

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

Judul karya ilmiah (artikel) : Rural Waste Management System in Southern Zone of Gunungkidul
 Jumlah Penulis : 3 Penulis
 Status Pengusul : Penulis ketiga (Jussac Maulana Masjhoer, Syafrudin Syafrudin, **Maryono Maryono**)
 Identitas Jurnal Ilmiah : a. Nama Jurnal : Environmental Research, Engineering and Management (EREM)
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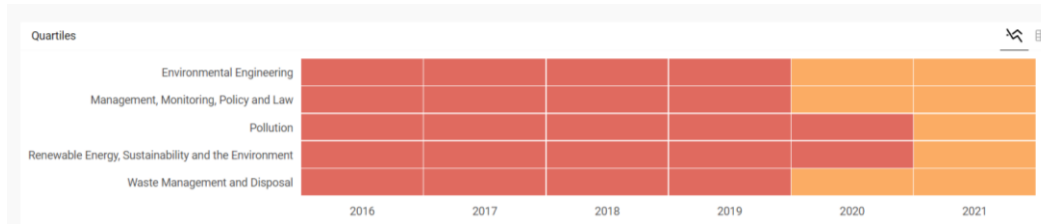
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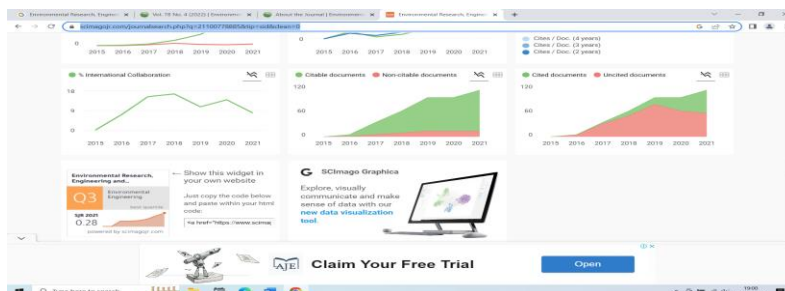
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Semarang, 22 April 2022

Reviewer 1

Dr. Anita Ratnasari Rakhmatulloh, ST., MT
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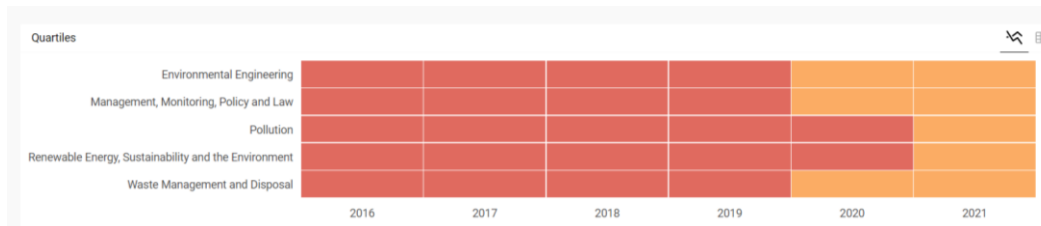
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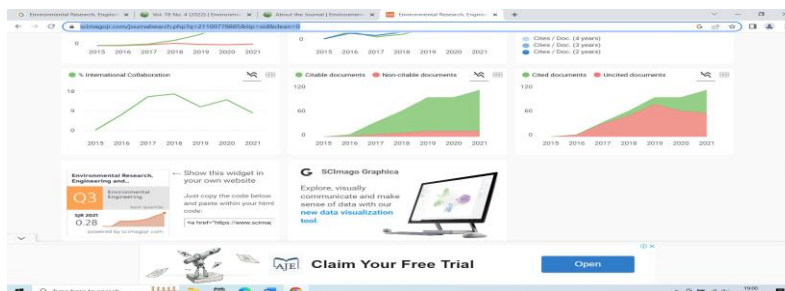
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Semarang, 24 April 2022

Reviewer 2

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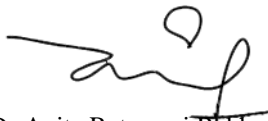
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b. Ruang lingkup dan kedalaman pembahasan (30%)	11.8	11.8	11.8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	11.8	11.8	11.8
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	11.8	11.8	11.8
Total = (100%)	39.2	39.2	39.2
Nilai Pengusul (40%)	7.84	7.84	7.84

Semarang, 24 April 2022

Reviewer 1,



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Reviewer 2,



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Rural Waste Management System in Southern Zone of Gunungkidul Regency

Masjhoer, Jussac Maulana^{a, b} ; [Syafrudin, Syafrudin^c](#); [Maryono, Maryono^d](#) [Save all to author list](#)^a Environmental Science Doctoral Program, School of Postgraduate Studies, Diponegoro University, Pleburan, Semarang, 50241, Indonesia^b Department of Tourism, Sekolah Tinggi Pariwisata Ambarrukmo, Bantul, D.I. Yogyakarta, 55198, Indonesia^c Department of Environmental Engineering, Faculty of Engineering, Diponegoro University, Tembalang, Semarang, 50275, Indonesia^d Department of Urban and Regional Planning, Faculty of Engineering, Diponegoro University, Tembalang, Semarang, 50275, Indonesia258th percentile
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Abstract

The lack of waste services in rural areas forces locals to process waste conventionally and eventually damage the environment. Solid waste management in the rural area of developing countries has been less documented widely, in contrast to urban areas. This paper presents the descriptive analysis of rural solid waste management in the Southern Zone of Gunungkidul Regency (SZGR) that has grown in population and economy due to tourism development and accessibility quality improvement. The field survey was conducted in 18 randomly selected villages. 43 key informants were given structured

Cited by 2 documents

Is It Possible to Implement the Same Circular-Economy Concept in Rural and Urban Areas? Study on Willingness to Pay for Household Waste

Arista, N.I.D. , Handayani, D. , Ernawati, N. (2023) *Sustainability (Switzerland)*

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Waste management model at Bugel Village - Kulonprogo District, Yogyakarta Special Province

Agung Nugroho, D.N. , Dawam, M. (2021) *IOP Conference Series: Earth and Environmental Science*

Public willingness to pay and participate in domestic waste management in rural areas of China

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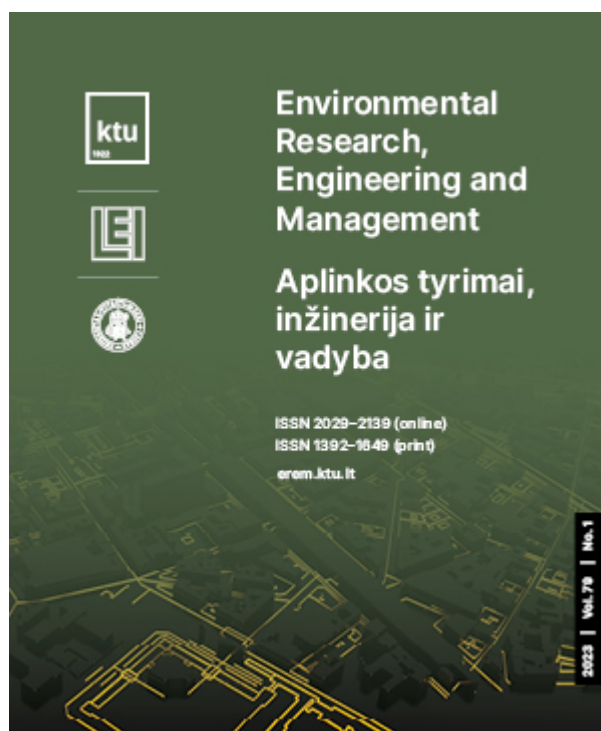
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A Study on Water Markets and the International Experience Gained from their Establishment

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DOI: <https://doi.org/10.5755/j01.ere.m.78.1.30133>

Keywords: water resources management, water markets, tradable water rights, water trading

Abstract

Water markets are considered an excellent economic instrument for water management as they lead to a more efficient allocation and use of the resource. Their establishment and operation has been promoted due to the fact that the steadily increasing demand is creating water scarcity problems in many regions of the world and that existing management policies are proving ineffective in addressing modern challenges. This paper attempts to carry out a comprehensive review of water markets as an alternative method for water management by presenting their main characteristics as well as the international experience gained from their establishment in different regions of the world. For this purpose, a systematic review of the international literature in the Google Scholar and Scopus databases was carried out using specific criteria. In particular, 144 studies were found that met the search criteria set and finally 91 of them were selected as a source of information for the writing of this paper. The processing of these papers provided information on how water markets operate, their background, the advantages and disadvantages associated with their establishment and their adoption by countries with different characteristics. The main conclusions that emerge are that water markets on the one hand increase the economic efficiency of water by encouraging the movement of water quantities to users who are able to attribute to them high economic value and on the other hand that their establishment and operation are linked to neoliberal economic policies that are often criticised and at the same time raise issues of social justice and equal treatment of different users.



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Experimental Study for the Effect of Additives Silica Fume on the Properties of the Synthetically Contaminated Soil

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Keywords: nickel ions,, contaminated soil,, liquid limit,, plastic limit.

Abstract

This paper aims at studying the impact of the reaction that occurs between contaminants present in the soil and silica fume added on the chemical, physical and mechanical properties of the soil. The soil samples were contaminated in the laboratory with nickel nitrate (Ni(NO₃)₂). Silica fume (SF) was added to three different ratios (3%, 5%, and 10%). Several laboratory experiments were conducted to study soil characteristics before and after adding silica fume to the contaminated soil. The results revealed that the increment percentage of liquid and plastic limits was obtained with an increase in the percentage of silica fume additive to the nickel-contaminated soil. Notably, the maximum dried densities were decreased by increasing silica fume ratios to the nickel-contaminated soil, while the optimum water content increased with increasing silica fume ratios to the nickel-contaminated soil. The value of organic matter for soil samples was roughly equal numbers ranging from 3.33% to 4.07% (i.e., no change in the organic matter for soil samples mixed with different ratios of silica fume). The coefficient of consolidation (C_v) increased from 0.0026 in a soil sample that was contaminated with nickel ions at a concentration equal to 750 mg/kg without adding silica fume to 0.0755 in a soil sample contaminated with nickel ions at a concentration of 750



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Degradation Behavior of Biodegradable Plastics in Thermophilic Landfill Soil and Wastewater Sludge Conditions

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Keywords: biodegradable plastic, degradation, landfill; weight loss, PHBV

Abstract

In this study, three common biodegradable plastics, namely, poly(hydroxybutyrate-co-hydroxyvalerate) (PHBV), poly(butylene succinate) (PBS) and poly(butylene adipate-co-terephthalate) (PBAT) were all buried in a mixture of landfill soil and wastewater sludge and incubated under thermophilic (61°C) oxygen-limited conditions. At the end of the 90-day test, the degradation ranking order was PHBV > PBS > PBAT. Only PHBV was completely degraded over the 60 days, while PBS and PBAT displayed 24.04% ± 3.37% and 18.26% ± 3.77% weight loss, respectively. The differences in the degradation and disintegration profiles among these materials were observed. The results showed that PHBV lost its thickness and degraded from the edges of the specimens. Both PBS and PBAT were reduced into small fragile fragments during the degradation process. SEM micrographs revealed that irregular roughness with many holes and cracks was characteristic of PHBV, while slightly smooth surfaces were found on PBS and PBAT. All the materials