired educational and scientific degree "Doctor".

As of 2013, Dr. Branzova's professional status includes the positions of assistant and senior assistant in the "Regional and Sectoral Economy" section of the Institute for Economic Research of BAS. During the same time, she was a part-time teacher at the UNSS in the Department of "Economics of Natural Resources" on the courses "Management Consulting" and "Economics of Cooperatives".

The candidate has acquired professional experience, organizational skills and competences of a researcher, university teaching in the field of agrarian economy, agrarian business, general agricultural policy, bioeconomy and climate change in agriculture. Possesses technical skills and competencies related to the use of various software programs, working with information systems, spreadsheets and applications. Brunzova has a very good command of English and Russian languages, as well as organizational competencies related to membership and participation in the Union of Scientists, the Union of Economists and Agricultural Economists in Bulgaria.

# 2. Fulfillment of the requirements for occupying the academic position "associate professor" at the Institute of BAS

## 2.1. Fulfillment of minimum national requirements

Senior Assistant Branzova participates in the competition for the academic position at the Institute of Scientific Research with scientific production and citations, according to which she presents 508 points in the evaluation card, out of the minimum required 450 points. This number is formed by the execution of the indicators included in Table 1.

Table 1. Fulfillment of the national minimum requirements

Indicators	number of points		% of
	national	execution	execution
	requirements		
1. Defended thesis	50	50	100
2. Habilitation thesis/monograph	100	100	100
3. Articles and reports published in			
scientific publications (referred and	230	253	110
indexed)			
4. Cited	70	105	150
Общо	450	508	112,8

The data in the table shows that the overall overrun is 58 points (12.8%) for the presented publications and citations. The minimum requirements of the Regulations for the acquisition of scientific degrees and the occupation of academic positions in the Institute for Economic Research at the BAS have been met and exceeded.

The applicant's scientific developments are well known to the agribusiness community. This is confirmed by the achieved citation rate of some of the publications. Cited scientific publications (referenced and indexed) in world databases with scientific information or in monographs and collective volumes are a total of 3 publications - 45 points; in monographs and collective volumes with scientific review - 4 issues, 40 points and in peer-reviewed non-refereed journals 4 issues. publications, 20 nos. points. The total number of citation points is 105 with a minimum threshold of 70 points or 50% overperformance is achieved.

## 2.2. Fulfillment of additional requirements of the Institute for Economic Research of BAS

From the reference for the information on additional indicators under Art. 87 para. 4 of the Regulations for the acquisition of scientific degrees and holding of

academic positions at the Institute for Economic Research of the Academy of Sciences, the candidate presents 3 participations and memberships in scientific organizations with the scientific field of the competition in the Union of Scientists, the Union of Economists and the Union of Agrarian Economists.

A list of participation in international and national scientific conferences is presented - 6 participations with scientific reports presented at conferences with international participation dedicated to round anniversaries of the Institute for Economic Research of the BAS (October 21-22, 2019), UNSS Sofia (April 21 2021), Varna University of Economics (May 11-12, 2020), Thrace University Stara Zagora (May 15, 2020). The thematic focus of the presented reports is related to agrarian business, rural areas, the economy, innovation and sustainable growth.

### 3. General characteristics of the presented scientific publications

For participation in the competition, Senior Assistant Branzova presents 19 scientific works published in the period 2014-2022, which do not duplicate the publications for the acquisition of the academic position "senior assistant" and ONS "Doctor".

The submitted reference for the fulfillment of the minimum requirements includes:

- ✓ Habilitation thesis published monograph in the relevant scientific field with the title "Development of the main fruit crops in the South-Eastern region of Bulgaria", publishing house "Rolch Company" 187 pages;
- ✓ Published book based on a defended dissertation work for the award of the ONS "Doctor" with the title "Economic impact of climate change on Bulgarian agriculture in the South-Eastern planning region" 179 pages;
- ✓ Articles and reports published in scientific publications referenced and indexed in a global database with scientific information publication in the journal "Economic Research" of the BAS, No. 1 2019. 5 pages;
- ✓ Articles and reports published in non-refereed journals with scientific editing or published in edited collective volumes a total of 16 publications with a volume of 100 pages. Of these, 8 are published in English and 2 are co-authored, for which distributions are presented protocols.

The presented information about the candidate's scientific works is the basis for the general conclusion that they cover the quantitative indicators for the scientific production necessary for occupying the academic position of "Associate Professor" at the Institute for Economic Research of BAS. The requirements for additional information under Art. 87 para. 4 of the Regulations for the acquisition of scientific degrees and occupation of academic positions at the Institute for

Economic Research with BAS have also been met.

In the structure of the types of publications, independent works predominate (more than 99%) of the total number of pages. In terms of thematic and content, Senior Assistant Brunzova groups her scientific output in three research areas:

- ✓ Impact of climate changes on agriculture and the economy of Bulgaria 7 publications with No. 1.1, 5.1, 7.1, 7.6, 7.7, 7.11 and 7.12 from the list of publications.
- ✓ Organic farming and Common Agricultural Policy of the EU 8 pcs. with No. 6.1, 7.2, 7.3, 7.4, 7.5, 7.8, 7.10 and 7.16.
- ✓ Bioeconomy 4 pcs. with No. 7.9, 7.13, 7.14 and 7.15

A major place in the candidate's work is occupied by the problems of the impact of climate change on agriculture and the economy of Bulgaria. In these publications, the main place is devoted to the monographic work "Influence of climate changes on the development of main fruit crops in the South-East region of Bulgaria" (1.1 of the list). The condition and problems related to the cultivation of fruit crops in this area have been diagnosed. The necessary investments have been determined and their effectiveness has been assessed for the development of the production of the represented fruit species in the area. The results of this research have allowed the author to justify the conclusion that the influence of climate changes, as well as the projected estimated yields can be used in determining the size of the areas and the required resources, as well as the expected production results.

The independent monograph, which was developed on the basis of the defended dissertation work "Economic impact of climate changes on Bulgarian agriculture in the South-Eastern planning region", deserves special attention of this scientific field. Five variants of changing the average yields of the studied crops were developed, the results of which were used as input data for the made assessments. On the basis of these variants, the optimal structure of agriculture in the South-Eastern planning region was determined through the compilation of an economic-mathematical model.

A suitable place in the scientific reserach is allocated to the main sources of financing in agriculture in Bulgaria and the main problems of their use are highlighted (publ. 7.1). On the basis of the revealed empirical relationships between the average yields of agricultural crops and climatic factors, the expected yields until 2050, as well as the necessary areas for the cultivation of individual crops, were projected (publ. 7.12).

In the works of the second research area "Organic agriculture and CAP of the EU", publications with numbers 6.1, 7.2 and 7.5 stand out. The development of organic production is analyzed, as well as the application of the CAP for the period 2014-2020, which are important highlights of the new agricultural policy.

Reasoned conclusions and proposals have been made to achieve sustainable development and environmental protection, which are embodied in the main objectives for the development of agriculture in the next decade. Original in design are the publications related to the new alternatives put before young farmers and the possibilities for their financing (publ. 7.4).

In the works of the candidate, an appropriate place is allocated to the state and development of the bioeconomy in Bulgaria. The development of the bioeconomy in the EU, adopted policies, strategies and innovations at regional level are presented. Against this background, the state of the bioeconomy in Bulgaria is presented and relevant conclusions and recommendations applicable under the conditions of our country are developed (publ. 7.13 and 7.14).

It can be summarized that the peer-reviewed scientific production of Senior Assistant. Dr. Branzova fully meets the requirements for holding the academic position of "associate professor" in the announced scientific field. In addition, it is dedicated to a current and significant for public practice topic.

### 4. Evaluation of scientific and scientific-applied contributions

The scientific output of Senior Assistant Branzova contains scientific, methodological and applied developments that have the character of empirical studies related to the state and development of the agricultural sector, as well as the impact of climate changes and the applied general agricultural policy in the search for new technological solutions and efficient productions.

I evaluate and group the achieved scientific results and contributions contained in them as:

- Methodological approaches and solutions related to further development, clarification and enrichment of existing and new theoretical knowledge, methodical approaches and specific solutions;
- Scientific-applied contributions related to the development of analyses, assessments and proposals concerning the state and guidelines that have a marked practical applicability.

I refer to the first group of contributions:

- ✓ Development and adaptation of a climate model to assess the impact of changes leading to a change in the final results and estimated yields of agricultural crops;
- ✓ Application of a complex approach to link the final results of production with the influence of climate changes in fruit growing. Argumentation and scientific proof of the "climate-average yield" connection with the establishment of the size and volume of production and the necessary resources and investments to start new productions.

- ✓ Assessment of the economic problems that make it difficult for organic producers, related to the expansion of this type of production;
- ✓ Expanding and enriching the theoretical views related to the concept of "green infrastructure" in the context of the EU CAP;
- ✓ Develop a historical overview of the changes and reforms that the EU CAP has undergone, as well as the objectives and instruments of organic farming as part of the new CAP.
- ✓ Summarizing and systematizing the scientific and scientific-applied foundations of the bioeconomy and policies to ensure sustainable development and food security.

The second group of scientific-applied contributions have a marked practical focus, related to:

- ✓ Revealing the influence of climate changes on agricultural production and regional development of the country, as well as forecasting and formulating project solutions related to agrarian policy.
- ✓ Establishing the state and parameters of the biological production of crop production and the potential opportunities to support the producers of biological products laid down in the Program for the Development of Rural Areas and to absorb the funds for implementing good practices and methods for biological production of new and traditional products of plant and animal origin.
- ✓ Expanding views on the place of bio-agriculture and raising the role of young farmers for effective application of the principles and methodological solutions of the bio-economy.

In conclusion, it can be summarized that the presented scientific contributions and applied results of the candidate prove their scientific value, relevance and practical significance.

### 5. Recommendations

The peer-reviewed scientific publications and the formulated indisputable scientific results of Senior Assistant Branzova are of interest to a wide range of researchers, experts and specialists in practice. My recommendation is that in the future she deepens her research mainly in the field of bioeconomy and related specific features and potential needs of the practice.

#### 6. Conclusion

The presented scientific works of the candidate fully meet the quantitative and qualitative requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the criteria of the Institute for Economic Research of the BAS for occupying the academic position "associate professor". All this

gives me enough reason to confidently propose to the respected members of the scientific jury that we vote and propose Senior Assistant. Dr. Petya Hristomirova Branzova to be elected to the academic position of "associate professor" in professional field 3.8 Economics, Agrarian Economics with the Institute for Economic Research of BAS.

10.08.2022	Signature:
	(prof. Dr. Habil. Ivan Kanchev)