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KARYA ILMIAH : JURNAL ILMIAH

Judul karya ilmiah (artikel) : Community Group Networking on the Community-based Adaptation Measure in Tapak Village, Semarang Coastal Area

Jumlah Penulis : 2 penulis

Status Pengusul : Bintang Septiarani, **Wiwandari Handayani**

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e. DOI artikel (jika ada): 10.22146/ijg.39053
f. Alamat web jurnal : <https://jurnal.ugm.ac.id/ijg/article/view/39053>
g. Terindeks di SJR 0,237 (2019) dan SNIP 1,168 (2019)

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- Pembahasan cukup baik, fokus pada intensitas interaksi yang terjadi diantara berbagai pemangku kepentingan yang terlibat, ditinjau berdasarkan jejaring yang sudah terbentuk dalam proses penguatan komunitas masyarakat pesisir. Artikel didukung oleh 20 pustaka, dimana 13 diantaranya bersumber dari artikel jurnal (Pustaka primer). Artikel jurnal sesuai dengan bidang penulis yaitu terkait dengan perencanaan dan pengembangan wilayah pesisir.
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- d. Terindeks scopus SJR 0,237, Penerbit Universitas Gadjah Mada. Artikel tersedia *online* dan *open access*. Dilengkapi dengan ISSN dan tautan DOI. Tabel 1 dan 2 tidak dirujuk di text. Tabel 1 lebih tepat disebut Figure. Rashid and Khan (2013) dirujuk di text, tetapi tidak ada di Daftar Pustaka. Editor kurang cermat, seharusnya tidak terjadi pada jurnal yang terindeks Scopus Q3.

Semarang, 30-11-2020

Reviewer 1,



Prof. Dr.rer.nat. Imam Buchori, ST

NIP. 197011231995121001

Departemen PWK, FT. Undip

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- Isi artikel tentang *Adaptation Measure* kurang dibahas secara komprehensif dengan data-data aktual. Artikel jurnal sesuai dengan bidang penulis terutama dalam konteks perencanaan dan ketahanan wilayah pesisir.
- Artikel memiliki nilai kebaruan kurang, hanya didukung oleh 20 referensi dan 75% terbitan ≤10 tahun. Turnitin Similarity Index 7%. Namun data dan analisis cukup baik dijelaskan, menggunakan software Gephi sebagai *tools* untuk membantu pemetaan interaksi/jejaring sosial yang terjadi.
- Jurnal Indonesian Journal of Geography terindex Scopus Q3. SJR 0,237 dan SNIP 1,168 (2019). Diterbitkan oleh Universitas Gadjah Mada. Jurnal tersedia online. Dilengkapi dengan ISSN dan

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Semarang, 09-11-2020

Reviewer 2,



Prof. Dr. Ir. Nany Yulastuti, MSP
NIP. 195407171982032001
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Komponen Yang Dinilai	Nilai Reviewer		
	Reviewer I	Reviewer II	Nilai Rata-rata
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b.Ruang lingkup dan kedalaman pembahasan (30%)	10,0	9	9,5
c.Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	11,0	9	10
d.Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	9,0	8	8,5
Total = (100%)	33,5	28,5	31
Nilai = (40% x 31)			12,4

Semarang, 08-12-2020

Reviewer 1,



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Reviewer 2,



Prof. Dr. Ir. Nany Yulastuti, MSP
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Community Group networking on the Community-based Adaptation measure in Tapak Village, Semarang coastal area (Article) [\(Open Access\)](#)

Septiarani, B.^a ✉️, [Handayani, W.^b](#) 👤

^aDepartment of Civil and Planning, Vocational School, Diponegoro University, Indonesia

^bDepartment of Urban and Regional Planning, Faculty of Engineering, Diponegoro University, Indonesia

Abstract

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The north coast of Central Java is one of the most vulnerable regions to climate change in Indonesia. Various activity in coastal area also leads to the growing of informal sector that closely related to the growing number of poor people in coastal area. Therefore, the loss of livelihood triggers the awareness of stakeholder to help people through Community-based Adaptation (CBA) in Semarang coastal area. This paper aims to elaborate on the importance of networking aspect in CBA that works in Semarang Coastal Area. Scope area of this research is Tapak Village which regarded as a pilot area of CBA implementation in Semarang. Stakeholders mapping and social network analysis was used to visualizing the community interaction in their adaptation measures. The purposive sample in interviewing CBA stakeholders is used to support the stakeholder analysis using Gephi 0.9 software. The finding shows that the existence of networks between the community and the relevant stakeholders such as NGO and local government also became one of the supporting factors for the sustainability of community-based adaptation approach in coastal areas of Semarang City. © 2020 Faculty of Geography UGM and The Indonesian Geographers Association.

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Topic: Climate Change Adaptation | Urban Climate | Adaptive Capacity

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Author keywords

Climate change Coastal Community-based Adaptation Semarang

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Urban sprawl functional-structural changes in neighborhood settlements: Case of study Shiraz

Musa Kamanrudi Kojuri¹⁾, Kamran Jafarpour Ghalehtemouri²⁾, Ali Janbazi¹⁾ and Farhad Azizpour¹⁾

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Keywords:
Shiraz; Urban Expansion;
Sprawl; Urban Sprawl; Structural
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Abstract Sprawl is one of the forms of expansion that has entered the literature of urban management and planning in the last half-century. Iranian cities are very good example for city sprawl and they have experienced this kind of expansion in very short period and very fast. This paper aims to identify, describe, and analyze Shiraz scatter and sprawl development and its resulting functional-structure, this research is based on exploratory, descriptive and analytical methods. Data collection in this research is through the secondary data and fieldwork research techniques. Data analysis demands descriptive and inferential statistics (Pearson regression correlation). This study suggests that since 1952 Shiraz city has experienced rapid growth, continuous and non-continuous. The proportion of scatter and sprawl development with respect to Shiraz expansion increased from 22.02 in 1957-1967 to 72.8 in 1977-2007. There are three period the first rapid development between 1957 and 1967 after that 5 years gap and the next period which is longer from 30 years between 1977 and 2007. This turning points is in two specific periods are as the result of some consequences: Conversion of agricultural function as a predominant economic function in neighboring communities, into multi-functional agricultural function with emphasis upon services; of some of the rural settlements into Shiraz; The development of extended spatial, administrative, economic, social and structural changes in residential part of Shiraz. Therefore, socioeconomic activities are the main cause of urban sprawl in Shiraz and made Shiraz the most attractive place for in Fars Province. Population growth with correlation between degree of Shiraz scatter development and number of people engaged to service sector by 0.9 has caused a dramatically decline in agriculture (-0.8) and industry (-0.811) sectors. As result rapid urban population growth rate correlation by (0.127) and urbanization coefficient (0.726) and it shows urban and rural migration very important role on scatter development.

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1. Introduction

The growth foundation of developing countries generally based on modernization theory, industrial growth approach, and growth pole strategy in 1950-60 in Iran was not an exception in this regard. The Neoclassical Growth Theory developed to improve the bottom-up decision-making in the planning system and for empowering the local governments. This theory started with James E. Meade, 1951 and then was further developed in the works of Robert M. Solow, 1956 and Trevor Swan, 1956 (Komarovskiy and Bondaruk, 2013). In the 20th century, it started to happen in Iran. However, it was accelerated since 1957 specifically, growth pole strategy was considered to be a national, regional planning base between 1969-78 namely under Iran forth a development plan (1969-1973). Yet, it is known as one of the most effective tools to integrate urban and rural disparities (Fen et al., 2020) somehow linking urban-national-international interests to attract more money in megaregions can reduce or increase the neighboring urban regions activities (Zhao et al., 2020; Bogart, 2006) and changing the meaning of the place by new industrial or recreational use of lands (Movahed & Jafarpour Ghalehtemouri, 2019), and leave a negative impact on the other regions. These kinds of development orientations,

plans, and measures resulted in the concentration of resources and infrastructures in growth centers. As a result, this theory of planning caused development gaps, migration, and scatter and sprawl development, and extended structural-functional changes including land-use changes in neighboring communities. After that, there is a dramatic sectoral shift in growth centers, city function changed as well, and many people from agricultural sectors moved to the industrial sector or service. Therefore, Shiraz as one of the main growth poles which are located in the Zagros region with a very big influence on other small cities and villages become an attractive center for areas that were under the Shiraz region influence. Since 1952, Shiraz has experienced continuous and non-continuous growth pattern along major roads. This growth based on service and industrial oriented activities.

This study aims to investigate type, direction, rate and the causes of the Shiraz historical expansion. It further tries to find out its political, economic, physical, and social impacts upon neighboring communities' between 1957-2007. More specifically the major objectives is to identify, describe, and

Land Surface Temperature Assessment in Central Sumatra, Indonesia

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Received: 2019-11-23
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Keywords:
land surface temperature;
elevation;
land cover;
normalized difference vegetation
index

Abstract Land Surface Temperature (LST) assessment can explain temperature variation, which may be influenced by factors such as elevation, land cover, and the normalized difference vegetation index (NDVI). In this study, a multiple linear regression model of LST variation was constructed based on data from the Moderate Resolution Imaging Spectroradiometer (MODIS) aboard NASA's Terra satellite, relating to the period, 2000-2018. The highest LST variation of nearly 1.3 °C/decade was found in savanna areas while the lowest variation was in the evergreen broadleaf forest and woody savanna, which experienced a decrease of 2.1 °C/decade. The overall mean change of LST was -0.4 °C/decade and the regression model with LST as the dependent variable and elevation, land cover type, and NDVI as independent variables produced an R square of 0.376. The variation in LST was different depending upon the NDVI.

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1. Introduction

Climate change, particularly rising temperatures, is the most significant environmental problem facing the world today (Me-Ead & McNeil, 2016). Climate data based on satellite imaging of land surface temperature (LST) are essential in monitoring and assessing climate change impacts at both the small-and large-area scales (Wongsai et al., 2017). Some critical factors in studying the temperature of the land surface are land cover, and whether the land is covered by green vegetation, as measured by the normalized difference vegetation index (NDVI), as well as elevation (Alavipanah et al., 2015; Guan et al., 2014; Q. Sun et al., 2012). Moreover, elevation has been a factor considered in previous studies that have modeled land cover (Palit & Popovic, 2005) since the change in elevation can contribute to differences in LST (Gao et al., 2008).

Deforestation has been estimated to have caused a 17 % increase in greenhouse gas emissions worldwide and is believed to be a factor in the increase in the earth's temperature (Gullison et al., 2007). A previous study of land-cover change on Sumatra showed that this island has the highest deforestation rate in Indonesia (Rijal et al., 2016). Between 1990 and 2010, 70 % of the forests on Sumatra were destroyed, with the highest rate of deforestation occurring in central Sumatra, including Riau Province, which suffered approximately 42 % deforestation (Goetz et al., 2012). Nevertheless, based on a previous study, the LST change in central Sumatra has been lower than in other regions of Sumatra (Prasetya et al., 2020). Previous studies have assessed the relationship between land cover and LST (Sobrino et al., 2013; Voogt & Oke, 2003; Zhou et al., 2011; Zhou et al.,

2014), the impact of different kinds of land cover on LST and how that relationship is affected by extreme land surface temperatures (Alavipanah et al., 2015; Vasisht, 2015; Zhou et al., 2014; Zhou et al., 2011). In a further study which explored the spatial variations in urban LST, the potential factors were grouped into categories by land use-land cover changes (LUCC) composition, biophysical conditions, the intensity of human activities, and landscape pattern (Weng et al., 2008). With the results showing that biophysical variables were significant in explaining the spatial variations in LST.

Another variable that can affect the LST is green vegetation cover, as measured by the NDVI. The NDVI is a tool for analyzing the vegetation status in the present and past and predicts its future condition (Onyia et al., 2018) and NDVI can be studied based on Moderate Resolution Imaging Spectro-radiometer (MODIS) observations which capture the spectral behavior of vegetation (Sharma et al., 2018). This is because plants react differently to different parts of the electromagnetic spectrum including visible light, and electromagnetic waves are typically absorbed in the red and blue wavelengths, so that reflected light retains the green wavelengths, with strong reflections also in the near-infrared (NIR) wavelengths (Sharma et al., 2018). Areas that have a high LST often have a low NDVI and vice versa (Chuai et al., 2013), and areas with a lower temperature are usually those with vegetation and bodies of water (Joshi & Bhatt, 2012). Yuan and Bauer (2007) found a negative correlation between NDVI and LST in a study of urban climate, and another study found that LST was correlated with NDVI and land use types, with a negative correlation between LST and certain