STATEMENT

On the materials for participation in competition for occupation of academic position **"Associate Professor"**, field of higher education 4. Natural sciences, mathematics and informatics, **PF 4.4. Earth Sciences**, scientific specialty "Ecology and ecosystem conservation", **discipline „Restoration technologies for disturbed soils and terrains"**, declared by University of Forestry in State Gazette № 101/27.12.2019, procedure code ELA-AsP-1119-29.

Applicants for participation in the competition are:

1. **Chief Assist. Prof. PhD Petar Gospodinov Petrov;**

Statement is prepared by:

Prof. PhD Mariana Genova Doncheva-Boneva Professor in PF 4.4. Earth Sciences **at** University of Forestry

1. Brief biographical data of the applicant

Chief Assist. Prof. PhD Petar Gospodinov Petrov was born on January 13th 1977. In 2002 he graduated program "Ecology and environmental conservation" at University of Forestry and obtained "Bachelor of Ecology" degree. After that he continued his education in the master's program "Environmental monitoring and eco-management", University of Forestry. In 2004 he graduates master. In the period 2006 – 2009 P. Petrov is a PhD student of "Waste treatment and recovery technologies" at UCTM, Sofia. In 2011 he defended his dissertation "Characterization of Waste from Sviloza TPP and their environmentally sound storage and treatment".

In 2002, he started working as a project management expert at Balkan Science and Education Centre of Ecology and Environment (BSECEE). In the academic year 2005/2006 he was selected as a part-time assistant of the discipline "Remediation of disturbed terrains", which continues until 2012. Since 2012 he has been selected as a full-time chief assistant professor of the disciplines "Remediation of disturbed terrains", which has a new name – "Restoration technologies for disturbed soils and terrains" (course syllabus for bachelor program Ecology and environmental conservation from 2013), "Reclamation of technogenically-disturbed lands" at Faculty of Ecology and Landscape Architecture at University of Forestry.

Applicant has participated in 9 training courses, with which he enhanced his qualification.

2. **Compliance of submitted documents and materials of the applicant with the required ones according to the Rules for the Development of Academic Staff in University of Forestry**

Chief Assist. Prof. PhD Petar Petrov has presented a set of materials in accordance with Article 60 of Rules for the Development of Academic Staff in the University of Forestry. By groups of indicators finding is as follows:

1.Dissertation for acquisition of "Doctor" degree. To dissertation have been published 3 publications, which are not considered in the statement. Attached diploma for "Doctor" degree – 50 p. – ***in compliance.***

2. Habilitation work/Monograph – a monograph of 155 pages is presented – 1 – 100 p. – ***in compliance.***

3. Publications of indicator group Г – 22 pcs. including

- published book on the basis of dissertation – 1 – 30 p.
- scientific publications in issues, refereed and indexed in world famous data bases – 9 pcs. (7 with an impact factor) – 136,22 p.
- scientific publication in non-refereed journals or collective volumes – 14 pcs. – 82,98p.

Total 249,20 p. – *in compliance.*

4. Citations – group Д – 23 pcs., including:

- in refereed and indexed issues – 12 pcs. (in journals with impact factor) – 60 p.
- in monographs and collective volumes – 2 pcs. (1 – I exclude as self-citation) – 6p.
- in non-refereed scientifically peer-reviewed journals – 9 pcs. - 18 p.

Total 84 p. – *in compliance.*

The required number of points – 50 from group A and 100 from group B are fulfilled, and from group Г and Д there are more points than the minimum requirements – 249,2 p. (out of 200p.) and 84 p. (out of 50 p.) for occupying the academic position "Associate Professor" at PF 4.4 "Earth Sciences".

Due to a change in the category of some of articles (Г.7.1, Г.7.3, Г7.11, Г.7.13 and Г.7.14) the number of points was reduced. ***Despite of the adjustment that have been made, the applicant fulfilled scientometric requirements with total points 483,2 out of 400 required.***

3. Assessment of applicant's teaching and learning activity

The applicant's teaching activity includes conducting of lectures and exercises in the following subjects of the program Ecology and environmental conservation, for Bachelor - "Restoration technologies for disturbed soils and terrains" with 45 hours of lectures, 30 hours of exercises and 3 days of educational practice. For Master – "Reclamation of disturbed terrains", 30 hours lectures and 15 hours exercises, „Soil resources in settlement systems" – 30 hours lectures and 30 hours exercises, "Biological monitoring" – 30 hours lectures and 15 hours exercises. Since 2017 he is a titular of electable course "Ecosystem services". For program Landscape architecture he teaches the course "Restoration of disturbed terrains" – 30 hours of lectures and 30 hours of exercises (electable).

Chief Assist. Prof PhD Petar Petrov is an author of 3 course syllabuses – 2 for Bachelor and 1 for Master. He has supervised 2 graduates who successfully defended their diploma thesis and was a reviewer of 7 diploma thesis. Currently he is a supervisor of a full-time PhD student.

4. Assessment of the applicant's scientific, scientific applied and publishing activity

4.1. Participation in scientific, scientific-applied and educational projects

Chief Assist. Prof. PhD Petar Gospodinov Petrov actively participates in research, scientific and consultant projects with national and international funding and he is a leader to many of these projects. Submitted documents show that he has participated in 13 scientific and scientific-applied projects at Scientific Research Sector (SRS) of University of Forestry, which are in the field of announced competition, including 2 international, 10

national and 1 funded by Scientific Research fund at SRS. There is a large number – 81 of scientific, scientific-applied and consulting projects in the field of competition, in which applicant have been participated, but they are implemented by other organizations. Three of these projects are international and 38 are national scientific and scientific-applied projects. He is a leader of 13 projects. There are also 40 consultant and applied projects.

4.2. Characteristic of published scientific results

According to the subject, publications of Chief Assist. Prof. Petrov can be divided in two main directions:

First direction is directly related to the announced competition. Scientific publications include studies, characteristics, analyzes and evaluations of disturbed mining areas, mining waste, contaminated and damaged soils, land reclamation activities, grass, shrub and tree species composition, soil formation processes, limiting factors for the reclamation process. There are 12 scientific works in this direction – monograph and publications with № Г.6, Г7.2, Г7.4 and 5, Г7.10, Г7.12 to 14, Г8.1 and 2, Г8.9.

Second direction. Publications included in this direction are not directly related to the discipline at which the competition was announced, but they are related to the scientific interests of the applicant and to the disciplines he teaches "Biological monitoring" and "Ecosystem services", which are in scientific specialty "Ecology and ecosystem conservation", PF 4.4 Earth sciences.

In them are presented descriptions, characteristics, analyzes and evaluations of studies on biological and ecosystem diversity, as well as ecosystem restoration processes in territories with different conservation and usage regimes. To this group can be referred 11 publications with № Г7.1, Г7.3, Г7.6 to 7.9, Г7.11, Г8.3 to 8.6.

Most of the scientific publications are written at a high scientific level. Conclusions are based on summarized results from own researches, experiments, databases, analyzes and evaluations.

4.3. Reflection of applicant's scientific activity in literature (citation)

Publications of Chief Assist. Prof. Petrov are reflected in Bulgarian and foreign scientific literature. A reference of 24 citations is presented, from which I accept 23 (1 – I consider as a self-citation, Д11.1). Over 50% of citations are in refereed journals with impact factor, which reflects the shown interest to the applicant's scientific activity. Chief Assist. Prof. Petrov has participated in 12 scientific forums in the field of competition, through which he also promotes his scientific activity.

4.4. Contributions of the applicant's work (scientific, scientific-applied, applied)

I accept presented in the report scientific and scientific-applied contributions and the following can be pointed out as more significant:

- A methodology, which includes 3 stages of assessment of potentially contaminated territories, has been developed, on the basis of which has been developed "Guidance on registration and reporting of territories with contaminated soil" (Г8.7).

- It is scientifically substantiated that biological reclamation of disturbed from extraction and processing of minerals terrains has a positive effect on quality and speed of ongoing soil formation processes (Г7.4, Г7.5, Г7.10, Г7.12);
- It has been proven that landfilled ashes and cinder from incineration of high calorie coal are sufficiently stocked with nutrients, do not contain hazardous substances, can be used for reclamation, allowing the development of derived vegetation on them (Г6.1, Г7.2);
- It has been established that use of by-product from biomass gasification on nutrient-poor terrains with high acidity is appropriate for their reclamation, reduces the need of use of ameliorants (such as lime/limestone and mineral fertilizers) during the first year and is economically effective (Г7.13);
- Species composition and activity of common microflora have been established in accordance with the development of soil formation process on reclaimed terrains with different meliorations as well as stages of soil cover formation (Г7.14);
- Results of the study of vegetation and habitats in "Gornata Koria", "Chuprene" and "Ibisha" reserves, are included in developed for reserves Management Plans geographical information system (Г7.3, Г7.6, Г7.7).
- For "Vitanovo", "Tisovitsa", "Sredoka" and "Silkosya" reserves have been set indicators for observation of 6 priority natural habitats (Г7.9).
- Breeding birds have been established as a result of a two-year monitoring of the ornithofauna in the region of Golo Bardo and Gologlavski ridge - Konyavska Mountain (Г8.3, Г8.4, Г8.5, Г8.6).
- Using remote sensing techniques, is evaluated the role of wetlands as connecting units within ecosystem services on the territory of Bulgaria, Greece, Albania and Republic of Northern Macedonia (Г7.11).

5. Assessment of the applicant's personal contribution

Most of the publications are in co-authorship, which is a result of the complex character of researches. Most clearly applicant's personal contribution stands out in the individual publications (2 pcs.) and in the presented monograph. It is necessary to note the significant personal contribution of applicant in field studies, experiments, data processing and results presenting, which also can be established by the positive results of the projects he runs.

6. Critical notes and recommendations

Some of publications do not have good scientific style (Г8.3, Г8.4, Г8.5, Г8.6).

7. Personal impressions

I know Chief Assist. Prof. PhD as a student, to whom I was a lecturer, as a project management expert at BSECEE and the last 8 years as a colleague and lecturer in Department of Ecology and environmental conservation and restoration at University of Forestry. He has very good organizational skills, works perfectly in a team, communicative, ethical and helpful in his relationships with colleagues. Students approve

his teaching methods, highly appreciate his patience and his intention to impart them contemporary knowledge and experience.

8. Conclusion

From the foregoing, I can conclude that overall applicant's activity fully responds to the requirements for ***academic position „Associate Professor" according to the Rules for the Development of Academic Staff in University of Forestry and giving my high assessment of applicant's research, teaching and expert activity, I propose*** **Chief Assist. Prof. PhD Petar Gospodinov Petrov to occupy the academic position „Associate Professor" of discipline "Technologies for restoration of disturbed soils and terrains" in Professional Field 4.4. Earth Sciences.**

Submitted by:

(Prof. Mariana Doncheva-Boneva, PhD)

Date: 13.4.2020 r.