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The spatial dynamics of the Semarang-Surakarta development corridor: two young metropolitan cities of Central Java, Indonesia

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Abstract

The interactions between metropolitan cities can generate so-called development corridors along the regional lines. In Central Java, three cities, namely Yogyakarta (Jogya), Surakarta (Solo), and Semarang, form a triangular development known as Joglosemar. This study aimed to observe the spatial dynamics of the Semarang-Surakarta corridor, regarding the operation of the new toll road connecting these two cities. Spatial analyses based on the geographic information system (GIS) were applied to observe the land-use change in the corridor. Statistical analyses focused on population shift, the poor, and

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15 July, 2022

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The spatial dynamics of the Semarang-Surakarta development corridor: two young metropolitan cities of Central Java, Indonesia

Imam Buchori Lintang Rahmayana Anang Wahyu Sejati Pangi Pangi Yudi Basuki Angrenggani Pramitasari

Vol. 18, No. 2, pp 111–134 • March 2, 2022

https://doi.org/10.1504/WRSTSD.2022.121304

Abstract & Keywords

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Vol. 18, No. 2, pp 159–175 • February 23, 2022

https://doi.org/10.1504/WRSTSD.2022.121307

Abstract & Keywords

Cemeteries began to become a concern for urban planners in Jakarta because of the crisis voiced by the media in the 2000s. The characteristics of Jakarta as a densely populated metropolitan and as a multicultural melting-pot, put pressure on the provision ...

Keywords

geography of death | cemetery | green open space | Jakarta | Indonesia

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Vol. 18, No. 2, pp 176–193 • February 23, 2022

https://doi.org/10.1504/WRSTSD.2022.121303

Abstract & Keywords

Rural coastal areas in northern Central Java suffer from tidal flood caused by sea level rise and land subsidence. People not only lose their properties as tidal flood submerges houses and lands but many of their livelihoods become unsustainable. To ...

Keywords

rural livelihood resilience | multi-dimensional analysis | rural coastal area | Central Java

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Abstract & Keywords

This study investigated how deliberation is implemented in rural planning practice in Indonesia and what issues are encountered. Qualitative content analysis of secondary data was conducted on the main concepts of deliberative planning, participatory ...

Keywords

deliberation | knowledge transfer | participatory budgeting | rural planning | Indonesia

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Proposal for revision of Brazilian resolution 687/15 to expand distributed generation through photovoltaic systems

Thiago Da Paz Caldas Alex Álisson Bandeira Santos

Vol. 18, No. 2, pp 213–236 • February 23, 2022

https://doi.org/10.1504/WRSTSD.2022.121313

Abstract & Keywords

This study explored the expansion of the generation of photovoltaic solar energy in Brazil based on a technical-economic approach. Opportunities for improving Brazilian NR 687/15, which regulates distributed generation from renewable energy sources in the ...

Keywords

photovoltaic systems | minigeneration | financial viability | NR 687/2015

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The spatial dynamics of the Semarang-Surakarta development corridor: two young metropolitan cities of Central Java, Indonesia

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Abstract: The interactions between metropolitan cities can generate so-called development corridors along the regional lines. In Central Java, three cities, namely Yogyakarta (Jogya), Surakarta (Solo), and Semarang, form a triangular development known as Joglosemar. This study aimed to observe the spatial dynamics of the Semarang-Surakarta corridor, regarding the operation of the new toll road connecting these two cities. Spatial analyses based on the geographic information system (GIS) were applied to observe the land-use change in the corridor. Statistical analyses focused on population shift, the poor, and employment at the sub-district (kecamatan) level. The empirical findings confirm previous studies, in that the regional development follows regional lines along both arterial and toll roads, and the existence of the toll road was the magnet for the development. However, the increase in industrial activities did not always benefit the poor, especially in the sub-districts where industrial activities have been developing in the longer term. For this reason, we recommend that local governments consider how to make the positive impacts of industrial development sustainable. The results of this study are also expected to enrich the literature on the spatial dynamics of a development corridor connecting two medium-sized metropolitan cities in developing countries.

Keywords: spatial dynamics; development corridor; toll road; urbanisation; geographic information system; GIS; urban sustainability; Indonesia.

Reference to this paper should be made as follows: Buchori, I., Rahmayana, L., Sejati, A.W., Pangi, P., Basuki, U. and Pramitasari, A. (2022) 'The spatial dynamics of the Semarang-Surakarta development corridor: two young metropolitan cities of Central Java, Indonesia', *World Review of Science, Technology and Sustainable Development*, Vol. 18, No. 2, pp.111–134.

Biographical notes: Imam Buchori is a Lecturer at the Department of Urban and Regional Planning, Faculty of Engineering, Universitas Diponegoro in Semarang, Indonesia. His expertise is geomatics' applications for urban and regional planning. He graduated from Institut Teknologi Bandung (ITB), Indonesia in 1993, got a Doctoral degree in Geomatics for Spatial Planning from the University of Vechta, Germany in 2005, and was inaugurated as a Professor at Universitas Diponegoro on June 1, 2014. He served as Chairman of the Department of Urban and Regional Planning in 2008–2012, Vice Dean for Academic Affairs of the Faculty of Engineering in 2011–2015, and Dean of the Vocational School at Universitas Diponegoro in 2016. As a researcher, he has published many articles in both journals and conferences (SCOPUS ID: 54986165700 and Google Scholar ID: TrO3Nc0AAAAJ).

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Thiago Da Paz Caldas and Alex Álisson Bandeira Santos

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This study explored the expansion of the generation of photovoltaic solar energy in Brazil based on a technical-economic approach. Opportunities for improving Brazilian NR 687/15, which regulates distributed generation from renewable energy sources in the country, were identified. The study was based on data regarding the potential for photovoltaic power generation in a region of Brazil; the acquisition, installation, and maintenance costs of a photovoltaic power generation system during its useful life; demand; and the consumption tariffs charged by the distributor. The economic viability of a photovoltaic system connected to the grid in Brazil was analysed. The results show that investment in such is not viable based on the current technology costs, financial conditions, and tariffs charged by the energy distributor. The case study also demonstrates that Brazils net metering scheme alone does not promote distributed generation for Group A consumers.

Keywords

photovoltaic systems, minigeneration, financial viability, NR 687/2015

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S. Umamaheswari, C.K. Suresh and Shilpa Sampathkumar

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In the Indian stock market, the stock market price volatility is an unavoidable part of an investment decision of individual investors. It is essential to identify that share price of listed companies affected due to the financial statement information like EPS, DPO, PE, return on capital employed, and return on investment, which are treated as influential factors of investors investment decision making. Therefore, the study examined the effect of listed companies' financial information towards stock price instability. The present research work has taken 12 listed companies from various industrial sectors listed under the National Stock Exchange of India and to determine the effect of accounting variables like EPS, PE and DPO ratio on stock cost volatility for the duration of five years (2014-2019). The result of the study revealed that most of the company stock prices are indicated instable due the accounting indicators like EPS and dividend payout among those periods but not because of PE ratio. Hence, the study has concluded and suggested that all companies should focus on providing absolute information about their financial statement indicators and it is helpful to the individual investor's investment decisions.

Keywords

finance indicators, stock price volatility, EPS, DPO, PE

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