AQAS

AGENTUR FÜR QUALITÄTSSICHERUNG DURCH AKKREDITIERUNG VON STUDIENGÄNGEN E.V.

THE 6TH IGEOS 2023
BOOK OF PROGRAMME

THE CONTRIBUTION OF GEOGRAPHY TO IMPROVE HUMAN CAPACITY FACING NATURAL MULTI-HAZARD PROBLEM IN TROPICAL AREA

GEOGRAPHY EDUCATION STUDY PROGRAM
(BACHELOR, MASTER, AND DOCTORAL DEGREE)
GEOGRAPHY INFORMATION SCIENCE
(BACHELOR DEGREE)

FACULTY OF SOCIAL SCIENCES EDUCATION
AND SCHOOL OF POSTGRADUATE STUDIES
UNIVERSITAS PENDIDIKAN INDONESIA

WELCOMING REMARKS

It is a great honor for me to welcome all of you to the 6th International Geography Seminar (IGEOS) 2023. On behalf of the steering committees, I would like to express my sincere gratitude for your presence at this seminar. The theme of this seminar "**THE CONTRIBUTION OF GEOGRAPHY TO IMPROVE HUMAN CAPACITY FACING NATURAL MULTI-HAZARD PROBLEM IN TROPICAL AREA "**.

Geography plays a crucial role in understanding our world. It makes a vital contribution to our knowledge of the rapidly changing environmental and social challenges facing us and how we should tackle them.

Geography is a field of science dedicated to the study of the lands, the features, the inhabitants, and the phenomena of the Earth. Learning geography will create citizens who are able to understand and do something about some of the major issues and problems including climate change, energy dependence, war and regional conflicts, globalization and international terrorism. Geography provokes and answers questions about the natural and human worlds, using different scales of enquiry to view them from different perspectives. It develops knowledge of places and environments throughout the world, an understanding of maps, and a range of investigative and problem-solving skills both inside and outside the classroom. As such, it prepares pupils for adult life and employment.

Geography is a focus within the curriculum for understanding and resolving issues about the environment and sustainable development. It is also an important link between the natural and social sciences. As pupils study geography, they encounter different societies and cultures. This helps them realize how nations rely on each other. It can inspire them to think about their own place in the world, their values, and their rights and responsibilities to other people and the environment. It includes historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources.

The tropical region faces complex risks due to its dynamic and diverse environmental conditions. Various natural hazards seem to have become part of the biogeophysical cycle. Hydro-meteorological hazards such as floods, droughts, and storms, as well as geological hazards like earthquakes, tsunamis, and volcanic eruptions, can even disrupt human survival. Geography plays a strategic role in building human capacity to mitigate natural multi-hazards in tropical regions. Integrative geographical knowledge can strengthen resilience and responsiveness through the understanding the characteristics and physical vulnerabilities, sustainable resource management, risk-based approach in development planning, educating communities in disaster-prone region, and developing disaster response and emergency systems.

The 6th International Geography Seminar welcomes researchers and practitioners across the globe to present their latest and innovative research. This conference also aims to unite us in a scholarly community that contributes to the advancement of science for the greatest benefit of humankind.

Thank you and warm regards,

Dr. Iwan Setiawan, M.Si.
Chairman of The 6th IGEOS

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Table of Contents

PROGRAM SCHEDULE

THE 6th INTERNATIONAL GEOGRAPHY SEMINAR (IGEOS)

BANDUNG, November 1st, 2023

NO	TIME	ACTIVITY	VENUE
1	07.00 – 08.00 WIB (Western Time of Indonesia)	Registration	Main Meeting room
2	08.00 – 08.40	Opening Ceremony: 1. **Dr.Iwan Setiawan** (Chairman IGEOS) 2. **Prof. Dr. Agus Mulyana, M.Hum**. (Dean Faculty of Social Sciences Eduation) 3. **Prof. Dr. M. Solehuddin, M.Pd., MA**. (Rector of Universitas Pendidikan Indonesia)	Main Meeting room & Numan Sumantri Building room 103
3	08.40 – 09.00	Break	
4	09.00 – 10.30	Plenary Session 1 Keynote Speaker: **1. Prof. Dr. rer.nat Aris Marfai** **Geospatial Information Agency - Indonesia** **2. Prof. Klaus Greve** **University of Bonn - Germany** **3. Prof. Edmond Lo** **Nanyang Technology University - Singapore** Chair Session: **Dr.rer.nat. Nandi**	Main Meeting room
5	10.30 – 11.00	Question and answer	Main Meeting room
6	11.00 – 12.30	Plenary Session 2 Invited Speaker: **Prof. Dwi Korita** (*Meteorological, Climatological, and Geophysical Agency* - **BMKG**) **Letjen TNI Suharyanto, S.Sos., M.M.** (*National Disaster Management Authority*- **BNPB**) **Prof. Dede Rohmat** (Universitas Pendidikan Indonesia - **UPI**) Chair Session: **Annisa Joviani Astari, Ph.D**	Main Meeting room
7	12.30 – 13.00	break	
8	13.00 – 15.00	Parallel session	Break out room
9	15.00 – 15.30	break	
10	15.30 – 16.00	Closing ceremony and IGEOS announcements	Main Meeting room

PARALLEL SESSION

ROOM	SESSION CHAIR:
Room 1: Disaster mitigation and disaster management	Asri Ria Affriani, M, Eng
Room 2: Physical Geography and Environmental Management	Totok Doyo Pamungkas. M. Eng
Room 3: Geography and Disaster Mitigation Education	Haikal Muhammad Ihsan, M.Sc.
Room 4: Spatial planning for Disaster	Muhammad Ihsan, M.T.
Room 5: Geography and Disaster Mitigation Education	Jalu Rafli Ismail, S.Pd.

PRESENTATION SCHEDULE

Room 1: Disaster mitigation and disaster management

No	Time	Code	Author	Tittle
1	13.00 - 13.10	ABS-IGEOS-23004	Herdien Isya, Riko Arrasyid, Mamat Ruhimat, Abdul Syahid Muqsitul Fajar, Haikal Muhammad Ihsan, Riksa Ajeng Herdieni	Tsunami Disaster Risk Reduction Strategy in Ciletuh - Palabuhanratu UNESCO Global Geopark
2	13.10 - 13.20	ABS-IGEOS-23005	Shandra Rama Panji Wulung, Ilma Indriasri Pratiwi, Nindita Fajria Utami	Developing an Educational Tourism Model for Disaster-Prone Areas
3	13.20 - 13.30	ABS-IGEOS-23041	Dias Pratami putri, Haikal Muhammad Ihsan, Risya Ladiva Bridha, Hurry Mega Insani, Purna Hindayani, Woro Priatini, Ilmiati Tsaniah	Sustainable Gastronomy and Disaster Vulnerability in Majalengka District
4	13.30 - 13.40	ABS-IGEOS-23050	Nandi, Jalu Rafli Ismail	Framework to Development of Disaster Mitigation Model in Mountain Tourism Destination
5	13.40 - 13.50	ABS-IGEOS-23053	Risya Ladiva Bridha, Dias Pratami Putri, Woro Priatini, Salwa Siti Sabila, Purna Hindayani, Ilmiati Tsaniah, Hurry mega insani	Banana Blossom as a Local Resource-based Emergency Food Innovation Fusion Food Product
6	13.50 - 14.00	ABS-IGEOS-23070	Abdul Syahid Muqsitul Fajar, Riko Arrasyid, Haikal Muhammad Ihsan, Herdian Raka Moch Isya, Mamat Ruhimat, Dina Siti Logayah	Tsunami Hazard Study on the West Coast of the Sunda Strait: A Case Study in Cinangka District, Serang Regency
7	14.00 - 14.10	ABS-IGEOS-23025	Haikal Muhammad Ihsan, Alwan Husni Ramdani, Inayatul Fuadah, Acep Supriadi	Earthquake Disaster Risk Assessment in the Citatah Karst Industrial Area
8	14.10 - 14.20	ABS-IGEOS-23043	Wawan Darmawan, Haikal Muhammad Ihsan	Distribution of Spatial Patterns of Disaster Mitigation Based on Local Wisdom in Traditional Villages in West Java
9	14.20 - 14.30	ABS-IGEOS-23049	Jumadi Jumadi, Muhammad Badrul Huda, Muhamad Faski Alfatih, Kuswaji Dwi Priyono, Aynaz Lotfata, Sadam Fadhil Muhammad, Chintania Azahra T. Noermartanto	Spatial Analysis of Tsunami Hazard Based on Numerical Models and Seismicity Data in Pacitan Coastal Areas, Indonesia
10	14.30 - 14.40	ABS-IGEOS-23057	Dimas Aldi Pangestu, Murdiyah WInarti, Yani Kusmarni, Yeni Kurniwati Sumantri	The River in the Middle of the City: The Sound of Community Life on the Riverbanks of the Code and Cikapundung Rivers in Disaster Mitigation (Disaster Preparedness Between Yogyakarta dan Bandung)
11	14.40 - 14.50	ABS-IGEOS-23031	Nisrina Nurul Insani	The Role of Civic Crowdfunding in Post-Natural Disaster Recovery
12	14.50 - 15.00	ABS-IGEOS-23033	Ahmad Farohi, Nana Supriatna, Erlina Wiyanarti	Drought Disaster Mitigation Based on Local Wisdom in Segoromulyo Village Pamotan Subdistrict Rembang Regency
	15.00 - 15.30		Break	
13	15.30 - 15.40	ABS-IGEOS-23048	sri wahyuni, Puspita Wulandari, Nindita Fajria Utami	Climate Change and the Decision to Become Sex Workers for North Coastal Women for Java Island
14	15.40 - 15.50	ABS-IGEOS-23059	Muhamad Parhan	Islam and Terrorism: The Concept of Wasathiyyah Yusuf Al-Qardhawi and its Implementation in Order to Prevent Acts of Student Terrorism

Room 2: Physical Geography and Environmental Management

No	Time	Code	Author	Tittle
1	13.00 - 13.10	ABS-IGEOS-23018	Erni Mulyanie, Iwan Setiawan.	Enhancing Environmental Awareness Through Ecopedagogy and Local Wisdom: A Study of Geography Education Students in Kampung Naga
2	13.10 - 13.20	ABS-IGEOS-23020	Muhamad Abdul Azis, Mamat Ruhimat, Bagja Waluya	Implementation of Ecopedagogical Approach in Geography Learning of Public High Schools in North Bandung Area
3	13.20 - 13.30	ABS-IGEOS-23034	Alnidi Safarach Bratanegara	Boxplot Approach in Understanding Statistical Distribution of Elevation in a Region: A Case Study of Tasikmalaya Regency
4	13.30 - 13.40	ABS-IGEOS-23038	Acep Supriadi, Supriyono, Dadi Mulyadi Nugraha, Abih Gumelar, Muhammad Nur	Economic Recovery of Village Communities Cultural Tourism as SDGs Program
5	13.40 - 13.50	ABS-IGEOS-23039	Muh Sholeh, Teguh Prihanto, Syahrul Syah Sinaga, Meldy Septiawan	UNNES Conservation: Analysis of the Acceleration of Implementation of Conservation Pillar Achievements and Character Education (Case Study UNNES Graduate School)
6	13.50 - 14.00	ABS-IGEOS-23042	Retno Ayu Hardiyanti, Anindyta Fitriyani, Siti Nurhalizah, Anisa Nurhalimah, Mia Desiany	TRUSTATION: Waste Management Plan Through Waste Bank in Higher Education
7	14.00 - 14.10	ABS-IGEOS-23063	Susan Fitriasari, Akhmad Fauzi, Yayang Furi Purnamasari	Performing Student Virtue Towards Environment Through Green Constitution Model Based Learning
8	14.10 - 14.20	ABS-IGEOS-23073	Annisa Joviani Astari, Sandy Budhi Wibowo, Idea Wening Nurani, Sunardi , Totok Doyo Pamungkas, Purna Hindayani	Integrating Sendai Framework and SDGs into the local context: Discourse Analysis in Merapi volcanic area
9	14.20 - 14.30	ABS-IGEOS-23017	Sony Nugratama Hijrawadi, Ahmad Yani	Utilization of Watershed as a Learning Resource for Environmental Management
10	14.30 - 14.40	ABS-IGEOS-23055	Muhammad Asyroful Mujib	A simplified approach to identifying seawater intrusion by the fraction of seawater in the coastal area of Jember Regency
11	14.40 - 14.50	ABS-IGEOS-23054	Farhan Rohmat, Kathlien Nurfajrin, Fauzan Ikhlas Wira Rohmat, Faizal Immaddudin Wira Rohmat, Dede Rohmat	Designing Baseline and Water Supply through Individual Rainwater Harvesting Systems in a Pontianak City Slum Area
12	14.50 - 15.00	ABS-IGEOS-23064	Dina Siti Logayah, Mamat Ruhimat, Acep Supriadi, Abdul Azis, Mohammad Rindu Fajar Islamy	Traditional Foods of the Sunda People as Food Security Efforts in Realizing the Success of SDG's 2030
	15.00 - 15.30		Break	
13	15.30 - 15.40	ABS-IGEOS-23067	Purna Hindayani, Armandha Redo Pratama, Haikal Muhammad Ihsan, dias pratami putri, Risya Ladiva Bridha, Ilmiati Tsaniah, Woro Priatini,	Assessment of Food Provider Ecosystem Services as food security in modern industrial estate planning at Muaro Jambi Regency
14	15.40 - 15.50	ABS-IGEOS-23069	Dimas Aldi Pangestu, Tarunasena, Ayi Budi Santosa, Yani Kusmarni, Faujian Esa Gumelar	Local Wisdom of the Cigumentong Indigenous Community for Food Security in Supporting Sustainable Development Goals
15	15.50 – 16.00	ABS-IGEOS- 23074	Arif Ismail	Water domestic consumption in urban and rural areas on response to Climate

Room 3: Geography and Disaster Mitigation Education

No	Time	Code	Author	Tittle
1	13.00 - 13.10	ABS-IGEOS-23007	Choirul Amin	Why Choose to Stay in Disaster-Prone Areas? A Study on Population Migration Hold Factors in the Floodplains of Comal River, Pemalang, Indonesia.
2	13.10 - 13.20	ABS-IGEOS-23035	Yanuar Rizky Ramadhan, Dennish Ari Putro	Rapid Catastrophic Flood Modeling (Study Case: Padang City Catastrophic Flood, July 14, 2023)
3	13.20 - 13.30	ABS-IGEOS-23008	Irwan Abdullah	Analysis of the level of knowledge of disaster preparedness attitudes in dealing with the Gamalama volcano disaster among students in senior high schools in the city of Ternate
4	13.30 - 13.40	ABS-IGEOS-23009	Moh. Dede, Siti Nurbayani, Millary Agung Widiawaty, Sri Wahyuni, Aan Khosihan, Nindita Fajria Utami, Puspita Wulandari, Arif Ismail, Elly Malihah Setiadi	Disaster, environment and local indigenous knowledge in Indonesia
5	13.40 - 13.50	ABS-IGEOS-23011	Siti Susilawati, Mohd Hairy Ibrahim	Assessing Knowledge of Urban Heat Island in High School Students: Comparative Study of Rural and Urban Students in the Soloraya, Central Java, Indonesia
6	13.50 - 14.00	ABS-IGEOS-23012	Totok Pamungkas, Epon Ningrum, Silmi Afina Aliyan, Rival Akbar Firdaus, Hanif Fikri, Aria Wijaya, Ayu Innadya	Mapping the Levels of Physical and Economic Vulnerability to Earthquake Disasters in Cisarua District, West Bandung Regency
7	14.00 - 14.10	ABS-IGEOS-23013	Haikal Muhammad Ihsan, Riko Arrasyid, Herdien Raka Moch Isya, Mamat Ruhimat	Utilization of Sentinel-1 for Landslide Hazard Zoning on Agricultural Land Cover in Sumedang Regency
8	14.10 - 14.20	ABS-IGEOS-23014	Erwin Hilman Hakim, Darsiharjo, Ahmad Yani, Nandi	Learning Geomorphology Courses Based on TPACK Framework in Higher Education on Program Study Geography Education (Geographical perspectives on marine landforms)
9	14.20 - 14.30	ABS-IGEOS-23015	Siti Fadjarajani, Ruli As'ari, Anita Eka Putri	Empowering Spatial Thinking Skills Through Problem-Based Geography Learning with Social Dynamics
10	14.30 - 14.40	ABS-IGEOS-23016	Achmad Faqihuddin, Syahidin, Mohammad Rindu Fajar Islamy, Muhamad Parhan, Risris Hari Nugraha, Faisal Fauzan Ilyasa	The Role of Islamic Religious Education (PAI) Teachers in Transforming the Culture of Resignation towards Natural Disasters in Indonesia
11	14.40 - 14.50	ABS-IGEOS-23019	Ruli As'ari, Erni Mulyanie, Ely Satiyasihh Rosali	Fostering Critical Thinking Skills in Geography Education: An Authentic Assessment Model Using Field-Lab Approach
12	14.50 - 15.00	ABS-IGEOS-23021	Muhammad Arif Yudia Mulyadi, Enok Maryani, Mamat Ruhumat, Iwan Setiawan	Analysis of Life Skills Constructs in Geographical Learning
	15.00 - 15.30		Break	
13	15.30 - 15.40	ABS-IGEOS-23074	Iwan Setiawan, Dede Rohmat, Arif Ismail, Suhendro	Landuse Culture and Water Quality (BOD, COD, DO) in the Upper Citarum River Corridor
14	15.40 - 15.50	ABS-IGEOS-23026	Bagja Waluya	Environmental Perennialism in “Pitutur Pikukuh” Local Wisdom of Baduy Indigenous Community
15	15.50 – 16.00	ABS-IGEOS-23027	Hercules Pungky Naga Dewa, Ichlasul Muthi', Suwarno, Anang Widhi Nirwansyah	Engaging Rural Communities for Disaster Resilience: Overview of DESTANA initiation in Panusupan, Central Java

Room 4: Spatial planning for Disaster

No	Time	Code	Author	Tittle
1	13.00 - 13.10	ABS-IGEOS-23006	Riki Ridwana, Muhammad Kamal, Sanjiwana Arjasakusuma, Muh Fiqri Abdi Rabbi	Evaluation of Machine Learning Model for Food Crops Mapping using Multitemporal Imagery in West Java, Indonesia
2	13.10 - 13.20	ABS-IGEOS-23046	Shafira Himayah, Dede Sugandi	The Influence of Built Areas and Vegetation Greenness on Land Surface Temperatures in the Bandung Basin
3	13.20 - 13.30	ABS-IGEOS-23058	Hendro Murtianto, Jupri	Potential Tsunami Hazard Mapping in the Parangtritis Coastal Area, Bantul District, Special Region of Yogyakarta
4	13.30 - 13.40	ABS-IGEOS-23030	Asep Mulyadi, Moh. Dede, Millary Agung Widiawaty, Nana Nur Afriana, Heni Susiati	Adaptation of climate change and environmental pollution in Cirebon's coastal community
5	13.40 - 13.50	ABS-IGEOS-23010	Dedy Miswar, Irma Lusi Nugraheni, Dede Rohmat, Yazid Saleh, Suhendro, Rohim	Modeling Land Cover Change of Pringsewu 2030 with CA & ANN Methods
6	13.50 - 14.00	ABS-IGEOS-23044	Ayu Handayani	Spatial Analysis of LULC Change Prediction Based on Cellular Automata-Artificial Neural Network (CA-ANN) in Karawang Regency, West Java
7	14.00 - 14.10	ABS-IGEOS-23022	Moh. Dede, Erry Sukriah, Gilang Nur Rahman, Rosita Rosita, Sri Marhanah, Armandha Redo Pratama, Kautsar Muhammad, Giovani Anggasta, Choirunisa Mukaromah	Revealing Sukamandi Village a sustainable tourism destination
8	14.10 - 14.20	ABS-IGEOS-23023	Moh. Dede, Erry Sukriah, Millary Agung Widiawaty	Land capitalization model for sustainable tourism based on PLS-SEM
9	14.20 - 14.30	ABS-IGEOS-23024	Elgar Singkawijaya, Nandi	Review of Bibliometric Analysis of Peri-Urban Areas in Geography Perspectives and Issues
10	14.30 - 14.40	ABS-IGEOS-23040	Anisa Ramadhani, Nurul Fitri Alya	Building Footprints Extraction from Unmanned Aerial Vehicle Imagery Using Mask Region-based Convolutional Neural Network (Case Study: Institut Teknologi Sepuluh Nopember, Sukolilo Campus)
11	14.40 - 14.50	ABS-IGEOS-23047	Nandi, Jalu Rafly Ismail	Evaluation of Existing Land Use with Urban Spatial Plan of Bandung City for Multi-Hazard Risk Assessment
12	14.50 - 15.00	ABS-IGEOS-23060	Lili Somantri, Shafira Himayah	Urban Heat Island Study Based on Remote Sensing and Geographic Information System: Relationship between Land Cover and Surface Temperature
	15.00 - 15.30		Break	
13	15.30 - 15.40	ABS-IGEOS-23062	Nanin Sugito, Asri Ria Affriani	Urban Land Value Estimation Model based on Income Capitalization Method
14	15.40 – 15.50	ABS-IGEOS-23074	Muhammad Ihsan	The Effect of GNSS-PPK Utilization on Photogrammetric UAV's Doming Effect.

Room 5: Geography and Disaster Mitigation Education

No	Time	Code	Author	Tittle
1	13.00 - 13.10	ABS-IGEOS-23029	M.Si Ernawati, Arie Yulfa, Lailatur Rahmi, Mohd Hairy Ibrahim	Building Economic Resilience Through Community Adaptation: Study of Post-Flood Recovery Efforts in Padang City
2	13.10 - 13.20	ABS-IGEOS-23032	Ika S, Agus Joko Pitoyo , Prima Widayani	Identify Economic Resilience Index during Pandemic COVID-19 in Indonesia using Web-GIS Application
3	13.20 - 13.30	ABS-IGEOS-23036	Silmi Afina Aliyan, Totok Doyo Pamungkas, Nanin Trianawati Sugito, Dede Rohmat, Haikal Muhammad Ihsan, Zaenal Mahfud, Raffi Razan Fulvian, Aditya Surya Erlangga, Sekar Ayu Pertiwi	Identification of Subsurface Layer and Slide Field for Landslide Potential Analysis in Cikidang Area, Majalengka Regency, Indonesia using Resistivity Method
4	13.30 - 13.40	ABS-IGEOS-23037	Ahmad Yani, Asep Mulyadi, Rosita	Concept Connection Strategy to Develop Higher-Order Thinking in Geography Courses
5	13.40 - 13.50	ABS-IGEOS-23045	Epon Ningrum	How Does the Geography Subject Enhance Disaster Preparedness? A Comparative Analysis between the Cambridge and Indonesian Curricula
6	13.50 - 14.00	ABS-IGEOS-23051	Iim Siti Masytoh, Cecep Darmawan, Asep N. Mulyana, Susan Fitriasari, Syaifullah, Sri Wahyuni Tanszhil	Analysis of the insertion method of Civics content in Pancasila education subjects in the Merdeka Curriculum at the High School Level
7	14.00 - 14.10	ABS-IGEOS-23052	Faujian Esa Gumelar, Wawan Darmawan, Dimas Aldi Panestu, Acep Supriadi, Muhammad Nur, Murdiyah Wianrti, Yani Kusmarni	Local Wisdom of the Mahmud Traditional Village Community in Disaster Mitigation in the Citarum River Watershed
8	14.10 - 14.20	ABS-IGEOS-23056	Erwin Pri Utomo, Nofrion	Who Are Our Students? The Implementation if the Kutsawa Technique in Learning Reflection Based on Lesson Study for Learning Community (LSLC)
9	14.20 - 14.30	ABS-IGEOS-23061	Nanin Sugito, Haikal Muhammad Ihsan, Shafira Himayah, Asri Ria Affriani, Dadi Mulyadi Nugraha, Anisa Nabila Rizki Ramadhani	Utilization of UAV Technology in Identifying The Distribution Of Gully Erosion In River Border Area
10	14.30 - 14.40	ABS-IGEOS-23065	Dina Siti Logayah, Mamat Ruhimat, Riko Arrasyid	Development of a Disaster Literacy Model in Learning Geography in Indonesia
11	14.40 - 14.50	ABS-IGEOS-23066	Irma Rosanti	Application of project-based learning model on geography learning
12	14.50 - 15.00	ABS-IGEOS-23068	Yani Yani, Mohamad Tusam, Dwi Larasaty, Nur Isnaini	Mapping Schools Prone to Earthquakes: Case Study of Cianjur Earthquake 21 November 2022
	15.00 - 15.30		Break	
13	15.30 - 15.40	ABS-IGEOS-23071	Setio Galih Marlyono, Romy Faisal Mustofa, Dede Wahyu Firdaus, Chaerunnisa Arini, Indra Danawijaya	Analysis of Potential Landslides and Local Wisdom Approaches in Dealing with Them in the Naga Traditional Village Area, Tasikmalaya Regency
14	15.40 - 15.50	ABS-IGEOS-23072	Aan Khosihan, Sri Wahyuni, Nindita Fajria Utami, Muhammad Nur	The Role of "Pamali" as an Environmental Principle in the Indigenous Community of Kampung Naga and Its Implementation in Supporting Sustainable Tourism Development

Geography And Disaster Mitigation Education

ABS-IGEOS-23008

Analysis of the level of knowledge of disaster preparedness attitudes in dealing with the Gamalama volcano disaster among students in senior high schools in the city of Ternate

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Every year Indonesia experiences an increase in natural disasters, both earthquakes and hydrometerological disasters. Gamalama volcano is one of the active volcanoes in Indonesia, because it is based on a very complex geological location so that the city of Ternate is often affected by volcanic eruptions. The eruption of Gamalama volcano has dangers both directly and indirectly. The objectives of this research are 1) to determine knowledge and disaster preparedness attitudes in facing the Gamalama volcano disaster among students. 2). What is the influence of the level of knowledge on disaster preparedness attitudes in dealing with the Gamalama volcano disaster on students? The research uses a quantitative descriptive research method with a cross sectional study with data collection techniques in the form of observation. The sampling technique uses purposive sampling. The instrument used was a questionnaire sheet using a goggle form. With a sample size of 100 students, the data analysis technique is descriptive percentage and simple regression analysis. The results of this research indirectly show that overall knowledge and attitudes towards disaster preparedness in dealing with the Gamalama volcano disaster are good, but some data has not been collected as a whole. Meanwhile, the results of simple linear regression analysis can show that there is a very significant influence between knowledge and disaster preparedness attitudes in dealing with the Gamalama volcano disaster. This means that disaster-related knowledge needs to be increased again in schools. So that schools located in disaster-prone areas, especially volcanic disasters, can apply this to learning at school, so that students have an understanding of disaster preparedness when a disaster occurs.

Keywords : Disaster knowledge, disaster preparedness attitude, Volcanic disaster

ABS-IGEOS-23009

Disaster, environment and local indigenous knowledge in Indonesia

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Indonesia is a disaster-prone area due its complexity in geographical and geological location. For thousands of years, Indonesian society has interacted with various natural disasters. This research aims to summarize and synthesize community adaptation to various disasters by referring to their local indigenous knowledge. Data came from previous studies recorded in 4 scientific databases, namely Web of Science, Scopus, DOAJ, and Garuda. Our review used a qualitative approach with content analysis, resulting in 13 articles that were suitable for meta-analysis. This research shows that local indigenous knowledge in Indonesian society has included environmental adaptations to 5 disasters, such as flood, landslide, tsunami, earthquake and volcanic eruption. Local indigenous knowledge is mostly spoken orally through mythology, poetry, songs and rituals that imply disaster events. Earthquakes, tsunamis and volcanic eruptions have been well recorded by the people thus they hold these three very sacred. The past experience has not shown any adaptation for disaster-induced environmental changes due to climate change and global warming. Our research can provide input for disaster mitigation that is more appropriate to the local context.

Keywords : Adaptation, Earth, local wisdom, ring of fires

ABS-IGEOS-23011

Assessing Knowledge of Urban Heat Island in High School Students: Comparative Study of Rural and Urban Students in the Soloraya, Central Java, Indonesia

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Assessing Knowledge of Urban Heat Island in High School Students: Comparative Study of Rural and Urban Students in the Soloraya, Central Java, Indonesia

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Abstract. The current Urban Heat Island phenomenon has been observed in several major cities worldwide, including several in Indonesia. Students in schools must understand Urban Heat Island knowledge for them to cope. This study examines the differences in Urban Heat Island knowledge between students from urban and rural schools in Soloraya, Central Java, Indonesia. A sample of schools was chosen with random sampling based on geographic location, particularly urban and rural regions. The instrument used to measure Urban Heat Island knowledge is the Urban Heat Island knowledge instrument derived from cognitive tests of students as a consequence of learning activities deriving from Susilawati's development of the Urban Heat Island E-module. This quantitative study uses a comparative analysis technique using the independent sample t-test. The Urban Heat Island E-Module assesses students' Urban Heat Island knowledge before they have learned. Students in the Soloraya area have an average Urban Heat Island knowledge score of 67.9. The findings revealed that the independent t-test results for all rural schools were Sig. (2-tailed) >0.05, indicating that H0 is accepted and Ha is rejected, implying no significant difference exists between urban and rural students' knowledge of UHI.

Keywords : Urban Heat Island, comparative study, urban students, rural students

ABS-IGEOS-23012

Mapping the Levels of Physical and Economic Vulnerability to Earthquake Disasters in Cisarua District, West Bandung Regency

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The Lembang Fault is active in West Java Province. At first, the Lembang Fault was considered inactive, but the earthquake on August 28, 2011, proved that the Lembang Fault was still active. The earthquake caused damage to residents' houses, especially in Cisarua District. As many as 268 houses in Cisarua District were affected by the incident. Mapping physical and economic vulnerability to earthquakes in the Cisarua District is needed to minimize the damage and losses caused by the disaster. The method used in this study is the overlay analysis method, which involves scoring and weighting analysis of each parameter. From the results of this study, it is known that the area with the highest physical vulnerability is Jambudipa Village, with an area of 21.9 Ha due to the relatively high level of building density in Jambudipa Village and the location of Jambudipa Village, which the Lembang Fault traverses. Meanwhile, areas with very high economic vulnerability include Sadangmekar Village, Cipada Village, and Jambudipa Village.

Keywords : Lembang Fault, earthquake, physical vulnerability, economy vulnerability

ABS-IGEOS-23013

Utilization of Sentinel-1 for Landslide Hazard Zoning on Agricultural Land Cover in Sumedang Regency

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The Sentinel-1 product can be built into a Synthetic Aperture Radar (SAR) capable of providing terrain data that can be built into landslide mapping parameters. Landslide becomes a disaster if there are affected areas, one of which is an agricultural area, so mapping the landslide hazard in agricultural areas is very important to study. The purpose of this study is to utilize Sentinel-1 products in mapping landslide hazards in agricultural areas in Sumedang Regency. The parameters used are the slope of the SAR data, geological conditions, soil conditions and meteorological conditions. The method used is the overlay intersect technique in which each weight and parameter score refers to the INARISK guidelines of the National Disaster Management Agency. Based on the analysis of the landslide area in Sumedang Regency, it tends to spread in the Southern Region. This area is a complex of hills with steep slopes, old volcanic parent rock which is quite brittle, high rainfall, clay soil texture, and the largest area of lineaments. The biggest proportion of landslide hazard lies in dry land agriculture with a percentage of 75.75%. Sentinel-1 can be an alternative to landslide mapping by building a SAR product into several slope parameters.

Keywords : Landslide, Sentinel-1, Agricutural

ABS-IGEOS-23014

Learning Geomorphology Courses Based on the TPACK Framework in Higher Education on the Program of Study Geography Education (Geographical perspectives on marine landforms)

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Learning development must be carried out periodically, as a basis for assessing student learning outcomes. Learning design is a process of developing learning that is aligned with the curriculum and student needs in the course. However, the results of the review are limited to the learning tools for geomorphology courses in the Siliwangi University Geography Education Study Program, learning design has not been designed in accordance with the characteristics of learning in the education 4.0 era and the learning needs of geomorphology courses for geography education. The TPACK framework is very effective in making it easier for lecturers to design learning in the education 4.0 era by using 7 components that are integrated or intersect between technological, pedagogical, content knowledge. The research method uses a mix method, Analysis of the level of lecturers' knowledge of the TPCK framework uses qualitative methods through interview techniques with stages and analysis: data collection, data reduction and classification, data display, drawing conclusions, and processing interview data using Atlas ti software. Implement learning design using quantitative methods by measuring student learning outcomes in the pretest and posttest with a sample size of 42 undergraduate students in the Geography Education Study Program at Siliwangi University. The research stages are literature study of the learning needs of geomorphology courses for the Geography Education Study Program, designing, implementing and evaluating. Based on the results of the analysis of interviews, it was found that lecturers' mastery and knowledge was not optimal, namely mastery of technology as a learning medium, and integration of technology with content and pedagogy. Based on the results of the analysis of interviews, it was found that lecturers' mastery and knowledge was not optimal, namely mastery of technology as a learning media, and integration of technology with content, and pedagogy. Even though learning in higher education today, mastery and use of technology is an important element of learning. Implementation of learning in geomorphology courses based on the TPACK framework through student centered learning, self-directed learning using ICT is able to improve learning outcomes in geomorphology courses on marine landforms which are in line with the needs of students in the 21st century for the Geography Education Study Program

Keywords : Learning design, TPACK, Geomorphology

ABS-IGEOS-23015

Empowering Spatial Thinking Skills Through Problem-Based Geography Learning with Social Dynamics

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Spatial thinking skills are crucial in geography education as they contribute to the development of critical thinking and problem-solving abilities. This abstract explores the use of problem-based learning with social dynamics to enhance spatial thinking skills in geography education. The analysis of various studies highlights the positive impact of spatial problem-based learning (SPBL) models on the development of critical thinking skills. Additionally, geography education promotes sustainability by fostering scientific research and thinking skills, community and co-partnership skills, and place-based learning. The skill of spatial thinking is closely related to the geography discipline and has become increasingly important in today's context. Efforts are needed to enhance students' spatial thinking ability through effective geography learning. However, there are challenges in achieving competency standards in geography education, such as fostering spatial thinking and critical thinking skills. The social studies curriculum recognizes the importance of geographic literacy and spatial thinking in developing informed decision-makers in a diverse society. Alternative approaches, such as using maps and remote sensing imagery, can motivate students to develop spatial thinking skills. Geospatial information technology can also support the implementation of a land use change curriculum to promote spatial thinking. Critical geography examines how spatial relationships shape culture, identity, and social relationships. Furthermore, critical spatial thinking involves interpreting geographical phenomena to understand the dynamics of spatial environments. Overall, problem-based geography learning with social dynamics can empower spatial thinking skills and contribute to the development of critical thinking abilities in geography education.

Keywords : Spatial thinking skills, Problem-based learning, Geography education, Social dynamics

ABS-IGEOS-23016

The Role of Islamic Religious Education (PAI) Teachers in Transforming the Culture of Resignation towards Natural Disasters in Indonesia

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Indonesian society coexists with natural disasters, which is why Indonesia is a country that frequently experiences natural disasters. Research results indicate that many members of the Indonesian community respond to the uncertainty of nature with an attitude of 'let's just see what happens' or what is known as 'Cultural Resignation,' a disposition in which one simply entrusts everything that will happen to God without considering the Role of Human Effort. This study aims to explore the role of Islamic Religious Education (PAI) teachers in transforming culture of resignation that arises in the face of disasters. Data will be collected through interviews with PAI teachers. A total of 50 PAI teachers from various educational levels, including elementary, junior high, and high schools, will participate in the research. Data will be analyzed using NVIVO 12 to identify the role of PAI teachers in transforming the culture of resignation into a more proactive and adaptive attitude. The research findings can provide profound insights into the role of PAI teachers in changing the perception and attitudes of society toward disasters and the urgency of disaster mitigation-based Islamic Religious Education.

Keywords : Islamic Religious Education Teacher, Cultural Resignation, Disaster Mitigation.

ABS-IGEOS-23019

Fostering Critical Thinking Skills in Geography Education: An Authentic Assessment Model Using Field-Lab Approach

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This research focuses on fostering critical thinking skills in geography education through an authentic assessment model utilizing a field-lab approach. The study serves as a case study at Siliwangi University. Critical thinking is pivotal in geography education as it empowers students to analyze intricate spatial phenomena, make informed decisions, and contribute effectively to society. This research addresses the need for innovative assessment methods that align with the importance of critical thinking in geography education. The authentic assessment model is developed through a systematic research and development (R&D) process, integrating insights from authentic assessment and field-based learning literature. The process comprises three stages: preliminary research, model development, and assessment. In the preliminary research phase, literature review and field studies identify opportunities for authentic assessment. The subsequent model development phase designs assessment tasks based on theoretical and needs analysis, considering the unique characteristics of geography education and Siliwangi University. The assessment phase tests the model's effectiveness through various research designs, including pre-experimental and quasi-experimental methods. Data collection includes student performance assessments, surveys, and interviews. Preliminary findings reveal a significant enhancement in critical thinking skills among students using the authentic assessment model. Effect size analysis confirms the substantial positive impact of the field-lab approach.This research contributes an innovative authentic assessment model that integrates real-world experiences into geography education. It underscores the significance of field-based learning in nurturing critical thinking skills, preparing students to address complex spatial challenges in the 21st century.

Keywords : Critical Thinking Skills, Geography Education, Authentic Assessment Model, Field-Lab Approach

ABS-IGEOS-23021

Analysis of Life Skills Constructs in Geographical Learning

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Talking about life skills means talking about capital for a better quality independent life. Living in the 21st century a certificate will not be enough capital to live on, skills are needed to be able to turn knowledge into opportunities. Life skills are someone's ability to use their knowledge. Through studying geography, students should not only be given cognitive understanding, students should be guided to use their knowledge so that they can develop life skills for their future. This research seeks to examine the predictor variables of life skills in geography learning. The research method used is quantitative descriptive. The research was carried out on 351 students of class XII-IPS from five schools, namely SMAN 3, 6, 7, 8 and 10 Tasikmalaya and using a random sampling technique. Data collection through questionnaires developed based on geographic learning characteristics, the essence of life skills and applicable regulations. Data analysis using SPSS 24 software with the Bivariate Pearson correlation test to see the relationship between the proposed variables, then Amos 22 software with EFA (Exploratory Factor Analysis) with three types of Goodness-of-fit measurements. (1) absolute fit measure, (2) incremental fit measure and (3) parsimonious fit measure. Research stages include literature study, data collection and analysis. The research was carried out in 2022. The results of the correlation test between Geographic Knowledge and Geographic Information Identification obtained r count=0.726. The results of the correlation test between Geography Knowledge and Problem Solving obtained r count=0.741. The results of the correlation test between Geography Knowledge and Decision Making obtained r count=0.735. The results of the correlation test between Geographic Information Identification and Problem Solving obtained r count=0.733. The results of the correlation test between Identification of Geographic Information and Decision Making obtained r count=0.707. The results of the correlation test between Problem Solving and Decision Making obtained r count=0.789. All calculated r count > r table=0.105. Factor analysis results for the Absolute Fit Measure chi-square=5,649, (p)=0,059, CMIN/DF=2,825, GFI=0,992 and RMSEA=0,072. For the Incremental Fit Measures AGFI=0,959, TLI=0,989 and NFI=0,994. For the Parsimonious Fit Measures PNFI=0,331 and PGFI=0,198.

Keywords : Geographical Learning, Life Skills

ABS-IGEOS-23026

Environmental Perennialism in "Pitutur Pikukuh" Local Wisdom of Baduy Indigenous Community

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Modern environmental crisis is the direct impact of an unethical management. Materialism has pushed human to contunuosly exploit and pollute natural resourses. Thus, plenty of damages and degradation upon environmental quality are resulted. Perennialism sees wisdom in traditional moral values as a way to overcome the world that is full of turmoil. This descriptive-qualitative research examined the significance of environmental moral values in "pitutur pikukuh" local wisdom". Such values can be transformed into geography learning. Result of study found that environmental moral values lie within "pitutur pikukuh" local wisdom are values of honesty, simplicity, environmental awareness, and cautious behavior. These moral values in a main aspect of character building to be transformed through its integration in geography learning. Model of local-wisdom based learning can be best applied through the implementation of Contextual Teaching and Learning (CTL) to the suitable subject matters and learning objectives. Program of Reinforcement of Character Building is the medium to optimize the environmental education.

Keywords : Keywords: Baduy; environmental moral; geography learning; local wisdom; "pitutur pikukuh"

ABS-IGEOS-23027

Engaging Rural Communities for Disaster Resilience: Overview of DESTANA initiation in Panusupan, Central Java

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The integration of local knowledge for the enhancement of disaster resilience, particularly in rural areas, is a widely adopted approach in disaster risk reduction efforts. This study centers on bolstering the disaster resilience capabilities of rural communities through the utilization of the DESTANA program. This article provides a detailed account of the various phases involved in initiating DESTANA, encompassing preliminary activities, workshops, training sessions, disaster planning, policy development, and the formation of dedicated disaster response teams. The implementation of DESTANA in the village of Panusupan serves as a successful case study, showcasing the active involvement of the community in disaster risk reduction, the formulation of disaster response strategies, and the establishment of platforms for disaster risk reduction discussions and preparedness teams. This study strongly advocates for the early adoption of the DESTANA initiation program in rural villages as a proactive measure to mitigate the impact of disasters, particularly those linked to hydro-meteorological hazards.

Keywords : disaster resilience, rural community, DESTANA, disaster risk reduction

ABS-IGEOS-23029

Building Economic Resilience Through Community Adaptation: Study of Post-Flood Recovery Efforts in Padang City

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The flood disaster affected the people of Padang City physically, psychologically, economically and socially. Due to the wide impact caused by floods, disaster management measures are needed both when a disaster occurs and after it occurs. The aim of this research is to see how community adaptation contributes to the formation of economic resilience through post-flood recovery efforts in Padang City. A case study approach was used to gain an understanding of the methods used by communities to improve and strengthen their economic systems after flood disasters. Interviews and observations with community members and secondary data analysis related to post-disaster economic recovery were used in this research. The results show There are many ways to improve economic resilience after floods, the study found. Diversifying income sources, investing in infrastructure improvements, building community partnerships, and developing new skills are some of the strategies used. Additionally, the research recommends that local institutions and government support are critical in providing assistance and resources to communities during the recovery process, which will ultimately aid economic resilience.

Keywords : Economic Resilience, Adaptation, Community, Flood

ABS-IGEOS-23032

Identify Economic Resilience Index during Pandemic COVID-19 in Indonesia using Web-GIS Application

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Information technology can support efforts to increase community resilience and reduce disaster risk. Disasters can have an impact on the economic resilience of society. Providing an overview of the research, it is important to emphasize the need to visualize economic resilience during the COVID-19 pandemic. Data collection from primary data, which is using economic resilience conditions of households, namely socio-economic conditions, infrastructure, the role of government, community, resource utilization, and use of technology and communication. The research results show that the Web-GIS tool can provide accessible and informative data of economic resilience index. The distribution of economic resilience conditions varies with details of 11.85% of villages having low economic resilience, 55.9% of villages having moderate economic resilience, and 32.4% of villages having high economic resilience. Web-GIS information emphasizes the practical applications and potential benefits for decision-makers.

Keywords : economic resilience index, disaster mitigation, web-GIS, covid-19

ABS-IGEOS-23036

Identification of Subsurface Layer and Slide Field for Landslide Potential Analysis in Cikidang Area, Majalengka Regency, Indonesia using Resistivity Method

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Abstract. The geological conditions around Bantarujeg District have diversity which is interesting to study, one of which is the area north to northwest of Cikidang village which has a morphology in the form of elongated hills and is bordered by steep slopes to the Ciwaru River in the east. The potential for landslides in this area is characterized by the presence of composing materials such as soil types, rocks and combinations of subsurface material types, geological structure, subsurface water saturation, slip planes and the influence of gravity. The research was conducted to mitigate potential landslide areas by detecting subsurface geological conditions and structures so that slope slip areas can be identified and predicting the depth and type of layers below the surface of the northwest slope of Cikidang village using the Wenner-Schlumberger configuration 2D geoelectric method. Measurements were carried out on two lines, namely the mainline trending NW-SE and the crossline trending NE-SW. On the mainline track with a depth of less than 8 meters, it is predicted to be sandstone: (50 – 500 Ohm.m) with a resistivity of 125 Ohm.m and more than 8 meters is predicted to be volcanic breccia: (171 – 550 Ohm.m.) which shows high resistivity. more than 250 Ohm.m. On the crossline track with a depth of less than 6.5 meters it is predicted to be sandstone: (50 - 500 Ohm.m) with a resistivity of less than 230 Ohm.m and more than 6.5 meters is predicted to be volcanic breccia: (171 - 550 Ohm.m .) which shows a resistivity of more than 250 Ohm.m.

Keywords : Landslide, Slip Plane, Resistivity Method, Wenner-Schlumberger

ABS-IGEOS-23037

Concept Connection Strategy to Develop Higher-Order Thinking in Geography Courses

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In the logic game Connecting Concepts, students must connect two or more ideas to create a logical explanation. High-order thinking (HOTS) is the level at which the narratives that result from the fusion of the two notions in Bloom-Anderson's taxonomy are formed. With a total of 24 students, the class IX-7 of SMAN Cimalaka, Indonesia, underwent this research using a quasi-experimental methodology. The pretest and posttest scores are different, according to the findings of the t-test, which reveal a significant level of 0.03505 0.05. It is acknowledged as true that the Connecting Concepts Strategy can help students in geography develop higher order thinking skills. It is concluded that the concept connection strategy has the potential to develop HOTS because it can increase students' creative thinking.

Keywords : Concept Connection, Geography, Thinking skill, Higher Order

ABS-IGEOS-23045

How Does the Geography Subject Enhance Disaster Preparedness? A Comparative Analysis between the Cambridge and Indonesian Curricula

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The curriculum for learning is developed to meet both local and global needs. The geography curriculum aims to shape students who can understand their environment, utilize resources wisely, and address the threats that arise as a consequence of physical and human processes. Both the Cambridge Geography curriculum and the Indonesian curriculum accommodate these objectives, albeit at different scales and levels of material depth. This research aims to analyze the content of disaster preparedness in both curricula. The analysis parameters used include: a) The arrangement of core topics and sub-core topics; b) Narratives in the textbooks; c) Learning objectives in both curricula; d) Models for delivering materials and suggested learning assessments; e) Achievement of learning objectives. This research utilizes a descriptive method. Samples were drawn using a purposive technique, involving teachers and students in schools that implement the Indonesian Curriculum (Kurikulum Merdeka) and the Cambridge Curriculum. The instruments used include Focus Group Discussions (FGD) and interviews. The research results are presented in the form of a description of cognitive, affective, and psychomotor learning outcomes related to disaster preparedness.

Keywords : Disaster preparedness, Curriculum Development, Geography Learning.

ABS-IGEOS-23051

Analysis of the insertion method of Civics content in Pancasila education subjects in the Merdeka Curriculum at the High School Level

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Abstract. The Merdeka Curriculum is the latest innovation in Indonesian education which aims to prepare Indonesia's golden generation in the era of globalisation, then in order to improve the quality of education in learning activities with maximum suitability of methods and student learning styles, especially in the subject of Pancasila education. The presence of Pancasila education in the independent curriculum must be accompanied by the content of Civics Education as the guardian of the nation's morals in carrying out the mission of forming good and intelligent citizens. Therefore, there is a need for an insertion method for Civics content in the Pancasila education subject of the Merdeka curriculum at the high school level. Based on this, the purpose of this study is to examine how the insertion method of Civics content in Pancasila education subjects in the Merdeka curriculum at the high school level. The research method used is qualitative through interview techniques with 5 public and private high school Pancasila education teachers in Subang Regency, documentation of device files and learning activities and literature review to strengthen the theoretical study as an analysis knife in the research. The results of the study show that there are several strategies and methods of insertion of Civics content into Pancasila education subjects, namely: 1) Initiative design; 2) Include learners and 3) Prepare networks, 4) evaluation

Keywords : civic material insertion, Merdeka Curriculum, Pancasila Education

ABS-IGEOS-23052

Local Wisdom of the Mahmud Traditional Village Community in Disaster Mitigation in the Citarum River Watershed

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Abstract. The Mahmud village area is a delta on the Citarum River. This delta is in the form of a swamp that is still unstable, with the land position lower than the surrounding area. The Mahmud Indigenous Community can develop ecological values into disaster mitigation concepts. This research aims to analyze sustainable disaster mitigation through the local wisdom of the Mahmud Village Indigenous Community. This research method uses a qualitative approach with descriptive methods. Data collection techniques use observation, interviews, and documentation. The data analysis technique uses data interpretation with descriptive analysis. Mahmud Village has traditional values and rules of life that regulate the lives of residents who live in the area. The local wisdom values that exist in Mahmud Village are in the form of values that are agreed upon by the residents, namely that they are not allowed to build houses with cement, walls, or glass. They also maintained the concept of stilt houses because of the unstable conditions of the Delta land, swamps, and land piles. Mahmud Village also has a forbidden forest behind the village. Prohibited forests do not allow local people to cut down trees and hunt animals in them.

Keywords : Mahmud Village Indigenous Community, Disaster Mitigation, Local Wisdom

ABS-IGEOS-23056

Who Are Our Students?: The Implementation of the Kutsawa Technique in Learning Reflection Based on Lesson Study for Learning Community (LSLC)

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This article was written to analyze implementation of the Kutsawa Technique in learning reflection based on Lesson Study for Learning Community. Learning reflection is an important stage in the learning cycle because it becomes a source of learning improvement. The Kutsawa technique developed by the author focuses attention on the development of learning activities shown by a student in three learning cycles. The research method used is mixed method with data sources are daily learning journals and observer notes in the form of learning observation sheets and question list. The research subjects were students of class XII IS 4 at SMA Pembangunan Laboratorium UNP. Acting as a model teacher are Dra Novriyani, eight learning observers. Open Class or Open Class activities were carried out 3 times in cycles with the number of students observed was 32 people. The results showed that students with the type of learning activity "passive student" experienced a decrease in 3 cycles; with the precentage of 33.3% in cycle 1, then decreased to 20.0% in cycle 2, and to 9.4% in cycle 3. Meanwhile, students with the type of "grey student" were 16.7% in cycle 1, and then to 25% in cycle 2, and decreased to 15.5% in cycle 3. In addition, students with the type of "initiator - collaborator", as the type that is expected to experience an increase in 3 cycles, with only 8.3% in cycle 1, then increased to 10% in cycle 2, and to 21.9% in cycle 3. Observational data analyzed in learning reflection becomes the basis for improving learning as well as a self-reflection material for teachers in the context of sustainable self-development.

Keywords : Kutsawa Technique, Lesson Study for Learning Community, Learning Reflection

ABS-IGEOS-23061

Utilization of UAV Technology In Identifying The Distribution Of Gully Erosion In River Border Area

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UAV (Unmanned Aerial Vehicle) technology has the ability to map an area in the form of orthophotos and DEM (Digital Elevation Model). DEM can be extracted into a DTM (Digital Terrain Model) so that it can be modeled into slope surface formations. The appearance of the slope surface in the form of DTM is able to identify gully erosion. The aim of this research is to utilize UAV technology to identify the distribution of Gully Erosion in river-bound areas. This research was conducted in the middle part of the Citarum River. The method used in this research is fuzzy analysis using processed UAV products in the form of DTM and orthophoto. DTM products will be made from terrain aspects, namely slope, aspect, curvature and lineament density, while other orthophoto products will be made from land use aspects to determine the surface runoff coefficient. Based on the results, it was found that UAV technology was able to map the distribution of gully erosion by modeling the product into DTM and orthophoto. Gully erosion is located in areas of undeveloped land with quite steep slopes, concave slopes, dense lineament density and curvature slopes in directions that are less exposed to sunlight. Gully erosion is one of the triggers for landslides, so this research will be useful in disaster studies using UAV.

Keywords : UAV Technology, Gully Erosion, Digital Terrain Model, Orthophoto

ABS-IGEOS-23065

Development of a Disaster Literacy Model in Learning Geography in Indonesia

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Indonesia is geographically and geologically the country most vulnerable to natural disasters in the world. Education can anticipate the high number of disaster victims. One way of learning in schools is bridging student preparedness through a disaster literacy model. The aim of the research is to analyze the factual conditions of geographic learning and empirical design. The research method used is Research and Design (R&D). Data collection uses documentation, questionnaires, tests and interviews. The results of the research show that the majority of students have sufficient knowledge regarding disaster literacy, students' curiosity about disaster material is very high, students' attitudes when a disaster occurs are shown by high awareness because students know that the surrounding environment is prone to disasters. and awareness of disaster literacy among students has developed well, this can be seen in student learning activities. The weakness in the student aspect is mostly the understanding of disasters obtained from the media and students' ability to deal with disasters is still quite low. Disaster literacy provides an opportunity in schools to learn to shape the character of disaster responsibility.

Keywords : Disaster Literacy, Geography Learning, resilient character.

ABS-IGEOS-23066

Application of project based learning model on geography learning

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The project based learning model is a learning model that involves students directly in working on a learning project assignment. Project assignments provide opportunities for students to work independently in carrying out investigative activities, designing, problems solving, and making decisions in learning. This research aims to analyze the influence of the project based learning model on the learning process. By using a systematic literature review research design, the author tries to find relevant articles to answer the research problem. The article search process uses 3 search strategies with 6 inclusion and exclusion criteria. In the end, the author received 7 articles in 6 different journals published by 2 international journal publishers. The findings in this research show that the use of the project based learning model has a significant effect on a good learning process.

Keywords : Project based learning, geography learning

ABS-IGEOS-23068

Mapping Schools Prone to Earthquakes: Case Study of Cianjur Earthquake 21 November 2022

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Earthquakes are unpredictable disasters, causing a lot of damage such as the destruction of infrastructure, as well as causing casualties. Indonesia has a high level of earthquake risk. One of the earthquakes that occurred was the Cianjur earthquake in November 2022 caused by the Cugenang fault movement. As a result of this earthquake, houses, and public facilities were damaged, including schools. It is estimated that many schools around the Cugenang fault were destroyed by this earthquake. There is a need for mapping schools that are prone to earthquakes. The purpose of this research is to map schools that are vulnerable to earthquakes as one of the early warning systems to improve disaster preparedness. The method used in this research is to classify schools in the study area into several categories, namely very prone, prone and moderately prone. This classification is based on the earthquake hazard map provided by BMKG. The data from the earthquake hazard map and the distribution of schools were then analyzed using a GIS overlay. From the results of this processing, three earthquake hazard zones were determined, which are forbidden, restricted and conditional zones. Of all schools in Cugenang Sub-district, 61.9% are in the forbidden zone, 28.6% are in the restricted zone, and 9.5% are in the conditional zone. So that more schools are located in the forbidden zone, therefore a review is needed to be able to minimize in the event of an earthquake.

Keywords : Earthquakes, Cugenang Fault, Schools, GIS.

ABS-IGEOS-23071

Analysis of Potential Landslides and Local Wisdom Approaches in Dealing with Them in the Naga Traditional Village Area, Tasikmalaya Regency

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Indonesia has a lot of natural resource wealth, but on the other hand, Indonesia has various threats or risks of natural disasters as a logical consequence of Indonesia's geographical conditions. One of the disasters that often occurs in Indonesia is landslides. The West Java Province region, in this case Tasikmalaya Regency, which contains the Naga Traditional Village, has the potential for landslides because it has a hilly morphology. So, this research not only aims to analyze the potential for landslides in Kampung Naga, but also aims to analyze how to deal with landslides through the local wisdom of the Kampung Naga community. The method used is the Reclassify Method using Geographic Information System (GIS) analysis using the Nibble formula to analyze the potential for landslide disasters, and using the Qualitative Descriptive method to analyze traditional wisdom or local wisdom of the community in dealing with landslide disasters. The research results show that based on the analysis, landslide potential falls into three categories, namely very low, low and medium. Then the traditional wisdom or local wisdom of the community in dealing with landslides is by making terraces called entep stones or umpak stones, with stones obtained from the Ciwulan river next to the village. Apart from that, the community also continues to protect the land cover on the hill by making it a prohibited forest (Leuweung Larangan) and a custodial forest (Leuweung Titipan), so that its use can be well controlled, as well as maintaining the strength of the soil.

Keywords : Potential Landslides, Local Wisdom, Naga Traditional Village

ABS-IGEOS-23072

The Role of "Pamali" as an Environmental Principle in the Indigenous Community of Kampung Naga and Its Implementation in Supporting Sustainable Tourism Development

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Abstract. The rapid development of community-based tourism is currently flourishing in Indonesia, including the development of tourism involving indigenous communities. This raises the question of whether indigenous communities can sustain their environment amidst the growth of tourism in their regions to avoid potential future disasters. This article discusses how the indigenous community of Kampung Naga maintains its environment through a set of values known as "Pamali" and how these principles are implemented in the organization of tourism in Kampung Naga. The researchers employed a descriptive qualitative research approach to explain the research findings. Data collection was conducted through in-depth interviews with indigenous leaders of Kampung Naga and a literature review to enrich the findings. From the data analysis, it can be concluded that there are five types of Pamali practiced by the people of Kampung Naga which are Pamali asup ka leuweung larangan dan Pamali nuar tatangkalan di leuweung larangan, Pamali mun geus nuar tatangkalan tue dipelakan deui, Pamali ngala lauk ku racun/portas da menggunakan setrum, Pamali lamun tandur jeung panen lain dina bulana, and Pamali Panen dina poe apes. In practice, these local principles are also applied in the management of tourism and must be adhered to by tourists visiting Kampung Naga. The results of this research demonstrate that the Pamali principles can serve as tools for disaster mitigation practices while simultaneously supporting the implementation of sustainable tourism.

Keywords : Tourism Development, Sustainable Tourism, Local Wisdom, Indigenous Tourism, Disaster Mitigation

ABS-IGEOS-23074

Landuse Culture and Water Quality (BOD, COD, DO) in the Upper Citarum River Corridor

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The culture of land use in river corridors has a major effect on water quality, especially on organic chemical parameters such as BOD, COD and DO. This complexity is the main attraction to study in depth. The objectives of this study include several points to analyze (1) the correlation between land use culture and water quality (BOD, COD and DO); (2) constructing a strategy for handling water quality pollution in the upper Citarum river corridor. The method used was a survey with a regional approach through geospatial and correlation analysis. The results obtained (1) Water quality (BOD, COD and DO) has a strong correlation with anthropogenic activities of land use culture around the river corridor such as settlements, industry, chemical fertilizer use and others. (2) Handling strategies that are tailored to the identified zones such as forest areas, built-up areas, agriculture and shrubs. Some of the research results obtained can be used as relevant references for targeted treatments to succeed in a sustainable fragrant Citarum.

Keywords : landuse pattern, water pollution

Water And Food Security

ABS-IGEOS-23054

Designing Baseline and Water Supply through Individual Rainwater Harvesting Systems in a Pontianak City Slum Area

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The slum area in Pontianak City is prone to clean water scarcity because the available water sources do not meet clean water quality standards. On the other hand, communities in Pontianak City are used to conventionally harvesting rainwater. Although current harvesting rainwater practices are unsustainable and unsafe, it has the potential to overcome clean water scarcity in the communities. However, the rainwater harvesting system (RWHS) in Pontianak City requires a baseline design study since there is no standard in Indonesia.

As access to clean water remains a challenge in these vulnerable communities, our research aims to design a sustainable and safe baseline for implementing individual RWHS. Through a case study approach, we explore the technical, social, and environmental dimensions of RWHS. Our preliminary findings highlight the potential of this decentralized water supply approach, emphasizing its ability to reduce water scarcity and enhance resilience in the face of climate variability.

The paper outlines the research methodology, initial data collection, and ongoing investigations in the slum area. Although the study is ongoing, we present our anticipated outcomes and propose a way forward for scaling individual RWHS to address water access disparities in similar regions.

This research contributes to the broader conversation on sustainable water supply solutions, offering valuable insights into the practical implementation of individual RWHS within slum communities. We anticipate that the study's findings will serve as a foundation for future initiatives to improve water accessibility in underserved urban areas

Keywords : Clean Water, Rainwater Harvest, Slum area, Urban Water Supply, Water Scarcity

ABS-IGEOS-23064

Traditional Foods of the Sunda People as Food Security Efforts in Realizing the Success of SDGs 2030

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Food is a basic human need to be able to live and carry out daily activities. Meanwhile, food security is a guarantee for humans to live healthily and work productively. The aim of this research is to focus on the food security process which is a characteristic of the Cireundeu traditional village community. This qualitative research uses the inquiry method. The research results obtained by the Cireundeu traditional village community can maintain food security inseparable from the process of cultural inheritance which is maintained from generation to generation. These cultural values are considered not only able to develop within their culture, but can also apply to all mankind.

Keywords : Food Security, Local Wisdom, Social Studies, SDGs.

ABS-IGEOS-23067

Assessment of Food Provider Ecosystem Services as food security in modern industrial estate planning at Muaro Jambi Regency

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The Kemingking Dalam Village area in Muaro Jambi Regency is an area that has been designated as a strategic area of Jambi Provision and a national strategic area, making the first planning for a modern industrial area in Jambi Province. Development into developed land and changes in land cover into modern industrial areas will cause environmental degradation including environmental issues related to food security and availability. The purpose of this study is to identify the suitability of the carrying capacity and accommodating capacity of the environment based on food provider ecosystem services as maintaining food security. The method carried out is by weighting and stacking from spatial data and tabular data on land use, landscapes, and natural vegetation cover. The results were grouped into five categories ranging from very low to very high. Based on the results of the study, it shows that the life carrying capacity class of food providers in Kemingking Village in Muaro Jambi Regency is generally 71% or 1,874.32 Ha in the very high category. Recommendations to maintain the area as a food provider or not to be a built-up area to maintain food security in the location.

Keywords : Environmental ecosystem services, industrial planning, food security, Kemingking Village Muaro Jambi

ABS-IGEOS-23069

Local Wisdom of the Cigumentong Indigenous Community for Food Security in Supporting Sustainable Development Goals

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Local wisdom is sustainable in society. They use local wisdom to solve problems such as food security. Food security is part of the Sustainable Development Goals concept. The Cigumentong community has local wisdom that supports food security. This research aims to determine how aspects of the local wisdom of the Cigumentong traditional village community can maintain food security. This research method uses case studies. The research location is in Cigumentong Village, Sumedang Regency. The research subjects of this research are the indigenous people of Cigumentong Village. Data collection techniques include observation, interviews, and documentation. The data analysis technique uses an interactive analysis model with stages of data reduction, data verification, and conclusions. The local wisdom of the Cigumentong indigenous community in maintaining food security lies in availability, affordability, and utilization. Optimizing organic farming areas in the Cigumentong area supports the availability aspect. The affordability aspect also optimizes food from agricultural products in the form of local vegetables and fruit because of the difficulty accessing Cigumentong. Aspects of using food from the Cigumentong community for personal consumption and distribution to markets outside the city. The dimensions of local wisdom to support the food security of the Cigumentong community include local knowledge, local values, local skills, local resources, local decision-making, and local group solidarity.

Keywords : Local Wisdom, Cigumentong Village, Food Security

ABS-IGEOS-23074

Water domestic consumption in urban and rural areas in response to Climate variability

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Water availability in various regions is influenced by climate change. According to CMIP5 model, global precipitation and evapotranspiration has experienced changes spatially and temporary. These changes could result in water scarcity for 4.8–5.7 billion people by the year 2050. Domestic water needs are predicted to increase along with population growth. In order to address the water problem in the future, it is critical to comprehend the patterns of water usage in both urban and rural areas under different climatic circumstances. Samples from several Tropic regions are used in this study. We conducted literature studies based on reputable national and international scientific databases including Garuda, Google Scholar, Scopus. The findings of this research show how urban and rural communities utilize water when there is a shortage or excess of water due to variations in rainfall patterns, as well as adaptation efforts made to meet domestic water needs in a sustainable manner. The results of this research can be a basis for making water management policy decisions in the future.

Keywords : Water needs, adaptation, and scarcity

Climate Change And Hydro-Meteorological Disaster

ABS-IGEOS-23007

Why Choose to Stay in Disaster-Prone Areas? A Study on Population Migration Hold Factors in the Floodplains of Comal River, Pemalang, Indonesia.

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The floodplain of the Comal River is susceptible to flooding due to its proximity to the river. Nevertheless, the residents choose to stay in this disaster-prone area. The research aims to (1) analyze the characteristics of the population stay in the floodplain of Comal River and (2) analyze the influence of migration hold factors on the decision to stay in the flood-prone area of Comal River. The research method employed is survey research method. The two villages frequently experience flooding chosen for the research are Mojo and Pesantren in the Ulujami District of Pemalang Regency. The sample size was calculated using a sample size calculator resulting in a sample size of 241 households. The analytical methods used include descriptive analysis and regression analysis. The results indicate that (1) the characteristics of the population residing in the floodplain of Comal River include an average age of 45 years old, with the majority working as laborers, the average length of stay is 32 years, and most are native residents; (2) the coefficient of determination (R2) for the migration hold factors in explaining the decision to stay is 0.668. This means that the four migration hold factors (economic, social, location, and family ties) have a reasonably strong determination and can explain 66.8% of the variance in the decision to stay. Family ties have the highest coefficient value (0.857), indicating that they have deep connections with their extended families, making them reluctant to move despite being affected by floods yearly.

Keywords : climate change, flood, migration hold factor

ABS-IGEOS-23035

Rapid Catastrophic Flood Modeling (Study Case: Padang City Catastrophic Flood, July 14, 2023)

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Climate change has led to unprecedented intensities and frequencies of hydrometeorological disasters. On July 14, 2023, an extreme rainfall event caused catastrophic flooding in Padang City, during the dry season. The Minangkabau Meteorological Station recorded 258 mm of rainfall on the day of the flood, equivalent to a month's worth of rain. Such phenomena will become more massive as global average temperatures continue to rise, warranting increased attention. This research will have aimed to have created rapid catastrophe flood modeling for Padang City, specifically for the scenario of the catastrophic flood that will have occurred on July 14, 2023. Catastrophic flood modeling is valuable for assessing a region's risk of catastrophic floods under specific rainfall scenarios. This can be useful for mitigation and development planning to address future catastrophic flood events. For more specific purposes, rapid modeling can be performed, for instance, to provide an overview of the losses incurred by disaster insurance companies due to a catastrophic flood event. Quick loss assessment information is useful for preparing claims funding early, enabling a faster and smoother claims process. This modeling refers to LISFLOOD to generate catastrophic flood maps for the entire area of Padang City. Digital Elevation Model (DEM), rainfall, river networks, land use, evapotranspiration, and soil storage capacity data are used as inputs. The model is fine-tuned with validation data on flood depth recorded directly at various points in Padang City before being used for operational purposes. The modeling process was completed within three days, from data collection to having a ready-to-use operational model.

Keywords : Catastrophic Modeling, Rapid Flood Modeling, Climate Change

GIS And Remote Sensing Application For Disaster

ABS-IGEOS-23006

Evaluation of Machine Learning Model for Food Crops Mapping using Multitemporal Imagery in West Java, Indonesia

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Information on the pattern of spatial distribution and area of food crops is very useful for monitoring and managing the sustainability of agricultural resources, especially for food security. Plant classification based on machine learning has been widely used to detect areas of food crops. However, there are still challenges in mapping plant species and plant area in an effective and efficient manner. The purpose of this study was to evaluate machine learning algorithms in mapping and calculating the area of food crops (rice and corn) in West Java Province, Indonesia. This research utilizes the Google Earth Engine as a remote sensing big data cloud computing platform. Time series data Normalized Difference Vegetation Index (NDVI) and Enhanced Vegetation Index (EVI) are adopted as input features for the two most widely used machine learning models, namely Support Vector Machine (SVM) and Random Forest (RF) via multitemporal Landsat imagery. The results showed that the two machine learning models were able to map and calculate the area of food crops in West Java, Indonesia. The SVM algorithm produces the highest level of accuracy compared to the RF algorithm.

Keywords : evaluation, machine learning, food crops, mapping, multitemporal imagery

ABS-IGEOS-23046

The Influence of Built Areas and Vegetation Greenness on Land Surface Temperatures in the Bandung Basin

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The Bandung Basin is an area consisting of the city of Bandung (relatively flat and urban area) and the surrounding of built and natural areas with hilly or mountainous topography. Differences between artificial and natural phenomena can influence temperature differences. Built-up land, vegetation cover, land cover types and land surface temperature can be identified through remote sensing imagery. This research aims to: 1) Analyze built-up land index and vegetation greenness in the Bandung Basin, 2) Analyze land surface temperature in the Bandung Basin, and 4) Analyze the influence of built-up land, vegetation greenness, on land surface temperature in the Bandung Basin. The method used is information extraction through remote sensing imagery to obtain a built-up index, greenness of vegetation and land surface temperature, as well as field surveys. This research use Landsat 5 and Landsat 8 to get a value of built-up index and vegetation greenness. The results of this research are the identification of the spectral character of built-up land and the vegetation greenness, as well as their influence on land surface temperatures in the Bandung Basin.

Keywords : remote sensing imagery, vegetation greenness, land surface temperatures

ABS-IGEOS-23058

Potential Tsunami Hazard Mapping in the Parangtritis Coastal Area, Bantul District, Special Region of Yogyakarta

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Tsunami is a series of giant sea waves that arise to shifts in the seabed due to an earthquake. This research aims to map the potential hazard levels of tsunami in the the Parangtritis coastal area. This research emphasized analyzing the tsunami threat using various parameters, such as: slope, distance from the coastline, distance from rivers, and land elevation to determine evacuation routes with the fastest way. The technique used were weighting and scoring analysis data methods. The Geographic Information System is an application used to mapping three levels of tsunami hazard zones in Parangtritis. The highest level of the tsunami hazard is along the coastal tourism area and the estuary of the Opak River which has a flat geomorphology. On other side, the northern part formed with hills that can be natural barriers from tsunami. This hills can be set as temporary location for evacuating people when tsunami occurs.

Keywords : Tsunami, Disaster Mitigation, Parangtritis Coastal Area

ABS-IGEOS-23074

The Influence of Land Use on Ground Water Using Satellite Image Analysis

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The research objective is: to analyze the built-up land area for groundwater in the Ci Hideung Watershed Area using satellite imagery. The method used by the experiment has been since experiments since 1994, 2010 and 2021. Landsat 8 imagery is used to analyze land cover. Rainwater volume is calculated using the formula; V = Thickness of rain. land area, while absorption wells use the formula: V = volume (m3). The infiltration rate used a double ring infiltrometer. The infiltration rate used a double ring infiltrometer. The results of satellite image analysis show that built-up land has an area of 1,563 km2 (14.77%) and non-built-up land is 9,022 (85.27%). Rainwater seeped in May with a volume of 0,282 m3, while the highest was in November with a volume of 2,912 m3. The volume of rainwater that needs to be infiltrated needs to be infiltrated into the smallest plot of land every 100 m2. At the highest level, rainwater is 2,912 and a volume of 302.40 m3 can be absorbed in the smallest land unit. By seeping rainwater, it can increase groundwater supply. Infiltration water storage in the form of infiltration wells which can increase ground water levels.

Keywords : Landsat Images, Land cover, Infiltrometer, Infiltration, Groundwater supply

Hazard, Risk, And Disaster Management

ABS-IGEOS-23025

Earthquake Disaster Risk Assessment in the Citatah Karst Industrial Area

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The Lembang fault is located very close to the Citatah industrial area in West Bandung Regency. Earthquake disasters in industrial areas can have a significant impact on infrastructure, operations and safety throughout an industrial complex. The aim of this research is to map the distribution of factories which are part of the earthquake risk, danger and vulnerability zone. The method used is a survey method using the Geographic Information System application. Information on vulnerabilities, hazards and risks is obtained through INARISK, while factory distribution is obtained by direct site surveys. Based on the analysis, it was found that the Citatah karst area has 34 mining factories spread close to the main road. The vulnerability assessment describes that 33 factories are in locations with high vulnerability, while moderate vulnerability consists of 1 factory. The hazard analysis describes that there are 20 factories in the high danger zone, 10 factories in the medium zone and 4 factories in the low zone. The risk of earthquake disasters has three classifications, namely low, medium and high. Based on the analysis, it was found that 26 factories were in the high-risk zone and 8 factories were in the medium zone. This area is close to the Lembang fault, so it is at high and medium risk. The low risk zone is located at low elevation and the furthest part of the karst area from the Lembang fault. This research can be useful in planning and mitigating earthquake disasters in the Citatah karst industrial area.

Keywords : Keywords: Earthquake, Risk, Karst Area, Industrial Area

ABS-IGEOS-23043

Distribution of Spatial Patterns of Disaster Mitigation Based on Local Wisdom in Traditional Villages in West Java

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Traditional Villages in West Java Province are located on a variety of different landforms. Landforms will influence existing disasters, so that there is a spatial pattern distribution of disaster mitigation based on local wisdom. This research was conducted in five traditional villages in West Java, namely Naga Village, Ciptagelar Village, Cirendeu Village, Kuta Village and Pulo Village. Denudational and alluvial landforms are in Kampung Naga, Kampung Cirendeu, and Kampung Kuta. Ciptagelar Village is in the denudational and structural area, while Pulo Village is in the Alluvial area. The aim of this research is to identify the distribution of spatial patterns of local wisdom-based disaster mitigation in traditional villages in West Java. The method used is descriptive parametric with linear correlation statistics. The variables used are topography, hydrological conditions, land use, living conditions and potential disasters. Based on the analysis, it was found that the distribution of spatial patterns in local wisdom-based disaster mitigation occurs on the same existing landform. The significance value of the spatial pattern of disaster mitigation for each variable in each traditional village is 0.1835, so there is quite a significant influence on the distribution of the spatial pattern of disaster mitigation based on local wisdom in traditional villages in West Java. Naga Village, Cirendeu Village, Kuta Village and Ciptagelar Village have the same spatial distribution pattern of mitigation.

Keywords : Traditional village, Disaster, Spatial Pattern

ABS-IGEOS-23049

Spatial Analysis of Tsunami Hazard Based on Numerical Models and Seismicity Data in Pacitan Coastal Areas, Indonesia

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The Pacitan Regency, located on the southern coast of Java adjacent to the Indian Ocean, is susceptible to tsunami disasters due to its geographical location. Therefore, mitigation efforts are essential, including the development of tsunami modeling and evacuation strategies. While previous studies have combined these aspects, simulations involving simultaneous evacuation of both coastal residents and tourists remain scarce. This research aims to simulate the evacuation of coastal residents and tourists during various tsunami scenarios resulting from seismic activities, with the goal of formulating an optimal evacuation model. The study employs a tsunami propagation model utilizing numerical methods based on Shallow Water Equations and HLOSS calculations in the Delft3D-Flow software to assess tsunami hazards. Subsequently, the evacuation simulations for coastal residents and tourists are conducted using an agent-based model. Various tsunami inundation models are generated using the software and combined as composites to produce comprehensive tsunami hazard maps. This integrated approach provides valuable insights into optimizing evacuation procedures for both local inhabitants and tourists, thereby enhancing disaster preparedness and response strategies in the Pacitan coastal areas of Indonesia.

Keywords : Tsunami Model, Tsunami Hazar, Numerical Model, Pacitan

ABS-IGEOS-23057

The River in the Middle of the City: The Sound of Community Life on the Riverbanks of the Code and Cikapundung Rivers in Disaster Mitigation (Disaster Preparedness between Yogyakarta and Bandung)

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Geographically, Yogyakarta and Bandung have similarities as large cities crossed by rivers, namely the Code and Cikapundung Rivers. These two rivers have a history of the lives of the people who live around them. Rivers have been a place for various complex human activities to meet daily needs since ancient times. Several problems arise when riverbanks become residential areas. This article will examine the lives of people living on the banks of Code and Cikapundung from 1950 to 2000. This research uses historical methods consisting of heuristics, source criticism, interpretation, and historiography. The historical method can chronologically reconstruct the problems and order in the areas on the banks of the Code and Cikapundung River. Entering the mid-20th century, social interaction in the two cities became increasingly distant. Environmental changes in river basins and increasing population have significantly influenced the lives of people living in river basins. In the case of Code and Cikapundung, the responses shown by these two cities were different in efforts to resolve emerging problems such as pollution, erosion, flooding, sanitation, and other problems. They have differences in how to communicate with riverbank communities in efforts to improve the environment.
Keywords : Comparative Code and Cikapundung Rivers, Disaster Mitigation, The mid-20th Century

Land Degradation And Environmental Issues In Tropical Area

ABS-IGEOS-23030

Adaptation of climate change and environmental pollution in Cirebon's coastal community

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Climate change and environmental pollution are interrelated global phenomena. Communities whose lives depend on natural resources have felt many negative impacts from both. Coastal communities, which mostly depend on the capture fisheries, are a vulnerable group to these threats. The study aims to reveal the adaptation of coastal communities in Cirebon, Indonesia to face climate change and environmental pollution. This research is located in Gebang Cirebon Regency. Data were obtained from field observations and unstructured interviews which were synthesized to know their adaptive behaviour. We found the adaptation of coastal communities through non-environmentally fishing gears, expansion of fishing areas, the burden of debt and capital, not optimal fisherman regeneration, and changes in occupation. Despite changes in mindset, attitude, and behaviour, these adaptations have the potential to threaten a regional and national economy because the fisheries sector is the main contributor to gross domestic product. Declining yield catches and the desire to obtain high economic benefits quickly without paying attention to sustainability, are also the main driving factors for the emergence of maladaptive behaviour in coastal communities. Without serious attention, climate change and environmental pollution will trigger socio-economic impacts that are worse than the COVID-19 pandemic.

Keywords : coastal development, environmental degradation, Pantura

Social And Humankind Disaster

ABS-IGEOS-23031

The Role of Civic Crowdfunding in Post-Natural Disaster Recovery

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During the period from January 1 to September 1, 2023, Indonesia experienced 2,724 disaster events. These disasters included forest fires, earthquakes, volcanic eruptions, and floods. Post-disaster recovery is the primary focus to ensure that communities can return to a safe and comfortable living environment. The responsibility to carry out post-disaster recovery is not solely the government's duty, but it is also the responsibility of the entire Indonesian society. Indonesia's potential as the world's most generous nation can serve as an alternative source of post-disaster recovery aid. Crowdfunding can be a means for the community to actively and swiftly respond to assisting victims of natural disasters. A literature review was conducted using a qualitative approach to understand the role and challenges of civic crowdfunding in post-disaster recovery. Civic crowdfunding has proven to be an effective tool in post-disaster recovery by addressing funding shortages, encouraging active community participation, and bridging collaboration between the government, non-governmental organizations, and the community. Civic crowdfunding plays a crucial role as an effective alternative source of post-disaster recovery aid.

Keywords : Natural Disaster, Post-Disaster Recovery, Civic Crowdfunding

ABS-IGEOS-23033

Drought Disaster Mitigation Based on Local Wisdom in Segoromulyo Village Pamotan Subdistrict Rembang Regency

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This study aims to describe the mitigation of drought disasters through the application of local wisdom in Segoromulyo Village, Pamotan Subdistrict, Rembang Regency. Qualitative research methods were employed, and data were collected through field studies in the Segoromulyo Village community, Pamotan District, Rembang Regency, as well as from various online and offline literature sources. The data were analyzed descriptively. The research findings reveal that the Segoromulyo Village community, in Pamotan Subdistrict, Rembang Regency, effectively prevents and mitigates drought disasters by preserving and implementing local wisdom. These local wisdom practices include "Sedekah Bumi," "Gugur Gunung," and "Tamarjan". "Sedekah Bumi" is a ceremonial procession conducted at the Segoromulyo Village shrine, expressing gratitude for the abundant natural resources and the preservation of large trees that serve as water reservoirs. "Gugur Gunung" involves communal efforts to maintain the large trees in the shrine area, which act as water storage facilities. "Tamarjan" represents a creative solution for storing rainwater in front of houses during the wet season, with the stored water being utilized during the dry season. These local wisdom practices have been passed down from generation to generation and continue to effectively prevent drought disasters in the Segoromulyo Village community.

Keywords : Disaster mitigation, Drought, Local wisdom

ABS-IGEOS-23048

Climate Change and the Decision to Become Sex Workers for North Coastal Women of Java Island

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Women are not only faced with challenges regarding social construction but are also faced with natural challenges. The uncertain climate has in fact become one of the reasons for fertilizing the prostitution business in the northern coast of Java Island. Climate change is making poverty even more real. The drastic decline in marine products and the uncertainty of life during the pandemic provide a special impetus for women in making decisions as sex workers. A phenomenological approach is used to reveal the meaning behind women's decisions. The results of the study reveal that there are at least two things that are taken into consideration in making women's decisions to become sex workers, namely economic incapacity and powerlessness in social construction as women.

Keywords : Sex Workers, Coastal Women, Climate Change

ABS-IGEOS-23059

Islam and Terrorism: The Concept of Wasathiyyah Yusuf al-Qardhawi and Its Implementation in Order to Prevent Acts of Student Terrorism

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This research aims to explore and map the wasathiyyah concept offered by Yusuf Al-Qardhawi in countering radical movements and acts of terrorism which have become a serious concern for the Indonesian government. These issues and discourses continue to haunt the dynamics of students' religious life on campus. This research uses a qualitative approach with a literature review method which is carried out by analyzing and discovering the concept of wasathiyyah. The results of the research found that the wassatiyyah concept can prevent thoughts, attitudes and acts of terrorism for students who can strengthen and strengthen the foundations of thinking about Islam that rahmatan lil alamin by upholding the principles of tolerance, mutual respect and respect for each other in creating harmony between people. religious communities, thereby bridging divisions and confusion in the thinking of groups that view Islam as extreme, as well as minimizing ideologies that are contradictory to the values of Islamic teachings such as radicalism, terrorism and acts of anarchism.

Keywords : wasathiyyah, tolerance, Islam rahmatan lil alamin.

Physical Geography And Environmental Management

ABS-IGEOS-23017

Utilization of Watersheds as a Learning Resource for Environmental Management

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This article aims to analyze watersheds as a source of environmental learning and management. The river flow that is used as a study material is Ciliwung, a descriptive writing method supported by secondary data from government and private agencies. The results showed that the Ciliwung River Basin is a watershed that flows through several administrative areas of the Regency / City. If you look at the hydrological structure, the Ciliwung watershed can be divided into upstream, middle and downstream parts. The characteristics of the upstream part of Ciliwung have a heavy flow and are still dominated by plants. While in the middle, although there is still vegetation, changes in the surrounding land are starting to worry. In the downstream itself, which has entered the DKI Jakarta administrative area, most of the flows have been affected by erosion which is quite high as seen from the brown color of the river. Environmental management in each part of the river is very important to know, this is because the actions that must be taken are different. The flow of the Ciliwung river can provide information to students related to environmental management. Land changes that occur around Ciliwung have an impact on reducing the area of Ciliwung flow. Not to mention the increase in community activities that are still not caring both upstream, middle and downstream which results in an increase in the amount of waste in the Ciliwung stream.

Keywords : Ciliwung River, Environment Management, Learning Resources

ABS-IGEOS-23055

A simplified approach to identifying seawater intrusion by the fraction of seawater in the coastal area of Jember Regency

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Seawater intrusion is a major problem that affects groundwater quality in coastal areas. The aim of this research is to map groundwater salinity in coastal areas using simple parameters, namely the physical quality of water in the form of Electrical Conductivity (EC) and Total Dissolved Solids (TDS), as well as the fraction of seawater (fsea) determined by the Chloride (Cl) element. The research was conducted in 10 villages in the southern coastal region of Jember Regency, with a total of 211 well sample points. Field observations were carried out to map groundwater levels and analyze the sea-freshwater interface using the Ghyben-Herzberg principle. EC and TDS parameters were monitored and classified based on values ranging from freshwater to saline. The parameters were analyzed in 11 groundwater samples and 1 seawater sample to determine the fraction of seawater in the study area. Spatial mapping of each parameter was done using geostatistical analysis with the Ordinary Kriging model. The research results showed that based on the EC and TDS values at the research location, 83% of the samples were classified as fresh groundwater, 16% as slightly saline groundwater, and 1% as moderately saline groundwater. The Cl parameter indicated a negative fsea value and a zero value of 0%, indicating that groundwater is not mixed with seawater, and fsea values of 10% and 23% indicating a significant percentage of mixed seawater. These locations include Payangan Beach and Watu Ulo Beach in Sumberejo Village

Keywords : Seawater Intrusion, Seawater Fraction, Hydrogeochemistry, water quality

Land Use And Land Cover Change

ABS-IGEOS-23010

Modeling Land Cover Change of Pringsewu 2030 with CA & ANN Methods

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Land cover change can be a source of disaster for the surrounding community. The complexity of this problem at least requires future projections to become material for local government policy decisions. The research objectives include (1) Analyzing land cover changes in 2015-2021 in Pringsewu Subdistrict; (2) Prediction model for land use change in Pringsewu Subdistrict 2030 using the Cellular Automata model. The method used is maximum likelihood to analyze land cover change in combination. The results showed (1) Changes in land cover in Pringsewu sub-district in 2015-2021 were dominated by a decrease in open land, dry land agriculture and a little built-up land, and an increase in irregular built-up land for 6 years; (2) Analysis of the suitability of predictions of land use in Pringsewu sub-district in 2030 recorded in a period of 9 years, namely in 2021 to 2030 there was an increase in built-up land of 794.34 Ha. Some of the research results can be of relevance to the government to determine policies related to land cover control so that in the future unwanted things do not happen, such as the increasing population, the amount of waste will increase, and trigger flooding, unhealthy environment and so on.

Keywords : Land cover change; GIS; Pringsewu; CA-ANN Method

ABS-IGEOS-23044

Spatial Analysis of LULC Change Prediction Based on Cellular Automata-Artificial Neural Network (CA-ANN) in Karawang Regency, West Java

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Along with urbanization and population growth, land use land cover (LULC) changes significantly. Significant changes in land use and land cover (LULCC) can cause environmental problems, so changes in LULC monitoring are the most important part. Karawang Regency is the center of national industrial development and rapid population growth, which can give rise to problems of unequal population distribution and increasing land needs. The development of Karawang Regency is marked by the development of infrastructure in the form of roads, settlements and other infrastructure. The aim of this research is to analyze predictions of LULC changes in Karawang Regency using the Cellular Automata-Artificial Neural Network (CA-AAN) method. The research results show that land use and cover (LULC) in Karawang Regency is dominated by rice fields, but from 2011 to 2022 it decreased by 14,630 ha, then the LULC area that experienced an increase was built-up land covering an area of 14,630 ha. covering an area of 16,322 ha, so changes in existing LULC conditions depend on the driving factors. Then, the predicted change in LULC in 2032 is that the highest development will occur on built-up land around the city center in the central part of the district which is an industrial area and has high accessibility.

Keywords : LULC, LULC Prediction, CA-AAN, Karawang Regency

Spatial Planning, Urban And Rural Environmental Geography

ABS-IGEOS-23022

Revealing Sukamandi Village a sustainable tourism destination

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Tourist village development is a national program by the Indonesian and Subang Regency governments to realize community welfare. This research aims to reveal Sukamandi village as a sustainable tourism destination in Subang Regency. We used a qualitative approach to identify tourism potential. Data came from field surveys, interviews, as well as information on tourist satisfaction when trying out the itinerary. This research shows that Sukamandi Village is very strong in developing its natural potential as a tourist attraction, especially Bukit Jamali and Curug Cibingbin. Apart from that, this village has beautiful mountain views, clear rivers, clove plantations and food products originating from local agricultural products. Tests on 10 local and international tourists showed that they were satisfied with the tourist attractions in Sukamandi Village, especially the views and typical food. The potential is not yet optimal because tourism management is still voluntary and a professional team has not been formed to provide excellent service to tourists at all times. Besides that, the access road is small and quite far from the main road which is also a challenge for the development of sustainable tourism in Sukamandi Village.

Keywords : natural attraction, Subang, tourist village

ABS-IGEOS-23023

Land capitalization model for sustainable tourism based on PLS-SEM

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Tourism development faces problems related to land capitalization. Without an adequate solution, this problem threatens sustainable tourism development strategies in Indonesia. This research aims to develop a land capitalization model for tourism development in Lembang, West Java. This model was prepared using the Partial Least Squares and Structural Equation Modeling (PLS-SEM) method involving various physical environmental and socio-economic factors. This research shows that the capitalization model could describe actual conditions, although the relationship between latent variables was weak. There are three patterns of land capitalization for tourism, where investors 1) invest in land and immediately convert it into a tourism business then the prices increase sharply, 2) invest in land and then change the use into a tourism business accompanied by control of the surrounding and then the price increases, and 3) invest gradually with acquiring land until they create exclusive areas and increase the price. To control land capitalization in tourism areas, land ownership regulations are needed to protect ownership for local communities.

Keywords : land value, Lembang, tourism development

ABS-IGEOS-23024

Review of Bibliometric Analysis of Peri-Urban Areas in Geography Perspectives and Issues

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The peri-urban area is a transition from a village form to a city appearance and a city form that has a village appearance. Typologically, this appearance can be seen in terms of physical form, social activities and economic activities so that in its development it continues to grow and develop. This is also closely related to the theme of geography in studying geosphere phenomena that occur in peri-urban areas. This article aims to see a landscape overview of previous research in the form of peri-urban areas in relation to Geography issues in 2003-2023. Data in the form of articles was taken using the Publish or Perish application from the Scopus database as many as 196 and selected using the Mendeley application as many as 161 were verified. Next, use bibliometric analysis from the VOSviewer application with science mapping and performance techniques. From the results of the analysis, it was found that the most peri-urban area publications related to geographic issues in 2022 amounted to 23 articles and the least in 2015 amounted to 7 articles. The highest citation trend in 2014 was 260 citations with 28.89 citations per year. And the focus of this research is more on peri-urban areas, peri-urban residents, peri-urban communities and comparative studies.

Keywords : Bibliometric Analysis, Regional, Peri-urban, Geography Perspective, Geography Issue

ABS-IGEOS-23040

Building Footprints Extraction from Unmanned Aerial Vehicle Imagery Using Mask Region-based Convolutional Neural Network (Case Study: Institut Teknologi Sepuluh Nopember, Sukolilo Campus)

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Due to their individual shape, form, texture and colour variations, the automatic extraction of a building from high-resolution aerial photographs continues to be complicated. The Mask Region-based Convolutional Neural Network (Mask R-CNN) has shown recent improvements in object detection and extraction for updating data, which are superior to other methods. In this paper, a dataset consisting of aerial photography images acquired by aircraft in the urban and educational area of Institut Teknologi Sepuluh Nopember to explore the potential of using region convolutional neural networks (Mask R-CNN), the art model, for instance, segmentation to automatically detect building footprints, which are essential attributes that define the urban fabric (which is critical to accelerating land cover updates with high highly accurate in terms of area and spatial assessment). The objective of this study was to implement Artificial Intelligence, especially with the Mask-RCNN method to perform building footprint detection. To enable this, aerial imagery was clipped into chip-sized images as training data for the model to learn. The model appeared to result in 73% precision. The model also shows the loss value graph, which represents the data well. Further study could focus on improving the precision of the model, which could also improve the result better precision.

Keywords : Mask Region-based Convolutional Neural Network, Building Detection, Deep Learning, UAV Imagery

ABS-IGEOS-23047

Evaluation of Existing Land Use with Urban Spatial Plan of Bandung City for Multi-Hazard Risk Assessment

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One of the principles of urban and regional planning is sustainable spatial utilization. In multi-hazard risk management, regional planning documents can be a crucial instrument in controlling spatial utilization. Bandung, as a major city, serves as a center of growth and activity for its surrounding regions. However, Bandung faces the risk of floods and earthquakes. Without integrated spatial planning, the city's physical vulnerability can increase, leading to a higher risk of damage or loss due to disasters. This research aims to analyze the multi-hazard risk in Bandung through the regional planning documents outlined in Regional Regulation No. 5 of 2022 on the Spatial Plan of Bandung City for the period 2022-2042. The analysis is conducted by evaluating the current land use in comparison to the spatial utilization patterns specified in the regional planning documents. The research findings indicate a significant distortion between the existing spatial utilization patterns and the conditions outlined in the planning documents. The physical impacts of this land use mismatch have contributed to environmental damage at several disaster-prone locations in Bandung.

Keywords : Disaster Risk-Reduction, Multi-Hazard Risk Assessment, Spatial Planning

ABS-IGEOS-23060

Urban Heat Island Study Based on Remote Sensing and Geographic Information System: Relationship between Land Cover and Surface Temperature

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Significant changes in urban environmental characteristics such as increased population density and land use change contribute to the formation of the urban heat island (UHI) phenomenon. Remote sensing technology and Geographic Information Systems (GIS) have now become effective tools for analysing the UHI phenomenon. This research uses the literature review method. The objectives of this study were to review: 1) General studies of the UHI phenomenon, 2) UHI studies in the context of remote sensing and GIS, and 3) Application of remote sensing and GIS to analyse the relationship between land cover and surface temperature in the context of UHI. The UHI is formed due to changes in urban structure and land cover, such as an increase in building and road surfaces and a reduction in green open areas. The UHI phenomenon has significant impacts on thermal comfort, air quality and energy efficiency in urban areas. UHI measurements can be made through remote sensing by analysing Land Surface Temperature (LST). LST can provide information on temporal and spatial variations of the Earth's surface temperature. This review can provide a deeper understanding of the factors affecting UHI and its impact on the urban environment as well as a collection of technical remote sensing and GIS methods that can be applied to map the UHI phenomenon.

Keywords : Urban Heat Island, remote sensing, GIS, land cover, surface temperature

ABS-IGEOS-23062

Urban Land Value Estimation Model based on Income Capitalization Method

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Land appraisal is one aspect of the cadastral system which is integrated with land use and land control. Land can be valued on the basis of the benefits it can provide. The high and low value of land is influenced by many factors, including economic, social, government and physical factors. Based on the factors that can determine the value of land, it is known that land use can also influence the formation of land value. The phenomenon of high land prices in urban areas is caused by high demand for land, while land supply is fixed. Land can be valued based on several methods, namely: market price comparison method, income capitalization method, and cost method. This research will focus on land valuation based on the income capitalization approach. In the income capitalization approach, property value is a function of income, where the higher the income that can be generated by the property, the higher the value of the property. For residential properties, income is obtained from net rent, namely the rental income of the property minus its operating costs using the income approach. In this research, geostatistical analysis is used in land value modeling. The mathematical model of land value resulting from geostatistical analysis is expected to reflect the actual value, which can then be used in creating Land Value Zones.

Keywords : Model, Estimation, Land Value, Income Capitalization

ABS-IGEOS-23074

The Effect of GNSS-PPK Utilization on Photogrammetric UAV's Doming Effect.

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Doming effect or bowl effect is a phenomenon that occurs in photogrammetric products, especially in Digital Elevation Models obtained from Structure from Motion processing. In the doming effect, errors in elevation values will increase in the middle part of the mapping area. This can be caused by the type of camera used, as non-metric cameras with high distortion are commonly used. To minimize the doming effect, many ground control points (GCP) are needed. Several studies have simulated the use of aerial control points to minimize the doming effect. In this study, a field experiment was conducted to observe the effect of aerial control points obtained from GNSS Post Processing Kinematics (GNSS-PPK) on the doming effect. The study compared the distribution of GCPs and the value of DEM. The results of the study show that GNSS-PPK can reduce the doming effect until the shape of the DEM error is relatively flat.

Keywords : UAV Photogrammetry, Doming effect, GNSS-PPK

ABS-IGEOS-23074

The Effect of Using Google Maps on Students' Spatial Intelligence

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The use of digital application-based technology has become an inseparable part of today's modern society (WIbowo, et.al., 2023). One of the popular applications is Google Maps, as an online map application platform which has the function of providing directions, information on the location of a place, and various detailed spatial interests. The ease of access to Google Maps based on browsers and applications has made it popular and widely used by the public (Walalayo, 2022). However, for some people, the use of the Google Maps feature is sometimes less understandable and users are often lost because they rely heavily on Google Maps directions without having further knowledge about the real spatial conditions in their surroundings. Spatial intelligence refers to the ability to produce, maintain, recall, and change well-structured visual images in the brain regarding information in the surrounding environment. This research seeks to reveal how effective the use of Google Maps is on the spatial intelligence of students as an educated group who are assumed to have a better intake of spatial information than other groups of society. The research method used a survey by distributing questionnaires to 400 student's University in Bandung and using random sampling. Data were processed using multiple linear regression. The research results show that Google Maps helps students find out locations accurately, the Google Maps feature can provide complete information, helps improve students' spatial intelligence, the use of the Google Maps application must be accompanied by the ability to read the surrounding environment in real time because it cannot provide completely accurate information.

Keywords : Google Maps App, Spatial Intelligent, Student's University in Bandung

Health Environment And Sustainable Development Goals (SDGs)

ABS-IGEOS-23018

Enhancing Environmental Awareness Through Ecopedagogy and Local Wisdom: A Study of Geography Education Students in Kampung Naga

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Sustainability of the environment is a critical issue in the modern era, particularly in the context of ongoing climate change and environmental degradation. Encouraging the participation of the younger generation, especially students, in environmental conservation is imperative. This research is rooted in the recognition of the importance of effective environmental education and the utilization of local wisdom as a resource in learning. The objective of this study is to assess the impact of an ecopedagogical approach based on the preservation of local wisdom on the enhancement of knowledge and environmental awareness among Geography Education Department students, including their ability to apply environmental conservation concepts in real-life situations, including within the context of the Conservation and Land Reclamation course.

This research employs a mixed-method approach with both descriptive and quantitative elements and is conducted in Kampung Naga, Salawu, Tasikmalaya Regency. The research findings reveal that the ecopedagogical approach grounded in the preservation of local wisdom significantly improves the knowledge and environmental awareness of the students. The data indicate that the majority of students, specifically 80%, possess a high level of understanding regarding environmental concern. This is evident from the assessment of 9 indicators, where 7 indicators fall into the high category, while 2 indicators fall into the medium category. Previously, the majority of them only had a basic understanding of environmental issues. However, after engaging in the learning experience in Kampung Naga, their understanding and concern significantly increased. In the context of the Conservation and Land Reclamation course, out of the 3 observed indicators, 2 indicators fall into the medium category, and 1 indicator falls into the high category.

The results of this research underscore the significance of the ecopedagogical approach based on local wisdom in enhancing students' understanding and environmental awareness. Furthermore, it motivates them to actively contribute to environmental conservation in their communities, including supporting land conservation and reclamation practices. Thus, this research has a notable impact on promoting environmental sustainability and the application of environmental conservation concepts within the context of the local community.

Keywords : Environmental Sustainability, Ecopedagogy, Local Wisdom, Geography Education, Kampung Naga

ABS-IGEOS-23020

Implementation of Ecopedagogical Approach in Geography Learning of Public High Schools in North Bandung Area

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This research aims to assess the implementation of the ecopedagogical approach in geography education at 12 public high schools in North Bandung Area. The survey method was employed, involving 24 geography teachers. Findings suggest that the ecopedagogical approach effectively raises students' awareness, understanding, attitudes, skills, and active engagement in environmental conservation in the North Bandung Area. The success is attributed to the high rating of the implementation of this approach, as measured by four key indicators: learning about the natural and social environment, learning within the natural and social environment, learning through the natural and social environment, and comprehending the interrelationships of sustainable beings. To enhance the ecopedagogical approach, geography teachers at North Bandung Area's public high schools are advised to incorporate field trips, projects, utilize teaching materials related to the region, and improve their understanding of Sustainable Development Goals (SDGs).

Keywords : Ecological Intelligence, Ecopedagogical, North Bandung Area

ABS-IGEOS-23034

Boxplot Approach in Understanding Statistical Distribution of Elevation in a Region: A Case Study of Tasikmalaya Regency

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This research discusses the Boxplot approach in understanding the statistical distribution of elevation in a region, with a case study focused on Tasikmalaya Regency. Boxplot is a visual technique that is useful for analyzing statistical data and distribution in graphical, providing a comprehensive overview of the elevation variation in Tasikmalaya Regency, including statistical elevation information per sub-district. This research aims to investigate diverse essential aspects of geographical elevation, including range, median, quartiles, and the presence of outliers. The findings of this research can contribute to a better understanding of the topographical characteristics of Tasikmalaya Regency, which can be valuable in various contexts such as research sample planning focussing on topographical variations. This research can make a significant contribution to spatial statistics comprehension and the utilization of geographic data in a local context.

Keywords : Boxplot, Statistical Distribution, Spatial Analysis, Health Geography, Healthcare Accessibility

ABS-IGEOS-23038

Economic Recovery of Village Communities: Cultural Tourism as an SDGs Program

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The Covid-19 pandemic has had an impact on the economy of cultural tourism village communities. The aim of this research is to formulate and analyze strategic steps in economic recovery of cultural tourism village communities through village government policies. This needs to be done due to the impact of the Covid-19 pandemic which has resulted in economic difficulties for the cultural tourism village community. Restoring the community's economy towards a new normal period needs to be carried out immediately so that it does not affect cultural tourism village destinations. This research uses a case study method in Rancakalong sub-district, Sumedang district. Data collection techniques were obtained through literature studies and online interviews with village officials, tourism village managers and local communities. Analysis was carried out qualitatively by reducing data from research findings. The research results show that restoring the economy of cultural tourism village communities can be done with the policy of 1) Providing guidance to small business actors; 2) providing creative economy business capital loan assistance; and 3) training in marketing cultural tourism village products and destinations globally.

Keywords : Economy, Tourist Village, SDGs

ABS-IGEOS-23039

UNNES Conservation: Analysis of the Acceleration of of Implementation of Conservation Pillar Achievements and Character Education (Case Study UNNES Graduate School)

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The Semarang State University (UNNES), as a public higher education institution in Indonesia, declared itself a conservation campus since 2010. It is committed and aspires to become a conservation-focused university with an international reputation. The Graduate School, as part of UNNES, shares the same commitment and consistently contributes, particularly in the fields of conservation and character education. However, in realizing the vision of being a conservation university, there are undoubtedly numerous challenges that UNNES faces, including within the Graduate School. This research focuses on analyzing the acceleration of the implementation of conservation and character education pillars at the Graduate School campus of UNNES. The research employs a qualitative approach, and subjects are selected using purposive techniques. Primary data sources are obtained directly through field data collection, including observations and interviews, while secondary data is acquired through documentation techniques. Data analysis is conducted using an interactive method. The research findings indicate that the achievement of the conservation and character education pillars at the UNNES Graduate School in 2021 has shown improvement compared to previous years. However, the scores for these pillars must continue to be enhanced as they have not yet reached the maximum scores set. Various facts suggest the need for improved achievement in the conservation and character education pillars at the UNNES Graduate School. Enhancements in the conservation pillar are achieved through various programs, primarily tree planting. To comprehensively achieve the conservation pillar, the UNNES Graduate School accelerates the implementation of conservation and character education pillars through the launch of an integrity zone within the Graduate School campus environment, aiming to realize a Corruption-Free Zone (WBK) and a Clean and Service-Oriented Bureaucracy Zone (WBBM). The launch of the integrity zone is expected to boost the enhancement of various achievements in the conservation and character education pillars at the UNNES Graduate School.

Keywords : Acceleration of Implementation; UNNES Conservation Pillars; Character Education

ABS-IGEOS-23042

TRUSTATION: Waste Management Plan Through Waste Bank in Higher Education

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Waste bank is attributed as one solution of the options in waste disposal management initiatives in higher education institutions. TRUSTATION, the acronym for Trust your Trash to Our Station, is planned to be operated within the Indonesian University of Education (Universitas Pendidikan Indonesia, UPI) environment, to aim a process revolution in overcoming the waste problems at UPI. Therefore, establishing the TRUSTATION shows that the critical dealing level of the waste situation increases. Therefore, this study leads to scientific analysis regarding the condition of waste disposal management in the UPI. This study aims to expose 1) the waste disposal management system at UPI, 2) the response of UPI residents regarding waste disposal management, and 3) the idea of establishing a waste bank. This study takes a mixed approach method of data collection techniques in the form of interviews, surveys, and literature studies. The data analysis technique used is data reduction, data presentation, and drawing conclusions. The results of the study show that waste disposal management at UPI still depends on sorting and processing at the temporary dumping site known as TPS. Moreover, UPI residents chose to hand over their waste to the waste disposal institution. Meanwhile, the absence of waste processing facilities either on campus or around their residence is an urgent obstacle, thus it does not have any sorting system; the rubbish is miscellaneously disposed in TPS. To this end, the surveys found that UPI residents support the establishment of a waste bank within UPI's environment.

Keywords : Environment, Higher education, Waste Bank, Waste Management

ABS-IGEOS-23063

Performing Student's Virtue Towards Environment Through Green Constitution Model-Based Learning

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The environmental destruction in Indonesia is caused by the inhospitable practices in exploiting natural resources and the discourteous public behavior towards the environment. The purpose of this research is to know the effect of using project citizen model in learning civic education on the students' virtue towards the environment. The method of the research utilizes Quasi-Experiment One Group Pretest-Posttest Design. The results are: (1) the level of students' virtue towards the environment are more successfully upgraded through the civic education learning by using Project Citizen compared to conventional model; (2). The use of project model in learning civic education affects about 17,39% on the students' virtue towards the environment, those are (a) giving attention and (b) improving the awareness and participatory actions in keeping, protecting, fixing, recovering, and preserving the natural environment.

Keywords : civic education, citizen project, civic virtue, green constitution,

ABS-JOVIANIASTARI-23073

Integrating Sendai Framework and SDGs into the local context: Discourse Analysis in Merapi volcanic area

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Disaster risk reduction (DRR), encompassing practices at both local and national levels, has been consolidated into international benchmarks like the Sendai Framework and Sustainable Development Goals (SDGs). Yet, research on these local and national approaches remains insufficient. There is a pressing need to thoroughly document these practices to facilitate knowledge sharing, policy development, and collaboration among countries for effective DRR implementation. The research aim to analyse discourse related to disaster risk reduction in Merapi volcanic area based on Sendai framework and the Sustainable Development Goals (SDGs) and explore whether those global agenda have been applied in the event of Volcanic Eruption in Merapi. Qualitative approach and content analysis have been applied to seek and analyse discourse related to DRR. The results shown several connections between global and local discourse.

Keywords : Disaster Risk Reduction, Sendai framework, SDGs, Merapi

Disaster Mitigation On Tourism And Leisure

ABS-IGEOS-23004

Tsunami Disaster Risk Reduction Strategy in Ciletuh - Palabuhanratu UNESCO Global Geopark

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In general, Indonesia's tsunami-prone areas are located in the Pacific ring of fire, which has geological conditions that are located in the collision of three active tectonic plates (Eurasia, Indo-Australia, Pacific) which cause seismic activity. This condition causes several areas located in coastal areas to have a high disaster risk, especially earthquakes and tsunamis. One of them is in the Ciletuh-Palabuhanratu UNESCO Global Geopark (CPUGG) which is located in Sukabumi Regency. This study aims to examine the tsunami disaster risk reduction strategy. The method used is quantitative with a descriptive format. The results of the study show that the risk level for a tsunami disaster has a value of 0.64 which indicates a moderate risk level value that is close to high for a tsunami disaster. Meanwhile, the strategy for reducing the risk of a tsunami disaster from the aspects of government, society, business and tourists is divided into 3 levels, namely level 1, level 2 and level 3. Based on the results of the study on the level of risk of a tsunami disaster, the majority of the indicators reviewed are still relatively high at the level of hazard and vulnerability. while the value of tourist capacity and preparedness shows a moderate value. Therefore, the proposed strategy carried out in this study can be input in reducing the risk of a tsunami disaster if it occurs one day in the Ciletuh-Palabuhanratu UNESCO Global Geopark.

Keywords : Tsunami; Disaster; Risk Reduction Strategy; Geopark.

ABS-IGEOS-23005

Developing an Educational Tourism Model for Disaster-Prone Areas

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The government has made an effort to develop tourism for disaster-prone areas to assist sustainable development, but due to the limited nature of disaster education, it has focused especially on doing so. The purpose of this project is to create the best educational tourism model for disaster-prone areas. The Tangkubanparahu Volcano disaster-prone areas served as the site of this qualitative study. While secondary data was gathered from literature, policy papers, and prior studies, primary data came from interviews and field observations. The study's findings indicate that the educational tourism model for disaster-prone areas is built on a framework that supports disaster literacy and involves the supply and demand of educational tourism. Because its scope is so closely tied to disaster-related features, geotourism is the perfect type of educational tourism for disaster-prone areas. For tourists and destination management, the contribution of educational tourism has the potential to mitigate the risk of disaster. Through disaster interpretation and tourist literacy, geotourism, a type of educational tourism, can help disaster-prone areas realize sustainable tourism. Both nationally and internationally, this study may have repercussions for areas that are prone to disasters.

Keywords : Disaster Risk Reduction, Educational Tourism, Geotourism, North Bandung Areas

ABS-IGEOS-23041

Sustainable Gastronomy and Disaster Vulnerability in Majalengka District

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The study addressed pertinent concerns pertaining to sustainability and susceptibility to hazards in the Majalengka District, with a particular focus on the gastronomic sector. Sustainable gastronomic tourism is a crucial component of sustainable tourism development, but its durability may be compromised by a range of natural hazards, including floods, earthquakes, landslides, and climate change. This study aims to analyze the relationship between sustainable gastronomy and vulnerability to hazards in Majalengka District. The research method used involves mapping the distribution of culinary tourism places, vulnerability analysis to disaster hazards, and interviews with relevant stakeholders. The results showed that the distribution of culinary tourism in Majalengka Regency is not always related to the level of vulnerability to natural hazards. Other factors, such as accessibility, risk planning and management, and community participation, also play an important role in determining the sustainability of the gastronomic sector. This study has particularly significant implication for in the formulation of sustainable tourism development strategies that take into account vulnerability to hazards. Furthermore, this research enhances our comprehension of the potential of sustainable gastronomic tourism in mitigating and adapting to natural hazards in the Majalengka Regency region.

Keywords : Sustainable gastronomy, vulnerability to hazards, Majalengka Regency, sustainable tourism, disaster

ABS-IGEOS-23050

Framework to Development of Disaster Mitigation Model in Mountain Tourism Destination

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The geographic position of Indonesia provides both disaster threat and natural resources potential. Indonesia is an archipelagic country located between three major tectonic plates, namely Indo-Australia; Pacific; and Eurasia. Consequently, numerous of active volcanoes and faults are spread across the islands. Indonesia's unique landforms are often utilized as a unique tourism spot. Along the mountain ranges of Bogor and Cianjur, Bandung, and Garut to Tasikmalaya, various volcanic tourism spots exist side-by-side with the threat of volcanic eruption, mass movements, and earthquake. Therefore, disaster mitigation had to be properly planned to guarantee the sustainability of businesses and investments, as well as for tourists' safety. This research aims to develop the mitigation model for mountain tourism destinations in West Java Province. Three of currently developing mountain tourism spots are Gede-Pangrango Mountain, Tangkuban Parahu Mountain, and Guntur Mountain. Design of this research is R&D through the 4-D model, consists of Define, Design, Develop, and Disseminate. The output of the development is a "Conceptual Model", which is a participative mitigation strategy between tourism destination management and local communities.

Keywords : Disaster Mitigation; Management Model; Mountain Tourism; Sustainability

ABS-IGEOS-23053

Banana Blossom as a Local Resource-Based Emergency Food Innovation Fusion Food Product

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This research aims to explain the innovation of emergency food products based on 'Fusion Food' that utilizes banana blossom as the primary ingredient. Banana blossom, as an abundant local resource in tropical regions often overlooked, takes center stage in this study. In the context of food crises and natural disasters, innovation in emergency food products is becoming increasingly critical. In this research, we combine typically unrelated food items, namely banana blossom and the culinary concept of Fusion Food, to create a diverse, nutritious, and long-lasting emergency food product. Researchers conducted experiments in processing banana blossom and explored ways to combine it with other ingredients with appealing flavors and textures. The research findings indicate that this banana blossom-based Fusion Food product has significant potential as emergency food that can provide the necessary nutrition during crises. This product can be stored for extended periods without compromising its quality, making it highly suitable for emergency situations. This study underscores the importance of innovation in developing emergency food products that address nutritional needs and flavor diversity. Furthermore, the research highlights the often-overlooked role of banana blossom in emergency food contexts. This product makes a significant contribution to enhancing food resilience and nutrition in emergency situations.

Keywords : Banana blossom, Fusion Food, emergency food, product innovation, Local Food Resource

ABS-IGEOS-23070

Tsunami Hazard Study on the West Coast of the Sunda Strait: A Case Study in Cinangka District, Serang Regency

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The area on the west coast of the Sunda Strait, especially in Cinangka and Anyer sub-districts in Serang Regency, has experienced rapid growth in recent times. The area has developed into a significant industrial, port and residential area. However, it should be noted that the coastal area of Cinangka District has a very high level of potential for a tsunami. The area on the west coast of the Sunda Strait in Serang District, including the Cinangka District and Anyer District, is mostly in the high and medium tsunami hazard zone. Tsunamis in the area can be caused by earthquakes with epicenters in the Sunda Strait and Indian Ocean, the volcanic activity of Mount Anak Krakatau, and underwater landslides. The experience of the tsunami disaster that occurred in the Sunda Strait in 1883 and 2019 provides valuable lessons for all of us in increasing disaster preparedness and risk reduction. The tsunami hazard map in the area of the west coast of the Sunda Strait is very important in planning for the development of a safe and sustainable area. The map is also an important tool in comprehensive disaster mitigation planning. Taking into account information about the potential tsunami hazard, appropriate planning steps can be taken to protect people and infrastructure effectively. Thus, the tsunami hazard map becomes an indispensable instrument to ensure safe and sustainable regional planning and to reduce disaster risk as a whole.

Keywords : Tsunami, Hazard, Earthquakes, Planning, Mitigation, Disaster

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