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URBAN PANORAMA

No. 2

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## FROM THE DESK OF CHIEF EDITOR

**Dr. Nishith Rai, Director**

In the age of rapid urbanization, the delicate balance between urban development and environmental sustainability has become increasingly precarious. As our cities expand and evolve, the need for effective urban and environmental management practices becomes imperative. This editorial piece delves into the intricacies of this symbiotic relationship, emphasizing the critical role of integrated strategies in fostering sustainable urban development.

Urbanization, while a hallmark of human progress, brings with it a multitude of challenges. Unplanned growth, increased pollution, and the depletion of natural resources are just a few of the issues that cities worldwide grapple with. The rapid pace of urban expansion often outpaces the implementation of sustainable practices, leading to adverse consequences for both the environment and the well-being of urban dwellers.

Simultaneously, the global environmental crisis demands urgent attention. Climate change, loss of biodiversity, and resource depletion are threatening the very foundation of our existence. The interdependence between urban areas and the environment is undeniable, as cities contribute significantly to environmental degradation while also bearing the brunt of its consequences. Recognizing this interconnectedness is the first step towards forging a path to harmonious coexistence.

To address the intricate web of challenges faced by cities today, a holistic and integrated approach to urban and environmental management is essential. Urban planners, policymakers, and environmentalists must collaborate to develop strategies that promote sustainable urban development without compromising the health of our planet. This involves adopting eco-friendly infrastructure, implementing efficient waste management systems, and fostering green spaces within urban landscapes.

In the era of smart cities, technology plays a pivotal role in shaping the future of urban and environmental management. Innovative solutions such as IoT (Internet of Things), data analytics, and AI-driven systems can be harnessed to optimize resource usage, monitor environmental parameters,





and enhance overall urban efficiency. Smart technologies can act as a catalyst for sustainable development, offering real-time insights and informed decision-making.

Furthermore, the involvement of local communities is paramount to the success of any urban and environmental management strategy. Communities must be empowered to actively participate in decision-making processes, fostering a sense of ownership and responsibility. This not only strengthens social cohesion but also ensures that the unique needs and values of each community are considered in the development process.

The task of harmonizing urban development with environmental sustainability is undoubtedly challenging, but it is also an opportunity to redefine the future of our cities. By embracing integrated strategies, harnessing smart technologies, and prioritizing community engagement, we can create urban spaces that thrive in harmony with the environment. The pages of this journal serve as a platform for sharing knowledge, experiences, and innovative solutions, as we collectively strive towards the creation of sustainable and resilient cities for generations to come.

The contribution to this end is also done by the experts, researchers, academicians, etc. in the field of Urban Development with whose support we at RCUES Lucknow bring out the Biannual Journal Urban Panorama. The journal presents the refereed results of original scientific research, and new developments in policy and practice in the fields of housing, spatial planning, building and urban development.

The aim is to give exposure to recent developments, providing a forum for the exchange and discussion of new ideas. The journal benefits a diverse readership of scientists, specialists, practitioners, and policy-makers in government and in organizations dealing with housing and urban issues.

Lucknow  
December, 2023



(Dr. Nishith Rai)  
Director



## FROM THE DESK OF EDITOR

Urban Panorama Journal seeks to serve as a valuable platform for the exchange of research findings, ideas, and information within the realms of urban development and the environment. Our aim is to facilitate communication among researchers, activists, non-governmental organizations (NGOs), international agency staff, students, and teachers. Each edition of Urban Panorama is dedicated to exploring emerging aspects of urban and environmental issues, emphasizing their interconnected nature. In the current issue, we present a collection of articles authored by experts and researchers in the field of urban governance and management.

In this issue of Urban Panorama, Gautam Makwana, in his paper titled, '*Social Intervention in the Peripheral Urbanization from a Cultural Relevance Perspective*', addresses the need for intervention in the peri-urban regions characterized by a lack of habitability, marginality, and segregation. The focus is on developing person-centered design techniques through a qualitative approach that actively involves the community in the social production of the environment. The goal is to create an inclusive city's imaginary by incorporating cultural narratives, signs, codes, and symbols, drawing on the memories and recollections of the occupants. The paper emphasizes methodologies such as community engagement, collaboration with locals, and the delivery of a designed product that enhances memory and identifies the desired urban space. The ultimate aim is to create defensible spaces that respect citizen participation, devoid of borders or limits.

Vinay M. Agrawal and Onkar K. Chothe, in their joint paper in his paper titled, '*Application of Ultra-Fine Material with Fly Ash in Ternary Mortar for Replacement of Ordinary Portland Cement*', investigates the potential of utilizing industrial by-products, specifically Fly Ash (FA) and Ultra-Fine Slag (UFS), as Supplementary Cementitious Materials (SCMs) in the construction industry. The study aims to understand the interaction between Ordinary Portland Cement (OPC), FA, and UFS in ternary mortar combinations with varying ratios. By substituting OPC with FA and UFS, the paper seeks to reduce the environmental impact associated with OPC production, particularly the release of hazardous gases, mainly carbon dioxide. The research evaluates the effects of different ratios of FA and UFS on the price, strength, and workability of mortars in comparison to a reference mortar. The ultimate goal is to identify optimal ratios that meet strength requirements while minimizing OPC usage, thereby contributing to sustainability by reducing carbon dioxide emissions and addressing waste disposal challenges in the construction industry.



Dr. S. Vijay Kumar in his paper titled, '*G20 New Delhi Summit 2023 – Analysis*', provides a comprehensive overview of the G20 and its evolution since its establishment in 1999. It explores the G20's role as a forum for addressing global economic issues, including trade, health, and climate, despite lacking a permanent institution. The study delves into the historical development of the G20, its expansion to include heads of state and government in response to the 2008 economic crisis, and the varied agendas discussed in annual summits. The paper underscores the significance of the 2023 G20 Leaders' Summit in New Delhi, chaired by Indian Prime Minister Narendra Modi, with a focus on green development, climate finance, accelerated growth, and inclusive development. Additionally, the paper addresses challenges faced by the G20, such as geopolitical tensions, economic shocks, and disagreements on issues like climate change. The concluding section analyzes the outcomes of the 2023 New Delhi Summit, emphasizing achievements such as the admission of the African Union as a permanent member and the discussion of critical issues like transport corridors and climate change.

Prof. Indrasen Singh and Prof. Saurabh Jindal, in their joint paper in his paper titled, '*Analyzing the Economic Viability of Flexible and Rigid Pavement Alternatives through the HDM-4 System Model: A Case Study on National Highway-28 in India*', conducts an economic analysis of flexible and rigid pavement alternatives for a national highway segment, addressing the challenges posed by the rapid increase in vehicle traffic. The study employs the Highway Development and Management (HDM-4) system model, which integrates current road conditions, traffic volume, and axle surveys to predict road deterioration. The HDM-4 tool simulates optimal choices based on Economic Internal Rate of Return (EIRR) and Economic Net Present Value (ENPV) values. Through a case study on a specific segment of National Highway - 28 in India, the paper illustrates the application of the model. The key findings emphasize the importance of combining road user expenses with life cycle analyses of pavement performance, maintenance, and improvement impacts to determine the economic feasibility of road investment projects. The study highlights that flexible pavement construction involves lower initial investment but higher maintenance costs, whereas rigid pavement requires higher initial investment but lower maintenance costs. The paper concludes that the choice between flexible and rigid pavement depends on specific circumstances and cannot be generalized, providing valuable insights for similar traffic patterns and pavement scenarios in developing nations.

Mitrajit Saha and Dr. Somenath Bhattacharjee, in their joint paper in his paper titled, '*Promoting Computer Literacy among the Rural Youth: A Study in the Jungle Mahal Area of Jhargram District, West Bengal*', addresses the increasing importance of computer literacy in a society that is rapidly transitioning to a digit-centric electronic format. The focus is on the unique rural living conditions in West Bengal, particularly in the jungle mahal area. The study aims to conduct a comprehensive



analysis of the thoughts and perspectives of rural youth in this specific region, considering the multi-ethnic population, including Santals (ST) and various scheduled castes (SC). The paper seeks to explore the relevance of computer literacy in the lives of youth in this particular context, recognizing it as a socio-cultural component of the present time. Additionally, the study aims to shed light on the potential positive and negative impacts of computer use on the development of rural youth, taking into account factors such as socio-economic background, family dynamics, and prevailing circumstances.

Dr. Alka Singh, in her paper titled, '*Status of Municipal Services in Small Town in Uttar Pradesh*', assesses the state of urban services in small and medium-sized cities across Uttar Pradesh, focusing particularly on cities significant for their religious and tourist importance. Uttar Pradesh, being one of the most populous states in India, hosts diverse cities that contribute significantly to the nation's GDP. Urban development in these cities is crucial and depends on various infrastructure and systems, including water supply, sewerage networks, transportation, solid waste management, etc. However, the majority of cities and towns face a significant gap in delivering municipal services compared to the public demand. Cultural and heritage cities, in particular, require attention due to the high influx of tourists, necessitating high-quality services and infrastructure. The study aims to provide insights into the current state of infrastructure, public services, and the need for urban planning in these cities. The research is based on primary data collected through field surveys.

The content and fresh presentation of the journal is anticipated to benefit a wide readership. The current standing of Urban Panorama is attributed to comprehensive support from our authors, referees, and members of the Editorial & Advisory Board. Additionally, ongoing guidance and suggestions from officials of the Ministry of Housing and Urban Affairs, Govt. of India, New Delhi, along with the valuable input from our readers have played a crucial role. I am confident that our collective efforts will facilitate the attainment of new heights of success in the realm of Urban Development education and research through such publications.

Lucknow  
December, 2023



**Rachna Rishi**  
Publication Officer



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I, Nishith Rai, declare that the particulars given above are true to the best of my knowledge and belief.

Nishith Rai



## GUIDELINES FOR CONTRIBUTORS

The editors and the publishers of this Journal welcome the submission of original research papers and brief research reports, notes for publication on condition that they are submitted solely to the Urban Panorama and that they will not be reprinted or translated without the consent of the editor. Papers will be judged on the content of their original data or interpretation and Referee's comments.

### NOTE FOR CONTRIBUTORS

All papers must be accompanied by an abstract and key words with the degree/ diploma, etc. of the authors along with the recognized abbreviations and the name of the University awarding the degree/ diploma in each case. Authors should also provide the details of their current institutional affiliation.

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Manuscripts should be submitted in duplicate. Articles should be typed in A-4 size paper, on one side only, with sufficient margin on all 4 sides. An abstract should accompany the articles. The text, abstract, notes, references etc. should be typed in double space. Also send a soft copy (directorrcueslko@gmail.com) or CD on MS word. All materials submitted to Urban Panorama should be sent to the Chief Editor, Regional Centre for Urban and Environmental Studies, Lucknow University Campus, Lucknow. The authors must provide an undertaking along with the article, stating that "the article/ study is my own work and has neither been published nor sent/ submitted for publication elsewhere".

Contributors must give their affiliations, complete mailing address (both postal and email), as well as their phone and fax numbers.

Consistency should be observed in the use of hyphen. For e.g. either 'psycho-social' or 'psychosocial' should be used throughout the article.

Tables and Figures should be indicated by numbers (Table 1) and not location (the Table below).

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Urban Panorama prefers articles (English/Hindi) of practical value.

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## CONTRIBUTORS

1. Gautam Makwana, Research Scholar Ph.D (Social Work) School of Social Science, Department of Social Work Mizoram University (A Central University) Aizwal, Mizoram.
2. Vinay M. Agrawal, Assistant Professor, National Institute of Construction Management and Research, Hyderabad, Telangana.
3. Onkar K. Chothe, Assistant Professor, National Institute of Construction Management and Research, Hyderabad, Telangana
4. Dr. S. Vijay Kumar- Retired HOD & Associate Professor of Economics, KGC, Ex- Member of Board of Studies in Economics, Kakatiya University, Warangal, Telangana State (India).
5. Prof. Indrasen Singh, Senior Professor and Dean (Academic Affairs), NICMAR Hyderabad.
6. Prof. Saurabh Jindal, Assistant Professor, NICMAR Hyderabad.
7. Mitrajit Saha, Junior Research Fellow, Anthropological Survey of India, Eastern Regional Centre, Kolkata-700091.
8. Dr. Somenath Bhattacharjee, Corresponding author, Professor, Department of Anthropology, Nagaland University (Lumami Campus), Nagaland.
9. Dr. Alka Singh, Joint Director, Regional Centre for Urban and Environmental Studies, Lucknow.

# Regional Centre for Urban & Environmental Studies

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## For further details contact:

Regional Centre for Urban &  
Environmental Studies, Lucknow  
Adjacent Registrar's Office,  
University of Lucknow-226007  
0522-2740-165, 2740-382,  
Fax : 0522-2740-165  
rcueslucknow@gmail.com  
www.rcueslucknow.org

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