International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 1-12 (2025)

HOW TO STRENGTHEN THE FRIENDLY COEXISTENCE OF MAN AND NATURE, A CHALLENGE FOR ALBANIA

Aleko Miho[1*]

[1*]*University of Tirana, Faculty of Natural Sciences, Department of Biology, Albania;*

[1*]Corresponding Author Aleko Miho, e-mail: aleko.miho@fshn.edu.al;

Received December 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.101

ABSTRACT

Although a small country, Albania shelters a wealth of aquatic and terrestrial ecosystems, in marine, coastal, hilly and mountainous zones. Due to these circumstances, as other Mediterranean countries Albania is recognized as an important biodiversity hotspot in Europe, with rare and endangered habitats and species. Albanian nature as such has been the guarantee of survival and prosperity for humans over the centuries, in agriculture, animal husbandry, forestry, fishing, etc. It is today one of the strongest points of tourism, often fascinating many foreign visitors. A short overview of the biodiversity values and their importance for man and nature will be given here, and how to strengthen their friendly coexistence with the actual ambitious development. The friendly balance between development and conservation, and sustainable use of natural resources has not been easy in the last 70-80 years of the new Albania. Despite the efforts towards the protection and related legal acts, nature and the natural resources are seriously impacted, especially in the last 30 years of the economic transition; the protected areas are not saved either. The efforts to better understanding and real application the friendly balance of the Development & the Preservation & the Sustainable use of natural resources, must be an everlasting challenge, for an ecological society and ecological governance, through practical and concrete actions, through proper legal acts and their enforcement, through education, awareness etc. Harmonization of environmental protection policies and economic development with EU legislation and related standards is strongly recommended. The education, especially higher education, is a key driving factor for sustainable development and environmental protection. Establishing a long-term interactive science-policy platform, and building up an integrated and applied research, focused in socio-ecological aspects, is strongly suggested by renowned experts. It would help to face with the existing evident environmental problems arising from the economic development and the existing attitude towards nature. With this opinion I wish to stress the development of sustainable ecotourism, coupled with supportive government policies to ensure effective environmental conservation of natural resources while safeguarding the economic viability and social well-being of local communities.

Keywords: Albanian natural values; Man and nature coexistence; PAs; Sustainable development; Ecological approach.

Vol. 15 (1): 13-22 (2025)

TOWARDS A SUSTAINABLE HEATING INFRASTRUCTURE: A NEW APPROACH TO FEE CALCULATION IN RUSSIA'S HEAT SUPPLY SYSTEMS

Nikolay Popov[1,2,*]

[1*]*LLC "LSR. Energo", 36 Kazanskaya str., Saint Peterburg, 190031, Russia;*
[2*]*Saint Petersburg State University, 7-9 Universitetskaya Embankment, Saint Peterburg, 199034, Russia;*

[*]Corresponding Author Nikolay Popov, email: Popov.NV@lsrgroup.ru;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.102

ABSTRACT

This study re-examines the methodology for calculating connection fees to centralized heating systems in Russia, emphasizing its ecological and economic implications. The research highlights the inefficiencies of the current methodology, which calculates fees based on connected load rather than the physical length of heating networks. By proposing a new length-based fee calculation, the study underscores the potential for reducing unnecessary resource consumption, minimizing environmental impacts, and improving cost transparency. The ecological benefits include optimizing network construction, lowering emissions from redundant infrastructure, and enhancing energy efficiency. The proposed approach, validated through case studies from PAO "MOEK," demonstrates reduced deviations between connection costs and revenues, fostering a balance of economic and environmental interests. This methodology provides a blueprint for sustainable heating infrastructure development, supporting both ecological and economic goals.

Keywords: key connection fee, heat supply, tariff calculation methodology, tariff regulation, investment attractiveness, investment climate, regional economy.

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 23-30 (2025)

DYNAMICS OF INFECTIOUS DISEASES RELATED TO THE MICROBIAL QUALITY OF THE WATERS OF THE IONIAN SEA, SARANDA REGION, ALBANIA

Blerina Çullaj[1*], Klementina Puto[2], Pestrova Lako[3]

[1]Aldent University, Faculty of Medical Sciences, Department of Nursing and Physiotherapy, Tirana, Albania;*
[2]University of Tirana, Faculty of Natural Science, Department of Biotechnology, Tirana, Albania;
[3]Polyclinic "Intermedica", Saranda, Albania;

[*]Corresponding Author Blerina Çullaj, e-mail: hasho_b@yahoo.com; klementina.puto@fshn.edu.al; memapestrova@gmail.com;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.103

ABSTRACT

The health of people is seriously threatened by bacteria found in recreational waters. When people use these water sources for bathing and other purposes during the tourist season, this hazard is more noticeable, and the issue is made worse. This study examined bacterial and fungal diseases in humans believed to have their source in the Saranda region's surface waters over the years 2022–2023. Water's microbiological purity is crucial for lowering present and potential health hazards. Saranda lies in the south of Albania and is washed by the Ionian Sea. During the summer, when the population grows several times, it is one of the most popular tourist destinations. Analysis from the Bacteriological Laboratory of the Saranda Regional Health Directorate showed that bacterial and fungal infections increased in the summer. The analysis of water taken from three of the most well-known seawater spots in the baths also showed contamination levels over the permitted limits for fecal indicators, fecal coliforms, and fecal streptococcus. By establishing a link between infectious diseases and surface water microbiological pollution, we concluded that bacterial and fungal infections were more prevalent during the tourist season. According to taxonomic analysis, bacterial infections were more common than fungal ones. The most prevalent illness brought on by contaminated water.

Keywords: Escherichia coli, Saranda region, Streptococcus sp., surface waters, urinary tract infections

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 31-44 (2025)

ASSESSMENT OF NUTRIENT POLLUTION TRENDS AND RECOVERY FEASIBILITY IN THE TUKAD BADUNG RIVER ECOSYSTEM

I Made Wahyu Wijaya[1*], I GD Yudha Partama[1], I Ketut Sumantra[2], Fransiskus Vebrian Kenedy[3]

[1]Regional Planning and Rural Area Study Program, Postgraduate Program, Universitas Mahasaraswati Denpasar, Jalan Kamboja No. 11 A, Denpasar, Bali, Indonesia, 80233, Indonesia;*
[2]Agrotechnology Study Program, Faculty of Agriculture and Business, Universitas Mahasaraswati Denpasar, Jalan Kamboja No. 11 A, Denpasar, Bali, Indonesia, 80233, Indonesia;
[3]Environmental Engineering Study Program, Faculty of Engineering, Universitas Mahasaraswati Denpasar, Jalan Kamboja No. 11 A, Denpasar, Bali, Indonesia, 80233, Indonesia;

[*]Corresponding Author I Made Wahyu Wijaya, email: wijaya@unmas.ac.id; yudhapartama@unmas.ac.id; ketut.sumantra@unmas.ac.id; febriankenedy@gmail.com;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.104

ABSTRACT

The study investigates the fluctuating levels of nitrogen and phosphorus pollutants along the Tukad Badung River, a vital water source for neighboring communities challenged by waste influx from various activities within its watershed. Conducting bi-daily sampling at six points spanning upstream and downstream areas revealed discernible patterns in nutrient concentrations, influenced by both anthropogenic and natural factors. High amounts of total suspended solids, ammonia, nitrite, nitrate, total phosphorus, and total nitrogen, especially further downstream and in the evening, show how important it is to manage the watershed as a whole to stop nutrient pollution and protect river ecosystems. Moreover, the study's insights lend support to the development of nutrient recovery initiatives aligned with circular economy principles. These initiatives contribute to resource conservation, environmental protection, and sustainable development within and beyond the Tukad Badung River watershed by extracting valuable nutrients from stream water for use in fertilizers or bioenergy production. This highlights the critical role of adaptive management strategies and circular economy approaches in addressing nutrient pollution and ensuring the resilience of river ecosystems for present and future generations.

Keywords: circular economy, nutrient recovery, nutrient trend, stream water, water quality.

Vol. 15 (1): 45-54 (2025)

STRENGTHENING LOCAL COMMUNITY GROWTH THROUGH STRATEGIC GOVERNANCE: CHALLENGES AND SOLUTIONS

Yurii Orel[1*], Oleg Kulinich[1], Anna Smahliuk[1], Oleksandr Popov[1], Roman Rychka[2]

[1]Personnel Management and Entrepreneurship Department, Education and Research Institute "Institute of Public Administration", V. N. Karazin Kharkiv National University, Kharkiv, Ukraine;*
[2]Specialist in Finance, Economist, Master of Law, Lawyer, Ukraine;

[*]Corresponding Author Yurii Orel, e-mail: docent12345@ukr.net;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.105

ABSTRACT

In the current stage of global trends, management system transformation is occurring in vast arrays of socio-economic relations, resulting in wider public access to that information and increasing availability. An adequate local self-governance system is essential to make regional economic systems work, stimulate development, and achieve social progress. Based on the sustainable development framework, this study analysed public administration mechanisms related to sustainable development for territorial communities. It attempts to translate our understanding of the management paradigm's key challenges into areas of actionable intervention. The study investigates public administration as a starting point for implementing sustainable internal policies. It covers the main problems, difficulties and successes of transforming socio-economic processes through public governance. The second aspect analysed is the experience of the countries of the world's developing sphere in managing the community processes, including the governmental, legal, and organisational components supporting effective public management. Planning and advancing public management systems in globalisation and sustainable development are defined. In addition, this study examines the possibility of implementing innovative electronic systems and modern tools and technologies to reduce administrative expenses in public administration. These are perceived as tools critical to increasing the efficiency and transparency of governance in territorial communities. Furthermore, this research has practical implications for establishing or strengthening modern public administration systems oriented to public access, inclusiveness and balanced development. In addition, the results might aid in developing governmental management programs in different spheres of socio-economic activity and assist in weaving together local governance practices with general sustainable development objectives.

Keywords: Globalisation, functioning efficiency, optimisation, digitalisation, balance, sustainable development, territorial communities, public administration, development strategy, restoration and development of territorial communities, sustainable development goals, economic integration.

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 55-60 (2025)

AN ANALYSIS OF THE ORDER ORTHOPTERA DIVERSITY FROM THE VLORA REGION ECOSYSTEMS, SOUTHWESTERN ALBANIA

Gerta Subashaj[1*], Eltjon Halimi[2], Ani Bajrami[2], Anila Paparisto[2]

[1]Reald University College, Albania, Faculty of Medical Sciences, Department of Chemistry, Vlore, Albania;*
[2]University of Tirana, Albania, Faculty of Natural Science, Department of Biology, Tirana, Albania;

[*]Corresponding Author Gerta Subashaj, e-mail: gerta.subashaj@fshnstudent.info;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.106

ABSTRACT

The order Orthoptera is the most varied group of insects in the Polyneoptera group. The species belonging to the Order Orthoptera serve as pests of crops, as well as significant consumers, prey for predators, and indicators of environmental changes. Some species of the Order Orthoptera have developed wings while some other species have reduced wings. The species of the order Orthoptera have the organ of excretion present. This work aims to conduct a taxonomic analysis of species belonging to the Order Orthoptera in various environments within the Vlora region in Southwestern Albania. This study describes 15 species belonging to two families, namely Tettigoniidae and Acrididae. The Acrididae family has the most significant species variety, with ten species accounting for 66.66% of the total. The Ploça station encounters the most significant species richness, with ten species, which accounts for 66.66% of the total. Based on our data, this station offers more favorable conditions for Order Orthoptera species.

Keywords: orthoptera, insects, biocenosis, habitat, biodiversity, Vlora, South Western Albania.

Vol. 15 (1): 61-70 (2025)

COMPREHENSIVE ECOLOGICAL EVALUATION OF AGROTECHNOLOGIES OF AGRICULTURAL CROP GROWING

Yeuheniia Tkach[1], Alyona Bunas[1*], Victoriya Starodub[1]

[1]Institute of Agroecology and Environmental Management NAAS, 03143, 12 Metrolohichna Str., Kyiv, Ukraine;*

[*]Corresponding Author Alyona Bunas, e-mail: bio-206316@ukr.net; bio_eco@ukr.net; myrzavica88@ukr.net;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.107

ABSTRACT

In today's conditions, generally accepted technologies for growing agricultural crops don't take into account the natural adaptability of certain types of plants and agrophytocenoses to complex and often intensive growing conditions. Food shortages and a growing population, climate changes, the emergence of new varieties and hybrids of agricultural crops, the emergence of resistant pests, diseases, weeds, the increase and diversity of plant protection products and agrochemicals directly affect both the quality and yield indicators of cultivated crops, the agroecosystem, and the environment natural environment. A comprehensive evaluation of wheat winter, corn, sunflower, and soybean cultivation technologies was carried out based on comprehensive indicators: soil fertility of the agrocenosis, phytosanitary state of crops, crop productivity, impact on the microbiocenosis. As a result, it was established that all the studied technologies belong to the II class, that is, the agroecosystems were in a satisfactory ecological state. In this way, it is allowed to use the researched technologies for growing the main agricultural crops. But agricultural producers are recommended to monitor the state of soil fertility, to vary the amount of fertilizer application in accordance with the set goals of the cultivated crop, in order to provide quality plants and soil, to carefully monitor the phytosanitary state of crops. The obtained data show that a comprehensive ecological assessment of the technologies of growing agricultural crops allows to objectively assess and identify imperfect technological operations and develop recommendations for their improvement.

Keywords: agrocenosis, agro-landscape, monitoring, climate, phytocenosis, flora.

Vol. 15 (1): 71-76 (2025)

CROSS BORDER COOPERATION BETWEEN NORTH MACEDONIA AND ALBANIA: FOCUS ON THE ENVIRONMENT

Zoran Sapuric[1*], Hysen Mankolli[2,3]

[1]University American College, Skopje, North Macedonia:*
[2]Expert in Ecology, Chicago, Illinois, USA;
[3]Consultant Scientific NOAA, University of Maryland College Park, MD, USA;

[*]Corresponding Author Zoran Sapuric, e-mail: sazoran@hotmail.com;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.108

ABSTRACT

Regional development is a core element of the European Union's policies and activities. It aims to provide harmonized economic development, territorial cohesion, and protection of the environment. EU environmental policy aims to improve the environment in the member countries, but also on international levels, which covers the accession countries. One of the main pillars of regional policy is to support Cross Border Cooperation (CBC) in the EU and in accession countries. The Union is committed to supporting the accession countries to improve CBC between the neighboring regions in countries, mainly through the IPA (Instrument for Pre-Accession Assistance). This includes N. Macedonia and Albania. Environmental issues are one of the key points of this cooperation. Three phases have been established for IPA to support the CBC. There were realized IPA I and IPA II programs and last year started IPA III. Besides a lot of shortage in the realization of CBC between N. Macedonia and Albania and delay in the beginning of IPA III in the sphere of the environment there are still possibilities to improve this cooperation. The main aim of this paper is to analyze the CBC between N. Macedonia and Albania with a focus on the environment, to detect the shortcomings, and to give some recommendations for further improvement.

Keywords: Cross Border Cooperation, environment, regions, municipalities.

Vol. 15 (1): 77-86 (2025)

THE ROLE OF FINANCIAL INCLUSION IN FOSTERING ECO-ENTREPRENEURSHIP WITHIN THE DIGITAL ECONOMY

Oksana Desyatnyuk[1], Andriy Krysovatyy[1], Olena Ptashchenko[1*], Olga Kyrylenko[1]

[1]West Ukrainian National University, Ternopil, Ukraine;*

[*]Corresponding Author Olena Ptashchenko, e-mail: o.ptashchenko@wunu.edu.ua;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.109

ABSTRACT

Research into the interaction between eco-entrepreneurship and financial inclusion is a timely task for identifying the processes and trends occurring in today's digital economy. This study aims to justify modern theoretical and methodological approaches, as well as practical principles, for identifying the problems of promoting financial inclusion, which is the driving force behind the development of eco-entrepreneurship in the era of digital transformations. It considers global and domestic trends in the digitisation of the economy and financial security. The study presents a comprehensive analysis of financial inclusion, particularly its role in stimulating eco-entrepreneurship and contributing to socio-economic growth in the digital age. It considers that digital financial inclusion improves financial literacy, ensures access to financial services for vulnerable groups, and encourages investment in sustainable development. The research results demonstrate that eco-entrepreneurship is a multifaceted approach to business, encompassing all aspects of a company's activities to reduce the anthropogenic impact on nature. The data analysis has allowed for the formulation of critical provisions for conducting environmentally responsible business, the evaluation of its impact on economic development and the social sphere, and the highlighting of the challenges and opportunities for developing eco-entrepreneurship based on financial inclusion in the digital economy.

Keywords: digital economy, green technologies, financial security, financial inclusion, eco-entrepreneurship.

Vol. 15 (1): 87-96 (2025)

PROMOTING SUSTAINABLE GROWTH OF LOCAL COMMUNITIES AMIDST THE TRANSFORMATION OF AN OPEN SOCIETY

Iryna Gryshchenko[1*], Liudmyla Horbata[1], Viktor Shcherbak[2], Andrii Kozlov[3], Stanislav Prydetkevych[4]

[1]National Aviation University, Kyiv, Ukraine;*
[2]Oles Honchar Dnipro National University, Dnipro, Ukraine;*
[3]Borys Grinchenko Kyiv Metropolitan University, Kyiv, Ukraine;
[4]Faculty of Natural Sciences and Economics, Kamianets-Podilskyi Ivan Ohiienko National University, Kamianets-Podilskyi, Ukraine;

[*]Corresponding Author Iryna Gryshchenko, e-mail: Gryschenkoiryna@ukr.net;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.110

ABSTRACT

Sustainable development and building an open society are critical imperatives for developing territorial communities today, and they tend to ensure a decent standard of living, economic growth, and environmental sustainability. The article aims to study theoretical and methodological approaches to determine the current state and ensure sustainable development of territorial communities in the context of open society transformation. The study used the following methods: analytical and research, integrated benchmarking method, economic diagnostics, generalisation, systematisation, synthesis, studying phenomena and processes in their development and interrelationships, comparison, analogy, classification, and grouping. Based on the results of the theoretical research, the essence and components of sustainable development of territorial communities in the context of the transformation of an open society were clarified, which allowed to group their strategic goals by vectors of economic, social development, environmental safety and the level of openness of society, as well as to identify indicators relevant at the community level. Using the principles of integrated benchmarking, the article proposes methodological approaches to assessing the sustainable development of communities and relevant mathematical tools that can be used to form a comparative profile of sustainable community development, assess the effectiveness of achieving sustainable development goals in the dynamics and monitor the effectiveness of changes. Ten territorial communities of the Zakarpattia region were selected as a study area, which is of different types (urban and rural) and has significant differences in resource, infrastructure, and human resources potential. The analysis has shown that, in general, the level of sustainable development is sufficient compared to the national average. Significantly higher indicators of economic and social development and openness of society have been achieved in the communities formed based on cities. Rural territorial communities, especially those that cover mainly mountainous settlements, require state support in infrastructure development, improving the quality of administrative management and enhancing strategic planning and project management skills.

Keywords: infrastructure, economic growth, territorial communities, administrative management, project management, community development, sustainable development, open society, territorial communities, governance, public authorities, public administration.
JEL Classification: O18, Q01, Q56, H41, R58

Vol. 15 (1): 97-102 (2025)

ASSESSMENT OF BURNOUT IN NURSING CLINICAL MENTORS AT THE UNIVERSITY OF SHKODRA DURING CLINICAL PRACTICE

Emiljano Pjetri[1], Zamira Shabani[1*], Edona Haxhija[2], Drita Kruja[3]

[1]University of Shkodra "Luigj Gurakuqi, Faculty of Natural Sciences, Department of Clinical Subjects, Shkodër, Albania;*
[2]AAB College, Faculty of Nursing, Department of Nursing, Prishtina, Kosova;
[3]European University of Tirana, Faculty of Economy, Business and Development, Marketing & Management Department, Tirana, Albania;

[*]Corresponding Author Zamira Shabani, e-mail: zamira.shabani@unishk.edu.al;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.111

ABSTRACT

Introduction: Burnout is a significant issue in healthcare, particularly among nursing professionals. Clinical mentors and nursing students are at heightened risk due to the dual pressures of clinical practice and teaching responsibilities. Aim: This study aims to evaluate burnout levels among clinical mentors at the University of Shkodra and identify contributing factors within the context of clinical practice. Objectives: The study assesses the impact of burnout on mentor performance. Material and Methods: This is a cross-sectional study. We used a standardized, structured, anonymous online questionnaire self-administered by clinical mentors and students. The inclusion criteria were the clinical mentors of the Faculty of Nursing of the University of Shkodra. The questionnaire was created with Microsoft Forms Office software and distributed via WhatsApp. The data were calculated through the Microsoft Office Excel 2010. The study period is November-December 2024. Results: Most participants were female (72%), and 56% held a bachelor's degree. Nearly half (45%) of the clinical mentors reported needing more support and resources to manage the stress of mentoring. A significant proportion (65%) viewed mentoring as an additional burden rather than an engaging experience, while 31% felt pressured to balance their mentoring responsibilities with providing adequate support to students. Conclusions: Clinical mentors face considerable challenges, with many requiring additional resources and support to manage stress. The perception of mentoring as a burden rather than a rewarding experience may hinder their effectiveness. Addressing these issues is essential to improve mentor well-being and enhance the quality of mentoring in clinical practice.

Key words: burnout, clinical mentors, nursing students.

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 103-112 (2025)

ASSESSING THE ECOLOGICAL IMPACT OF BETULIN-CONTAINING FEED ADDITIVES: INSIGHTS FROM BIOCHEMICAL PARAMETERS IN BREEDING CALVES AND DAIRY COWS

Larisa Gnezdilova[1*], Yulia Kruglova[1], Zhora Muradyan[1], Seraphim Rozinsky[1]

[1]Moscow State Academy of Veterinary Medicine and Biotechnology, MBA named by K.I. Scriabin, Moscow, Russian Federation;*

[*]Corresponding Author Larisa Gnezdilova, e-mail: larisa.a.gnezdilova@mail.ru;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.112

ABSTRACT

The study aimed to examine the effect of the feed additive betulin on the biochemical parameters of blood serum in calves and cows. The experiment was conducted in the Tver region and at the K.I. Skryabin Moscow State Academy of Veterinary Medicine and Biotechnology with two experimental and two control groups of animals. Betulin was administered orally at a dose of 10 mg/kg body weight for 14 days, followed by biochemical analyses. The EOS BRAVO v.200 analyzer was used to measure protein, bilirubin, AST, ALT, and other parameters. Statistical analysis was performed using Microsoft Excel with biometric methods, and significance was assessed at $P < 0.05$, 0.01, and 0.001. The results showed that betulin normalized bilirubin levels, which, before the experiment, were below 2.5 µmol/L in 100% of experimental animals. This indicated tissue hypoxia, which was mitigated after using the additive. Analyzing the obtained data on the use of betulin on cows, we can conclude that the studied biochemical parameters of cow serum at the beginning of the experiment did not have significant differences between the groups. By the end of the experiment, the cows of the experimental group showed an increase within the physiological norm of bilirubin and total protein and a decrease in aspartate aminotransferase (AST), alanine aminotransferase (ALT), alkaline phosphatase, albumin, lactate dehydrogenase (LDH) and cholesterol.

Keywords: betulin, breeding farm, blood test, therapeutic dose, biochemical parameters, oral administration, live weight.

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 113-122 (2025)

MUSCULOSKELETAL DISORDERS IN THE NURSING PROFESSION AND THE EFFECTIVENESS OF INTERVENTIONS TO PREVENT THESE DISORDERS: A LITERATURE REVIEW

Sebastjan Mjekaj[1*], Enkeleda Sinaj[2], Julian Kraja[1], Edra Fresku[3], Erjona Abazaj[4]

[1]University of Shkodra "Luigj Gurakuqi", Department of Preclinical Subjects, Shkodra, Albania;*
[2]Tirana Medical University, Faculty of Medical Technical Sciences, Tirana, Albania;
[3]University of Shkodra "Luigj Gurakuqi", Faculty of Natural Sciences, Departments of Mathematics, Shkodra, Albania;
[4]Institute of Public Health, Department of National Reference Laboratories, Tirana, Albania;

[*]Corresponding Author Sebastjan Mjekaj, e-mail: sebastjan.mjekaj@unishk.edu.al; enkeleda.sinaj@umed.edu.al; julian.kraja@unishk.edu.al; edra.fresku@unishk.edu.al; abazajerjona@gmail.com;

Received November 2024; Accepted December 2024; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.113

ABSTRACT

Introduction: Work-related musculoskeletal disorders is a broad term used to describe conditions or injuries caused by overuse of some of the muscles, tendons, nerves, ligaments, joints and supporting blood vessels, as a result of a work-related activity. The objective of the present study was to undertake a systematic review of the extant literature pertaining to the prevalence of musculoskeletal disorders among nursing personnel. The review further sought to ascertain the efficacy of interventions designed to prevent such disorders. Method: The selection of all material utilised in this study commenced in May 2024. The materials were collected on EBSCO platforms in the PubMed/MEDLINE databases, as well as in Web of Science, SCOPUS, and Science Direct. Results: The primary articles evaluated focused on musculoskeletal disorders, with a particular emphasis on the efficacy of rehabilitation interventions for their prevention. A comprehensive analysis of seven studies from diverse geographical regions and socioeconomic levels was conducted, which were then categorised into two groups. The first group comprised four scientific papers that primarily assessed musculoskeletal disorders, their prevalence, or contributing factors. The second group, which included three scientific papers, evaluated the effectiveness of preventive and advisory measures for nursing staff. The conclusions drawn from this study are as follows: The risk factors that directly affected work-related musculoskeletal disorders in nursing staff were numerous. A significant number of participants reported a paucity of information and training with regard to the prevention of such disorders. A consensus emerged from the collective analysis, recommending modifications to work methodologies and the implementation of educational interventions aimed at enhancing nurses' knowledge, attitudes, and behaviours. The study underscored the pivotal role of health education in fostering behaviours that contribute to the prevention of disorders.

Keywords: Nurses, musculoskeletal disorders, effectiveness of interventions, prevention.

Vol. 15 (1): 123-132 (2025)

IMPACT OF ENVIRONMENTAL EDUCATION DEVELOPMENT ON PROMOTING ENVIRONMENTALLY SAFE USE OF NATURAL RESOURCES AND CAREFUL ATTITUDE TOWARD NATURE

Ekaterina Babintseva[1*], Dariya Mansur[1], Elizaveta Trifonova[1], Tatiana Dugina[1]

[1]RUDN University (Peoples' Friendship University of Russia named after Patrice Lumumba), 6 Miklukho-Maklaya St, Moscow, 117198, Russian Federation;*

[*]Corresponding Author Ekaterina Babintseva, e-mail: babintseva-ea@rudn.ru;

Received November 2024; Accepted December 2025; Published January 2025;

DOI: https://doi.org/10.31407/ijees15.114

ABSTRACT

The implementation of education for sustainable development is a top priority. Environmental education serves as a tool for fostering a responsible, humane, and ethical attitude toward nature. At the current stage of human development, where environmental issues have reached a global scale, environmental education aims at transforming human consciousness and attitude toward nature. This article highlights the importance of organizing an educational process to inform children and the youth about environmental protection issues. Children and young people are the driving forces that will influence the environment in the future. The foundation for implementing an effective environmental education strategy lies in the institutional development of a three-tier system for environmental education: preschool institutions, general education schools, and higher education institutions. The effectiveness of environmental education can be achieved through the maximum integration of formal and informal environmental education efforts.

Keywords: sustainable development, greening, environmental education, formal education, informal education.

Vol. 15 (1): 133-138 (2025)

MODELING STOCK DYNAMICS AND PRODUCTION OF BLEAK (*ALBURNUS SCORANZA*) IN LAKE SHKODRA

Valbona Kolaneci[1*], Shkëlqim Sinanaj[2], Marsida Bllaca[1]

[1]Agricultural University of Tirana, Faculty of Agriculture and Environment, Department of Aquaculture and Fisheries, Tirana, Albania;*
[2]University "Ismail Qemali" of Vlora, Faculty of Technical and Natural Sciences, Department of Marine Sciences, Vlora, Albania;

[*]Corresponding Author Valbona Kolaneci, email: vkolaneci@ubt.edu.al;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.115

ABSTRACT

Lake Shkodra's small-scale fisheries play a vital role in supporting the local economy and preserving cultural traditions. According to national fisheries statistics, Albania's inland fisheries production in 2023 reached 4,858 tons, representing 25.12% of the country's total fisheries output, including aquaculture. Over the past 15 years, annual fish production in the Albanian section of the lake has varied from 500 to 900 tons. The composition of fish catches and the relative contribution of specific species to the total yield fluctuate annually, influenced by stock dynamics and the economic priorities of local fishers. The primary fish species targeted by traditional fishery in Lake Shkodra include common carp, Prussian carp, Scoranza bleak, chub, roaches, Albanian rudd, and common nase. Additionally, migratory species such as twaite shad, European eel, mullets, and European flounder are also significant to the fishery. This study aimed to assess the status of the Scoranza bleak (*Alburnus scoranza* Henkel & Kner, 1857) stock in Lake Shkodra and forecast its future production. The findings provide critical insights for developing more effective management measures to ensure the sustainable exploitation and regeneration of the stock. The status of the bleak stock was assessed using length-structured Virtual Population Analysis (VPA), while yield predictions were based on relative yield-per-recruit (Y'/R) models. The population experiences high natural mortality rates for individuals up to 13 cm in length. Additionally, high fishing mortality rates (1.0–1.2 yr^{-1}) are observed in cohorts with a total length of 12.5–16.5 cm. For the current level of E = 0.67 yr^{-1}, the relative yield-per-recruit (Y'/R) was estimated at 0.035. Under three exploitation scenarios (E_{max}, $E_{0.1}$, and $E_{0.5}$) the relative yield-per-recruit was calculated as 0.775, 0.671, and 0.367 respectively. At the current exploitation rate, which exceeds 0.367 $year^{-1}$, the spawning biomass per recruit will continue to decline, potentially compromising the population's ability to recover and sustain itself.

Keywords: Scoranza bleak, Shkodra Lake, VPA.

Vol. 15 (1): 139-150 (2025)

PUBLIC DEMAND FOR INFORMATION ON GREEN TECHNOLOGIES IN RESIDENTIAL CONSTRUCTION

Elena Osipova[1*], Liudmila Kutyrkina[1], Svetlana Panasenko[1], Vitaly Babarykin[1], Svetlana Badmaeva[1], Alexandra Osipova[1], Natalia Panasenko[1]

[1]Plekhanov Russian University of Economics, 36 Stremyanny lane, Moscow, 117997, Russia;*

[*]Corresponding Author Elena Osipova, e-mail: Osipova.EA@rea.ru;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.116

ABSTRACT

The construction of buildings that meet “green” certification standards - confirming their environmental, economic, and social benefits—has become an established global trend. Both “green” construction and “green” certification receive extensive media attention. The adoption of the Russian National Standard (GOST R) for “green” construction of multi-apartment residential buildings in fall 2022 has intensified discussions about its benefits. Positioned as an alternative to internationally recognized foreign private standards, GOST R has the potential to achieve global status, further emphasizing the need for media coverage. Effective communication of the advantages of green construction plays a critical role in fostering public awareness and engagement, particularly in the context of Russia’s broader sustainability policies. The Moscow region is one of Russia’s leading centers for green construction. Media representation of its advancements is essential for expanding public support. This study analyzes survey responses from 709 residents of the Moscow region, examining their interest in and engagement with information on green construction. The research identifies key differences across four age groups regarding preferred content, communication channels, and information formats. The findings contribute to media and sustainability studies, offering insights into effective public engagement strategies in the context of green construction.

Keywords: sustainable construction, green certification, media representation, public perception, environmental communication, information dissemination, green urban development.

Vol. 15 (1): 151-156 (2025)

ADAPTABILITY AND YIELD PERFORMANCE OF SELECTED EU AND REGIONAL CORN HYBRIDS IN THE AGRO-ECOLOGICAL CONDITIONS OF PEJA, KOSOVO

Kastriot Pehlivani[1], Nazmi Hasanaj[2*], Egzon Nikqi[3], Sami Zajmi[4]

[1,2] Department of food technology, Faculty of Agribusiness, Public University "Haxhi Zeka", 30000 Peja, Kosovo;*
[3,4] KOAL Seeds, Xhevdet Dibrani, 31000 Istog, Kosovo;

[*]Corresponding Author Nazmi Hasanaj, e-mail: nazmi.hasanaj@unhz.eu;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.117

ABSTRACT

This study examines the adaptability and yield performance of selected EU and regional corn hybrids under the agro-ecological conditions of the Peja region, Kosovo. Corn (Zea mays L.) is a key crop in Kosovo, serving as a major component of both human and animal nutrition. Field trials were conducted using a randomized complete block design with six hybrids originating from France, Croatia, and Serbia. The study assessed agronomic parameters such as plant height, ear placement, biomass production, and grain yield. The results showed significant variation among hybrids, with the Croatian hybrid OS 515 demonstrating the highest yield and protein content, while the French hybrids DKC 5143 and DKC 6574 exhibited strong yield stability. Statistical analysis confirmed a significant correlation between yield, plant height, and biochemical traits, highlighting the role of hybrid selection in optimizing corn production. These findings provide valuable insights for selecting high-performing hybrids suitable for Kosovo's agricultural landscape. Future research should explore multi-environment trials to assess hybrid stability across varying climatic conditions.

Key words: Agro-ecological adaptation, Corn hybrids, Hybrid selection, Kosovo agriculture, Yield performance.

Vol. 15 (1): 157-160 (2025)

THE DEPENDENCE OF THE RADIATION DOSE ON THE ANGLE AND THE FIELD SIZE FOR RADIATION BEAM WITH ENERGY 6 MV

Idajet Selmani[1*], Blerina Papajani[1], Partizan Malkaj[2]

[1]Aleksandër Xhuvani" University, Elbasan, Albania;*
[2]Polytechnic University, Faculty of Mathematical Engineering and Physics Engineering, Tirana, Albania;

[*]Corresponding Author Idajet Selmani, e-mail: idajet.selmani@uniel.edu.al; blerina.papajani@uniel.edu.al; p.malkaj@fimif.edu.al;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.118

ABSTRACT

The cell proliferation is a process that takes place through the cell cycle. Normally there is a balance between cell proliferation and death, when mutations that occur in DNA interrupt this process resulting in the birth of tumors. The spread of tumor diseases has led to the need to develop different methods for treating tumors. One of the methods of treating tumors is also through radiotherapy. In the treatment of tumors through radiotherapy are used accelerators which provide radiation beams with different energies. In the treatment of tumors with radiotherapy, electronic beam can be used for tumors that are located on the surface of the human body up to a depth of 7 cm or photonic beam for tumors that are located in different organs. The treatment of tumors using the radiotherapy provided by accelerators, it is also known as external beam radiotherapy, where the patient is placed at a certain distance from the accelerator head or radiation source as it is otherwise called. In external beam radiotherapy, it is very important to know the characteristics of the beam of radiation that will be used in the treatment of a certain tumor or tumor mass. A very important element in the treatment of external beams is the knowledge of the factors that affect the radiation dose given to the tumor mass, in order to give the exact dose needed to stop the process of tumor cell proliferation. In this material we will present two important factors, which affect the given dose, which are the size of the radiation field and the angle at which the radiation beam is given by the accelerator head. The factors listed above affect the dose distribution within the tumor mass. In our case we have used an accelerator type Elekta synergy platform with radiation beam with energy 6 MV. To see the dependence of the radiation dose on the factors defined above, we take some radiation field size with different dimensions and look at the changes in the radiation dose values. We notice that with the increase of the field size we have a decrease of the value of the radiation dose compared to the cases with small field size. This dependence helps us to evaluate the dose of radiation that we must give to the tumor mass in order to damage the tumor cells. Treatment of tumors with radiotherapy requires high accuracy and resolution of difficult cases. To treat tumors in different organs of the human body, the radiation source is placed at different angles depending on the position of the tumor. In these cases a correlation is observed between the radiation dose and the angle of the radiation source. The knowledge of the behavior of the radiation dose in relation to the angle of the radiation source, is used in giving the right dose in order to protect healthy organs. We have to be careful in report with given dose on the tumor mass on purpose that we have good results.

Keywords: Radiation, tumor, dose, field size, accelerator.

International Journal of Ecosystems and Ecology Science (IJEES) **Volume 15, issue 1, 2025**
https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 161-170 (2025)

EFFECTIVENESS OF THE APPLICATION OF GROWTH-STIMULATING BIOPRODUCTS IN INTENSIVE APPLE ORCHARDS

Ihor Didur I.[1], Oleksandr Tkachuk[1], Hanna Pantsyreva[1*], Natalia Shevchenko[1], Yaroslav Chabanuk[2], Snizhana Pankova[1], Oleksandr Vasylkov[1]

[1]Vinnytsia National Agrarian University, Vinnytsia, Ukraine;*
[2]Institute of Agrobiology, Kyiv, Ukraine;

[*]Corresponding Author Hanna Pantsyreva, e-mail: apantsyreva@ukr.net;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.119

ABSTRACT

The article investigates the influence of traditional mineral fertilizers ($N_{60}P_{60}K_{60}$) and biofertilizers on the indicators of preservation, growth, individual productivity and yield of apple fruits in 2022 – 2024 in the intensive semi-dwarf apple orchard of Vinnytsia National Agrarian University. The largest number of planted apple fruits on one tree was found when fertilizing with the Bionorma nitrogen preparation – 330 pieces. This was 23.9% more than in the control variant without fertilizer application, where 251 fruits were planted. Also, many fruits were formed on the variant with complex mineral fertilizer $N_{60}P_{60}K_{60}$ – 317 fruits, which was 20.8% more than on the control. The July and August fruit fall was insignificant compared to June. In particular, 0.3-1.1% of all laid fruits were lost in July. The greatest losses were observed on the control variant without fertilizers and with the application of mineral nitrogen N_{60}, and the smallest – on the variants with the application of biofertilizers Bionorma nitrogen and Bionorma garden. The most intensive growth in fruit diameter was observed on the variants with the application of biofertilizer Bionorma phosphorus and on the control without fertilizers – 48.3% each, from 3.0 to 5.8 cm. A strong negative correlation was found between the number of apple fruits on the tree and their diameter ($r = -0.8029$). The largest apple harvest from one tree was established on the variant of applying complex mineral fertilizer $N_{60}P_{60}K_{60}$ – 23.90 kg, which amounted to 39.617 t/ha.

Keywords: apple tree, intensive orchard, mineral fertilizers, biological products, yield.

Vol. 15 (1): 171-176 (2025)

STUDY OF THE CORRELATION BETWEEN PRODUCTION AND SOME OF ITS QUALITY COMPONENTS IN SEVERAL *T. AESTIVUM* WHEAT LINES

Nazmi Hasanaj[1], Kastriot Pehlivani[2*], Sami Zajmi[3], Egzon Nikqi[4]

[1,2] Public University "Haxhi Zeka", Faculty of Agribusiness, Department of food technology, 30000 Peja, Kosovo;*
[3,4] KOAL Seeds, Xhevdet Dibrani, 31000 Istog, Kosovo;

[*]Corresponding Author Kastriot Pehlivani, e-mail: kastriot.pehlivani@unhz.eu;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.120

ABSTRACT

In this study, the data of the yield kv/ha and some qualitative indicators of grain, in some Tr.aestivum wheat lines, created by the research group Agroarfa (Albania) and Koal Seeds (Kosovo) are provided. As a test, a well-known Italian bisanzio variate was used which also has good quality indicators of production. The features that were researched, along with the kv/ha yield were respectively the total protein content, 14% moisture starch, gluten, hardness, and zeleny test. The trials were developed in four places in Toshkëz (Albania), Istog (Kosovo), Grosseto (Italy) and Voghera (Italy). While the quality indicators were revelated in apsov sementti's laboratory (Voghera Italy). The experimental settings represent four different environments. Some of the new lines feature high yields in all four experimentation places. From the analysis of the indicators, it turns out that their contents represent not pronounced variation between the lines. Specifically, protein content varies from 12.80% in the Bisanzio variation to 10.50% in AF19_64 line. Two of the new lines, namely AF19_25 and AF19_26 lines, have protein content at the witness level. While the starch content in the grain of the lines varies from 57.67% in the AF19_65 line to 60.98 AF1934. In terms of gluten percentage 14% humidity, this indicator varies from 27.32% in the Bisanzio variance to 34.9 in AF19_36 line. In addition to their contents, the correlations of these indicators to the kv/ha productivity were studied. For this, the correlation coefficients were calculated, where it is seen that the kv/ha yield has negative correlation with the percentage of proteins with correlation coefficient- 0.664. The weak negative correlation presents gluten and starch etc. (8).

Keywords: correlation coefficient, gluten starch, hardness NIR, line, protein.

Vol. 15 (1): 177-184 (2025)

AN ANALYSIS ON THE PSYCHOLOGICAL AND ENVIRONMENTAL EFFECTS OF WOMEN'S INDOOR ORNAMENTAL PLANT USE DURING THE COVID-19 PANDEMIC

Kübra Yazici[1*]

[1*]*Yozgat Bozok University, Faculty of Agriculture, Department of Landscape Architecture, Yozgat, Türkiye;*

[*]Corresponding Author Kübra Yazici**,** e-mail: k-yazici-karaman@hotmail.com; kubra.yazici@yobu.edu.tr;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.121

ABSTRACT

The pandemic has led to radical changes in the daily living habits of individuals and transformed their residences into not only a shelter but also a place of work, rest, and social interaction. Indoor ornamental plants are considered an important component in the redesign of living spaces with their aesthetic and psychological functions. This study examined women's tendency to use indoor ornamental plants and their psychological and environmental effects during the Covid-19 pandemic. We conducted the study with women, who spend the most time at home. It showed that women not only considered ornamental plants as a decorative element but also as a tool that increases their psychological well-being and improves the atmosphere of the space. This reveals that in the context of changing spatial needs after Covid-19, plants play a stress-reducing and psychologically supportive role for individuals beyond being just a visual element. However, some women stated that ornamental plants take up unnecessary space or that their maintenance processes are laborious. These differences emphasized that individual attitudes towards ornamental plants vary and that spatial designs should be flexible according to the needs of users. As a result, the pandemic process had caused people to re-evaluate their living spaces and brought the psychological and environmental benefits of indoor ornamental plants to the forefront. It emphasized the importance of interior and landscape design within the framework of changing spatial needs and drew attention to the necessity of design approaches that support human psychology. This means that using a design approach that incorporates nature into future interior arrangements will help create long-lasting space solutions that will improve people's physical, mental, and social health.

Keywords: landscape design, spatial perception, sustainability.

Vol. 15 (1): 185-200 (2025)

AN INTEGRATED APPROACH FOR MINIMIZING DEFICIENCIES IN FUSARIUM DETECTION AT WHEAT GRAINS

Ariola Bacu [1,2,*], Krisida Ciko[3], Renis Maci[4], Linda Luarasi[1]

[1]Department of Biotechnology, Faculty of Natural Sciences, University of Tirana, Albania;*
[2]Centre for Biotechnology & Genetics, Academy of Sciences of Albania;*
[3]Laboratory of Mycotoxins, Department of Toxicology and Veterinary Drug Residues, Food Safety and Veterinary Institute, Albania;
[4]Laboratory of Microbiology of Aquatic Products, Department of Food Microbiology, Food Safety and Veterinary Institute, Albania;

[*]Corresponding Author Ariola Bacu, e-mail: ariola.bacu@fshn.edu.al;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.122

ABSTRACT

The toxigenic capacity of mycotoxins produced by genus Fusarium, and the fact that the prevalence of certain species is mainly determined by regional climatic conditions, raise the importance of defining workflows, which would minimize disadvantages of single methods of detection. For this, visual inspection and microscopy (isolation of the pathogen by PDA platting followed by screening based on colony morphology and structure), chromatography (LC-MS/MS for mycotoxins composition and quantity), and specific TaqMan PCR (for Fusarium genus and species F. graminearum, F. culmorum, F. avenaceum, and F. poae) were employed to investigate this infection at seeds of 32 winter wheat cultivars (Triticum aestivum L.) in use in Albania. The detection efficacy of TaqMan PCR depending on the matrix used to extract the template DNA (hyphae, flour), and on the method of extraction (silica binding, CTAB or SDS-based) were also assessed, and wheat flour was suggested as the proper matrix. The McNemar calculation, used to verify the amplification efficacy using TaqMan dual probe and signal detection in FAM channel as compared to electrophoresis, proved the high sensitivity of the protocol. 13 cultivars were found infected by F. graminarium; 16 by F. culmorum; 13 by F. avenaceum, and none of them by F. poae based on PCR. The comparison of the sensitivity of TaqMan PCR to detect at genus level compared to species level proved mismatches, which varied from 26% for F. graminarium to 15% for F. avenaceum, to 5% for F. culmorum, implying the need for further improvement of the protocols. Typical mycotoxins were evidenced at 13 cultivars, and the colony micro-morphological characteristics (macroconidia, oval microconidia, conidiophores) proved their taxonomy at genus level. A comparison on the methods capacity for pathogen detection showed the ratio 27:14:13 for TaqMan: visual inspection: mycotoxins presence, respectively with results matching for 9 infected samples only, highlighting the value of an integrated approach, which would take advantage of each method either related to the detection limits, or to cost-efficiency.

Keywords: mycotoxins, colony morphology, PCR.

Vol. 15 (1): 201-210 (2025)

THE EFFECT OF INDOOR ORNAMENTAL PLANT GROUPS ON SPATIAL PERCEPTION: EXPERT EVALUATIONS ON AESTHETIC AND FUNCTIONAL USE

Kübra Yazici[1*]

[1*]*Yozgat Bozok University, Faculty of Agriculture, Department of Landscape Architecture, Yozgat, Türkiye;*

[*]Corresponding Author Kübra Yazici**,** e-mail: k-yazici-karaman@hotmail.com; kubra.yazici@yobu.edu.tr;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.123

ABSTRACT

The rapid growth of cities and high population density have limited people's access to natural environments, leading to more time spent indoors. Because of this, biophilic design elements that incorporate natural elements into spaces have become even more important, highlighting the healing properties of plants on a physical and mental level. Indoor decorative plants foster a connection with nature, alleviate stress, enhance air quality, and augment comfort in living environments. Besides their aesthetic value, indoor decorative plants enhance air quality and provide oxygen. Psychologically, they enhance living environments by promoting comfort through their tranquil and stress-alleviating properties. Research indicates that the incorporation of natural elements in indoor environments enhances individuals' connection to nature and positively impacts their health. For this study, visualizations are made based on how indoor ornamental plants (like evergreens, flowering plants, bromeliads, and succulent cacti) are used, along with the opinions of experts. We assess the spatial perception of indoor decorative plants using aesthetic, psychological, health, and tactile characteristics. Furthermore, we comprehensively evaluate the area and the plant and assess contrasting viewpoints using the semantic differentiation scale. Consequently, they introduce dynamic and visual allure to the environment with their chromatic diversity, seasonal fluctuations, and blooming intervals. Consequently, it contributes vibrancy and visual allure to the environment with its chromatic variety, seasonal fluctuations, and blooming phases. Species with vividly colored blooms render the room amiable, welcoming, and dynamic. Conversely, Cactaceae plants provide a more static and stable source of energy. Their symmetrical structures and unique form characteristics enhance the perception of balance, simplicity, and tranquility. They achieve uniform results, particularly in the "Ordinary-Impressive" and "Tiring-Relaxing" categories. Figures 2 and 4 caused disagreement among experts, leading to a wide range of ratings for specific criteria.

Keywords: Spatial analysis, spatial perception, indoor plants.

Vol. 15 (1): 211-218 (2025)

INTERNATIONAL CRIMINAL LAW OF THE ENVIRONMENT: A MYTH OR REALITY

Valbona Ndrepepaj[1*]

[1*]*University of Tirana, Faculty of Law, Tirana, Albania;*

[*]Corresponding Author Valbona Ndrepepaj, valbona.ndrepepaj@fdut.edu.al;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.124

ABSTRACT

The process of Globalization, the increasing interconnectedness and interdependence of countries through trade, technology, and culture, in addition to its positive consequences, has also been accompanied by numerous negative consequences, which have violated International Law in general and Environmental Law in particular. As a result, efforts are increasingly being made to create new mechanisms to prevent these violations and prosecute their perpetrators criminally. For example, among others, the creation of the so-called International Criminal Law of the Environment, inter alia, the creation of International Criminal Jurisdictions in the field of the Environment. This is a response to any violation of a criminal nature that it will suffer. The focus of this article is precisely the research into whether, apart from rumors, one can speak today of an international criminal law of the Environment. Or is it just a myth? After all, such a law holds immense potential as the most efficient mechanism for preventing natural disasters caused by man, such as Chornobyl, in the Gulf of Mexico, Eagle Creek Fire, Columbia River, etc. More specifically, this article will address several issues, such as an understanding of International Environmental Law in a positive and doctrinal aspect, the most worrying problems of the Environment today, and national and international mechanisms for protecting the Environment and their inefficiency. To move on to the key points, we will discuss the advantages of creating a new branch of Law, International Criminal Law of the Environment. Also, as far as possible, it is a favorable and doctrinal treatment. That is its identification and analysis. Hermeneutic and interpretative/analytical methods have been used to implement this article. In conclusion, through this article, we aim to stimulate debate among academics of Law in general and Criminal Law in particular and to inspire hope for a better future.

Keywords: Globalization, International Law, International Environmental Law, International Criminal Law, International Criminal Environmental Law.

Vol. 15 (1): 219-230 (2025)

CARBON NEUTRAL DELIVERY IN VIETNAM'S E-COMMERCE CONTEXT

Tran Thi My Phuong[1,2,*]

[1*]*An Giang University, 18 Ung Van Khiem Street, My Xuyen Ward, Long Xuyen City, An Giang Province, Vietnam;*
[2]*Vietnam National University Ho Chi Minh City, Vietnam;*

[*]Corresponding Author Tran Thi My Phuong, e-mail: ttmyphuong@agu.edu.vn;

Received December 2024; Accepted January 2025; Published February 2025;

DOI: https://doi.org/10.31407/ijees15.125

ABSTRACT

This study aims to analyze the potential and challenges of adopting carbon-neutral delivery solutions in Vietnam's rapidly growing e-commerce sector. Objectives include examining current practices, identifying barriers to implementation, and exploring consumer attitudes toward eco-friendly delivery options. The primary research method employed is a comprehensive literature review of academic articles, reports, and case studies. Data were gathered from reputable databases such as Google Scholar and Scopus, focusing on themes like green logistics, consumer behavior, and regulatory frameworks. The results indicate that Vietnam has made significant progress in establishing a regulatory framework for carbon neutrality, including the National Climate Change Strategy and the development of a domestic carbon market. However, logistics operations remain a major contributor to greenhouse gas emissions. Challenges also include high initial costs for electric vehicles (EVs), underdeveloped charging infrastructure, and low consumer demand for sustainable delivery services. Additionally, consumer demand for eco-friendly delivery services is limited due to low awareness of their environmental benefits. Despite these barriers, the research highlights opportunities in government-led sustainability initiatives, increasing environmental awareness among consumers, and advancements in logistics technology. Thus, achieving carbon-neutral delivery in Vietnam requires coordinated efforts from businesses, policymakers, and consumers. Businesses should invest in green technologies and engage consumers through awareness campaigns and incentives. Policymakers need to implement supportive regulations, develop EV infrastructure, and offer financial incentives for green logistics. Together, these strategies can align Vietnam’s logistics practices with global sustainability goals and position the country as a leader in sustainable e-commerce.

Keywords: Carbon Neutral Delivery, Sustainable Logistics, E-commerce in Vietnam, Consumer awareness, Electric Vehicles.

https://doi.org/10.31407/ijees ISSN: 2224-4980 https://doi.org/10.31407/ijees15.1

Vol. 15 (1): 231-238 (2025)