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

Judul karya ilmiah (artikel) : Spatial Statistics For Mapping Solid Waste Generation Mapping In Tembalang, Semarang City

Jumlah Penulis : 2 Penulis

Status Pengusul : Penulis Pendamping (Septa Yuda Ardiansyah, **Maryono Maryono**)

Identitas Jurnal Ilmiah : a. Nama Jurnal : Jurnal of Geomatics and Planning
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c. Vol.,no.,bulan,tahun : Vol 5, No. 1, April 2018
d. Penerbit : Penerbit Planologi UNDIP
e. DOI artikel : <https://doi.org/10.14710/geoplanning.5.1.163-174>
f. Alamat web jurnal : <https://ejournal.undip.ac.id/index.php/geoplanning/article/view/15142/pdf>
g. Terindeks di : Garuda; SINTA2; BASE; Google; Scholar; Dimensions; dan DOAJ

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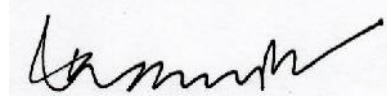
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Total = (100%)		25		21,5
Nilai Pengusul: (40%x21,5)				8,6

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- Unsur isi paper lengkap dan sudah mengacu kepada petunjuk penulisan (*author guidelines*); *introduction, data and methods, results and discussion, conclusion, acknowledgement*, dan *references*. Judul dan IMRaD terkait satu dengan yang lain berkaitan dengan pemetaan limbah padat rumah tangga.
- Pembahasan cukup mendalam mengenai kondisi persampahan khususnya di Kecamatan Tembalang sebagai lokasi studi yang dilihat dari kapasitas dan ketersediaan Tempat Pembuangan Sementara (TPS). Isi tulisan sesuai dengan bidang ilmu penulis terutama dalam hal manajemen persampahan. Pembahasan hasil didukung dengan 2 sumber pustaka (12,5%) yang berasal dari jurnal dan prosiding internasional bereputasi.

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- d. Jurnal nasional terindeks Sinta 2 tersedia *online* dengan sistem *open access* dan ber-ISSN. Artikel dilengkapi dengan tautan DOI dan *editorial board* beragam. Unsur dan kualitas penerbit sudah baik dan terindeks di *google scholar*, DOAJ, dll.

Semarang, 12 Januari 2021
Reviewer 1,



Dr. sc. agr. Iwan Rudiarto ST, MSc
NIP. 197403271999031002
Departemen PWK, FT. UNDIP

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- Secara umum, artikel cukup lengkap dan sesuai dengan komponen IMRaD - *Introduction, Methods, Results, and Discussion*. Pembahasan berhubungan dengan judul yang diangkat yaitu pengelolaan sampah.
- Artikel sesuai dengan bidang ilmu penulis ke 2 yaitu perencanaan dan pengelolaan lingkungan khususnya pengelolaan sampah. Pembahasan cukup komprehensif mengelaborasi potensi timbulan sampah dan faktor-faktor yang mempengaruhinya di kawasan Tembalang-Kota Semarang. Namun tidak diulas lebih detail mengapa hasil analisis regresi menunjukkan hanya 25% faktor penyebab timbulan sampah yang dapat dijelaskan.
- Metode dijelaskan dengan cukup detail. Analisis menggunakan bantuan sofaware Sistem Informasi Geografis (SIG) yang dikombinasi dengan analisis regresi. Artikel memiliki nilai kebaruan yang cukup baik. Terdapat 16 pustaka, kurang dari 50% yang merupakan terbitan 10 tahun terakhir. Turnitin Similarity Index 15%.

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Semarang, 22 Januari 2021

Reviewer 2,



Dr.-Ing. Wiwandari Handayani, ST.,MT., MPS.
NIP. 19760525 2000122001
Departemen PWK, FT. UNDIP

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	Reviewer I	Reviewer II	Nilai Rata-rata
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b. Ruang lingkup dan kedalaman pembahasan (30%)	6	6	6,0
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	6,5	6,5	6,5
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	7	7	7,0
Total = (100%)	21,5	21,5	21,5

Semarang, 22 Januari 2021

Reviewer 1,



Dr.-Ing Iwan Rudiarto ST, MSc
NIP. 197403271999031002
Departemen PWK, FT. UNDIP

Reviewer 2,



Dr.-Ing. Wiwandari Handayani, ST.,MT., MPS.
NIP. 19760525 2000122001
Departemen PWK, FT. UNDIP



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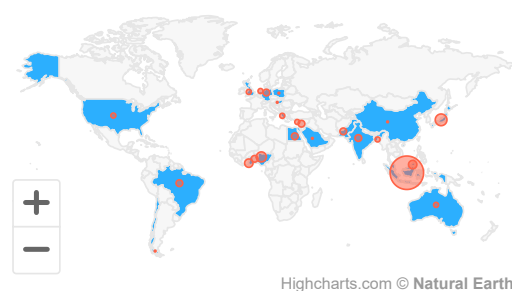


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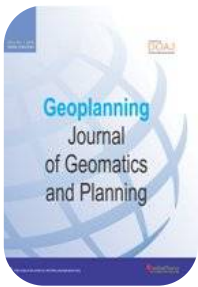
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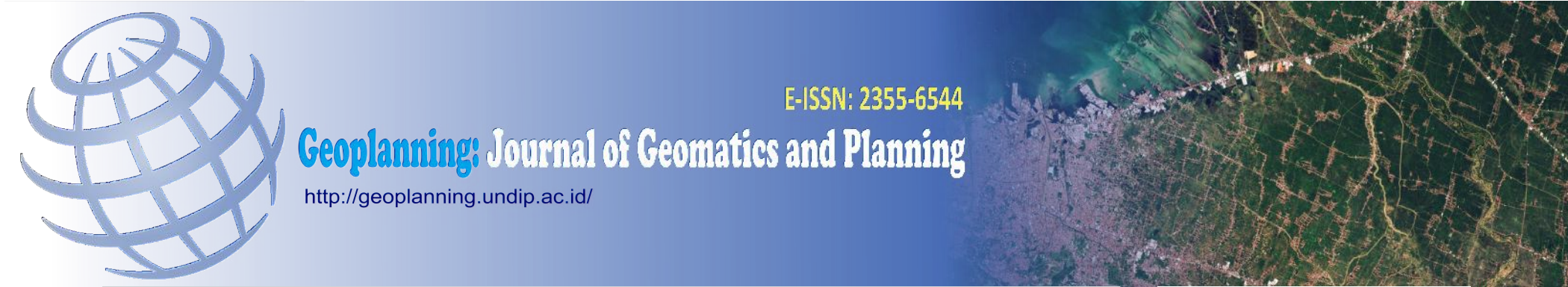
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[id \(0000-0002-5214-1919\)](http://orcid.org/0000-0002-5214-1919) Department of Earth Sciences, University of Kashmir Srinagar, Jammu and Kashmir, India

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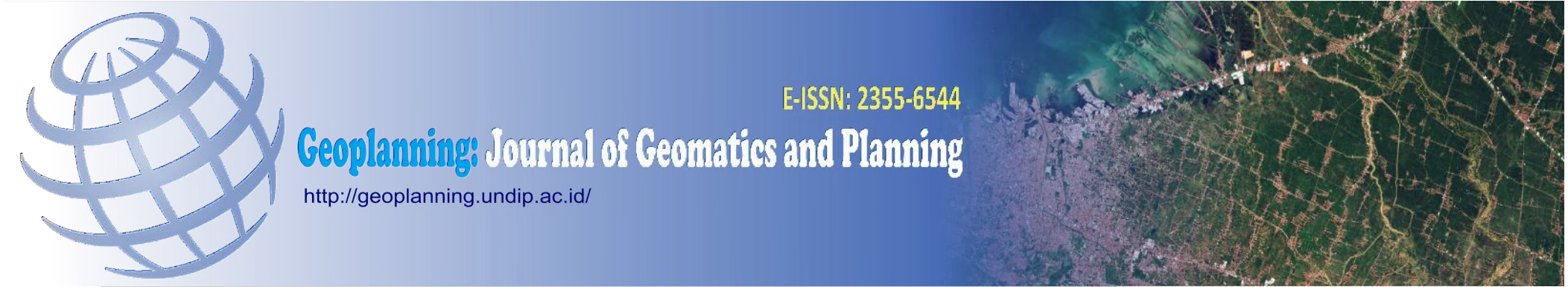
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MONITORING AND PREDICTING LAND USE-LAND COVER (LULC) CHANGES WITHIN AND AROUND KRAU WILDLIFE RESERVE (KWR) PROTECTED AREA IN MALAYSIA USING MULTI-TEMPORAL LANDSAT DATA

J. Gambo ^{a,b}, H. Z. M. Shafri ^a , N. S. N. Shaharum ^a, F. A. Z. Abidin ^c, M. T. A. Rahman ^c

^a Department of Civil Engineering and Geospatial Information Science Research Centre (GISRC), Universiti Putra Malaysia (UPM), Malaysia

^b School of General Studies, Binyaminu Usman Polytechnic, Nigeria

^c Department of Wildlife and National Parks (DWNP), Malaysia

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Corresponding Author:

Helmi Zulhaidi Mohd Shafri
Coordinator of Remote Sensing
and GIS programme
Department of Civil Engineering
Faculty of Engineering
Universiti Putra Malaysia (UPM)
43400 Serdang, Selangor,
Malaysia
Email: hzm04@gmail.com

Abstract: Natural and anthropogenic activities surrounding a Protected Area (PA) may cause its natural area to change in terms of Land Use-Land Cover (LULC). Thus, there is need of environmental change monitoring within and around PA because of its significant values to ecosystem at conservation scales. Effects and influences of local community within and around PA turn into the major problems for natural resource and conservations management as well as environmental impact assessment. Ascertaining the complex interface in relations to changes and its driving factors over period of time within and around PA is significant in order to predict future LULC changes, build alternative scenarios and serve as tools for decision making. The main objective of this work was to evaluate temporal change detection and prediction of LULC as well as the trends of changes from 1989 to 2016 within and around Krau Wildlife Reserve (KWR). The cloud issues were mitigated by producing cloud free image and object-based image analysis (OBIA) was adopted after a comparison with pixel-based analysis for overall accuracy and kappa statistics. The comparison of classified maps had produced a satisfactory results of overall accuracies of 91%, 86% and 90% for 1989, 2004 and 2016 respectively. The natural/dense forest between periods of 1989-2016 was decreased whereas built-up and agricultural/sparse forest were increased. The simulation model of Land Change Modeler (LCM) was utilized with digital elevation model (DEM) and past LULC maps to project future LULC pattern using Markov chain. The predicted map trend showed an increase of dense forest converted to agricultural/sparse forest in the north-western, and urban/built-up in east-southern part of KWR. The study is important for the conservation of habitat species and monitoring the current status of the KWR.

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Gambo, J., et al. (2018). Monitoring and Predicting Land Use-Land Cover (LULC) Changes within and around Krau Wildlife Reserve (KWR) Protected Area in Malaysia using Multi-Temporal Landsat Data. *Geoplanning: Journal of Geomatics and Planning*, 5(1), 17-34. doi: 10.14710/geoplanning.5.1.17-34

1. INTRODUCTION

Protected areas (PAs) represent a massive investment around the world both at national and international levels in looking after our environment. Awareness and dialogue about protection and conservation of these environmentally sensitive areas be well informed and shared understanding among all the beneficiaries involved within and around. Natural areas have been effected greatly in many world locations by natural and human activities. Thus, monitoring, detecting and forecasting of land features modifications are significant for sustainable management, biodiversity, conservation, and development of PA (Bozkaya et al., 2015). Geographic spaces which, because of their particular environmental values for conservation purposes, deserved a special forms of safety ranging from total closure, except for protection purposes, to various forms of intervention required to maintain or restore habitats, to direct human use, remove

SPATIAL EXPLICIT MODELING TO UNDERSTAND THE DYNAMICS OF LANDUSE SWITCH USING OPEN SOURCE SATELLITE DATA

S. Kalluvetty^a, S. Bandopadhyay^b 

^a Indian Institute of Remote Sensing (Indian Space Research Organisation), India

^b Meteorology Department, Faculty of Environmental Engineering and Spatial Management, Poznan University of Life Sciences, Poland

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Corresponding Author:

Subhajit Bandopadhyay
Meteorology Department, Poznan
University of Life Sciences
Poznan; Poland
Email: subhajit.iirs@gmail.com

Abstract: Restless global urbanization needs to monitor in order to design a stable and sustainable urban habitat. In this regard, remote sensing and GIS are considered as an efficient monitoring and decision-support tool in sustainable urban planning and practices. In this paper we accumulate the results of a research undertaken to measure the urban sprawl and land use dynamics of the Dehradun city, Uttarakhand using vast sixteen years data and spatially explicit cellular automata CA-Markov model. Furthermore, future scenario of the city and land use was also examined. To achieve the desired goal, sixteen years large temporal images of Landsat were used to analyze the spatial decoration of land use change in the study area. The outcome of this study was clearly revealed that there was a substantial change was take place in the Dehradun city and its surroundings in last sixteen years. Modeling proposed a clear trend of various land use classes' transformation in the area of urban built up expansions and urban encroachment whereas agricultural lands and forest covers are reduced at an alarming rate over the time. Dynamically increasing population of the city can be approximated by the predicted future scenarios. In order to promote a balance in between urban growth and environmental protection towards a sustainable urban habitat and environmental, local community involvement and capacity building program can be an efficient drive in this regard.

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1. INTRODUCTION

Changing aspects of Landuse at the peri-urban areas is a complex and dynamic process that involves both natural and human systems (Xiao et al., 2006). Over recent decades the suburbs of the metropolitan area are designed by urban sprawl (Glaeser & Kahn, 2003). Urban sprawl is known as a multifarious concept that dealing with the expansion of auto-oriented, low-density development and has a considerable impact on the surrounding ecosystem (Yuan et al., 2005). It is characterized by the expansion of human population from a core urban area into previously rural and remote areas. The discussions about urban sprawl are often made partial by the view of metropolitan growth is inefficient and causes environmental degradation. But the other side of the issue says the beneficiaries of sprawl may be a silent majority who are not as politically active as center city boosters, environmentalists and the urban layman in voicing their views on the merits of the on-going decentralization of jobs and people taking place across cities.

In India, urban sprawl is in its zenith phase at the cost of farmland, forest, and other ecologically sensitive areas. Rapid urbanization in India is changing the dynamics between ecology, economy and the society (Bardhan et al., 2016). The exponential growth of urban population has clearly figured out by last few censuses results. The alarmingly diminishing forest coverage is upholding these findings. As like other states of India, cities of Uttarakhand is also experienced with population exploration evident by the census of India 2011 report illustrated in Figure 1.

ESTIMATING MANGROVE FOREST DENSITY USING GAP FRACTION METHOD AND VEGETATION TRANSFORMATION INDICES APPROACH

N. Khakhim^a, A. C. P. Putra^b, T. U. Widhaningtyas^b

^a Faculty of Geography, Universitas Gadjah Mada, Yogyakarta, Indonesia

^b Remote Sensing Department, Earthline, Jakarta, Indonesia

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Corresponding Author:

Nurul Khakhim

Faculty of Geography, Universitas Gadjah Mada, Yogyakarta

Email: nurulk@ugm.ac.id

Abstract: Mangrove forest represented a coastal ecosystem in Indonesia. Theoretical validation and in-field measurement by calculating the number of trees and the density data that was validated through remote sensing would not be appropriate because the remote sensing recorded canopy density and not tree stands. New method canopy photography or gap fraction method was the technique to predict sun radiation using the photograph taken upward through extremely wide lens and classification object image. The objectives of the study were (1) to examine the accuracy of the estimation of the mangrove forest density using vegetation index transformation, and (2) to map the mangrove forest condition. The location of the study was Alas Purwo Resort Grajagan National Park area. The material of the study was Landsat-8 OLI image recorded on January 19th, 2016 using SAVI vegetation index transformation method. Gap fraction filed measurement method was a new method in Indonesia. The results of the study showed that the regression of the SAVI index between index transformation value and in-field condition (R^2) was 0.566, the forest density estimation resulting from the SAVI index transformation had the RMSE of 2.334178 and the density of the mangrove forest in Grajagan Bay of the Alas Purwo National Park included low density of 0-12.5% (30.42 ha), medium density of 12.6-25% (116.55 ha), and high density of 25.1-37.6% (463.68 ha).

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1. INTRODUCTION

Indonesia had a very wide coastal area with 95.181 km coastal line. Mangrove forest represented coastal ecosystem and formed because of the presence of wave protection, fresh water input, sedimentation, tidal water flow, and warm temperature (Walsh, 1974). The mangrove forest in Grajagan Bay represented the most natural mangrove forest in Java Island (Sudarmadji, 2011). A part of the mangrove forest belonged to Alas Purwo National Park or to Grajagan Resort. According to the decree of the Minister of Forestry No. 283 KPTS-II/1992 Alas Purwo National Park was a conservation area.

Remote sensing was considered to be more effective in mapping mangrove condition than a conventional or terrestrial method. According to (Fawzi, 2015) the remote sensing of the mangrove forest was able to provide detailed physical aspects of the forest such as species, zoning, change in land use arrangement, and mangrove physical mapping. According to (Lee & Yeh, 2009) mangrove had unique spectral reflection representing the combination of ground, water and vegetation because the mangrove grew in coastal area. Additionally, the basic reflection of mangrove canopy also influenced the spectral reflection of the mangrove (Kuenzer, Bluemel, Gebhardt, Quoc, & Dech, 2011). Forest density could be estimated in the remote sensing using vegetation index transformation approach. The vegetation index transformation was a mathematical model developed to estimate forest density (Danoedoro, 2012). The objectives of the study were to examine the accuracy of the estimation of mangrove forest density using remote sensing with