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FROM THE DESK OF CHIEF EDITOR

Dr. Nishith Rai, Director

The COVID-19 pandemic has been a watershed moment in our present time. There is no denial that COVID-19 virus has crippled the world economy with the spread of the virus and the resultant lockdowns and restrictions. Across the globe, it has brought life to a standstill but mostly its effect has been felt across the cities. We are still trying to grasp the economic impact of the pandemic but the sociological, cultural and psychological impact may take decades to comprehend and mitigate. It will be not an exaggeration to say that the pandemic has challenged our perception of reality and has forced us to accept the "New Normal" as we adjust to a post-COVID world. However, this is not the first time that the world is facing a global pandemic; the Avian flu, Swine Flu and Ebola Crisis, for example, comes to the mind. However, the COVID-19 crisis is unique in many respects. In a very short period, the virus has exposed the existing fault lines in our society namely the inherent inequalities in income, gender, race and opportunity (Muggah & Ermacora, 2020) and has proved that perhaps we are not so invincible after all.

The Global response to the pandemic has been largely lockdowns of varying degree of strictness and stress on social distancing. Now, that most of the countries have begun the process of unlocking their economies their focus has shifted on mitigating the impact of the virus through practising social distancing as a part of life. The pandemic and the resultant lockdown have led to many changes in the way people lived, worked, shopped and conducted their business. No doubt there have been considerable losses of life, jobs and opportunities but it also has led to serious discussions on building infrastructure that can survive such pandemics in future. Epidemiologists and health experts are in general of the opinion that there could be such onslaught of highly transmissible infectious disease in future (Elis, 2020). In such a scenario the only practical way forward is to reevaluate the way cities are built, maintained and lived in (Elis, 2020).

The pandemic has in many respects forced us to reprioritize our urban development goals to accommodate healthy cities as our priority. It has made us realize that urban healthcare infrastructure also needs to be strengthened to handle such crisis in future. The way forward for us could be a two-step process. The first step is to understand the challenges posed by this new reality of post-COVID life and second will be on evolving ways to address them sustainably.

Cities have to adapt and evolve to accommodate the new working challenges and must keep in mind future trends before planning their development activities. The pandemic has made us realize that perhaps work from home is a viable option and many organizations are looking seriously on these lines. However, this does not mean that people will stop commuting and that public transportation will be impacted. On the contrary, there will be a renewed demand for public transportation albeit with greater hygienic standards in place. Cities will perhaps continue to grow beyond their borders with the development in information technology and greater data bandwidth coverage to even remote areas. In any case, it is practically impossible for any city no matter how big to support each citizen to travel by their private vehicles. Therefore, cities will have to explore means of safe public transportation along with newer job opportunities for the large population of its workforce. The pandemic has also exposed the sad truth that those who are at the margins of the society are often the ones to bear the brunt of such disasters. They are often relegated to the ghettos of the city with unhealthy conditions and with very little access to water and sanitation. Cramped living quarters with practically zero possibilities for quarantine these slums are practically just practically just ticking time bombs.

The need of the hour for the cities is, therefore, should be to understand their challenges and evolve strategies that can be locally sustained, cost-effective and humane. Cities will continue to grow and will always be a beacon of hope and opportunities for people from all walks of life. This pandemic has only acted as a wakeup call for ensuring that we grow for its people and not against them.

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
June, 2020

(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, Dr. Shailendra Kumar, in his paper titled, '*Sanitation in Varanasi City: Present Status and Challenges*'- attempts to review the status of urban sanitation in Varanasi. Providing environmentally safe sanitation to the people of world's second most populous nation is a challenging task. The challenges that urban sanitation sector faces mainly relate to the low priority accorded to it by the municipal governments. This task becomes more intricate in context to the country like India where introduction of new paradigms of plans, policies or projects can challenge people's tradition and belief. Environmental sanitation aims at improving the quality of life of the individuals and at contributing to social development. This includes disposal or hygienic management of liquid and solid human waste, control of disease vectors and provision of washing facilities for personal and domestic hygiene. Environmental sanitation comprises both behaviour and facilities to form a hygienic environment. Most diseases associated with water supply and sanitation, such as diarrhoea, is spread by pathogens found in human excreta.

Dr. A. K. Singh and Dr. Shipra Panwar, in their joint paper titled, '*Disaster Management and Urban Resilience in India: Critical Appraisal of Policy*

Perspective'- purports to examine the disaster vulnerability, policy perspective and urban resilience in India. It also provides critical appraisal of India's policy perspective and institutional mechanism for managing disasters. India is one of the world's major theatres of disasters both natural and human induced India's geo-climatic conditions as well as its high degree of socio-economic vulnerability make it one of the most disaster prone countries in the globe. The country is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. Out of 35 states and union territories in the country, 27 of them are disaster prone. The COVID pandemic has widely affected most of the countries and India is no exception of it. By July 3, 2020, there were about 6.25 lakh confirmed cases of COVID. Out of total cases, about 87 percent cases are from Maharashtra, Tamil Nadu, Andhra Pradesh, Telangana, Gujarat, Delhi, Rajasthan, and Uttar Pradesh. Though, recovery rate of cases is higher in India, however, the pandemic has devastated the economy and massively attacked the social fabric of the nation.

Dr. Abhishek Awasthi in his paper titled- '*Ecological Sanitation and Faecal Sludge Management in India*'-aims to examine the status of ecological sanitation and faecal sludge management in cities and suggesting roadmap for improving sanitation conditions. Access to safe sanitation services is fundamental for healthy and productive lives. Weak sanitation has significant health costs and sewage-free water from cities is the largest source of water resource pollution in India. Water-borne sanitation as used in conventional sanitations having more fundamental shortcomings than their high costs such as over-exploitation of limited renewable water sources, pollution of soil and groundwater, waste of valuable components in wastewater and the difficulty for an effective removal of pollutants. The problem of sewage sludge and septage/sewerage must be addressed holistically, with a strategy that provides for minimum requirements and is suitable and affordable for all areas and populations considering the local situation. Ecological sanitation systems have been promoted as a way to meet sanitation needs. In the absence of adequate safe and ecological

sanitation, many Indian cities are already suffering the consequences, in the form of health diseases and severe pollution of water and soil resources.

Prof. (Dr.) Indrasen Singh, in his paper titled, '*Intelligent Transportation System for Sustainability of Greenfield Township*', talks about the intelligent transportation system and the wide scope of study it has and the unique business idea for potential capital investor. A business model defines how a business works and the logic that creates its value. It provides the vital links between an organization's vision and strategy with its structures and processes. An intelligent transportation system requires huge capital to be invested for implementation and also the maintenance and operational cost is relatively high so it has to be well managed at operation and maintenance time. It is potential business model which gives high returns on the investments so it is the main objective to do this study. The paper attempts to study the concept of E-business model of the intelligent transportation system and to suggest the strategies which will be useful in developing countries for sustainability of Greenfield Township.

Dr. Priyadarshini Sen, in her paper titled, '*Slum Development Programme in Situ-Case Study on Hatgachia Slum Area, West Bengal*' - talks about Hatgachia located in the vicinity of Kolkata Metropolitan Area which comes under scrutineer as far as slum redevelopment programme is concerned. The paper delves in to assessing how India's urbanization shows overall metropolitan stagnation in the core, suburbs, and peripheries combined as far as the concentration of people and jobs are concerned. The papar deals with the aspects of expected rapid economic concentration in large metropolitan areas with good market access after India's economic liberalization from the early 1990s, along the lines of what was seen following China's economic liberalization in the 1980s. The author focuses on India's otherwise liberalized economic policy environment, stringent regulations on urban development densities are pushing businesses and people out of urban cores. These constraints on land use are also making housing expensive, pricing out poor and middle-class households from urban centres and

increasing commuting costs for workers. Where do these displaced firms and workers go? To the suburbs, beyond the municipal boundary. And these suburbs are also home to the many new entrants.

Er. A K Gupta and Ar.Priyanka Kumar, in their joint paper titled, '*Community Participation in Solid Waste Management*', focuses on assess community participation in solid waste management. The paper speaks specifically about the categories of solid wastes generated, reviewed the current practices of solid waste management and their constraints and also the level of awareness and attitude towards community participation in solid waste in various case studies. This paper recommends increased awareness and setting up of decision makers committees across the country. The paper finally concludes that a coordinated approach is necessary to address solid waste management in India with the principle of 10 "R"s of waste management –refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle and recover.

Prof.V.P. Sharma and Rachna Rishi, in their joint paper titled- '*Role of Surveillances, Emergencies Preparedness, Community Participation in Nation building and Management of Resources*'- discusses how public health emergencies have the potential to disproportionately impact disadvantaged populations due to pre-established social and economic inequalities with demographic dynamics at its place. Pandemic planning with attainment of public support regarding local values and beliefs is beneficial and may ultimately lead to increased acceptability, feasibility, and implementation of pandemic plans. As pandemic plans are dynamic in nature, the paper recommends that the plans are continuously updated to address the communities' evolving needs. The paper focuses on the scientific expertise we have but the need to periodically review and accordingly implement in true spirits the healthcare infrastructure even for the worst situations or calamities, along with sustainable back-up plans. The surveillance of public health is the continual systematic compilation, analysis, and interpretation of data. It must be integrated with the timely dissemination of data to target and associated groups responsible for disease control.

Ar. Priyank Jain, Prof Minakshi Jain and Dr I.P. Singh, in their joint paper titled, '*Effect of Urbanization on hill town of Nainital*', discusses about the importance of the landscape on hills. Primary Survey has been done to collect data. Urban areas are the central points of society's strength and weakness. On the one hand, the urban area is the powerhouses of financial growth; while on the other hand, they are the hot spots for various social problems, social conflict and environmental degradation. The growing system of roads has played a significant role in the process of clustering more residents in urban centres. E.g. Nainital, Shimla, are far-off more than their carrying capacity and facing the problems regarding water and sanitation. Urbanization is a complex phenomenon which is exaggerated by the physical, cultural, social and economic structure of the region. In Nainital, owing to its unique physical-cultural and economic situation, the course of urbanization is slower than most of the other hill stations in the country. Taking into consideration Nainital as a growing urbanizing city, it is a necessity to consider the factors touching the development of urbanization, especially from the Ecology-Environmental approach. Many studies, for that reason, pay attention to the concept of urban areas mainly due to urban planning actions, such as planning of streets, with land-use distribution, and changes in population density. Landscape elements, on the other hand, been ignored, regardless of the fact these elements are more critical which directly affect the socio-cultural and economic behaviour of the area.

Er A.K. Gupta and Shweta Goswami, in their joint paper titled, '*Use of Geo-spatial Tools & Technologies to Reform Property Tax: The Approach of Municipal Corporation of Lucknow*' discusses a case study of Zone 4 of Lucknow district in Uttar Pradesh. Zone 4 of Lucknow comprises of 8 wards having area of 27.07 Sq. Km and 5754 existing commercial properties as per Nagar Nigam Ledger. Zone 4 has been surveyed using the mobile application by capturing the Geolocation as well as associate features of the commercial properties and a total of 10273 commercial properties reported after surveying, in which 5153 properties are newly assessed properties.

Difference of New and old tax of Rs. 17.26 crore has been found after surveying .The highlighting prime features of the paper include a) Data Collection and verification of each property through mobile based contact survey. b) Database generation also digital photograph of each property/holding. c) Fixation of house number plate with a unique identification number. d) Enhancement of Base map e) Feature and function of Property Tax Management Software f) Integration of demand of property tax and water tax & Sewerage tax and online deposition of the taxes. The paper illustrates how the project has revolutionized the tax revenue of the study area by additional tax collection, better system of tax calculation and working of property Tax Management software, hence achieve the financial security, greater peace of mind and brought transformation in Urban Local bodies, Lucknow, Uttar Pradesh.

डॉ. लाल कृष्ण मिश्रा ने अपने शोध पत्र जिसका शीर्षक *'जैव विविधता अवनयन एवं संरक्षण'* है, में यह प्रकाश डाला है कि एक निश्चित भौगोलिक क्षेत्र में पाए जाने वाले समस्त प्राणियों एवं वनस्पतियों की प्रजातियों के संयुक्त स्वरूप की संख्या को ही जैव विविधता कहते हैं। भारत की वैश्विक स्थिति एवं जलवायु विविधता देश को एक समृद्ध जैव विविधता प्रधान राष्ट्र के रूप में स्थापित करती है। यहां पर जलीय तथा स्थलीय दोनों प्रकार की जैव विविधता हमेशा से ही उपलब्ध है। जैव विविधता स्थानीय भौगोलिक दशाओं (वर्षा तापमान, मौसम परिवर्तन, आर्द्रता, धरातलीय स्वरूप, स्थल एवं जल) द्वारा निर्धारित और नियंत्रित होता है। वर्तमान समय में पृथ्वी के समस्त जीवधारियों में से ज्ञात एवं वर्णित जातियों की संख्या लगभग 1800000 है, जो वास्तविक संख्या के 15% से कम है। ज्ञात जातियों में से लगभग 61% कीटों के रूप में वर्णित है, स्तनधारियों की 4650 जातियां है एवं पादप जातियां 270000 है। भारत में विश्व के कुल भूभाग का मात्र 2.4% भाग है लेकिन वैश्विक जैव विविधता में इसका योगदान 8% प्रजातियों का है। देश में सर्वाधिक जैव विविधता पश्चिमी घाट, हिमालय प्रदेश एवं इंडो–बर्मा बॉर्डर में पाया जाता है। जैव विविधता पारिस्थितिकी संतुलन एवं पर्यावरणीय गुणवत्ता का अनिवार्य पहलू है जैव विविधता के अभाव में पृथ्वी पर जीवन की कल्पना नहीं की जा सकती है। अत्यंत खेद का विषय है कि वैश्विक एवं राष्ट्रीय स्तर पर जैसे–जैसे सामाजिक आर्थिक विकास बढ़ रहा है वैसे–वैसे जैव विविधता नष्ट होती जा रही है। एक रिपोर्ट के अनुसार प्रतिवर्ष लगभग 1000 प्रजातियों की संख्या नष्ट होती जा रही है। जैव विविधता हमारे पोषण, हर्बल चिकित्सीय उत्पाद, पादप आधारित उद्योगों के लिए कच्चा माल, शुद्ध ऑक्सीजन, इत्यादि के

महत्वपूर्ण स्रोत है अतः इनकी संख्या में निरंतर गिरावट अत्यंत चिंताजनक है। जनसंख्या विस्फोट, वनों का उन्मूलन, वन्यजीवों के प्राकृतिक आवास के साथ छेड़छाड़, बढ़ता जलीय तथा स्थलीय प्रदूषण, जलवायु परिवर्तन एवं ग्लोबल वार्मिंग, इत्यादि ऐसी मानवीय गतिविधियां हैं जिसके कारण जैव विविधता नष्ट हो रही है। जिसका परिणाम यह है कि पर्यावरण की गुणवत्ता एवं पारिस्थितिकी संतुलन नष्ट हो रहा है। ऐसी स्थिति में मानव सभ्यता की सतत विकास की अवधारणा संदेहास्पद होती जा रही है। सर्वाधिक जैव विविधता उष्णकटिबंधीय वर्षा वन क्षेत्र में होती हैएकिंतु वहां वनों में लगने वाली आग कृषि का प्रसार वनोन्मूलन इत्यादि ऐसी घटनाएं हैं जिसके कारण जैव विविधता नष्ट हो रही है। आज आवश्यकता इस बात की है कि जैव विविधता का संरक्षण एवं नियोजन किया जाएए ताकि पर्यावरण की गुणवत्ता को बनाए रखते हुए मानव सभ्यता सतत विकास की अवधारणा सुनिश्चित कर सके।

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.

Rachna Rishi
Publication Officer

Lucknow
June, 2020

STATEMENT OF FORM IV

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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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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.

Manuscripts: Authors should follow the style of any recent issue of the journal for preparing their manuscript. Scripts should be typewritten, original and first carbon copy with margins and double space on one side of the paper only. All pages should be numbered consecutively. An abbreviated title of the paper not exceeding thirty letters should be provided. Notes, references, tables and illustrations should be neatly presented on separate sheets and numbered consecutively for each. The length of the article should not normally exceed 8000 words.

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).

Manuscripts not accepted for publication would not be returned to the contributions (s) unless the request for their return is accompanied by a stamped and self-addressed envelope.

Book reviews and review article will be accepted only when accompanied by one copy of the book reviewed.

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

The Chief Editor is responsible for the selection and acceptance of articles, but responsibility for views expressed in them rest with the author (s).

References: Quotations in the text should be short and included within single quotes. References to literature cited should be carried within the text; they should be given by the surname of author followed by the year of publication and the page or section number in brackets. For example: (Majumdar 1958: 125). The author's name need not be included if it appears in the text in the same sentence.

A list of references cited under the caption REFERENCES should be added at the end of the paper. It should be arranged alphabetically by the author's surname and chronologically for each author. Please observe the following conventions (i) book titles should be underlined to be italicized; (ii) titles of articles, followed by the name of journal or edited volume in which it appears in italics; (iii) if several publications by the same author in the year are cited, a, b, c etc. should be added after the year of publications; (iv) all reference entries should correspond with the references in the body of the text.

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Authors are requested one soft copy of the paper in M. S. Word should be sent in a CD along with two hard copies. These should be sent directly to the Editor at Lucknow by Speed Post or through Courier Service.

The editor reserves the full right to adjust articles with the requirement of the journal. The editorial board is not responsible for the opinions and statements of contributors of the Urban Panorama.

Exchange proposals should be addressed to the Editor and requests for subscription should be addressed to Serials Publications.

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CONTENTS

1.	Sanitation in Varanasi City: Present Status and Challenges- Dr. Shailendra Kumar	1-12
2.	Disaster Management and Urban Resilience in India: Critical Appraisal of Policy Perspective- Dr. A. K. Singh and Dr. Shipra Panwar	13-28
3.	Ecological Sanitation and Faecal Sludge Management in India-Dr. Abhishek Awasthi	29-46
4.	Intelligent Transportation System for Sustainability of Greenfield Township- Prof. (Dr.) Indrasen Singh	47-60
5.	Slum Development Programme in Situ-Case Study on Hatgachia Slum Area, West Bengal-Dr. Priyadarshini Sen	61-68
6.	Community Participation in Solid Waste Management- Er. A K Gupta and Ar.Priyanka Kumar	69-84
7.	Role of Surveillances, Emergencies Preparedness, Community Participation in Nation Building and Management of Resources- Prof.V.P.Sharma and Rachna Rishi	85-92
8.	Effect of Urbanization on Hill Town of Nainital- Ar. Priyank Jain, Prof Minakshi Jain and Dr I.P Singh	93-98
9.	Use of Geo-spatial Tools & Technologies to Reform Property Tax: The Approach of Municipal Corporation of Lucknow- Er A.K. Gupta and Shweta Goswami	99-108
10.	जैव विविधता अवनयन एवं संरक्षण – डॉ. लाल कृष्ण मिश्रा	109-130

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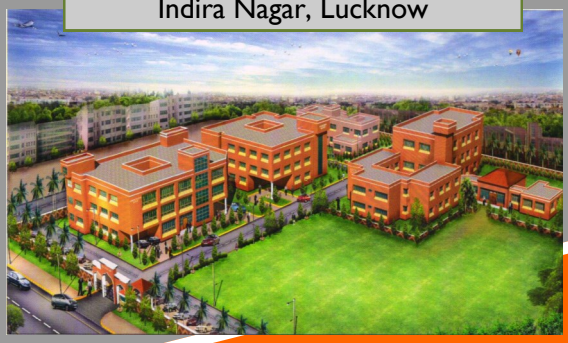

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