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

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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.

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

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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.

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

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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

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

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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.

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STRENGTHENING LOCAL COMMUNITY GROWTH THROUGH STRATEGIC GOVERNANCE: CHALLENGES AND SOLUTIONS

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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.

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

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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.

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COMPREHENSIVE ECOLOGICAL EVALUATION OF AGROTECHNOLOGIES OF AGRICULTURAL CROP GROWING

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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.

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

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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.

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

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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.

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

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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

