



ISSN 2224-4980

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

<https://doi.org/10.31407/ijeess>



Essays on Ecosystems and Environmental Research

Volume 12/4, 2022

July - December 2022

<http://ijeess.net/>

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

<https://doi.org/10.31407/ijeess>





Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Volume 12, Issue 4, July 2022 - December 2022, (Serial Number 48)



Editor in Chief

Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA; Health and Environment Association, Tirana Albania.
Earth System Science Interdisciplinary Center (ESSIC), University of Maryland College Park, USA, Consultant Scientist.

Deputy-Editor-in-Chief

Sukru Dursun, Professor, Konya Technical University, Environmental Engineering Dep., Konya-Turkey.

Massimo Zuchetti, Professor, MIT, Massachusetts Institute of Technology, Cambridge MA, USA.

Cezar Kongoli, Professor, University of Maryland College Park, Earth System Science Interdisciplinary Center (ESSIC), USA.

Selim Dogan, Professor, Konya Technical University, Environmental Engineering Dep., Konya-Turkey.

International Scientific Editorial Board

Sukru Dursun, Professor, Konya Technical University, Environmental Engineering Dep., Konya, Turkey;

Massimo Zuchetti, Professor, MIT, Massachusetts Institute of Technology, Cambridge MA, USA;

Veselin Alexandrov, Professor, National Institute of Meteorology and Hydrology, Bulgaria;

Nicola Senesi, Professor, University of Bari, Bari, Italy;

Wander Michelle M, Professor, University of Illinois at Urbana-Champaign, Urbana, Urbana, IL 61801, USA;

Vladimir Pesic, Professor, University of Montenegro, Department of Biology, Podgorica Montenegro;

Ibraim Dincer, Professor, University of Ontario, Faculty of Engineering and Applied Science, Ontario, Canada;

Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA;

Lyudmyla Symochko, Prof. Assoc. Dr. Uzhhorod National University, Faculty of Biology, Uzhhorod, Ukraine;

Zacharoula S. Andreopoulou, Professor, Aristotle University of Thessaloniki, Thessaloniki, Greece;

Mariana Golumbeanu, PhD, National Institute for Marine Research and Development "Grigore Antipa", Constanta, Romania;

Antonis K. Kokkinakis, Professor, Aristotle University of Thessaloniki, Thessaloniki, Greece;

Olivia Cioboiu, PhD, The Oltenia Museum Craiova, Popa Șapcă str. No 8, Rumania;

Nasser Modirshahla, Professor, Islamic Azad University, Department of Applied Chemistry, Iran;

Nina Liogchii, Professor, Institut of Ecology and Geografy, Republic of Moldova;

Trajce Talevski, Professor, Hydrobiological Institute, Naum Ohidski 50, 6000 Ohrid - R.Macedonia;

Alexander V. Derunkov, Professor, Dep. of Entomology, National Museum of Natural History, Washington DC, USA;

Can Ozgur Colpan, Professor, Ryerson University, Canada;

Muhammad Ashraf, Professor, University of Agriculture, Faculty of Sciences, Faisalabad 38040, Pakistan;

Roberto Mancinelli, Professor, University of Tuscia, Viterbo, Italy;
Bahrive Gulgun, Professor, Ege University, Izmir, Turkey;
Insaf Mekki, PhD, National Research Institute for Rural Engineering, Water, and Forestry (I.N.R.G.R.E.F), Ariana, Tunisia;
Hany Gaber El Shaer, PhD, IUCN Centre for Mediterranean Cooperation / Global Marine, Egypt;
Ertugrul Esmeray, Ph.D, Karabuk University, Engineering Faculty, Environmental Engineering Department Turkey;
Violeta Vidaček-Hainš, PhD, Ass. Professor, University of Zagreb, Croatia;
Cezar Kongoli, Professor, University of Maryland College Park, Earth System Science Interdisciplinary Center (ESSIC), USA;
Justas Kažys, PhD, Assoc. Professor, Vilnius University, Department of Hydrology and Climatology, Vilnius –Lithuania;
Selim Dogan, PhD, Assoc. Professor Selcuk University, Environmental Engineering Department, Konya Turkey;
Hisham Mostafa Alidrisi, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Khalid A. A. Al-Ghamdi, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Osman Taylan, PhD, Assoc. Professor, King Abdulaziz University, Engineering College, Jeddah Saudi, Arabia;
Robert J. Kuligowski, PhD, University of Maryland College P, Earth System Science Interdisciplinary Center (ESSIC), USA;
Mariia M. Fedoriak, Professor, Chernivtsi National University, Dep. of Ecology and Biomonitoring, Chernivtsi, Ukraine;
Narayan Ramappa Birasal, Associate Professor, KLE Society's G H College, Zoology Department, , Karnataka state, India;
Rana P. Singh, Professor, Babasaheb Bhimrao Ambedkar University, Dep. of Environmental Science, U.P., India;
Hayati AKMAN, Dr., Selcuk University, Seed Department, 42430 Konya, Turkey;
Fatma ÇANKA KILIÇ, Professor, Kocaeli University, Technology Faculty, Energy Systems Engineering Dep., Kocaeli, Turkey;
Ferim Gashi, Dr., University of Pristina, Department of Geography, Faculty of Mathematical-Natural Sciences, Kosovo;
Altin Dorri, Professor Assoc., Polytechnic University of Tirana, Tirana, Albania;
Alexander P. Sizykh, Professor, Russian Academy of Sciences, Siberian Institute, Irkutsk, Lermonyova, Russia;
Zeynep EREN, Professor, Ataturk University, Environmental Engineering Department, Erzurum, Turkey;
Sheida Korjani, PhD, Department of Architecture, Tabriz Branch, Islamic Azad University, Tabriz, Iran;
Maan Maarroof, PhD, Assistant Professor, University of Mosul, College of Veterinary Medicine, Iraq;
Koula Doukani, Professor, University of Ibn Khaldoun, Zaaroura, Tiaret, Algeria;
Svetla Petkova Gateva, PhD, Institute of Biodiversity and Ecosystem Research, Bulgarian Acad. of Sciences, Sofia, Bulgaria;
Rrahim Sejdiu, Professor Assistant, PhD, University of Applied Sciences-Ferizaj, Kosovo;
Mouloud BOUHOUBOU, Dr., ENS Assia Djebar - Constantine, Algeria;
Dinh Tran Ngoc Huy, Dr., Banking University HCMC, Ho Chi Minh city Vietnam-International University of Japan, Japan;
Admir Jançe, Professor Assoc., European University of Tirana, Tirana, Albania;
Nataliia P. Kovalenko, Dr., Institute of Plant Physiology and Genetics of NAS of Ukraine, Kyiv, Ukraine;

Publication Information:

International journal of ecosystems and ecology science (IJEES), ISSN 2224-4980, publishing original articles, reviews and short communications of high scientific standard on ecosystems and science ecology. By: Hysen Mankolli, Professor, Ecologist, Plainfield, Illinois, USA; Health and Environment Association, Tirana, Albania;

ISSN International Centre, *Bibliographic Data Section*, PARIS, FRANCE;

Bib - ID 68337; ISO standard 3297;

Key title: International journal of ecosystems and ecology science

Abbreviated key title: *Int. j. ecosyst. ecol. sci.*

ISSN 2224-4980; <http://ijeess.net/>

Frequency: four times a year. IJEES Electronic Journal Publication: Plainfield, Illinois, USA;

DOI prefix: 10.31407, <https://doi.org/10.31407/ijeess>



Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Clarivate

<https://mjl.clarivate.com/home>

Web of Science Core Collection,

Journal Citation Indicator (JCI): 2020: **0.05**; 2019:**0.05**

<https://apps.clarivate.com/mjl-beta/search-results>

Emerging Sources Citation Index - JOURNAL LIST

<http://mjl.clarivate.com/cgi-bin/jrnlst/jlresults.cgi?PC=EX&Alpha=I>



ESCI Clarivate, <https://mjl.clarivate.com/home>

UOI license: <http://u-o-i.org/1.01/ijeess>; <http://www.u-o-i.org/index.php/SearchLicense>



DPI Digital Library USA and assign unique digital no. DPI: 16.10047.IJEES

U.S. National Library of Medicine,

NLM ID: [101726509](https://pubmed.ncbi.nlm.nih.gov/101726509/) [Serial]; Other ID: (OCOLC)879805056;

<https://www.ncbi.nlm.nih.gov/nlmcatalog/101726509>

This journal has the status of an international journal.

Aims and Scope:

The goals of the International Journal of Ecosystems and Ecology Science (IJES), ISSN 2224-4980, are to bring together researchers and scientists with interests in the quality of the ecosystems research results, theories, technologies, systems, tools, applications, the work in progress and experiences on ecosystems used. The main topics of interest are:

- ✓ Ecosystems
- ✓ Agro ecosystems
- ✓ Forest ecosystems
- ✓ Ecology
- ✓ Plant Ecology
- ✓ Animal Ecology
- ✓ Human Ecology
- ✓ Lakes and Rivers ecosystems
- ✓ Applied Biology
- ✓ Applied Ecology
- ✓ Applied Chemistry
- ✓ Biodiversity
- ✓ Energy
- ✓ Geology
- ✓ Bioaccumulation
- ✓ Desalination
- ✓ Water
- ✓ Soil
- ✓ Air pollution
- ✓ Climate Change
- ✓ Ecosystem restoration
- ✓ Environment toxicology
- ✓ Environment protection
- ✓ Environmental radioactivity
- ✓ Environmental legislation
- ✓ Environmental management
- ✓ Environmental education.
- ✓ Green technology
- ✓ Socioeconomic aspects in Ecosystems
- ✓ Agro tourism and National Park
- ✓ Health Care
- ✓ Food security
- ✓ Rights and Environmental Laws
- ✓ Environment Engineering
- ✓ Environment Architecture
- ✓ Eco philosophy Issue

Abstracted / Indexed / Impact Factor in:

International journal of ecosystems and ecology science (IJEES), ISSN 2224-4980,

IJEES: <http://ijeess.net/>

IJEES have an international status and has been indexed, abstracted, and have impact factors:

ISSN Center responsible of the record: CIEPS - ISSN

<https://portal.issn.org/resource/ISSN/2224-4980>

IJEES doi crossref

<https://doi.org/10.31407/ijeess>

IJEES, Volume 12/4 2022

[https://www.ijeess.net/journal-86-International-Journal-of-Ecosystems-and-Ecology-Science-\(IJEES\)-Volume-12-4,-2022.html](https://www.ijeess.net/journal-86-International-Journal-of-Ecosystems-and-Ecology-Science-(IJEES)-Volume-12-4,-2022.html)

Clarivate Analytics

<https://mjl.clarivate.com/home?PC=MASTER&Word=ijeess>

Clarivate

<https://mjl.clarivate.com/home>

Web of Science Core Collection,

Journal Citation Indicator (JCI):2020: **0.05**; 2019:**0.05**

<https://apps.clarivate.com/mjl-beta/search-results>

Emerging Sources Citation Index - JOURNAL LIST

<http://mjl.clarivate.com/cgi-bin/jmlst/jlresults.cgi?PC=EX&Alpha=I>

Sciencegate cited

<https://www.sciencegate.app/source/315335/top-cited>

Scilit

<https://www.scilit.net/journal-articles/1892436>

CiteFactor: IF 2019-2020:1.40;

<https://www.citefactor.org/impact-factor/impact-factor-of-journal-International-Journal-of-Ecosystems-and-Ecology-Science-IJEES.php>

EBSCO's library products,USA

<http://www.ebscohost.com/for-publishers/for-publishers>

IARC: Journal Impact Factor (USA), IF=2017: **1.811**; IF=2016: **1.463**; =2015: **0.861**

http://iarcif.org/index.php/journal_information/show/44/0/2224-4980

Index Copernicus ICV= 2020: **100.00**; ICV= 2019: **100.00**; ICV= 2018: **100.00**; ICV= 2017: **98.95**;

<https://journals.indexcopernicus.com/search/journal/issue?issueId=197247&journalId=31407>

Academic Resource Index Research Bible:

<http://paper.researchbib.com/view/issn/2224-4980/10/2>

Scientific Journal Impact Factor Value 2020: **SJIF 2020 = 7.167**

<http://sjifactor.com/masterlist.php?area=all&country=al&ord=sjif>

Google scholar Cited: **h-index: 10**; **Citations 400**;

<https://scholar.google.com/citations?user=W89N8qgAAAAJ&hl=en>

MIAR

<http://miar.ub.edu/issn/2224-4980>

Directory of Research Journals Indexing (DRJI)

<http://olddrji.lbp.world/JournalProfile.aspx?jid=2224-4980>

WorldCat

https://www.worldcat.org/search?qt=affiliate_wc_org_all&ai=Directory_ashok.drji%252540gmail.com&fq=&q=2224-4980&wcsbtn2w=Go

US. National Library of Medicine, NLM ID: **101726509** [Serial]; **Other ID:** (OCOLC)879805056;

<https://www.ncbi.nlm.nih.gov/nlmcatalog/101726509>

Global Impact Factor (GIF) IF: 2015: **0.765**; 2014: **0.625**; 2013: **0.541**; IF= 2012: **0.425**;

<http://globalimpactfactor.com/journals-list/?snap=I>

CAS Chemical Abstracts Service – CAS database

<http://cassi.cas.org/search.jsp>

Journal Factor: ISSN 2224-4980

http://www.journalfactor.org/advance_search.php

Directory of Research Journals Indexing (DRJI)

<http://olddrji.lbp.world/justIncluded.aspx>

Environment-and-Nature/Biodiversity/Ecosystem.

<http://www.efita.org/Environment-and-Nature/Biodiversity/Ecosystem-Biodiversity/IJEES-details-28892.html>

NewJour : Electronic Journal&Newsletters

<http://gulib.georgetown.edu/newjour/nj2/index.html>

Environmental expert

<http://www.environmental-expert.com/magazines/?keyword=ecosystem+science>

Currently Indexing at Pro Quest

http://www.proquest.com/en-US/catalogs/databases/detail/periodicals_index.shtml

CABI

<http://www.cabi.org/default.aspx?page=1016&site=170&pid=40&xsltab=2&newtitlesonly=1&search=>

Manuscripts and correspondence are invited for publication

*Dear Professors, PhD, researchers and scholars of the field of ecosystems and related areas to, such as environmental engineering, agriculture, bio-chemistry, soil, water and air pollution, geology, forestry, urban ecology, resource economics, etc., at the moment, I declare the sending of scientific journal articles to International Journal of Ecosystems and Ecology Science (IJEES) is open. Sending of items can only be done electronically, to the following address: e-mail: editorijeess@gmail.com; 2011ijeese@gmail.com; mjedisishendeti@yahoo.com; The confirmation of receiving these items will be announced within the period of one to three weeks after sending. Whether the article is accepted or not, will be announced within a period of two to three weeks. Only original articles will be accepted, validated, and not to have or be published in other journals. Publication lasts from two to six months. All Rights Reserved Copyright by © IJEES (the first or correspondent author have responsible for the accuracy of the article). Submission guidelines and Web Submission System are available at: <https://www.ijeess.net/page-6-Guide-for-authors.html>;
Note: If the paper is published in another journal or if it includes false or inaccurate claims, it will be rejected or removed automatically as that constitutes a violation. Zero tolerance!*

Editorial Office:

*IJEES Electronic Journal Publication: Plainfield, Illinois, USA; E-mail: editorijeess@gmail.com;
Health and Environment Association, Tirana, Albania; E-mail: mjedisishendeti@yahoo.com;*

**International
Journal of Ecosystems and Ecology Science
(IJEES)**

DOI: <https://doi.org/10.31407/ijeess>

Volume 12/4, 2022

DOI: <https://doi.org/10.31407/ijeess12.4>

Table of contents:

Iryna Gumenuk¹, Lyudmyla Symochko^{1,2,*}, Ivan Mostoviak³, Olena Demyanyuk¹, Olena Sherstoboeva¹, Vera Boroday⁴, Vitaliy Symochko², THE ROLE OF BRADYRHIZOBIUM JAPONICUM EXOPOLYSACCHARIDES IN THE FORMATION OF AN EFFECTIVE SYMBIOTIC APPARATUS OF SOYBEAN, page 1-8;

DOI: <https://doi.org/10.31407/ijeess12.401>

Tran Van Nam^{1*}, Trinh Minh Tam², Do Son Tung², Tao Minh Hung⁴, DETERMINING CRITERIA IN TECHNOLOGY VALUATION THROUGH THE ANALYTIC HIERARCHY PROCESS: A CASE STUDY IN VIETNAM, page 9-14;

DOI: <https://doi.org/10.31407/ijeess12.402>

Volodymyr Orekhivskiy¹, Anna Kryvenko¹, Nataliia Kovalenko^{1*}, Svitlana Burykina², Maxim Parlikokoshko², Antonina Drobitko³, EFFICIENCY OF USING ORGANO-MINERAL BIOPREPARATIONS AS ELEMENTS OF BIOLOGIZATION IN CHICKPEA CULTIVATION TECHNOLOGIES IN THE ARID SOUTHERN STEPPE OF UKRAINE, page 15-26;

DOI: <https://doi.org/10.31407/ijeess12.403>

Hoang Van Long¹, Le Thanh Cong^{2*}, Dinh Tran Ngoc Huy³, MANAGEMENT IMPLICATIONS WITH RISK MANAGEMENT FROM REGRESSION MODEL APPROACH: A CASE IN VIETNAM CONSTRUCTION SECTOR, page 27-32;

DOI: <https://doi.org/10.31407/ijeess12.404>

Gjokë Duhanaj^{1*}, Elizabeta Susaj², Lush Susaj³, AMPELOGRAPHIC EVALUATION OF THE MAIN PHENOLOGICAL, VEGETATIVE AND PRODUCTIVE CHARACTERS OF WHITE SHESH GRAPEVINE CULTIVAR, UNDER TIRANA CLIMATE CONDITIONS, page 33-38;

DOI: <https://doi.org/10.31407/ijeess12.405>

Alvarez, S.C., Carreon, P.A.D., Tumbaga, J.R.A, Arneil G. Gabriel^{*}, CONTINGENT VALUATION STUDY IN THE PREVENTION OF AIR POLLUTION IN CABANATUAN CITY, page 39-56;

DOI: <https://doi.org/10.31407/ijeess12.406>

Pavlo Lykhovyd^{*}, SAFFRON (*Crocus sativus* L.) AS A PROSPECTIVE AND SAFE NATURAL TREATMENT FOR MENTAL DISORDERS, page 57-64;

DOI: <https://doi.org/10.31407/ijeess12.407>

Argjiro Alija^{1*}, Vesa Rraci², Njomza Shosholli Peja³, BURNOUT RATE IN HEALTH PROFESSIONALS DURING COVID PANDEMIC-19, page 65-70;

DOI: <https://doi.org/10.31407/ijeess12.408>

Trinh Xuan Viet¹, Nguyen Thi Thuy Huong^{2*}, Nguyen Minh Phuong³, Ly Lan Yen², USING OLS MODEL TO ANALYZE MACRO INFLUENCE ON BANK PROFIT AND PROPOSALS FOR BETTER BANK MANAGEMENT, page 71-78;

DOI: <https://doi.org/10.31407/ijeess12.409>

Amit Kumar Kashyap^{1,2*}, Vijaylaxmi Sharma¹, REGULATORY REFORMS FOR STRUCTURED GREEN FINANCE: EXPLORING THE CASE OF INTERNATIONAL FINANCE SERVICE CENTRE, INDIA, page 79-90;

DOI: <https://doi.org/10.31407/ijeess12.410>

Dinh Tran Ngoc Huy¹, Phan Ngoc Quynh Nhu^{2*}, Tran Thi Thanh Nga³, Ta Van Thanh³, USING NEW MODEL APPROACH FOR ENHANCING RISK MANAGEMENT MECHANISM IN A CASE OF VIETNAM LISTED BANK, page 91-100;

DOI: <https://doi.org/10.31407/ijeess12.411>

Geoffrey A. Librero¹, Arneil G. Gabriel^{2,3*}, Olive Chester M. Cuya-Antonio^{2,3}, Vilma B. Ramos^{2,3}, Jennifer G. Fronda³, SUSTAINABLE ENVIRONMENT AND THE IMPACT OF ECOTOURISM IN AURORA PROVINCE IN THE PHILIPPINES, page 101-112;

DOI: <https://doi.org/10.31407/ijeess12.412>

Khelili Yacine^{1*}, Bouakkaz Rafik¹, THE EFFECT OF BUOYANCY AND ROTATION ON THE FLOW AND THERMAL FIELDS AROUND A CIRCULAR CYLINDER, page 113-120;

DOI: <https://doi.org/10.31407/ijeess12.413>

Jacinto Y. Bustamante, Vilma B. Ramos, Feliciano P. Jacoba, Rhea Lyn F. La Penia, Arneil G. Gabriel*, RESILIENCY AMIDST VULNERABILITY: A STORY OF THE INDIGENOUS CULTURAL COMMUNITIES-INDIGENOUS PEOPLES' EXPERIENCES IN MITIGATING THE IMPACT OF PANDEMIC IN THE PHILIPPINES, page 121-130;

DOI: <https://doi.org/10.31407/ijeess12.414>

Nguyen Thi Phi Nga^{1*}, Le Thanh Huong², COVID 19 AND FACTORS AFFECTING VIETNAMESE PEOPLE'S CONSUMPTION BEHAVIOR IN FOOD HYGIENE AND SAFETY, page 131-136;

DOI: <https://doi.org/10.31407/ijeess12.415>

Nguyen Thi Phi Nga^{1*}, INVESTIGATE THE BUSINESS MODEL OF ECO VILLAGE THAI HAI, page 137-142;

DOI: <https://doi.org/10.31407/ijeess12.416>

Mexhit Mustafa¹, Afërdita Lahu^{2*}, HOSPITAL WASTE AND THEIR IMPACT ON ENVIRONMENTAL POLLUTION AND HUMAN HEALTH, page 143-150;

DOI: <https://doi.org/10.31407/ijeess12.417>

Hoang Xuan Lam^{1*}, Tha To Hien², Tran Minh Hai³, EVALUATING IMPACTS OF A SIX FACTOR MODEL ON CCI STOCK PRICE: A CASE OF A LISTED TRADING COMPANY IN VIETNAM, page 151-160;

DOI: <https://doi.org/10.31407/ijeess12.418>

Nguyen Trong Diep*, SOLVING CONFLICTS OF INTEREST IN ELECTRONIC CONTRACTS IN E-COMMERCE TRANSACTIONS, page 161-166;

DOI: <https://doi.org/10.31407/ijeess12.419>

Imtiaz Ahmad^{1*}, Ahmad Zamir¹, Arz Muhammad Umrani¹, Umair Safdar¹, Afra Siab¹, Muhmmad Tallal Tayyab Utmankhel¹, Muhammad Hamza¹, Owais Ahmad¹, ASSESMENT OF MIGRATORY AND RESIDENT BIRDS AT RAGHAGAN DAM, DISTRICT BAJAUR TEHSIL SALARZAI, KPK, page 167-172;

DOI: <https://doi.org/10.31407/ijeess12.420>

Iralda Xhaferaj, ROAD SAFETY IMPACTS OF SIGHT DISTANCE CRITERIA ACCORDING TO ALBANIAN
CODE, page 173-180;
DOI: <https://doi.org/10.31407/ijees12.421>