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

Judul Artikel Ilmiah	:	**Impact of Climate on the incidence of Dengue Haemorrhagic fever in Semarang City**
Nama semua penulis	:	Ummi Khairunisa, Nur Endah Wahyuningsih, **Suhartono**,. Hapsari
Status Pengusul (coret yang tidak perlu)	:	~~Penulis Utama~~/ **Penulis Anggota**

Status Proceeding:

Nama Proceeding/ Seminar	:	**The 7th International Seminar on New Paradigm and Innovation on Natural Science and Its Application**
Edisi (bulan, tahun)	:	October 2017, Semarang, Indonesia
ISSN/ ISBN	:	1742-6588E-ISSN:1742-6596
DOI	:	10.1088/1742-6596/1025/1/012079
Alamat WEB Proceeding	:	https://iopscience.iop.org/article/10.1088/1742-6596/1025/1/012079

Dipresentasikan secara Oral dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)
Seminar   [ ]   Internasional Terindeks Scimago SJR dan Scopus
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Seminar   [ ]   Internasional
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Seminar   [ ]   Internasional
                       [ ]   Nasional

Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel Presentasi Oral Prosiding Internasional	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	3	2.1
b	Ruang lingkup & kedalaman pembahasan (30 %)	9	7.98
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	9	10
d	Kelengkapan unsur dan kualitas Proceeding (30%)	9	6.92
	Nilai Total	**30**	**27**
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Catatan Penilaian artikel oleh Reviewer

a	Kelengkapan unsur isi artikel	Result and discussion: It seems only discussion should discuss highlight finding and try to give exploration scientifically. Acknowledge (-).
b	Ruang lingkup & kedalaman pembahasan	There is almost nothing have been discussed in disconderation (only two citation) and both have different.
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Many important information from previous study do not give a credit by citing it.
d	Kelengkapan unsur dan kualitas Proceeding	Grammar error (+),, syntax error(+), reference style?

Semarang, 15April 2020
Reviewer 1

Prof. Dr. dr. Tri Indah Winarni, MSi.Med, PA.

NIP 196605101997022001
Unit kerja: Fakultas Kedokteran UNDIP

LEMBAR
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Dipresentasikan secara Oral dan dimuat dalam prosiding yang dipublikasikan (beri tanda V yang sesuai)

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Seminar
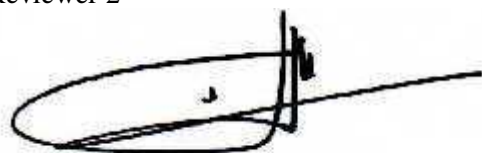- [   ] Internasional
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Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel Presentasi Oral Prosiding Internasional	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	3	3
b	Ruang lingkup & kedalaman pembahasan (30 %)	9	10
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	9	8.5
d	Kelengkapan unsur dan kualitas Proceeding (30%)	9	7.5
	Nilai Total	**30**	**29**
	Nilai yang didapat pengusul: 29 X 0.4 = 11.6/3= 3.86		

Catatan Penilaian artikel oleh Reviewer:

a	Kelengkapan unsur isi artikel	Unsur isi artikel telah memenuhi kaidah penulisan karya ilmiah.
b	Ruang lingkup & kedalaman pembahasan	Pembahasan artikel belum dijelaskan secara mendalam, masih lebih banyak menyampaikan hasil penelitian. Referensi yang dipakai untuk membahas hanya sedikit, dan penulisan sitasinya tidak sesuai dengan yang di daftar pustaka. Pustaka yang ditulis di Daftar Pustka hanya 6, dan ada 3 referensi yang >10 tahun.
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Metode penelitian ditulis dengan singkat, masih kurang rinci. Hasil penelitian banyak disajikan dalam bentuk grafik yang informatif.
d	Kelengkapan unsur dan kualitas Proceeding	Artikel diterbitkan oleh publisher yang terindeks di Scimagojr Q4 SJR 0,13 terakses di scopus.

Semarang, 14 April 2020
Reviewer 2

Prof. Dr. dr. Banundari Rachmawati, Sp.PK(K)
NIP. 196006061988112002
Unit kerja : Fakultas Kedokteran UNDIP

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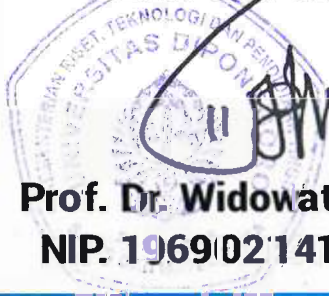**This is to certify that**

Ummi Khairunisa

as

PRESENTER

In the 7th International Seminar on New Paradigm and Innovation of Natural Science and Its Application (ISNPINSA-7) held on 17 October 2017 at Grand Candi Hotel Semarang Indonesia

with paper entitled as follows:

Impact of Climate on The Incidence of Dengue Haemorrhagic Fever in Semarang City

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Impact of Climate on the incidence of Dengue Haemorrhagic fever in Semarang City   (Conference Paper)   (Open Access)

Khairunisa, U.[a] ✉,   Wahyuningsih, N.E.[a] ✉,   Suhartono[a] ✉,   Hapsari[b] ✉

[a]Department of Environmental Health, Faculty of Public Health, Diponegoro University, Indonesia
[b]Department of General Medicine, Faculty of Medicine, Diponegoro University, Jl. Prof. Soedharto, SH, Tembalang, Semarang, 50275, Indonesia

Abstract   ⌄ View references (6)

Dengue Haemorrhagic Fever (DHF) is one of major health problems in Indonesia. DHF is a caused by the dengue virus and potentially deadly infection spread by some mosquitos. The mosquito Aedes aegypti is the main species that spreads this disease. The incidence rate of dengue haemorrhagic fever was still increased in 2011 to 2015 in Indonesia. Dengue viruses and their mosquito vectors are sensitive to their environment. Temperature, rainfall and humidity have well-define roles in the transmission cycle. Therefore changes in these conditions may contribute to increasing incidence. The aim of this study was to analyze the relationship between climate factors and the incidence rate of dengue hemorrhagic fever in Semarang City. The type of research was analytic with cross sectional study. The sample used is the climate data from Meteorology, Climatology and Geophysics Agency (BMKG) and the number of dengue cases from Health Office in Semarang City from 2011 to 2016. Data were analyzed using Pearson trials with $\alpha=0,05$. Base on this study here air temperature and relative humidity were moderate correlation with negative direction on air temperature ($p = 0,000$ and $r = -0, 429$), weakly correlation with positive direction on rainfall ($p = 0,014$ and $r = 0,288$) and humidity ($p=0,001$ and $r = 0,382$) with dengue hemorrhagic fever incidence in Semarang City. The conclusions of this study there were correlation between climate (air temperature, rainfall, and relative humidity) and DHF in Semarang City in 2011-2016. © Published under licence by IOP Publishing Ltd.

SciVal Topic Prominence ⓘ

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Prominence percentile: 98.570   ⓘ

Author keywords

(Climate)   (Dengue Hemorrhagic Fever)   (Semarang City)

Indexed keywords

Engineering
controlled terms: (Atmospheric temperature)   (Viruses)

Engineering   (Climate)   (Climate factors)   (Cross-sectional study)   (Dengue haemorrhagic fevers)
uncontrolled terms: (Dengue hemorrhagic fever)   (Mosquito vectors)   (Semarang City)   (Transmission cycles)

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The 7th International Seminar on New Paradigm and Innovation on Natural Science and Its Application

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PREFACE

The 7th International Seminar on New Paradigm and Innovation on Natural Sciences and Its Application (ISNPINSA-7) is annual conferences organized by Faculty of Sciences and Mathematics (FSM) Diponegoro University and has been successfully conducted since 2011. The aims of ISNPINSA are to facilitate brain storming and state of the art information in field of sciences and mathematics; to increase innovation of technology that can be applied in industries; to contribute in formulating strategy to increase the role of science for community; and to stimulate collaboration between industries, researchers and government to increase community welfare. The theme of 7th ISNPINSA in 2017 is "*Science and Data Science for Sustainable Development Goals*".

The scope of the field of participants comes from various fields including biology, physics, chemistry, statistics, mathematics, informatics, environment, public health, and relevant fields that contribute to sustainable development. The conference was held in Semarang, Indonesia on October, 17th, 2017. There were three keynote speakers and three invited speaker who came from Japan, Italy, Malaysia, Philipines and Indonesia. The number of participants of this seminar were more than 200 consist of researchers, lecturers, postgraduate and undergraduate students from various universities and after the selection process there are 132 articles selected to be published in the present conference proceeding.

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012082

Impact of Climate on the incidence of Dengue Haemorrhagic fever in Semarang City

Ummi Khairunisa[1], Nur Endah Wahyuningsih[1], Suhartono[1], Hapsari[2]

[1]Department of Environmental Health, Faculty of Public Health, Diponegoro University
[2]Department of General Medicine, Faculty of Medicine, Diponegoro University
Jl. Prof. Soedharto, SH, Tembalang, Semarang 50275, Indonesia

E-mail:ummikhairunisa@gmail.com, wahyuningsihnew@gmail.com, mmhapsari@gmail.com, suhartono.damas62@gmail.com

Abstract. Dengue Haemorrhagic Fever (DHF) is one of major health problems in Indonesia. DHF is a caused by the *dengue virus* and potentially deadly infection spread by some mosquitos. The mosquito *Aedes aegypti* is the main species that spreads this disease. The incidence rate of dengue haemorrhagic fever was still increased in 2011 to 2015 in Indonesia. Dengue viruses and their mosquito vectors are sensitive to their environment. Temperature, rainfall and humidity have well-define roles in the transmission cycle. Therefore changes in these conditions may contribute to increasing incidence. The aim of this study was to analyze the relationship between climate factors and the incidence rate of dengue hemorrhagic fever in Semarang City. The type of research was analytic with cross sectional study. The sample used is the climate data from Meteorology, Climatology and Geophysics Agency (BMKG) and the number of dengue cases from Health Office in Semarang City from 2011 to 2016. Data were analyzed using Pearson trials with $\alpha=0,05$. Base on this study here air temperature and relative humidity were moderate correlation with negative direction on air temperature ($p= 0,000$ and $r= -0,429$), weakly correlation with positive direction on rainfall ($p= 0,014$ and $r= 0,288$) and humidity ($p=0,001$ and $r= 0,382$) with dengue hemorrhagic fever incidence in Semarang City. The conclusions of this study there were correlation between climate (air temperature, rainfall, and relative humidity) and DHF in Semarang City in 2011-2016.

Keywords: Dengue Hemorrhagic Fever, Climate, Semarang City

1. Introduction

Dengue haemorrhagic fever (DHF) is caused by the *dengue virus* and potentially deadly infection spread by *Aedes sp*. DHF is characterized by increased vascular permeability, hvpovolaemia and abnormal blood clotting mechanisms. According to report the health ministry of Indonesia, the incidence rate (IR) of dengue haemorrhagic fever was still increased in 2011 to 2015 in Indonesia. IR DHF in 2011 to 2015 in Indonesia were 2011 (IR=25,7), 2012 (IR=31,18), in 2013 (IR=41,25), 2014 (IR=52,75), and 2015 (IR= 89,32). Semarang City in one of the areas in Central Java which has the highest DHF IR in 2014 (IR=92,43). In 2016, the rank of incidence rate DHF in Semarang has decreased to 29th which in 2015 is still ranked 3rd IR DHF.

The number of dengue fever in Indonesia still increasing. Increasing the incidence of DHF is influenced by various factors one of which is the climatic factor. Climate change is one of the most

Lipid production from tapioca wastewater by culture of *Scenedesmus sp.* with simultaneous BOD, COD and nitrogen removal

Romaidi[1*], Muhammad Hasanudin[1], Khusnul Kholifah[1], Alik Maulidiyah[2], Sapto P. Putro[2], Akira Kikuchi[3,4], Toshifumi Sakaguchi[5]

[1]Department of Biology, Faculty of Science and Technology, Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia
[2]Faculty of Science and Mathematics, Diponegoro University, Semarang, Indonesia
[3]Faculty of Agriculture, University of Brawijaya, Malang, Indonesia
[4]Institute of Environmental and Water Resource Management, Universiti Teknologi Malaysia (UTM)
[5]Faculty of Environmental and Life Science, Prefectural University of Hiroshima, Japan

*Corresponding's author: romaidi@bio.uin-malang.ac.id

Abstract. The use of microalgae to produce biodiesel or possibly remove nutrients from industrial wastewater has gained important attention during recent years due to their photosynthetic rate and its versatile nature to grow in various wastewater systems. In this study, a microalgae, *Scenedesmus sp.*, was cultured to enhance the lipid production and nutrients removal from tapioca wastewater sample. To assess lipid production, *Scenedesmus sp.* was cultured in different concentration of tapioca wastewater sample (from 0 to 100 %), and nutrient removal including BOD, COD, NH_4, NO_2, NO_3 level by *Scenedesmus sp.* was assessed in 100% of tapioca wastewater culture. After 8 days of culture, it was found out that 50% of tapioca wastewater sample resulted in highest concentration of lipid content than that of the other concentrations. The level of environment indicator as nutrient removal such as BOD, COD, NH_4, NO_2, NO_3 were also decreased up to 74%, 72%, 95%, 91%, and 91%, respectively. The pH condition changed from initial condition acidic (pH: 4) to neutral or basic condition (pH: 7-8) as recommended in wastewater treatment system. This research provided a novel approach and achieved efficient simultaneous lipid production and nutrients removal from tapioca wastewater sample by Scenedesmus's culture system.

Keyword: *Scenedesmus sp., tapioca wastewater, lipid production*

1. Introduction

The energy crisis is one of the most important problems faced by all people over the world in the 21st century. The highest consumption of fossil fuels has result in greenhouse effect and causes global climate change [1,2]. One of a type of renewable energy is microalgae biomass-based biofuel, which is considered as one of the most potent substitutes for fossil fuel [2]. However, to increase the production of microalgae biomass, several strategies should be developed, such as modification of culture medium and environmental factors. Hence, one of promising strategies is using wastewater sample as

Association of MTHFR polymorphism and periodontitis' severity in Indonesian males

E I Auerkari[1*], R Purwandhita[1], K R Kim[1], N Djamal[1], S L C Masulili[2], D A Suryandari[3] and C Talbot[4]

[1] Department of Oral Biology, Faculty of Dentistry, University of Indonesia, Jakarta, Indonesia
[2] Department of Periodontology, Faculty of Dentistry, University of Indonesia, Jakarta, Indonesia
[3] Department of Medical Biology, Faculty of Medicine, University of Indonesia, Jakarta, Indonesia
[4] Department of Human Genetics, Leicester University, Leicester, United Kingdom

Email: eiauerkari@yahoo.com

Abstract. Periodontitis is an oral disease with a complex etiology and pathogenesis, but with a suspected contribution by genetic factors. This study aimed to assess the association of polymorphism in *MTHFR* (*methylene tetrahydrofolate reductase, C677T)* gene and the severity of periodontitis in Indonesian males. Severity of periodontitis was classified as mild, moderate or severe for 100 consenting, 25 to 60 years old male Indonesians. Using PCR amplification for DNA extracted from blood serum samples, the variation at the SNP polymorphism of the MTHFR (C677T) gene was evaluated by using RFLP, cutting by the restriction enzyme *Hinf* I and subjecting the fragments to electrophoresis on agarose gel. Chi-square testing was mainly used for statistical assessment of the results. The CC genotype (wild type) of the tested polymorphism was the most common variant (78%) and TT (mutant) genotype relatively rare (2%), so that C-allele appeared in 88% of the cases and T-allele in 12% of the cases. The results suggest that there is no significant association between *MTHFR C677T* polymorphism and the severity of periodontitis in the tested Indonesian males.

Keywords: periodontitis, MTHFR, polymorphism

1. Introduction

Periodontal disease is one of the most common and widely spread human diseases. Periodontal disease has been associated with chronic systemic disorders [1], such as diabetes mellitus [2], osteoporosis [3], cardiovascular disease [4], and stroke [5]. As a result, men and women aged 25-74 years with periodontitis appear to have an increased risk of death from systemic disease [4]. Almost all adults have suffered from gingivitis, periodontitis, or both [6].

A study of Albander and Rams (2002) suggested that Asian populations have highest prevalence rates of periodontal disease cases in the world [7]. The results of a national survey (SKRT 2004) suggest that 39% of Indonesian population is suffering from dental and oral disease [6].

Periodontitis is a disease with unknown exact etiology, but the etiology is believed to be multifactorial. In addition to bacterial pathogens and other environmental factors (poor habits,

Postal and trade network data within ASEAN countries and beyond

Rezzy Eko Caraka[1], Putu Mahardika Adi Saputra[2], Nurrohman Wijaya[3], Muhammad Mujiya Ulkhaq[4], Muhammad Subair[5]

[1] School of Mathematical Sciences, Faculty of Science and Technology, The National University of Malaysia, Malaysia
[2] Department of Economics, University of Brawijaya, Indonesia
[3] School of Architecture, Planning, and Policy Development, Bandung Institute of Technology, Indonesia
[4] Department of Industrial Engineering, Diponegoro University Indonesia
[5] Pulse Lab Jakarta

Email: rezzyekocaraka@gmail.com

Abstract. This study mainly examines the statistical analysis of Postal Network Data (PND) and Trade Data within ASEAN countries and beyond. In addition, based on the previous study on the global network structure, including postal network, as proxies for national well-being, we also assess how the PND can affect the other recent socioeconomic indicators among ASEAN countries. This study aims to address the general question of whether structural network properties of different flow networks between ASEAN countries can be used to produce proxy indicators for the socioeconomic profile of a country. Moreover, we are using statistical analysis just like the correlation to measure the variables post from and post to data with life expectancy, CPI, mobile subscriber, Internet penetration, fixed phone, HDI, GDP and CO^2 emission. After getting the correlation value. The next step we do partial least square (PLS) on the model we have built before. Just as getting 3 cluster component based on the data. Also, Matrix of the intensity connection is used to understand also compare the positions of countries within the different networks several socioeconomic indicators

1. Introduction

In the history of humanity, long-distance communications network through physical postal commodity has been established since the last century [4]. Physical postal can represent the characteristics of individual behavior, local, regional and national economic activity and international economic relation [5]. Although, presently digital commodity may disrupt and replace the network flow of physical postal commodity, however, it is still being used mainly for certain trading goods and activities. Previous work has studied flows of physical and digital commodities that affect the wealth, resilience and function of a social system on global, regional, national and sub-national levels. This study aims to address the general question of whether structural network properties of different flow networks between ASEAN countries can be used to produce proxy indicators for the socioeconomic profile of a country.

2. Data Analytics

In this study, we explore over three years from 2011 to 2013 of carrier data records between all countries by focusing on ASEAN countries. We then assess the correlation between the postal data

The impact of ozonated water treatment on growth rate of 'S*rikandi*' tilapia *(Oreoshromis Aureus X Niloticus)*

*Sapto Putro[1], Devi Adityarini[2] and R.T. Chiang[3]
[1*] Center of Marine Ecology and Biomonitoring for Sustainable Aquaculture (Ce-MEBSA), Integrated Laboratory, Diponegoro University, Tembalamg Campus, Semarang, Central Java, Indonesia
[2] Department of Biology, Faculty of Sciences and Mathematics, Diponegoro University, Tembalang, Semarang, Indonesia
[3] Energy Engineering Service, San Jose, California, USA

[*]Corresponding Author: saptoputro@gmail.com

Abstract. The impact of ozonized water treatment on 'Srikandi' tilapia was assessed using ozone reactor with an airflow velocity of 1.5 L / min at a voltage of 10 kV, which leads to that the dissolved oxygen (DO) content increases from 0.99 to 11.11 mg / L. The ozonized water treatment was divided into five groups based on the length of treatment period: 5 minutes as group I, 10 minutes as group II, 15 minutes as group III, 20 minutes as group IV and 0 minute (Reference case). The fish growth rate was measured in terms of length and weight per seven days for 30 days. The result indicated that the fastest growth rate of 'Srikandi' tilapia occured at the group III (length growth: 7.82 cm; weight growth: 7.72 g in 30 days). The fastest Specific Growth Rate (SGR) of the fish occured at the group II (1.281%), and the fastest Relative Growth Rate (RGR) of the fish occurs at the group III (4.538%). The oxygen content, temperature, salinity to match the growth of Tilapia 'Srikandi' are vital elements in Tilapia farming management. These results are considered to be useful to increase the production rate of 'Srikandi' tilapia farming.

1. Introduction

Salt water pond-fish farming in coastal areas has following advantages than the corresponding fresh water pond-fish farming i.e. high tolerance of salinity up to 30 ppt with survival rate >80%, rapid growth (can reach 200 grams in three months with salinity pressure), high protein contain as a food source of animal protein, high content of omega 3(reach >105 mg/100 g meat) and omega 6 (reach >230 mg/100g of meats) fatty acids, has a better meat taste and chewy meat texture, and can grow up in polyculture system [1]. Aquaculture can be defined as human efforts to increase the water productivity through aquatic farming of aquatic biotas. Aquaculture is a breeding activity to gain benefits via reproduction, growth, and aquatic organism quality increase In line with the increase demand of seafood production around the world, a productive aquaculture is urgently needed to produce organisms in controlled environment and subsequently to gain profit [2].

   Tilapia is cultivated in fresh water commodity in hatchery and enlargement because of it benefits that can be compared with some fresh water fishes, especially in rapid growth, easy to breed, easy in maintenance process, and high adaptation in environment changes [3]. Tilapia habitat originates in fresh water of rivers, lakes, stanks, and swamps, but can tolerate in large salinity (eury haline) so that it can live in brackish water and salt water of ocean. The fish tolerant availability of salinity is 0-35 ppt