

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul karya ilmiah (artikel) : Economic Model of Groundwater Damage Control in Semarang City: Prisoner's Dilemma Game
 Jumlah Penulis : 3 orang
 Status Pengusul : Penulis ke-3
 Nama Penulis : **Akhmad Syakir Kurnia, S.E., M.Si., Ph.D**

Identitas Jurnal : a. Nama Jurnal : Journal of Environmental Management and Tourism
 Ilmiah : b. Nomor ISSN : Online ISSN: 2068-7729
 : c. Volume, nomor, bulan, tahun : Volume 12, Issue 7(55), Winter 2021
 : d. Penerbit : ASERS Publishing
 : e. DOI artikel (jika ada) : [https://doi.org/10.14505/jemt.12.7\(55\).20](https://doi.org/10.14505/jemt.12.7(55).20)
 : f. Alamat web jurnal : Archives | Journal of Environmental Management and Tourism (aserspublishing.eu)
https://drive.google.com/file/d/1D9NL_L5LGW5e1Mf_W8dCXAJ4i0R0dZEX/view?usp=sharing
 : g. Terindeks di Scimago-JR / Thomson Reuter ISI : SCOPUS Q3 SJR 2020 0.3 H-INDEX 14
 Knowledge atau di nasional / terindeks di DOAJ, CABI, Copernicus

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah ~~Internasional~~ /Internasional bereputasi
 (beri ✓ pada kategori yang tepat) Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/ Nasional terindeks di DOAJ, CABI, Copernicus

Hasil Penilaian *Peer Review* :

Komponen yang Dinilai	Nilai Maksimal Jurnal Ilmiah					Nilai Akhir yang Diperoleh
	Internasional bereputasi (maks. 40)	Internasional	Nasional Terakreditasi	Jurnal Nasional Tidak Terakreditasi	Nasional Terindeks DOAJ dll.	
a. Kelengkapan unsur isi artikel (10%)	3					2,50
b. Ruang lingkup dan kedalaman pembahasan (30%)	9					8,50
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9					8,50
d. Kelengkapan unsur dan kualitas penerbit (30%)	9					8,00
Total = (100%)	30					27,50
Kontribusi Pengusul (Penulis Pertama / Anggota Utama) =20%						5,50

KOMENTAR / ULASAN PEER REVIEW

• Kelengkapan dan kesesuaian unsur	Unsur dalam artikel sudah sesuai ketentuan jurnal (Title, Abstract, Introduction, Literature Review, Methods, Results, Discussion, Conclusion, and References). Sudah ditulis cukup lengkap.
• Ruang lingkup dan kedalaman pembahasan	Ruang lingkup sudah mengikuti substansi dalam jurnal. Kedalaman pembahasan sudah menjawab permasalahan riset, yaitu untuk memodelkan perilaku pengguna air bawah tanah melalui uji-cba ekonomis (economic experiment). Artikel ini sudah didukung referensi yang baik dan relevan.
• Kecukupan dan kemutakhiran data & metodologi	Kecukupan dan kemutakhiran data/ informasi sudah baik. Metodologi sesuai tujuan bahasan dan sudah diuraikan cukup jelas. Alat analisis menggunakan Game Theory (Prisoner's Dillema Game), sudah sesuai tujuan riset. Hasil riset sudah memberikan penjelasan yang baik sesuai tujuan.
• Kelengkapan unsur dan kualitas penerbit	Jurnal ini masih tercatat di Scimago-JR Scopus Q3 dan SJR = 0,269 (2020). Coverage 2013-2020. Diterbitkan ASERS Publishing House, Romania suatu penerbit yang cukup baik. Subject area jurnal: business, management, economics, environmental science.
Indikasi plagiasi	Tidak ditemukan indikasi plagiasi. Dengan Turnitin, similarity indeks untuk artikel ini sebesar 24% (internet sources 23%, publications 5%, dan students papers 10%); exclude matches off.
• Kesesuaian bidang ilmu	Substansi artikel sudah sesuai dengan bidang ilmu pengusul, yaitu ilmu ekonomi.

Semarang, 10 Februari 2022

Reviewer 1

Prof. Drs. Waridin, M.S., Ph.D.
 NIP. 196202121987031024
 Departemen IESP FEB Undip
 Jabatan Fungsional : Guru Besar

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul karya ilmiah (artikel) : Economic Model of Groundwater Damage Control in Semarang City: Prisoner's Dilemma Game
 Jumlah Penulis : 3 orang
 Status Pengusul : Penulis ke-3
 Nama Penulis : **Akhmad Syakir Kurnia, S.E., M.Si., Ph.D**

Identitas : a. Nama Jurnal : Journal of Environmental Management and Tourism
 Jurnal Ilmiah : b. Nomor ISSN : Online ISSN: 2068-7729
 : c. Volume, nomor, bulan, tahun : Volume 12, Issue 7(55), Winter 2021
 : d. Penerbit : ASERS Publishing
 : e. DOI artikel (jika ada) : [https://doi.org/10.14505/jemt.12.7\(55\).20](https://doi.org/10.14505/jemt.12.7(55).20)
 : f. Alamat web jurnal : Archives | Journal of Environmental Management and Tourism (aserspublishing.eu)
https://drive.google.com/file/d/1D9NL_L5LGW5e1Mf_W8dCXAJ4i0R0dZEX/view?usp=sharing
 : g. Terindeks di scimagojr / Thomson Reufer ISI knowledge atau di nasional / terindeks di DOAJ, CABI, Copernicus : SCOPUS Q3 JR 2020 0.3 H-INDEX 14

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah ~~Internasional~~ /Internasional bereputasi
 (beri ✓ pada kategori yang tepat) Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/ Nasional terindeks di DOAJ, CABI, Copernicus

Hasil Penilaian Peer Review :

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah					Nilai Akhir Yang Diperoleh
	Internasional bereputasi (maks. 40)	Internasional	Nasional Terakreditasi	Jurnal Nasional Tidak Terakreditasi	Nasional Terindeks DOAJ dll.	
a. Kelengkapan unsur isi artikel (10%)	3					2
b. Ruang lingkup dan kedalaman pembahasan (30%)	9					8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9					8
d. Kelengkapan unsur dan kualitas penerbit (30%)	9					8
Total = (100%)	30					26
Kontribusi Pengusul (Penulis Pertama / Anggota Utama) 26 x 40 % = 10.4//						5.2
KOMENTAR / ULASAN PEER REVIEW						
• Kelengkapan dan kesesuaian unsur	Kelengkapan dan kesesuaian unsur artikel dalam baik, dan memadai, meliputi title, abstract, Introduction, Literature Review, Method, Result, Discussion, Conclusion, References.					
• Ruang lingkup dan kedalaman pembahasan	Ruang lingkup materi pembahasan baik, dan relevan untuk memberikan masukan kepada Pemerintah Kota Semarang, kedalaman pembahasan didukung dengan analisis yang berbeda dari sebelumnya					
• Kecukupan dan Kemutakhiran Data & Metodologi	Kecukupan dan kemutakhiran data kurang, metode penelitian sesuai dengan permasalahan dan tepat untuk membantu penulis mengambil kesimpulan. Banyak referensi yang yang terlalu lama.					
• Kelengkapan unsur dan kualitas penerbit	Kelengkapan unsur dan kualitas penerbit baik, jurnal masuk di Scimagojr, sehingga dikategorikan sebagai jurnal internasional bereputasi					
Indikasi plagiasi	Similarity index cukup tinggi 4%					
• Kesesuaian bidang ilmu	Kajian sesuai dengan bidang ilmu pengusul, yaitu ilmu ekonomi.					

Semarang, Februari 2022

Reviewer 2



Prof. Dr. Hadi Sasana, S.E., M.Si.
 NIP. 196901211997021001
 Departemen IESP FEB Undip
 Jabatan Fungsional : Guru Besar



Document details - Economic model of groundwater damage control in Semarang City: Prisoner's dilemma game

1 of 1

[Export](#) [Download](#) [More... >](#)

Journal of Environmental Management and Tourism

Volume 12, Issue 7, Winter 2021, Pages 1951-1960

Economic model of groundwater damage control in Semarang City: Prisoner's dilemma game(Article)

Siswanto, B., Sugiyanto, F.X., Kurnia, A.S.


^aDoctoral Program in Economics, Diponegoro University, Indonesia^bFaculty of Economics and Business, Diponegoro University, Indonesia

Abstract

Groundwater abstraction in Semarang City is thought to have triggered land subsidence and sea water intrusion. This research models the behavior of groundwater users through economic experiments using Prisoner's Dilemma Game. The experimental design is a 2³ factorial design. The independent variables or factors are payoff, framing, and communication, while the response variable is the level of cooperation. The G statistic shows a significant logit equation model. Wald statistic shows a significant framing factor, whereas communication factor, framing and communication interaction factor, all factors interaction is significant but with the opposite sign. The study implies a policy based on the treatment proxy in experiments. First, narrating the depletion and the role of groundwater users is narrated. Second, building trust before implementing information disclosure on groundwater use. Third, determining groundwater extraction fines after internalizing scarcity rent in groundwater prices calculation. © 2021 by ASERS® Publishing. All rights reserved.

SciVal Topic Prominence

Topic: Punishment | Ultimatum Game | Guilt Aversion

Prominence percentile: 98.750 

Author keywords

Communication Economic experiments Framing Groundwater damage Payoff matrix Prisoner's dilemma game Semarang City

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert >](#)
[Set citation feed >](#)

Related documents

Find more related documents in Scopus based on:

[Authors >](#) [Keywords >](#)

ISSN: 20687729

Source Type: Journal

Original language: English

DOI: 10.14505/jemt.12.7(55).20

Document Type: Article

Publisher: ASERS Publishing House

About Scopus

[What is Scopus](#)

[Content coverage](#)

[Scopus blog](#)

[Scopus API](#)

[Privacy matters](#)

Language

[日本語版を表示する](#)

[查看简体中文版本](#)

[查看繁體中文版本](#)

[Просмотр версии на русском языке](#)

Customer Service

[Help](#)

[Tutorials](#)

[Contact us](#)

ELSEVIER

[Terms and conditions ↗](#) [Privacy policy ↗](#)

Copyright © Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies ↗.



ASERS

Journal of Environmental Management and Tourism

Quarterly

Volume XII

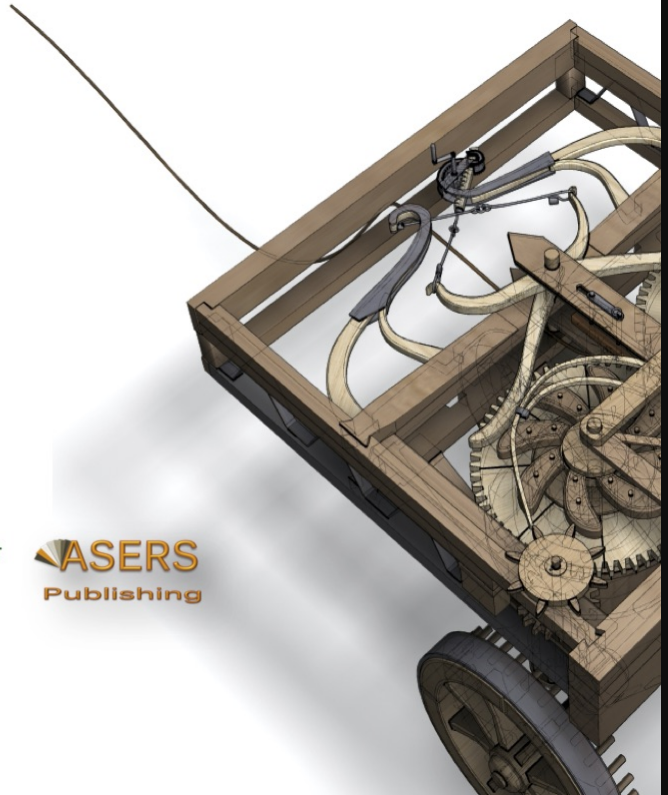
Issue 7(55)

Winter 2021

ISSN 2068 – 7729

Journal DOI

<https://doi.org/10.14505/jemt>



[Home](#) / [About the Journal](#)

Aims and scope

Journal of Environmental Management and Tourism is an interdisciplinary research journal, aimed to publish articles and original research papers that should contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences. Journal will publish original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modeling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies, etc.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in Environmental Management.

Journal of Environmental Management and Tourism is indexed in SCOPUS, ProQuest, EBSCO, RePEC, CABELL'S Directories and CEEOL database.

[Copyright Form](#)

[Template for Authors](#)

[Publishing Agreement 2022](#)

Journal's official e-mail: jemt@aserspublishing.eu

Editor in Chief

[Ramona PÎRVU](#), University of Craiova, Romania

Co-Editor

Laura Ungureanu, Spiru Haret University, Romania

Editorial Advisory Board

[Omran Abdelnaser](#), University Sains Malaysia, Malaysia (<https://orcid.org/0000-0002-0719-1386>)

[Huong Ha](#), University of Newcastle, Singapore, [Australia](#)

[Harjeet Kaur](#), HELP University College, Malaysia

[Janusz Grabara](#), Czestochowa University of Technology, [Poland](#) (<https://orcid.org/0000-0003-2794-2068>)

[Vicky Katsoni](#), Technological Educational Institute of Athens, [Greece](#) (<https://orcid.org/0000-0002-4808-9564>)

[Sebastian Kot](#), Czestochowa University of Technology, The Institute of Logistics and International Management, Poland (<https://orcid.org/0000-0002-8272-6918>)

[Nodar Lekishvili](#), Tbilisi State University, [Georgia](#)

[Andreea Marin-Pantelescu](#), Academy of Economic Studies Bucharest, Romania (<https://orcid.org/0000-0002-3532-1395>)

[Piotr Misztal](#), The Jan Kochanowski University in Kielce, Faculty of Management and Administration, Poland (<https://orcid.org/0000-0003-2609-3439>)

[Agnieszka Mrozik](#), Faculty of Biology and Environmental Protection, University of Silesia, Katowice, Poland (<https://orcid.org/0000-0001-9312-7438>)

[Laura Nicola - Gavrilă](#), Spiru Haret University, Romania (<https://orcid.org/0000-0003-3309-275X>)

[Chuen-Chee Pek](#), Nottingham University Business School, Malaysia

[Roberta De Santis](#), LUISS University, Italy (<https://orcid.org/0000-0003-4410-1375>)

[Fabio Gaetano Santeramo](#), University of Foggia, Italy (<https://orcid.org/0000-0002-9450-4618>)

[Dan Selîşteanu](#), University of Craiova, Romania (<https://orcid.org/0000-0002-9770-405X>)

[Lesia Kucher](#), Lviv Polytechnic National University (<https://orcid.org/0000-0001-7112-8763>)

Invitation for Qualifies Reviewers for Editorial Board & International Program Committee Members

ASERS Publishing invites the interested professionals to contribute into ASERS Publishing's research network by joining us as a part of Editorial Board & International Program Committee members for its scientific peer-reviewed journals & books.

Interested applicants must submit a detailed CV along with a List of Publications at apg@aserspublishing.eu.

Please remember that your help with reviewing the papers would be very much appreciated.

Publication malpractice statement

Journal of Environmental Management and Tourism is committed to pursuing the highest standards of probity and the elimination of malpractice in research presented within this journal. Journal's ethics and malpractice statement is based on COPE's Best Practice Guidelines for Journal Editors.

All ASERS Publishing's Journals adopt the COPE guidelines on publication ethics <http://publicationethics.org/resources/code-conduct>.

Reviewing process follows these steps:

- 1st Step: The Editor in Chief will make an initial screening of the paper submitted in order to determine if it is suitable with the scope and the aims of the journal.
 - 2nd Step: The submission received will be checked with the anti-plagiarism software before will undergo a double blind peer reviewing process. If the report indicates suspicious, the paper will be rejected, else will follow next stage.
 - 3rd Step: The paper is double-blind peer reviewed by the members of Editorial Advisory Board, according with the area of research indicated by the JEL Classification specified by the author in its paper.
 - 4th Step: The final decision is made by the Editor in Chief based on the recommendations and comments of reviewers. The Editor in Chief decides whether the paper should be accepted as it is, revised (with minor or major corrections) or rejected. Any changes which affecting the substance of the text will, of course, only be made in agreement with the author.
- The review process usually takes between 3 and 4 weeks but sometimes, due to number of papers, complexity of research submitted could be up to 6 weeks.

Duties of Authors:

- Submitted manuscripts must be the original work of the author(s)
- Only unpublished manuscripts should be submitted.
- It is unethical to submit a manuscript to more than one journal concurrently.
- Any conflict of interest must be clearly stated.
- Acknowledge the sources of data used in the development of the manuscript.
- All errors discovered in the manuscript after submission must be swiftly communicated to the Editor.

Duties of Reviewers:

- That all the manuscripts are reviewed in fairness based on the intellectual content of the paper regardless of gender, race, ethnicity, religion, citizenry nor political values of author(s).
- That any observed conflict of interest during the review process must be communicated to the Editor.
- That all information pertaining to the manuscript is kept confidential.
- That any information that may be the reason for the rejection of publication of a manuscript must be communicated to the Editor.

Duties of Editors:

- That all the manuscripts are evaluated in fairness based on the intellectual content of the paper regardless of gender, race, ethnicity, religion, citizenry nor political values of authors.
- Any observed conflict of interest pertaining manuscripts must be disclosed.
- That information pertaining manuscripts are kept confidential.
- The editor should respect the intellectual independence of authors.

The Editorial Board takes responsibility for making publication decisions for submitted manuscripts based on the reviewer's evaluation of the manuscript, policies of the journal editorial board and legal restraint acting against plagiarism, libel and copyright infringement.

It is ultimately the responsibility of the editors-in-chief to ensure that this policy is disseminated to all and followed through. If any third party believes that malpractice has occurred, they are encouraged to contact the Editors-in-Chief of the journal. Where malpractice has been found to occur, the article in question will be removed from the journal. Individuals found to have deliberately undertaken actions that result in malpractice will be excluded from publishing in the Journal in the future.

Join our team!

Become an author

Also check our books platform

Asers books

Online support 24/7

+40 754 027 417

INFORMATION

[About Us](#)

[Privacy Policy](#)

[Customer Service](#)

[Privacy Policy](#)

[Refunds Politics](#)

[ANPC](#)

MY ACCOUNT

[Sign In](#)

[Register](#)

[Contact us](#)

LOCATION

Company: *ASERS SRL 26503057*

Address: *Str. Eugeniu Carada, nr. 7, 200390, Craiova,*

Romania

Mail to: apg@aserspublishing.eu

Phone: *+40 754 027 417*

Home / Archives / Vol 12 No 7 (2021): JEMT Volume XII, Issue 7(55), Winter 2021



Published: 2021-12-01

Full Issue

PDF

Article

The Effects of Lockdowns on the Air Pollutants' Concentration. Case Study of Nitra, Slovakia

Kristína BACULÁKOVÁ, Ľubica HARAĽOVÁ, Rudolf KUCHARČÍK

1747-1753

PDF

Forecast of Organic Diversification of Agriculture in a Global Perspective

Vladimir V. GRIGORUK, Chulpan U. AKIMBEKOVA, Altynsary D. UMBITALIEV

1754 - 1765

PDF

Green Investment Model for Smallholder Oil Palm Plantation in Bengkalis Riau

Mashuri MASHURI, Zulkarnain ZULKARNAIN, Zulfadil ZULFADIL, Suwondo SUWONDO

1766 - 1773

PDF

Major Ambient Air Pollutants and Toxicity Exposure on Human Health and Their Respiratory System: A Review

Gourav Kumar SINGH, Swapnil RAI, Nimisha JADON

1774 - 1788

PDF

Environment and Economic Benefits through the Preference for More Open Commercial Policy

Kanokwan CHANCHAROENCHAI, Wuthiya SARAITHONG

1788 - 1795

PDF

Influence of the Demographic Regions on the Environment: Features and Development Trends

Dametken TUREKULOVA, Lyazzat MUKHAMBETOVA, Berik BEISENGALIYEV, Kulman ORAZBAYEVA, Rimma SATKANOVA, Zhanna NURGALIYEVA

1796 - 1810

PDF

South Batak Tradition for the Settlement of Environmental Disputes: A Tumbaga Holing Letter Model

Anwar Sadat HARAHAHAP, Hardi MULYONO, Ahmad laut HASIBUAN, Taufik SIREGAR

1811 - 1825

PDF

Regulation of Waste Management and Elimination of Accumulated Damage in the Countries of the Eurasian Economic Union

Eleonora Sergeevna NAVASARDOVA, Andrey Nikolaevich ZAHARIN, Kira Vladimirovna KOLESNIKOVA, Roman Vladimirovich NUTRIKHIN, Vladimir Aleksandrovich SHINKAREV

1826 - 1837

Conceptual Bases of Business Activities' Management Grounded on Sustainable Development and Energy Self-Sufficiency of United Territorial Communities in the Context of the European Green Deal Implementation in Ukraine

Ilona YASNLOB, Stanislav BOIKO, Oleg GORB, Oleksandr POMAZ, Oleksii ZORIA, Svitlana PYSARENKO, Alla RUDYCH, Tetiana DIADYK, Viktoriia DANYLENKO, Yuliia KOZACHENKO
1838 - 1849

 PDF

The Legislative Shortcomings Aspects in the Jordanian Environmental Law. Comparison with International Law

Omar EMAR, Hamzeh ABU ISSA
1850 - 1860

 PDF

Analysis of the Development of Innovative Entrepreneurship for the Assess Their Competitiveness and Environmental Impact Factors

Julia VIKULENKO, Anargul BELGIBAYEVA, Oxana DENISSOVA, Gulzhan ABAUOVA, Aigul TULEMETOVA, Rysty SADYKOVA
1861 -1874

 PDF

Criminal Liability of Holding Company in Environmental Crime in Indonesia

Abdul Aziz ALSA, F.X. Adji SAMEKTO, Pujiyono PUJIYONO
1875 - 1881

 PDF

Institutional Environment for the "Green" Economy Development in Khanty-Mansi Autonomous Okrug-Yugra

V. F. ISLAMUTDINOV, I. D. LEBEDEVA, E. M. BURUNDUKOVA, V. V. KOROSTELEVA, E. N. RAZDROKOV
1882 - 1892

 PDF

Protected Forest Function Change Policy for Food Estate Land in Subang, Indonesia

Iga Gangga Santi DEWI, Ana SILVIANA, Nur ADHIM, Mira NOVANA
1893 - 1898

 PDF

Improvement of Land Relations in the Context of Sustainable Development of Rural Areas in Ukraine

Svitlana SHARAPOVA, Tetiana LISOVA, Viktoriya BREDIKHINA, Olexii LIALIUK
1899 - 1905

 PDF

Green Brand Perceived Value: A Driver for Attitude toward Green Brand Extension

Elisabeth Rotua SIMAMORA, Farida INDRIANI, Budi SETIAWAN
1906 - 1913

 PDF

Management of the Company's Investment Projects in Anti-Crisis Management and Their Impact on the Environment

Nursulu ALASHBAIEVA, Dametken TUREKULOVA, Asemgul KAPENOVA, Aliya ZHUNUSOVA, Raikhan SUTBAYEVA
1914 - 1929

 PDF

The Standardization Transformation of Industry Oriented Batik to Accelerate Competitiveness 4.0 and National Independence in Clothing Sector during New Normal

Muslichah Erma WIDIANA
1930 - 1940

 PDF

Environmental and Legal Regulation of Digitalization of Environmental Protection

Dauren BEKEZHANOV, Gulnura KOPBASSAROVA, Aktoty RZABAY, Zhaukhar KOZHANTAYEVA, Indira NESSIPBAYEVA, Kanat AKTYMBAYEV
1941 - 1950

 PDF

Economic Model of Groundwater Damage Control in Semarang City: Prisoner's Dilemma Game

Bambang SISWANTO, Franciscus Xaverius SUGIYANTO, Akhmad Syakir KURNIA
1951 - 1960

 PDF

1961 - 1965

PDF

Preserving Traditional Village as a Symbol of Devotion to Nature

Bening Fathima Rabbaniya AMATILLAH, Yuliani Dwi LESTARI

1966 - 1979

PDF

Analysis of the Influence of Ecology on Human Resources Management in the Healthcare System

Zhanar BAIGIREYEVA, Berik BEISENGALIYEV, Dmitry KICHA, Shakizada NIYAZBEKOVA, Leila MAISIGOVA

1980 - 1996

PDF

Sustainable Development of the Coastal Environment through Participatory Mapping of Abrasion-Prone Areas

Nur HAMID, Dewi Liesnoor SETYOWATI, Juhadi JUHADI, Agustinus Sugeng PRIYANTO, Suswanti SUSWANTI, Muh. Arif ROYYANI, Elvara Norma AROYANDINI

1997 - 2009

PDF

Mechanisms for Managing the Circular Economy in Subsoil Use

Lyudmila MOCHALOVA, Olga SOKOLOVA, Olga EREMEEVA

2011 - 2017

PDF

Environmental Project Management in the Hospitality Industry in Russia

Andrey KOVALTCHUK, Konstantin A. MILORADOV, Elena Y. NIKOLSKAYA, Marina GUNARE

2019 - 2025

PDF

Join our team!

Become an author

Also check our books platform

Asers books

Online support 24/7

+40 754 027 417

INFORMATION[About Us](#)[Privacy Policy](#)[Customer Service](#)[Privacy Policy](#)[Refunds Politics](#)[ANPC](#)**MY ACCOUNT**[Sign In](#)[Register](#)[Contact us](#)**LOCATION**

Company: ASERS SRL 26503057

Address: Str. Eugeniu Carada, nr. 7, 200390, Craiova,

Romania

Mail to: apg@aserspublishing.eu

Phone: +40 754 027 417

Home / Archives / Vol 12 No 7 (2021): JEMT Volume XII, Issue 7(55), Winter 2021 / Article

Environmental and Legal Regulation of Digitalization of Environmental Protection

Dauren BEKEZHANOV

Zhetysu University named after I. Zhansugurov, Republic of [Kazakhstan](#)

Gulnura KOPBASSAROVA

Zhetysu University named after I. Zhansugurov, Republic of [Kazakhstan](#)

Aktoty RZABAY

Taraz Regional University named after M.Kh.Dulati, Republic of [Kazakhstan](#)

Zhaukhar KOZHANTAYEVA

Kazakh National Academy of Choreography, Republic of [Kazakhstan](#)

Indira NESSIPBAYEVA

Taraz Regional University named after M.Kh.Dulati, Republic of [Kazakhstan](#)

Kanat AKTYMBAYEV

Zhetysu University named after I. Zhansugurov, Republic of [Kazakhstan](#)

DOI: [https://doi.org/10.14505/jemt.12.7\(55\).19](https://doi.org/10.14505/jemt.12.7(55).19)

Abstract

The article is devoted to certain issues of environmental and legal aspects of the digital environment in the information system of environmental safety, issues of legal implementation of the digitalization program. This article has researched the importance and necessity of environmental digitalization. At the same time, the main idea of digital ecology is considered as the implementation of the National Strategy for Sustainable Development and prevention of Environmental Disasters, control of public opinion on environmental issues, improvement of health and increase in life expectancy of the population, adaptation of the state system of digitalization management in the field of environmental culture, environmental education, environmental safety to the digital environment, use of the possibilities of modern "breakthrough" digital technologies. Environmental digitalization in management comprehensive studies of the system approach to the use of digital environmental resources were conducted, the basics of improving the regulatory legal regulation in the management in the field of environmental safety in the framework of the implementation of the digital program were considered.

References

- [1] Ang, J.B., and Fredriksson, P. 2021. Does an early start help or hurt? Statehood, institutions and modern climate change policies. *Energy Economics*, 94(90): 105075.
- [2] Bekezhonov, D. and Yerkinbayeva, L. 2017. Legal regulation of municipal solid waste treatment in the transition of developing countries to 'green economy'. *Journal of Advanced Research in Law and Economics*, 8(3): 754-762.
- [3] Bekezhonov, D., et al. 2020. Environmental and legal framework for regulating consumer and industrial waste management. *Journal of Environmental Management and Tourism*, 11(1): 186-193.
- [4] Bekezhonov, D., et al. 2021. Environmental problems of international legal regulation of transboundary pollution. *Journal of Environmental Management and Tourism*, 12(2): 392-405.
- [5] Bekezhonov, D., et al. 2018. Legal and environmental policy on solid waste pollution and protection. *Environmental Policy and Law*, 48(1): 83-88.
- [6] Bekezhonov, D., et al. 2019. Obtaining fuel and energy resources from biofuels: Legal challenges. *Environmental Policy and Law*, 49(2-3): 175-180.
- [7] Evtyanova, D., and Tiranova, M.V. 2017. Digital economy as a mechanism of effective environmental and economic policy. *Online Journal "Naukovedenie"*, 9(6): 71.
- [8] Fairbrother, A., et al. 2019. Toward sustainable environmental quality: Priority research questions for North America. *Environmental Toxicology and Chemistry*, 38(8): 1606-1624.
- [9] Kal'ner, V. 2018. Digital economy and ecological safety of vital activity. *Ecology and Industry of Russia*, 22(1): 62-67 (in Russian). DOI: <https://doi.org/10.18412/1816-0395-2018-1-62-67>
- [10] Kuderina, A., et al. 2021. Environmental and Legal Regulation of the Handling of Chemicals. *Journal of Environmental Management and Tourism*, 12(2): 371-381.
- [11] Kudina, G. 2014. The paradigm of transition of Russia and its regions to "green economy" and sustainable development. *Science Journal of VolSU. Global Economic System*, 3(26): 104-112.
- [12] Laevskaya, E. 2011. "On the issue of self-defense of the right to a favorable environment: problems of legal regulation of citizens' participation in solving issues related to plans and programs related to the environment". In *Law in the modern Belarusian society: collection of scientific works*, Issue 6, V.I. Semenov (ed.), 343-351. Minsk: Law and Economics.
- [13] Laevskaya, E.V. 2003. *The right to environmental information*. Minsk: Tonpik, 56 p.
- [14] Perelet, R.A. 2018. Environmental issues in a digital economy. *The world of new economy*, 12(4): 39-45 (in Russian). DOI: <https://doi.org/10.26794/2220-6469-2018-12-4-39-45>
- [15] Quaranta, E., et al. 2020. Hydropower case study collection: Innovative low head and ecologically improved turbines, hydropower in existing infrastructures, hydropeaking reduction, digitalization and governing systems. *Sustainability*, 12(21(8873)): 1-79.
- [16] Talapina, E.V. 2019. Digital transformation in France: Legal innovations. *Pravo. Zhurnal Vysshey shkoly ekonomiki*, 4: 164-184 (in Russian).
- [17] Ecological code of the Republic of Kazakhstan of January 2, 2021 No. 400-VI ZRK. Available at: <http://adilet.zan.kz/rus/docs/K2100000400> (in Russian).
- [18] Federal Law of the Russian Federation N 3-FZ. January 9, 1996. "On Radiation Safety of the Population". Available at: <http://www.kremlin.ru/acts/bank/8724>
- [19] Federal Law of the Russian Federation No. 149-FZ. July 27, 2006. "On Information, Information Technologies and Information Protection". Available at: <https://rg.ru/2006/07/29/informacia-dok.html>
- [20] Law of the Republic of Belarus No. 122-Z. January 5, 1998. "On Radiation Safety of the Population". Available at: <https://pravo.by/document/?guid=3961&p0=H19800122>
- [21] Law of the Republic of Belarus No. 1982-XII. November 26, 1992. "On Environmental Protection". Available at: <https://pravo.by/document/?guid=3871&p0=v19201982>
- [22] Law of the Republic of Belarus No. 257-Z. July 10, 2007. "On the Animal World". Available at: <https://pravo.by/document/?guid=3871&p0=H10700257>
- [23] Law of the Republic of Belarus No. 2-Z. December 16, 2008. "On the protection of atmospheric air". Available at: [https://pravo.by/pdf/2009-4/2009-4\(010-032\).pdf](https://pravo.by/pdf/2009-4/2009-4(010-032).pdf)
- [24] Law of the Republic of Kazakhstan No. 92-II ZRK. October 23, 2000. "On the ratification of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters". Available at: http://adilet.zan.kz/rus/docs/Z000000092_links
- [25] Law of the Republic of Kazakhstan No. 94-V. May 21, 2013. "About personal data and its protection". Available at: <http://adilet.zan.kz/rus/docs/Z1300000094>
- [26] Law of the Republic of Tajikistan No. 705. March 25, 2011. "On Environmental Information". Available at: http://www.adlia.tj/show_doc.fwx?Rgn=16383
- [27] Law of the Russian Federation No. 4866-1. April 27, 1993. "On Appeal to the court of actions and decisions that violate the rights and freedoms of citizens".
- [28] Resolution of the Government of the Republic of Kazakhstan No. 479. July 29, 2020. "On approval of the Action Plan for the implementation of the Concept for the transition of the Republic of Kazakhstan to the "green economy" for 2021-2030". Available at: <https://adilet.zan.kz/rus/docs/P2000000479>
- [29] The Constitution of the Russian Federation. December 12, 1993. Available at: <https://rg.ru/2020/07/04/konstituciya-site-dok.html>.

Home / Archives / Vol 12 No 7 (2021): JEMT Volume XII, Issue 7(55), Winter 2021 / Article

Major Ambient Air Pollutants and Toxicity Exposure on Human Health and Their Respiratory System: A Review

Gourav Kumar SINGH

Department of Environment Science, Amity University, [India](#)

Swapnil RAI

Department of Environment Science, Amity University, [India](#)

Nimisha JADON

School of Studies in Environmental Chemistry, Jiwaji University, [India](#)

DOI: [https://doi.org/10.14505/jemt.v12.7\(55\).04](https://doi.org/10.14505/jemt.v12.7(55).04)

Abstract

Indoor and outdoor air pollution is causing environmental and health issues globally. It is more challenging mainly in developing countries like India, china, and others. According to recent World Health Organization (WHO) reports, nearly 4.2 million people die prematurely because of AAP (Ambient Air Pollution). Air pollution is made up of a variety of contaminants, including gases, liquids, heavy metals in the air, and particulate matter. Suspended particulate matter (SPM), surface ozone (O₃), sulfur dioxide (SO₂), nitrogen oxides (NO₂), and other contaminants have become major environmental threats to plant health. These pollutants also have an effect on human health because they affect the consistency of the air we breathe. They usually cause inflammation in the upper respiratory tract, resulting in cough and shortness of breath. These are also significant contributors to the exacerbation of current respiratory conditions like asthma and chronic obstructive pulmonary disease. Epidemiological, toxicological, and clinical research all support the connection between air pollution and increased incidence and severity of respiratory and cardiovascular diseases. This pollution is a major public health problem in the locations where maximum pollution sources exist. To improve air quality and reduce the adverse effects of airborne toxicity due to AAP on human health, significant approaches are needed. The main objective of this review article is to provide evidence on the adverse effects of AAP on human health, as well as to make recommendations to policymakers on how to minimize exposure to this risk factor. Only public awareness combined with a multidisciplinary approach by scientific specialists will be able to handle this problem; national and international organizations must address the rise of this threat and suggest long-term remedies.

References

- [1] Ainsworth, E.A., et al. (2012). The effects of tropospheric ozone on net primary productivity and implications for climate change. *Ann. Rev. of Plant Biol.*, 63(1): 637–61.
- [2] Amâncio, C.T. and L.F.C. Nascimento (2012). Asthma and ambient pollutants: a time series study. *Rev. Assoc. Med. Bras.* 1992., 58(3): 302–7.
- [3] Armbrust, D.V. (1986). Effect of particulates (dust) on cotton growth, photosynthesis, and respiration. *Agron. J.*, 78(6): 1078.
- [4] Bentayeb, M., et al. (2013). Indoor air pollution and respiratory health in the elderly. *J. Environ. Sci. Health Part A Tox Hazard. Subst. Environ. Eng.*, 48(14): 1783–89.
- [5] Burri, P. H. 1984. Fetal and postnatal development of the lung. *Annual Review of Physiology*, 46:617–28. DOI: <https://doi.org/10.1146/annurev.ph.46.030184.003153>
- [6] Burzyński, M. and G. K3 obus (2004). Changes of photosynthetic parameters in cucumber leaves under Cu, Cd, and Pb stress. *Photosynthetica*, 42(4): 505–10.
- [7] Cacciottolo, J. (2013). Lung health and outdoor air pollution - a review. *J. Pharm. Pract.*, 76(19): 1-7.
- [8] Carlisle, A. and Sharp, N. (2001). Exercise and outdoor ambient air pollution. *Br. J. Sports Med.*, 35(4): 214–22.
- [9] Chen, T-M., Gokhale, J. Shofer, S. and Kuschner, W.G. (2007). Outdoor air pollution: nitrogen dioxide, sulfur dioxide and carbon monoxide health effects. *Am. J. Med. Sci.*, 333(4): 249–56.
- [10] Dandotiya, B. 2019. Health effects of air pollution in urban environment. Climate change and its impact on ecosystem services and biodiversity in arid and semi-arid zones. DOI: 10.4018/978-1-5225-7387-6.ch006
- [11] Dandotiya, B., Jadon, N. and Sharma, H. K. 2018. Effects of meteorological parameters on gaseous air pollutant concentrations in urban area of Gwalior City, India. *Environmental Claims Journal*, 31 (1): 32–43. DOI: <https://doi.org/10.1080/10406026.2018.1507508>
- [12] Dodge, R., Solomon, P. Moyers, J. and Hayes, C. (1985). A longitudinal study of children exposed to sulfur oxides. *Am. J. Epidemiol.*, 121(5): 720–36.
- [13] Ekpemerechi, S.E., et al. (2014). Effect of air pollution on the foliar morphology of some species in the family euphorbiaceae in southwestern Nigeria. *J. Sci. Technol. Ghana*, 34(1): 21–29–29.
- [14] Eller, B.M. (1977). Road dust induced increase of leaf temperature. *Environ. Pollut.* 1970, 13(2): 99–107.
- [15] Fares, S., et al. (2013). Tropospheric ozone reduces carbon assimilation in trees: estimates from analysis of continuous flux measurements. *Glob. Change Biol.*, 19(8): 2427–43.
- [16] Farmer, A.M. (1993). The effects of dust on vegetation—a review. *Environ. Pollut.*, 79(1): 63–75.
- [17] Feng, Z., Shang, B., Gao, F. and Calatayud, V. (2019). Current ambient and elevated ozone effects on poplar: a global meta-analysis and response relationships. *Sci. Total Environ.*, 654: 832–40.
- [18] Forbes India | Business news, share market investment, India's richest people, startups
- [19] Freer-Smith, P.H. and Taylor, G. (1992). Comparative evaluation of the effects of gaseous pollutants, acidic deposition and mineral deficiencies on gas exchange of trees. *Agric. Ecosyst. Environ.*, 42(3): 321–32.
- [20] Ghorani-Azam, A., Riahi-Zanjani, B. and Balali-Mood, M. (2016). Effects of air pollution on human health and practical measures for prevention in Iran. *J. Res. Med. Sci. Off. J. Isfahan Univ. Med. Sci.*, 21: 65.
- [21] Ghude, S.D., et al. (2014). Reductions in India's crop yield due to ozone. *Geophys. Res. Lett.*, 41(15): 5685–91.
- [22] Gorai, A.K., Tuluri, F. and Tchounwou, P.B. (2014). A GIS based approach for assessing the association between air pollution and asthma in New York state, USA. *Int. J. Environ. Res. Public Health*, 11(5): 4845–69.
- [23] Grulke, N. and Heath, R.L. (2019). Ozone effects on plants in natural ecosystems. *Plant Biol. Stuttg.*
- [24] Harmens, H., Mills, G. Hayes, F. and Norris D. (2011). Air pollution and vegetation, ICP Vegetation Annual Report 2010/2011: (http://hora.nerc.ac.uk/id/eprint/15072/1/ICP_Vegetation_annual_report_2010-11.pdf)
- [25] Home Air Purifier Expert: Healthy Home Advice from An Industry Insider (home-air-purifier-expert.com)
- [26] Jahan, S. and Iqbal, M. Z. (1992). Morphological and anatomical studies of leaves of different plants affected by motor vehicles exhaust. *Med. J. Islamic World Acad. Sci.*, 5(1): 21–23.
- [27] Jochner, S., et al. (2015). The effects of short- and long-term air pollutants on plant phenology and leaf characteristics. *Environ. Pollut.*, 206: 382–89.
- [28] Kasana, M.S. and Mansfield, T.A. (1986). Effects of air pollutants on the growth and functioning of roots. *Proc. Indian Acad. Sci. (Plant Sci.)*, 96: 429.
- [29] Khan, A.A. and Malhotra, S.S. (1982). Ribulose biphosphate carboxylase and glycolate oxidase from jack pine: effects of sulphur dioxide fumigation. *Phytochemistry*, 21(11): 2607-2612.
- [30] Kim, D., Chen, Z., Zhou, L-F. and Huang, S-X. (2018). Air pollutants and early origins of respiratory diseases. *Chronic Dis. Transl. Med.*, 4(2): 75–94.
- [31] Künzli, N. and Tager, I.B. (2005). Air pollution: from lung to heart. *Swiss Med. Wkly.*, 135(47–48): 697–702.
- [32] Laumbach, R.J. and Kipen, H.M. (2012). Respiratory health effects of air pollution: update on biomass smoke and traffic pollution. *J. Allergy Clin. Immunol.*, 129(1): 3–13.
- [33] Lee, B. K. 2010. Sources, distribution and toxicity of polyaromatic hydrocarbons (PAHs) in particulate matter. In *Air pollution*, ed. V. Villanyi. Rijeka, Croatia: In Tech, ISBN: 978- 953- 307-143-5.
- [34] Lelieveld et al., 2018, with permission from The Lancet Planetary Health.
- [35] Lippmann, M. (1989). Health effects of ozone. A critical review. *J. Air Pollut. Contr. Assoc.*, 39(5): 672–95.
- [36] Manisalidis, I., Stavropoulou, E., Stavropoulos, A., & Bezirtzoglou, E. (2020). Environmental and health impacts of air pollution: a review. *Frontiers in public health*, 8, 14.
- [37] McCarthy, J.T., et al. (2013). Effects of ozone in normal human epidermal keratinocytes. *Exp. Dermatol.*, 22(5): 360–61.
- [38] Muneer, S., et al. (2014). Effect of CO, NOx and SO2 on ROS production, photosynthesis and ascorbate–glutathione pathway to induce *Fragaria×annasa* as a hyperaccumulator. *Redox Biol.*, 2: 91–98.
- [39] Naidoo, G. and Chirkoot, D. (2004). The effects of coal dust on photosynthetic performance of the mangrove, *Avicennia marina* in Richards Bay, South Africa. *Environ. Pollut. Barking Essex* 1987, 127(3): 359–66.
- [40] Neinhuis, C. and Barthlott, W. (1998). Seasonal changes of leaf surface contamination in beech, oak, and Ginkgo in relation to leaf micromorphology and wettability. *New Phytol.*, 138(1): 91–98.
- [41] Nelín, T.D., Joseph, A.M., Gorr, M.W. and Wold, L.E. (2012). Direct and indirect effects of particulate matter on the cardiovascular system. *Toxicol. Lett.*, 208(3): 293–99.
- [42] Ostro, B., et al. (2011). The effects of particulate matter sources on daily mortality: a case-crossover study of Barcelona, Spain. *Environ. Health Perspect.*, 119(12): 1781–87.