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

Judul karya ilmiah (artikel)	:	Vulnerability Assessment: A Comparison of Three Different City Sizes in the Coastal Area of Central Java, Indonesia
Jumlah Penulis	:	5 penulis
Status Pengusul	:	**Wiwandari Handayani**, Iwan Rudiarto, Jawoto Sih Setyono, Uchendu Eugene Chigbu, Annisa Mu'awanah Sukmawati
Identitas Jurnal Ilmiah	:	a. Nama Jurnal : Advances in Climate Change Research b. Nomor ISSN : 1674-9278 c. Vol.,no.,bulan,tahun : Vol.8 Isuue 4, Desember 2017 d. Penerbit : Science Press e. DOI artikel (jika ada): 10.1016/j.accre.2017.11.002 f. Alamat web jurnal : https://www.sciencedirect.com/science/article/pii/S1674927817300345?via%3Dihub g.Terindeks di SJR Q1 1,009 (2019) dan SNIP 1,311 (2019)
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c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12			11
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Nilai = (60% x 36)				21,6

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Semarang, 12-04-2020

Reviewer 1,

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a. Kelengkapan unsur isi artikel (10%)	4			4
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			10
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12			10
d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12			10
Total = (100%)	**40**			34
Nilai = (60% x 34)				20,4

Catatan Penilaian artikel oleh Reviewer :

a. Isi artikel sesuai dengan *template* penulisan jurnal yang tersedia dalam laman jurnal. Penulisan dan pembahasan setiap komponen tulisan merepresentasikan judul yang diangkat yang berhubungan dengan penilaian kerentanan untuk tiga kategori kota di Jawa Tengah.

b. Penilaian tingkat kerentanan di tiga kota besar di pesisir utara Jawa Tengah (Semarang, Tegal, dan Lasem) dibahas secara mendalam dari aspek demografi, ekonomi, sosial, fisik, dan infrastruktur dan fasilitas dengan menggunakan metode ESI dan ACI dengan melibatkan sebanyak 10 sumber pustaka dari jurnal internasional. Artikel jurnal sesuai dengan bidang ilmu penulis terutama berhubungan dengan perencanaan di wilayah pesisir yang terdampak banjir dan rob.

c. Artikel ini didukung oleh 46 literatur dimana 80% di antaranya merupakan artikel jurnal internasional terbitan 10 tahun terakhir. Artikel didukung oleh data dan metode kebaruan yang cukup dengan membandingkan tingkat kerentanan di tiga kota yang dinilai dimana metode penilaian kerentanan yang digunakan diadopsi dan dikembangkan dari berbagai sumber sesuai konteks wilayah studi.

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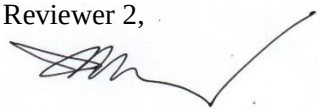
Semarang, 09-07-2020

Reviewer 2,



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b.Ruang lingkup dan kedalaman pembahasan (30%)	11,0	10,0	10,5
c.Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	11,0	10,0	10,5
d.Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	10,0	10,0	10,0
Total = (100%)	36,0	34,0	35,0
Nilai = (60% x 35)			21,0

Semarang, 17-07-2020

Reviewer 1,

Prof. Dr.rer.nat. Imam Buchori, ST
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Reviewer 2,

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Advances in Climate Change Research Open Access
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Vulnerability assessment: A comparison of three different city sizes in the coastal area of Central Java, Indonesia (Article) (Open Access)

Handayani, W.[a], Rudiarto, I.[a], Setyono, J.S.[a], Chigbu, U.E.[b], Sukmawati, A.M.[c]

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Abstract

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Considering the importance of connecting urbanization phenomena and vulnerability assessments, this paper aims to explore vulnerability assessment in three different city sizes in the northern coast of Central Java province of Indonesia. It compares the vulnerability levels of the three cities based on their sizes (that is, levels of urbanization). It uses the most current secondary data from the lowest administrative levels, called as kelurahan (urban village), for its assessment. There are two indexes used to indicate their vulnerability levels, namely exposure and sensitivity index (ESI) and adaptive capacity index (ACI). By combining the ESI and ACI, the study found that the kelurahans in Tegal (the medium sized city) have similar vulnerability levels. The kelurahans in Semarang (as the big city) have more combination of vulnerability levels—indicating that the city has various sensitivity, exposure, as well as adaptive capacity among its kelurahans. In Lasem (the small sized city), due to limitations imposed by adaptation—mostly because of lack of public services and high dependency on primary economic sectors—all of its kelurahans were found to be vulnerable. The study therefore concluded that the bigger a city is, the more the different areas of that city will have varying levels of vulnerability, leading to a high propensity of vulnerability among its inhabitants. On the other hand, the smaller a city is, the less capacity it will have in reducing its emerging vulnerability challenges. © 2017 National Climate Center (China Meteorological Administration)

SciVal Topic Prominence

Topic: Climate Change Adaptation | Urban Climate | Adaptive Capacity

Prominence percentile: 99.877

Author keywords

Central Java | Climate change | Indonesia | Vulnerability assessment

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(2020) Applied Geography

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The withdrawal of the U.S. from the Paris Agreement and its impact on global climate change governance

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Received 4 July 2017; accepted 9 August 2017
Available online 31 August 2017

Abstract

The global community has prepared for the withdrawal of the U.S. from the Paris Agreement since Donald Trump was elected as the president of the U.S. However, Trump's formal declaration of withdrawal still caused worldwide reaction. Trump will use the withdrawal to build his political reputation and to renegotiate the Paris Agreement despite its negative effects on the political credibility, international relationships, and potential long-term economic growth of the U.S. In general, the withdrawal of the U.S. from the Paris Agreement will not change the development of low-carbon technologies and the transformation trend of the global climate governance regime. However, the long-term goals and international cooperation on climate change will be affected by budget cuts in American climate change research and the cancelation of donations from the multilateral environmental fund of the U.S. If the Paris Agreement is renegotiated, the common but differentiated principle of responsibility of the United Nations Framework Convention on Climate Change will be challenged again. Nevertheless, climate change governance remains a main theme of future sustainable development. Instead of national governments, local governments and non-governmental organizations will develop strategies for technical innovation and emphasize pragmatic cooperation, thus expanding their roles in climate change governance. The capacity building on climate change research and public awareness should be enhanced as a long-term objective of global climate change governance.

Keywords: U.S. withdraw Paris Agreement; Global climate change governance; Impact

1. Introduction

Parties of the United Nation Framework Convention on Climate Change (UNFCCC) passed the Paris Agreement in its COP21 in December, 2015. As one of the most important outcomes of international multilateral progress, the Paris Agreement showed the willingness of member countries to cooperate and clearly signaled the need for the low-carbon transformation of the international society. Global cooperation on the response to climate change thus entered a new era (Zheng et al., 2016; UNEP and Bloomberg, 2017). Driven by the strong political support, the Paris Agreement came into force shortly within a year in November, 2016. Negotiations under the framework of UNFCCC focused on the details of the Paris Agreement. However, the results of the U.S. presidential election presented potential threats to the implementation of the Paris Agreement. The new U.S. President, Donald Trump, claimed that global warming is a hoax concocted by China to weaken the competitive industrial power of the U.S. He then announced on June 1, 2017 that he had decided to pull the U.S. out of the non-binding Paris Agreement. Claiming that the Paris Agreement restricts the U.S. while empowering other countries, Trump said the U.S. would begin negotiations to re-enter the agreement and make it “fair” to the U.S.

The withdrawal of the U.S. from the Paris Agreement aroused great response both in and outside the country. Former U.S. President Obama pointed out that Trump's decision has made the

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Projections of future rainfall for the upper Ping River Basin using regression-based downscaling

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Received 2 February 2017; revised 9 June 2017; accepted 15 November 2017
Available online 21 November 2017

Abstract

The objective of this study was to use regression modelling, a form of statistical downscaling technique, to predict the daily rainfall occurrence and rainfall amounts for a small river basin, the upper Ping River Basin (UPRB) in northern Thailand. Daily historic (1960–2005) rainfall and a number of daily reanalysis variables (NCEP/NCAR) were used to create regression models that estimate the probabilities of rainfall occurrence (wet days) and amounts (rainfall depth) at each of 29 rain gauge stations located in and around the UPRB. The regression models were calibrated using historic (1960–1989) data and validated using historic (1990–2005) data. Regression models were later applied to historic (1960–2005) GCM outputs (MPI-ESM-LR model) which were adjusted to correspond to the selected reanalysis variables using the Nested Bias Correction (NBC) technique. Rainfall occurrence and amounts were predicted for the periods 2006–2050 and 2051–2100 for RCP2.6, RCP4.5, RCP8.5 scenarios. Results show that the effects of climate change vary considerably across the catchment, with significantly declines in both the number of wet days and rainfall depth in the wet- and especially the dry-season in the middle of the catchment but obviously increase slightly towards the northern part of the catchment. Since the stepwise regression was used to select the atmospheric variables to form the regression models for simulating rainfall occurrence and amount, different stations have their own predictors and can influence future rainfall to vary significantly between 29 rain gauge stations. If the top three predictors were selected to form the regression models for simulating rainfall occurrence and amount for all stations, the future rainfall characteristics possibly change and can be used to compare with those of presented in this study. It will show either atmospheric predictors or climate change scenarios would have more effect on future rainfall characteristics.

Keywords: Statistical downscaling; Nested bias correction; MPI-ESM-LR model; Representation concentration pathways (RCPs); Ping River Basin

1. Introduction

An assessment of climate change impacts on hydrological studies requires outputs of experiments from General Circulation Models (GCMs). However, the GCMs are constrained by their coarse spatial resolution to be used for resolving local scale hydrological processes (Wilby and Wigley, 1997; Wilby et al., 1999; Timbal et al., 2009). Downscaling techniques have therefore emerged to relate the regional scale atmospheric variables to the local scale surface variables. Downscaling approaches can be separated into two categories; dynamical and statistical techniques. Strengths and weaknesses of these two downscaling categories are clearly presented by Wilby et al. (2002). In dynamic downscaling referred to as the Regional Climate Models (RCMs), the time-varying atmospheric conditions supplied by GCMs are used to drive a regional, numerical model in higher spatial resolution (tens of kilometres) to simulate local conditions in greater details. On the other hand, a statistical downscaling establishes a statistical relationship from observations between large scale variables and a single local variable and then subsequently

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