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## FROM THE DESK OF CHIEF EDITOR

**Dr. Nishith Rai, Director**

Water is life. This often heard phrase is actually a warning in itself that implies there is no possibility for life to exist without this valuable resource. It not only sustains life but also various ecosystems and production processes that are essential for life to exist on this planet. Despite this knowledge it is a testament to the monumental failure of human civilizations to not respect and protect this natural resource.

India's Population which covers 18 percent of the world's population occupies 2.4 percent of the total geographical area consumes 4 percent of total water resources. According to the Ministry of Water Resource, the per capita availability of fresh water in India in 1951 was 3,450 cubic meters per person and in 1999 it came down to 1,250 cubic meters and is expected to decrease to 662 cubic meters by 2050. The agriculture sector dominates the ground water usage by some estimate of up to 80 percent of the total use and it is imperative to keep in mind the growing population that will eventually require the agricultural yield to double the present figures by 2050 if it has to sustain itself. The alarming figures do present a grim picture; however, there is still possibility to mitigate the problem to some extent. Pricing water, rationalising subsidies for more equitable distribution of water services, adopting water use efficiency methods, use of treated wastewater, regulation of groundwater use, agriculture electricity tariff revisions, and climate change impact mitigation measures are the need of the hour.

The impact of climate change has brought changes in weather patterns, erratic rainfall with sporadic spells of drought and floods. More than half of the cultivable area in India is dependent on rainfall. This adds pressure to the already dwindling groundwater and therefore sustainable water management is the only way forward. Research in innovative methods that can optimize the water use and produce a good yield is the key here. Implementation of the best irrigation practices by adopting a multidimensional approach that can strategically reduce water loss, adoption of efficient irrigation systems, efficient fertilizer application combined with reusing marginal waters (saline water, wastewater, and runoff water) for



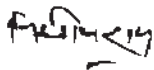
agriculture are some ways to ensure efficient management of water. Water conservation practises like water harvesting and small water storage should be the norm and not just an ideal.

Another problematic area is the fragmented nature of water management in India with more than 17 different departments and agencies dealing with water-related issues – ranging from the Ministry of Jal Shakti (MoJS), Ministry of Agriculture, Ministry of Environment, Forest and Climate Change, Ministry of Housing and Urban Affairs, Ministry of Health, Ministry of Power, Ministry of Industry and Commerce, Central Water Commission, Central Water Board, Central Pollution Control Board, Indian Metrological Department, Inland Waterways Authority of India, and the corresponding departments in the states. The need of the hour is regulating the standards – for health safety, discharge of treated wastewater, industry effluents, zero liquid discharge, diffused pollution from agricultural fertilisers and pesticides, sanitation services, water supply levels, groundwater extraction, pricing mechanisms, utility efficiency, and demand side management. The government policies should have community participation at its core in mitigating the water management. Water management should be based on sound comprehensive scientific data that can assess the effectiveness of the policies and the accomplishment of set targets.

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, 2022

  
(Dr. Nishith Rai)  
Director





## FROM THE DESK OF EDITOR

The Journal Urban Panorama aims to provide an effective means for the exchange of research findings, ideas and information in the fields of urban development and environment among researchers, activists and non-governmental organizations (NGOs) international agency staff, students and teachers.

With every new issue of Urban Panorama, we focus on newer areas of urban and environmental issues and their interconnections. In this issue, we have a bouquet of articles by experts and researchers in the field of urban governance and management.

In this issue of Urban Panorama, Chetna Singh Aman Singh Rajput Toshi Yadav Jyoti Ahlawat, Akanksha Singh in their joint paper titled, “Paradigm Shift in the Development Discourse through Involvement of Women – Case Study of Mukandpur”, focus on the issue of segregation and its implications for the villagers, especially the marginalized sections of population. Traditionally, Indian villages have been spatially segregated on caste and religion basis. This has further been manifested in socio-economic divisions in the villages. Certain villages in the Chhaprauli Block have also shown similar evidence of spatial grouping but one of them, namely, Mukandpur, showed some signs of revival from this pattern with respect to socio-economic segregation. The study shows that this could be attributed to the decentralization process which was initiated in 1992. Mukandpur village is a good case study to look at how bottom-up approach can bring about developmental impacts through decentralization of functions, funds and functionaries.

Dr. Joy Karmakar, in his paper titled, “From Smart City to Green City: Could Rajarhat New Town Kolkata Convey A Desirable Model of Sustainability?” takes a broad political economy approach to explore the socio-spatial changes occurred in and around the New Town Kolkata. The



paper also compares the smart city mission and green city mission and its shortcoming as well as its impacts on the New town Kolkata. Lastly, the study explores the changing land use and ecological consequences faced by the people. The study reveals that the visualization of New Town Kolkata as 'global hub' could not create new livelihood opportunities to people living around the townships.

Dr. Vinay Agrawal, in his paper titled, "Highway survey methods for measuring angles, elevations and distances using Global Positioning System and Remote Sensing" delves into the steps in the design of a proposed highway is to determine the location. Topography, soil characteristics, cost, social aspect, environmental aspects could be the basis of selection of any specified location for high project. Generally for any new alignment, two or three alternate route of highway is surveyed using different methods. Reconnaissance survey, preliminary location survey, global positioning system and remote sensing are used to complete the survey of any alignment. The advanced survey methods using Global Positioning System and Remote Sensing are commonly used in large road/highway projects. The presented paper provides an insight of these survey methods and their significance on highway project.

Vipendra Singh Thakur, in his paper titled, "Heritage City Development: A Case of Sagar Khas Historic Town" aims to address the case of Sagar Khas, under the methodology of the Historic Urban Landscape (HUL) approach, to highlight the potential of a historic town and examine the strategies which can be adopted for future development.

Dr. Baby K and Jyothi KK, in their joint paper titled, "An Analysis of Housing Environment and Waste Management Practices in Urban Kerala" analyses how housing, sanitation, drainage and waste management are closely related to health and living condition of the people of Urban Kerala and it highlighted the need a good system of waste management including better treatment for waste water and solid waste along with good housing environment.

Gautam Makwana, in his paper titled, “Mental Health is an Essential Component of General Health” focuses on the fact that mental or psychological well-being of an individual as well as the society is important for the general health. The author emphasizes that there should be exercises to raise understanding of the mental health spectrum, lessen stigma associated with mental illness, encourage help-seeking and emotional wellbeing practices, and prevent suicide through individual education and outreach activities as it is essential for socioeconomic, communal, and individual growth.

Dr Lal Krishna Mishra and Professor V.K. Tripathi, in their joint paper titled, ‘लखीमपुर-खीरी जनपद के विकासखंड पलिया में थारु जनजाति के विकास में पंचायती राज तंत्र की भूमिका का मूल्यांकन में थारु जनजातिय समाज एवं पंचायतीराज के अंतर्संबंधों का आंकलन एवं विश्लेषण किया गया है साथ ही स्थानीय शासन किस प्रकार थारु जनजाति के समेकित विकास में कार्यशील है किस प्रकार और प्रभावी हो सकता है इस पर प्रकाश डाला गया है।’

It is expected that the readers at large will be benefitted by the content and new presentation of the journal. Urban Panorama has achieved the present status due to all round support from our authors, referees, members of Editorial & Advisory Board of the journal and also time to time guidance and suggestions from the officials of the Ministry of Housing and Urban Affairs, Govt. of India, New Delhi, and of course the readers.

I am sure joint efforts of all of us will make our task easier to achieve the heights of new successes in the field of Urban Development education and research through such publications.

Lucknow  
December, 2022



**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





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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.

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