

REVIEW

by

Assoc. Prof. Ph.D. **Hristo Mihaylov Chervenkov**

a member of the scientific jury in a competition for the academic position of "Associate Professor" in professional field 4.4 "Earth Sciences", scientific specialty "Meteorology", in the division "Meteorological experimental data", Department "Meteorology" of NIMH

The present review is prepared on the basis of the Order of the Director General of NIMH Nr. ND-04-21 from 23.08.2021 and the decision from the meeting of the scientific jury from 15.10.2021. It is in accordance with the requirements of the Law for the development of the academic staff in the Republic of Bulgaria (ZRASRB), the Regulations for its implementation (PPZRASRB) and the Regulations of NIMH under ZRASRB.

I. Requirements to the candidate

according Art. 24 (1) and Art. 26 (1), (2) of ZRASRB, art. 53 (1) and Art. 54 (1) of PPZRASRB and Art. 53 (1) and Art. 54 (1) of the Regulations of NIMH under ZRASRB

Senior Assistant Ph.D. Lilia Ivanova Bocheva was born in 1968. She graduated with a Master degree in Meteorology from the Faculty of Physics at Sofia University "St. Kliment Ohridski" in 1992. After her graduation she started working as a meteorological technician at NIMH and had been on that position from 1993 to 1997. From 1997 to 2001 she had been a physicist and in the period 2001-2007 – a research associate III degree. From 2007 until now she has been a senior assistant. In 2014 she defended her doctoral dissertation on "Climate Variations and Assessment of Hazardous Meteorological Phenomena caused by Convective Storms over Bulgaria (1961-2010)", supervised by Assoc. Prof. Ph.D. P. Simeonov. In 2019, she became head of the Meteorological Experimental Data (MED) division. In October 2020, Dr. Bocheva was appointed as Director of the Department of Meteorology. She currently holds this position and at the same time continues to be a head the MED department.

The autobiographical reference of the applicant shows that her entire professional career so far has been at NIMH, going through all stages of career development in the MED division and the Department of Meteorology.

The collection of hydrometeorological measurements and observations, respectively the timely and reliable dissemination, archiving and management of information - a product of these measurements and observations, is probably the most typical and recognizable activity of any national hydrometeorological service, after the preparation of forecasts for different ranges. The main activity of Dr. Bocheva during most of her career has been control, processing and archiving of operational and regime information with the main purpose of ensuring the completeness, security and timeliness of the national meteorological archive.

The performed inspection of the submitted materials for the competition did not reveal any deficiencies and violations in the procedure for eligibility of the candidate.

II. Requirements for the research and applied research work of the candidate

according Art. 24 (1), item 1, item 3, т. 4, item 5 and Art. 26 (1) from ZRASRB, Art. 53 (1), item 1, item 3, item 4, item 5 and Art. 54 from PPZRASRB, Art. 53, item 1, item 4, item 5, item 6, item 7 from Regulations of NIMH under ZRASRB

The following analysis gives an idea of the fulfillment of these requirements by the candidate.

- Group A/Indicator 1: Successfully defended dissertation for awarding the educational and scientific degree "Doctor": **50 points** (minimum requirements: 50 points)
- Group B/Indicator 4: Habilitation work - scientific publications (not less than 10) in publications that are referenced and indexed in world-famous databases with scientific information: **10 publications/189.5 points** (minimum requirements: 10 publ./100 points)
- Group D/Indicator 7: Scientific publication in publications that are referenced and indexed in world-famous databases with scientific information: 6 publications/83.3 points
- Group D/Indicator 8: Scientific publication in unreferenced journals with scientific review or in edited collective volumes: 16 publications/121 points

Total number of points in Group D: **204.3 points** (minimum requirements: 200 points)

- Group E/Indicator 10: Citations or reviews in scientific journals, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes: a total of 24 pcs. of 7 publications; **120 points** (minimum requirements: 50 points)

The analysis shows complete fulfillment of the requirements for research and applied research work. In groups B and E, covering basic scientometric criteria, over-fulfillment was found to be close (for B) and over (for D) twice. In the attached documents, the lack of data for citations in Group D/Indicators 11-12, which Dr. Bocheva undoubtedly has, is also impressive, but they are generally difficult to trace, respectively provable.

Thematically, the publication activity of the applicant is mainly devoted to investigation of the manifestations and climatology of extreme weather phenomena, with a clear focus on heavy rainfall. The problem is relevant for our country, and its significance from a scientific and scientific-applied point of view is indisputable. Most publications are the result of collective efforts, but this, on the one hand, is a common practice in modern meteorology, and on the other hand proves the validity of Dr. Bocheva's claim that she can work successfully in a team. The applicant deserves congratulations for the publications in cooperation with specialists outside NIMH. Personally, I am very impressed that Dr. Bocheva is the leading author of most of the publications on the list, including most of the most prestigious.

Article 53 (1) item 5 of the Regulations of NIMH under ZRASRB introduces an additional (to ZRASRB, respectively PPZRASRB) requirement for the academic position "associate professor", namely leadership of successfully completed research projects funded by research programs, funds or business organizations and/or implementations in practice. Dr. Bocheva reports that she has successfully completed such a project, which is why I believe that this requirement has been met. Here it should be noted the impressive number of participations of the applicant in projects with external funding - a total of 21, 4 of which are internationally- and the remaining 17 nationally-funded. I am personally deeply respected for Dr. Bocheva's participation in well-known to the

world expert community projects (in the broadest sense) such as MEDEX, GPCC (the most detailed global precipitation inventory) and ECA&D. The activity of the applicant in the reported projects proves her high professionalism, scientific and scientific-applied productivity and commitment to the activities of general institutional, national and international importance.

Dr. Bocheva has appropriately divided her contributions into two main groups, namely scientific and scientific-applied. The scientific contributions are mainly in the field of regional climatology and meteorology of the dangerous and especially dangerous weather events. They are materialized in numerous publications in prestigious magazines. The scientific-applied contributions are expressed in the organization and participation in all activities related to the processing and input of meteorological information in the MED division. The applicant is the main executor of this activity. In general, I highly appreciate the scientific and scientific-applied contributions of Dr. Bocheva and I believe that in all of them she has a major role.

III. Opinions, recommendations and notes

Here I can only note that I am somewhat surprised from the lack of reported reviews of scientific manuscripts by the applicant. Probably this is a formal omission, I hope that after taking the academic position of "Associate Professor" Dr. Bocheva will intensify her efforts in this direction.

My personal impressions of Dr. Bocheva are very good. In my opinion, she is a dedicated professional, whose ability to successfully combine scientific, scientific-applied and operational activities is worthy of example. The fact that she has taken on the difficult and responsible task of being the director of the Department "Meteorology" since October 2020 speaks clearly about the ethical qualities of the applicant and her empathy for the problems of NIMH. This position is not in her direct interest, it only leads to a greater workload on her already busy work schedule. In purely human terms, I believe that Lilia Bocheva is an honest, modest, unobtrusive, but at the same time principled person.

The inspection of the submitted materials for the competition did not reveal any violations in the procedure. The requirements of art. 24 (1), item 1, item 3, item 4, item 5, (2) and art. 26 (1), from ZRASRB, art. 53 (1), item 1, item 3, item 4, item 5 and art. 54 of PPZRASRB, art. 53, item 1, item 4, item 5, item 6, item 7 and art. 54 of the Regulations of the NIMH under ZRASRB are fulfilled.

Based on the acquaintance with the documents of the candidate for the competition and the evaluation, according to art. 27 (3), (4) of the ZRASRB, I give my categorical **positive** conclusion for her selection. I strongly recommend to the Scientific Council of NIMH to award senior assistant Dr. Lilia Ivanova Bocheva the academic position of "Associate Professor".

MEMBER OF THE SCIENTIFIC JURY: