

SUMMARIES

of scientific publications used in the habilitation procedure of Atanaska Tuntova Ph.D., participant in a competition for academic position "Associate Professor" from the field of higher education 9. "Security and Defence", professional direction 9.1. "National security (Environmental security as an element of national security) (English)

1. *"Environmental Security as an Element of National Security", Atanaska Tuntova, monograph, 2022, 190 pp., PH HSSE, Plovdiv, ISBN 978-619-7343-70-0 - basic habilitating work.*

The monograph explores and analyzes the different aspects of environmental security, their diversity and multidisciplinary integrity of environmental security as an element of our national security and the manifestation and in the processes of management and exploitation, as well as the relationship between ecology, the main components of the environment, the depletion of natural resources and security. The factors that have the most serious impact on development processes and the protection of the environment and human health have been analyzed.

Analyses and research build on the theoretical and practical approaches to future development with regard to the organization of activities, and so is governance in two main aspects - institutional and financial. There is a substantial interconnection, both vertically and horizontally. In this context, it is important to coordinate actions between different units due to process connectivity.

A variety of methods and approaches have been used to study, analyze and explain the processes in order to achieve the objectives and tasks set. Areas with a more serious impact, as well as the impact and severity of objective and subjective factors in the areas of environmental security studied, with particular attention to the anthropogenic impact of man on environmental components, have been examined.

The monograph considers global changes that hinder individual security by affecting livelihoods and promoting transnational crises and disrupting the stability of countries and regions. The analysis concluded that environmental degradation is a serious threat, both to the security of individuals and to all countries, individually and together.

The origin of threats to human security and comfortable existence as a result of the adverse state of the environment has been analyzed. Priority is given to addressing the risk to human health. The circumstances of environmental pollution and the danger of a number of environmentally motivated diseases have been analyzed, which can lead to a decrease in the life expectancy of people subjected to adverse factors.

The environment for humanity has been analyzed, creating new opportunities in technology, but at the same time it is leading to the prerequisites for contamination of all components of the environment. The globalizing world is becoming increasingly uncertain as a place for humanity to live and is a prerequisite for man's vulnerability to an increasingly stressful and aggressive environment.

Basic definitions of concepts related to national and environmental security, pollution of the main components of the environment and others on this topic are given on the basis of the environmental and human health protection issues, as well as the security of people and the country.

An in-depth review of the factors and documents (the legal basis) that have direct or indirect significance and influence on the management and development of the environment and people and decision-making that have built relationships and relationships with each other. It is important to note that different factors have different influences and intensity. The subjective factor and its influence in the security system and in decision-making should not be overlooked.

The risks and threats to the environment and man due to pollution of the environmental components and the possibilities for minimizing and eradicating the negative effects and damage to the environment have been analyzed.

Current problems and challenges for green policies have been addressed, both in the Republic of Bulgaria and at European Union. The EU's efforts to develop and implement sustainable transformation policies towards an environmentally friendly, resource-efficient, and cost-effective lifestyle for citizens have been analyzed. As a result of these efforts, the 'European Green Deal' has been adopted, which is expected to lead to a radical transformation not only of all economic sectors but also of people's daily lives. The EU's efforts to prevent climate change are becoming increasingly ambitious.

Environmental security has been established to be an important concept in all areas of people's lives with a serious effect on human security, in international relations and international development.

The monograph analyzes the different perceptions of the essence of environmental security. Its direct impact on the safety of the population, economy, culture, internal and foreign policy, and other areas of public life has been examined. Its importance has been analyzed for the effectiveness of the functioning of government, for the rational use of resources, for the protection of people and for sustainable development.

The purpose of monographs is to show the link between environmental change, climate change and resource depletion with environmental security, as well as opportunities to prevent risks to man, the economy and nature.

The monograph was developed as a complex and completed work that could be used in the training of students and other learners in specialties in disciplines related to environmental security, disaster protection, as well as auxiliary material on topics related to climate change, depletion of resources, impact of urbanization on ecosystems, environmental impact on socio-economic experts in need of information working in the field of environmental security or personal self-education, etc.

2. *"Mineral Water Management in the Republic of Bulgaria", Atanaska Tuntova, Published book based on protected dissertation work for awarding educational and scientific degree "Doctor", PH HSSE, Plovdiv, 2022, 203 pp., ISBN 978-619-7343-56-4*

The book explored the management of mineral waters in the Republic of Bulgaria, the trends for their development and the possibilities for applying a new model of management based on transaction costs and contract theory.

Water is an essential component of the natural environment and an important resource without which life on the planet is unthinkable. Water is one of the most common substances in nature. Water is also especially important as a natural resource. These are all useful for man and his business activity leads in the hydrosphere. At this stage of public economic development, fresh water in rivers, lakes, dams, and shallow groundwater is the most accessible for exploitation. Water is inherently essential as a natural resource on Earth and irreplaceable natural wealth. Water is the initial, natural environment in which life on our planet arises and develops. Without water, there is no life! Without water resources, the economic, social, and cultural development of human society is unthinkable. One of the largest natural resources of Bulgaria is the mineral waters distributed by the territory – over 1600 natural springs and over 370 wells.

Studies and calculations (according to public data of the Ministry of Environment and Waters) concerning only the mineral waters of Appendix 2 of the ZV have been carried out, which show a low usability rate (up to 50%). The results also show that there are deposits with not yet established resources, which will increase the unusability rate. The resources of mineral waters – public municipal property is not included in the study due to the fact that not all deposits are established and with well-established resources. It is very important to emphasize that the data are dynamic, since permits for mineral water abstraction are issued daily, as well as continuously terminated at any time, data to be reported are changing. The book states that the continuous export of data from various studies and organizations that do not lead to an unambiguous response to this data. Also volatile and with large deviations are the data from different sources. However, one is certain – this natural wealth "mineral waters", is categorically not fully and efficiently exploited.

Obviously, new approaches and ways are needed in the use of this natural wealth, both in balneological tourism and to meet the drinking water needs of the bottling industry. A large part of the mineral waters are also known for their healing properties. Since ancient times, people have appreciated the qualities of mineral waters and formed their settlements around mineral springs, which today develop as tourist centers. Some of the most famous settlements in Bulgaria are organized alongside their mineral springs, such as Sofia, Blagoevgrad, Sapareva Banya, Sandanski, Kyustendil, Hisarya and many others. In these centers there is also an economic mechanism for development, namely the utilization of this natural resource by bottling and reaching the table of every Bulgarian. However, the state's policy in this area does not yet allow the full utilization of this natural wealth. Of course, there are many other factors, from legislative to financial, that affect the processes of exploitation of mineral waters in individual areas.

On the basis of the studies carried out on the national and regional structure of natural resources, the losses for the economy and consumers from the unused mineral resource have been identified. This also necessitates the search for new opportunities for optimizing the use and development of mineral waters in Bulgaria. Transaction costs and contractual theory as an opportunity for successful management of mineral waters in Bulgaria.

3. „*Ecological security of the Black sea region*“, Atanaska Tuntova, report, *Collection of reports from international scientific conference on the subject of Challenges for the security and economy of the countries of the Black sea, Caspian and Mediterranean regions, November 13, 2020, Plovdiv, Publishing complex, HSSE-Plovdiv, 2021 г., p. 354-361, ISBN 978-619-7343-39-7*

Abstract: Bulgaria is a maritime country and as a country participating in many conventions and initiatives related to the Black Sea has contributed to its environmental protection and ensuring the security of natural resources, maritime transport, biodiversity conservation and others. The implementation of common policies and actions of all Black Sea countries and the EU is extremely important. Environmental security is presented from different points of view. Environmental issues are identified. The report examines the environmental aspects of the security of the Black Sea region and the role of Bulgaria in implementing common solutions to achieve sustainable development and security of the countries of the Black Sea region.

4. „*Potential opportunities for development of the mineral water market in Bulgaria*“, Atanaska Tuntova, report, *International scientific conferences, Conferencii, Research and Practice Conference proceedings, Lardy Publishing House, Paris, France, 2021, p. 33-47, ISBN 978-2-5355-4891-7*

Abstract. Water is a major component of the natural environment and an important resource without which life on the planet is unthinkable. One of the greatest natural resources of Bulgaria are the mineral waters distributed throughout the territory. Studies have shown that the utilization of mineral waters in Bulgaria is about 50%, which is an indicator of low efficiency in the absorption of these natural resources. Three possible development scenarios have been developed over the next ten years under different consumption hypotheses to reach the average European level of consumption, as the maximum consumption is the EU.

5. „*Environmental security – challenges and opportunities*“, Atanaska Tuntova, report, *Collection of report, Collection of reports from an annual university scientific conference, Publishing complex National Military University "Vasil Levski", 2022, p. 906-916, ISSN: 2367-7481*

Abstract: The impact on the environment, the depletion of natural resources are threats, while the opportunities to use the renewable sources and the introduction of the “circular economy” are only part of the security aspects of the future. The main types of ecological risks due to the anthropogenic impact on nature of human activity are considered. It is time to find more potential opportunities to secure a better future for the generations.

6. „*Environmental security – present threats and opportunities*“, Atanaska Tuntova, report, *Collection of reports from Rakovski national defence college, Annual scientific conference, “110 years of tradition, quality, prestige” - Part III, 12-13 April 2022, Sofia, ISBN 978-619-7478-95-2*

Abstract: The impact on the environment, the depletion of natural resources are threats, while the opportunities for using renewable sources and the introduction of the “circular economy” are only part of the security aspects of the future. The main types of ecological risks due to the anthropogenic impact on nature of human activity are considered. It is time to find more potential opportunities to secure a better future for the generations.

7. *“Depletion of natural resources as a threat to environmental security and a factor in international relations”*, Atanaska Tuntova, article, *Politics&Security*, Vol. 6, № 2, 2022, p. 3-10, ISSN 2535-0358 (Print), ISSN 2815-3324 (Online), DOI: 10.5281/zenodo.6823847

Abstract: The purpose of this study is to examine the extent to which the depletion of natural resources is a threat to environmental security and to what extent this affects international relations. The author’s argument is that it is the struggle for more resources and control over their use that gives rise to conflicts in the modern world and the more natural resources are depleted, the more conflicts occur. This article broadens the scope of the theoretical overview and shows the connection between the depletion of natural resources, as an element of threat to environmental security, and security in relations between the different countries. This study is relevant in terms of the data for the last three years; it is a result of their analysis that accounts for the impact of COVID-19 on resource use and the ability of nature to recover. The study focuses on results for resource depletion worldwide, without a claim to completeness, and offers ideas for the future. These may be prerequisites for future research in the context of resource depletion and their impact on different sectors of the economies of each country. In order to reduce the use of natural resources, a circular economy is proposed, where possible.

8. *„Environmental security through the prism of modern issues“*, Atanaska Tuntova, article, magazine, *National security*, Sofia “Victory IZDAT” 2022 г., p. 22-26, ISSN: 2682-941X & ISSN: 2682-9983 <https://nacionalna-sigurnost.bg/broi-13/>

Abstract: Environmental impact and depletion of natural resources are environmental security threats. The link between the environment, security and human vulnerability in nature is key to draw environmental security policies and taking action to preserve the environment and human health. Different security threats have a kind of impact that requires differentiated policies and approaches to countermeasures.

9. *„Inflation and its pressure in Bulgaria in the context of security“*, Atanaska Tuntova, article, magazine, *National security*, Sofia “Victory IZDAT”, 2022 г., p. 25-29, ISSN: 2682-941X & ISSN: 2682-9983

<https://nacionalna-sigurnost.bg/%d0%b1%d1%80%d0%be%d0%b9-14/>

Abstract: Inflationary pressures are a process that affects the economies of countries and life of every single citizen. The Central Bank of Europe recommends that inflation levels can be maintained from 2% to 3% to keep prices stable, which provides economic growth and

job security. The European Central Bank considers inflation in the Eurozone by applying a survey methodology for all countries of the European Union.

10. „Ecology, sustainable urban environment and security“, Atanaska Tuntova, report, *Collection of reports from the annual international scientific conference, HAFU "Georgi Benkovski", 07 october 2022, p. 331-337, ISSN 2738-716X*

Abstract: The report examines trends in the ever-faster development of urbanized areas in relation to sustainability, which has been of particular importance in recent decades. It is a very important factor in realizing citizens' security and a path to environmental balance. Policies for the design of a sustainable urban environment and the protection of the green system in urban settings are also considered.

11. „Environmental parameters related to climate change in the world“, Atanaska Tuntova, article, magazine, *National security, Sofia "Victory IZDAT", 2022 г., p. 9-13, ISSN: 2682-941X & ISSN: 2682-9983,*

<https://nacionalna-sigurnost.bg/%d0%b1%d1%80%d0%be%d0%b9-15/>

Abstract: The article explores the world policies and trends that take place regarding the ecology and the issue of climate change. The influence of the North and South Poles on rising global temperatures and their impact on all mankind has been examined too.

12. „Environmental aspects of national security“, Atanaska Tuntova, article, *University of Blagoevgrad, Faculty of Law, E-Magazine "Law, Politics, Administration", publisher PIF of SWU "N. Rilski" University of Bulgaria, Vol. X, H. 1, 2023, ISSN 2367-4601 (under printing)*

Abstract: The report examines the environmental aspects of security. The aim is to establish the link between the environment, business, security and vulnerability. The main types of environmental risks in economic activity are mentioned. The environmental security is presented from different perspectives. The impact on the environment, the depletion of natural resources are threats, due to the anthropogenic impact on nature of human activity.

13. „The circular economy in the context of climate change and the green deal“, Atanaska Tuntova, report, *Collection of reports international scientific and practical conference "Circular Economy in the context of the industry relationship 4.0 – Society 5.0", Svishtov, Academic Publishing House "Tsenov" Svishtov, 2022, p. 377-384, ISBN (print) 978-954-23-2249-8, ISBN (online) 978-954-23-2250-4*

Abstract: Anthropogenic impact on nature of human activity has an impact on Earth's climate change. The opportunities to use the renewable sources and the introduction of the „circular economy“ are only part of the security aspects of the future. The Green Deal is an ambitious EU strategy for a resource-efficient and competitive economy with the aim of transforming the linear industrial model to a circular economy model.

14. „Artificial intelligence - possibility to generate fake news“, Atanaska Tuntova, report, *Collection of reports from the International Scientific Conference: Artificial Intelligence in the Field of Security – Advantages and Threats, HSSE , Plovdiv, 2022, (under printing)*

Abstract: Artificial intelligence can create texts on a set topic, and similar software products are used by media around the world, as well as by companies that want to create content faster and for less money. Such programs can become a dangerous weapon of misinformation at the hands of people spreading news with false or misleading content, and fake news is becoming an increasingly serious security issue.

15. „Artificial intelligence, new jobs and the circular economy“, Atanaska Tuntova, report, *Collection of reports from the International Scientific Conference: Artificial Intelligence in the Field of Security – Advantages and Threats, HSSE, Plovdiv, 2022, (under printing)*

Abstract: The circular economy creates new opportunities by introducing ecological principles in manufacturing. The use of technology and artificial intelligence in the circular economy in the environment will contribute to creating new jobs. Digitalization helps to use resources more efficiently and optimize processes and sustainable growth. The skills of the future are directly related to the digital and green transformation of the economy.

16. „Climate change and the impact on the environment and human Certainty“, Atanaska Tuntova, report, *Collection of reports Collection of reports from scientific conference "Actual security problems", Veliko Tarnovo, Publishing complex of Vasil Levski National Military University, 2022, p. 977-986, Electronic edition, ISSN 2367-7473*

Abstract: All regions, not only in Europe but around the world, are affected by climate change, albeit differently. Climate change can be seen as a threat to environmental security and increase people's vulnerability to food shortage uncertainty. The European Green Pact is a key document with measures drawn up to prevent the effects of climate change in Europe and ensure the security of citizens.