

The Urban World

Quarterly Publication



**Regional Centre for Urban and Environmental Studies
All India Institute of Local Self-Government, Mumbai**



Regional Centre for Urban & Environmental Studies (RCUES), Mumbai (Supported by the Ministry of Housing and Urban Affairs, Government of India)

Established in 1926, the All India Institute of Local Self Government (AIIILSG), India is a premier autonomous research and training institution in India. The Institute was recognized as an Educational Institution by Government of Maharashtra in the year 1971. The Institute offers several regular training courses in urban development management and municipal administration, which are recognized by the Government of India and several State Governments in India.

In the year 1968, the Ministry of Housing and Urban Affairs (MoHUA), earlier Ministry of Urban Development), Government of India (GoI) established the Regional Centre for Urban & Environmental Studies (RCUES) at AIIILSG, Mumbai to undertake urban policy research, technical advisory services, and building work capabilities of municipal officials and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and UTs of Diu, Daman, Dadra & Nagar Haveli. The Ministry of Housing and Urban Affairs (MoHUA), Government of India added States of Assam and Tripura from February, 2012 and Lakshadweep from August 2017 to the domain of RCUES of AIIILSG, Mumbai. The RCUES is supported by the MoHUA, Government of India. The MoHUA, Government of India has formed National Review and Monitoring Committee for RCUES under the chairmanship of the Secretary, MoHUA, Government of India. The Principal Secretary, Urban Development Department, Government of Maharashtra is the ex-officio Chairman of the Advisory Committee of the RCUES, Mumbai, which is constituted by MoHUA, Government of India.

The RCUES was recognized by the MoHUA, Government of India as a National Training Institute (NTI) to undertake capacity building of project functionary, municipal officials, and municipal elected members under the earlier urban poverty alleviation programme-UBSP. The RCUES was also recognized as a Nodal Resource Centre on SJSRY (NRCS) and Nodal Resource Centre (NRC) for RAY by then the Ministry of Housing and Urban Poverty Alleviation, Government of India.

The then Ministry of Urban Employment and Poverty Alleviation (MoUE&PA), GoI and UNDP have set up the 'National Resource Centre for Urban Poverty' (NRCUP), which is anchored by RCUES at AIIILSG, Mumbai.

AIIILSG, Mumbai is empaneled by the Ministry of Housing and Urban Affairs, Government of India, for providing technical support to the ULBs in the field of water supply, sanitation, sewerage and drainage systems. RCUES, Mumbai is also identified as a technical service provider in Municipal Solid Waste Management projects under Swachh Bharat Mission (SBM) launched by the MoHUA, GoI.

Over the years, RCUES of AIIILSG Mumbai has been working in close coordination with state and local Governments to provide strategic, advisory, technical and capacity building support for assessment and improvement in infrastructure service delivery in cities.

Maharashtra Urban WASH and Environmental Coalition (Maha UWES-C) is a joint initiative of the RCUES of AIIILSG, Mumbai, and UNICEF Maharashtra. The Coalition brings together local organisations, thought institutions and sector experts to strengthen municipal capacities and encourage collaborative action to enhance service delivery in WASH (Water, Sanitation, and Hygiene) in urban Maharashtra. The Secretariat of the Maha UWES-C is anchored at RCUES of AIIILSG Mumbai. In 2022, MoU is signed with the Directorate of Swachh Maharashtra Mission, Urban Development Department, Government of Maharashtra for building capacities, facilitating partnerships, and supporting innovations under Swachh Maharashtra Abhiyan - Urban 2.0 under Maha UWES-C.

Along with ULBs, it is also engaging with multiple stakeholders like NGOs/CBOs, SHGs, private sector organisations, financial institutions at city level for providing technical and strategic support focusing on preparing action plans/strategies, technical assessment reports, CSPs/CDPs/DPRs as well as on-ground support by engaging with communities for improvement in various urban sectors to ensure improved quality of life to the citizens. AIIILSG, Mumbai is also working at the grass root level in cities through field visits, guiding ULB officials, conducting situation assessments with the objective of bridging the gap between the cities and state for sustainable sanitation solutions under Swachh Bharat Mission Urban.

In February 2016, the then Ministry of Housing and Urban Poverty Alleviation, Government of India empaneled the RCUES of AIIILSG, Mumbai for conducting training and capacity building programme for experts of SMMU, CMMUs, COs, Key Officials and other stakeholders of the states and ULBs under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY – NULM).

In 2017, AIIILSG was empaneled among one of the 35 agencies in India for conducting Integrated Capacity Building Programmes (ICBP). AIIILSG Mumbai is supporting the states of Maharashtra, Rajasthan and Goa for the same.

Through all these activities, RCUES of AIIILSG Mumbai is striving to transform the notion of capacity building by not limiting itself to trainings / workshops but engaging with the state and local governments at multiple levels. With a small but enthusiastic team, RCUES, Mumbai will continue to strive towards improving the capabilities of municipal officials with a broader objective towards developing able governments thereby enabling better cities.

Mr. Ranjit Chavan

President, AIILSG

Editorial Board-

Editor-in-Chief

Dr. Jairaj Phatak, IAS (Retd.)

Director General, AIILSG

Editorial Board Members

- ◆ **Dr. Snehalata Deshmukh**
Former Vice-Chancellor, University of Mumbai, Mumbai.
- ◆ **Dr. Joop W. de wit**
Senior Lecturer, Institute of Social Studies, the Hague, the Netherlands.
- ◆ **Mr. Ajitkumar Jain, IAS (Retd)**
Former Additional Chief Secretary, CM's Secretariat, Government of Maharashtra, Mumbai.
- ◆ **Dr. K. H. Govinda Raj, IAS**
Principal Secretary, Urban Development, Government of Maharashtra & Ex-officio Chairperson, RCUES, Advisory Committee.
- ◆ **Dr. Dinesh Mehta**
Professor Emeritus, CEPT University, Ahmedabad.
- ◆ **Dr. Vibhuti Patel**
Vice President, Indian Association for Women's Studies, Mumbai.
- ◆ **Dr. Vandana Desai**
Senior Lecturer in Development Studies and Director MA/Msc Development and Environment, Department of Geography, Royal Holloway, University of London, U.K.
- ◆ **Mr. Fazalahmed Khan**
Advisor, AIILSG, Mumbai.

The Urban World - Quarterly Publication of Regional Centre for Urban and Environmental Studies of All India Institute of Local Self-Government, Mumbai

(April-June, 2023)

Published by -

Dr. Jairaj Phatak, IAS (Retd.),

Director-General

All India Institute of Local Self-Government,
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
Opp. Government Colony Bldg. No. 326, TPS Road No.12, (BKC)
Bandra (East), Mumbai - 400 051, India
Tel : 8657622550 / 51 / 52 / 54
Email : dg@aiilsg.org
Website : www.aiilsg.org

The opinions expressed in the articles / presentations herein are those of the authors. They do not reflect the opinions of the Regional Centre for Urban and Environmental Studies, All India Institute of Local Self Government, Mumbai, Ministry of Housing and Urban Affairs, Government of India or Publisher.

Printed by **All India Institute of Local Self-Government, Mumbai.**

Contents

- **Editorial**
- **Cities and Union Budget 2023-24: Promising Yet Concerning** **01-06**
Dr. Soumyadip Chattopadhyay,
Associate Professor,
Visva-Bharati, Santiniketan and
Visiting Senior Fellow,
Impact and Policy Research Institute (IMPRI),
New Delhi.

Dr. Arjun Kumar,
Director,
Impact and Policy Research Institute (IMPRI),
New Delhi.
- **Issues of Planning and Governance in Peri Urban Interface in Kolkata Metropolitan Area, India** **07-18**
Dr. Joy Karmakar,
Lecturer,
Serampore College,
Hooghly, West Bengal.
- **Book Review: Women and Work in Asia and the Pacific – Experiences, Challenges and Ways Forward** **19-24**
Edited by Jane Parker, Marian Baird, Noelle Donnelly, and Rae Cooper.
Reviewed by Ms. Vaishali Ojha,
Assistant Professor,
KES Shroff College of Arts and Commerce,
Mumbai.
- **ROUND & ABOUT** **25-31**
Mr. Fazalahmed Khan,
Advisor,
All India Institute of Local Self-Government (AIIILSG),
Mumbai.

RCUES Key Publications

1. Urban Development.
2. Urban Planning.
3. Solid Waste Management - Resource Material.
4. Hospital Medical Waste Management.
5. Planning for Urban Informal Sector in Highly Dense Cities.
6. Study of Municipal Schools with Special Focus on Drop-outs, Standard of Education and Remedies.
7. Rainwater Harvesting.
8. Institutionalisation of Citizen's Participation in Urban Governance.
9. Gender Budgeting.
10. Gender Equality in Local Government - Comparative Study of Four States in Western Region in India.
11. Mapping of Basic Services in Urban Slums.
12. Basic Services to the Urban Poor.
13. Health.
14. Security of Tenure.
15. Resettlement and Rehabilitation.
16. Mumbai Human Development Report, 2009.
(UNDP / MOH & UPA, GOI / MCGM).
17. Resource Material on Urban Poverty Alleviation.
18. Laws of Meetings.
19. Resource Material on Preparation of City Sanitation Plan (CSP) & Capacity Building for Urban Local Bodies.
20. Implementation of 74th CAA, 1992 in Urban Local Bodies and Impact Assessment of Training of Women Elected Members.

Editorial

In the current financial year's the Union Budget has accorded great significance to the urban development in terms of improvement of social and physical infrastructure and speedy implementation of Smart City Mission. In the post pandemic period, the urban India has been facing multifaced challenges as the urban population continues to grow at a fast pace. As per the estimation of the Union Ministry of Housing and Urban Affairs (GoI), within 8 years from now, India's urban population will be 60 crores. This reality poses challenges to the Indian with regards to urban housing, transport, sanitation, education and health infrastructure. Moreover, pollution control, environmental safety, clean energy and building resilient mechanisms to mitigate ill-effects of climate change have to be given top priority. The government has recognised the importance of addressing these challenges and has made financial allocation in the Union Budget 2023-24 accordingly.

The high powered committee consisting of urban planners, policy makers, engineers, architects and economists for urban development is focusing on capacity building and creation of structures and mechanisms to streamline urban governance. The state has made a paradigm shift in terms of prioritising development of small towns and peri-urban areas so that gap between mega cities and tier two and tier three cities is reduced. To ensure systematic and consistent financial flow, the government has declared instituting of an Urban Infrastructure Development Fund (UIDF) managed by the National Housing Bank. UIDF will be used by urban local self-government bodies and other public sector institutions to ramp up infrastructure in tier-2 and tier-3 cities with an annual allocation of Rs 10,000 crore.

Another noteworthy promise of the current budget is Sanitation Reforms- transitioning urban areas from 'manhole to machine hole mode' which will replace human with machineries for desludging septic tanks and sewers. All cities and towns will be enabled for 100 percent transition of sewers and septic tanks 'from manhole to machine hole' mode.

In the context of global earning, Green Urban Transport Scheme (GUTS) has been adopted which mainly focused to reduce the emission of harmful carbon gas from the transportation, both from government owned transport facilities and also stricter monitoring and surveillance for pollution control of private transport. Under this scheme, government plans to launch the eco-friendly transportation facilities which run without damaging climatic conditions. GUTS also includes the Intelligent Transport Systems (ITS) by upgrading both quality, quantity and variety of public transport (water ways, local trains, metro, cycle tracks) so that people would prefer public transport instead of preferring individual mode to travel which would cost lot of pollution. The government has adopted policy of development of urban forest along with planting and growing more trees which will serve as an oxygen bank.

All stakeholders will have to join hands then only the urban India will enjoy the fruits of sustainable development.

The Urban World invites scholars, policy makers, practitioners, urban planners and researchers to send their original research-based articles and book reviews with special focus on developmental concerns of the Urban India.

Cities and Union Budget 2023-24: Promising Yet Concerning

Dr. Soumyadip Chattopadhyay,

Associate Professor, Visva-Bharati, Santiniketan and
Visiting Senior Fellow, Impact and Policy Research Institute (IMPRI), New Delhi.
&

Dr. Arjun Kumar,

Director, Impact and Policy Research Institute (IMPRI), New Delhi.

Indian Cities as Engines of Economic Growth in Amrit Kaal

Indian cities with their contribution of around two-thirds of the GDP are expected to play an instrumental role as the country's engines of economic growth. A majority of these cities are hamstrung by serious infrastructural issues and governance deficits.

As per the recent World Bank study, our cities need an investment of \$840 billion over the next fifteen years. Investment requirement for basic urban services (e.g. water supply, sewerage, waste management, roads, street lights, stormwater drainage) is estimated at about \$450 billion and another \$300 million is for building mass transits.

So, strengthening the city governments and having a budgetary provision for financing urban infrastructure assumes special significance. The “first budget of Amrit Kaal (2022-2047)” has recognized the growth potentials of Indian cities and is aimed to build 'sustainable cities for tomorrow', with a roadmap for infrastructure financing and governance reforms.

Urban India Flagships Schemes

The total Budget Estimate (BE) available for urban development (Ministry of Housing and Urban Affairs (MoHUA)) has experienced a slight drop from INR 76,549 crores in Financial Year (FY)

2022-23 to INR 76,431 crores in FY 2023–24 of about INR 117 crores. The Revised Estimate (RE) for FY 2022-23 stood at INR 74,545 crores. Although the REs and BEs were quite close to each other, the actuals for the financial year 2021-22 were stooping INR 1,06,840 crores, owing to the PM Awas Yojana – Housing for All by 2022. This decline is attributed mostly to the thrust and budget outlay given in previous years towards Housing for All by 2022.

Two flagship schemes of the MoHUA – the Smart Cities Mission (SCM) (Mission for Development of 100 Smart Cities) and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) (Urban Rejuvenation Mission – 500 Cities) – have bagged higher budgetary allocations together from INR 14,100 crores (BE) in 2022-23 and INR 15300 crores (RE) in 2022-23 to INR 16000 crores (BE) for both in FY 2023-24 (actual for FY 2021-22 was INR 13,868 crores).

The AMRUT has received BE for FY 2023-24 of INR 8,000 crores (FY 2022-23: with BE of INR 7,300 crores & RE of INR 6,500 crores; FY 2021-22 with actual INR 7,280 crores). The SCM also has received BE for FY 2023-24 of INR 8,000 crores (FY 2022-23: with BE of INR 6,800 crores & RE INR 8,800 crores; FY 2021-22 with actual INR 6,587 crores). The component of City Investment

to Innovate, Integrate and Sustain (CITIIS) has again received BE of INR 334 crores like the last year. As compared to the previous year, the SCM has an uptick in RE for FY 2022-23, unlike in COVID years.

The scheme for Metros and MRTS, which has almost the entire amount as capital expenditure (CAPEX), has witnessed a slight decline in the BE for FY 2023-24 at INR 23,175 crores as compared to BE for FY 2022-23 which was INR 23,875 crores (RE for FY 2022-23 was INR 20,401 crores and actuals for FY 2021-22 was INR 23,473 crores). The National Capital Region Transport Corporation has been allotted BE of INR 3596 crores for FY 2023-24 (BE & RE for FY 2022-23 was INR 4,710 crores).

The Pradhan Mantri Awas Yojana Urban (PMAY-U) has seen a decline in the BE for FY 2023-24 at INR 25,103 crores as compared to BE for FY 2022-23 which was INR 28,000 crores (RE for FY 2022-23 was INR 28,708 crores and Actuals for FY 2021-22 was INR 59,963 crores). The scheme is financed from Central Road and Infrastructure Fund, having the Extra budgetary resources (EBRs) component.

PMAY-U has four components: In-situ Slum Rehabilitation (ISSR), Affordable Housing in Partnership (AHP), Beneficiary-led individual house construction/enhancement (BLC) (these three are under centrally sponsored scheme) and Credit Linked Subsidy Scheme (CLSS), a central sector scheme, for Economically Weaker Section (EWS), Lower Income Group (LIG) and Middle Income Group (MIG). The CLSS scheme has been discontinued altogether in this budget. There has been a decline in the budget for PMAY-U as the Housing for All by 2022 target has been met. However, following the discontinuation of the CLSS scheme, problems of lack of access to credit and affordability for the urban poor bracketed in the EWS and LIG categories would only intensify.

The budgetary allocations for Swachh Bharat Mission Urban (SBM-U) have more than doubled from INR 2,300 crores (BE) in 2022-23 and INR 2,000 crores (RE) in 2022-23 to INR 5,000 crores (BE) in 2023-24 (actuals for FY 2021-22 was INR 1,951 crores). Earlier, the SBM-U was financed by Rashtriya Swachhata Kosh – Central & State component. Higher financial allocation is complemented with the provision for scientific management of dry and wet waste through the complete transition from manhole to machine-hole mode, a switch to mechanical desludging of septic tanks and sewers in all cities and towns. A greater emphasis has been given to sanitation and mechanization of such activities.

Other Schemes

At the same time, the allocation towards Deendayal Antyodaya Yojana-National Urban Livelihood Mission (DAY-NULM) has been discontinued and has been reduced to INR 0.01 crores, a number staggeringly low compared to the previous year's estimates (BE for FY 2023-24 was INR 900 crores and RE was INR 550 crores).

Nonetheless, the Prime Minister's Street Vendors' Atmanirbhar Nidhi (PM SVANidhi) sees a substantial increase in its allocation from INR 150 crores (BE 2022-23) to INR 468 crores (BE 2023-24) (RE for FY 2022-23 was 433 INR crores and actual for FY 2021-22 was 297 INR crores). Therefore, the DAY-NULM budget can be seen shifting towards PM SVANidhi, albeit, with its limited focus on street vendors. However, increase in budgetary allocations under the DAY-NULM could be more impactful for the urban poor engaged in the urban informal sectors and their livelihoods and more so, as they are yet to fully withstand the COVID induced economic losses. Speaking of other centrally sponsored schemes, Jal Jeevan Mission is also one such scheme that sees an increase in its budgetary allocation from INR 60,000 crores (BE 2022-23) to INR 70,000 (BE 2023-24).

BUDGET - MINISTRY OF HOUSING AND URBAN AFFAIRS (In ₹ crores)

Centre's Expenditure	Actual 2021-22 Total	Budget Estimate 2022-23 Total	Revised Estimate 2022-23 Total	Budget 2023-24 Total
Gross Recoveries Receipts Net	106840	76549	74545	76431
Total MRTS and Metro Projects	23473	23875	20401	23175
PMAY-U- 1. Credit Linked Subsidy Scheme (CLSS) - I for Economically Weaker Section (EWS)/Lower Income Group (LIG)	12000	0	11221	0
Pradhan Mantri Awas Yojana Urban (Total)	59963	28000	28708	25103
Deendayal Antyodaya Yojana- National Urban Livelihood Mission DAY- NULM	794	900	550	0
Pradhan Mantri Street Vendors's AtmaNirbhar Nidhi (PM - SVANidhi)	297	150	433	468
AMRUT (Atal Mission for Rejuvenation and Urban Transformation)	7280	7300	6500	8000
Smart Cities Mission - Mission for Development of 100 Smart Cities	6526	6465	8465	7665
Smart Cities Mission – City Investment to Innovate, Integrate and Sustain (CITIIS)	64	33	334	334
Total- Smart Cities Mission	6587	6800	8800	8000
Swachh Bharat Mission Urban	1951	2300	2000	5000

Source: <https://www.indiabudget.gov.in/>

New India's Infrastructure and CAPEX Push

The main focus of this year's budget has been increased Capital Expenditure. With the objective to increase the share of manufacturing in the GDP of India, the National Industrial Corridor Development Programme (NICDP) is being implemented whereby 32 greenfield industrial smart cities under 11 industrial corridors are being developed with world-class Plug-n-Play

infrastructure. The Plug-n-Play model has been put in place to avoid digging of roads every time a pipeline or cables have to be laid down.

It promotes planned infrastructure where separate lines for communication, sewage, water, industrial effluents, electricity and gas are laid all at once, preventing re-digging and re-laying of roads. The National Industrial Corridors have seen an increase in its budgetary allocation from INR 1500 crore

(BE) in 2022-23 to INR 2000 crores (BE) in 2023-34. At the same time, the actual expenditure was INR 1104 crores in 2021-22.

In addition to this, the Finance Minister in her speech spoke of the scope of the impetus of PM Gati Shakti National Master Plan for Multi-modal Connectivity, which will encompass seven engines for economic transformation, seamless multi-modal connectivity and logistics efficiency. Proper implementation of this scheme could address the poor state of logistics and supply chains in the smaller cities and better connect them with their larger counterparts, and thus, push for planned and balanced urbanisation.

Improving the Financial Health of Cities

One of the key takeaways of the budget is the setting up of a Rs 10,000 crore per year Urban Infrastructure Development Fund (UIDF) under the aegis of the National Housing Bank for the purpose of financing urban infrastructure. Funds under the UIDF are expected to be amassed through the use of priority sector lending shortfall with the specific aim of creating urban infrastructure in Tier-2 and Tier-3 cities.

This budget has also announced incentives for improving the creditworthiness of the city governments to enable them to access the capital market for financing urban infrastructure. However, the finances of city governments are in a grossly unsatisfactory state. As per the ICRIER (2019) report, municipal revenue remained stagnant at around one per cent of GDP during the period from 2007-08 to 2017-18 and the municipal own revenue as percent of GDP was only 0.43 percent in 2017-18.

Among the different categories of city governments, Municipal Corporations contribute nearly 80 percent to India's municipal own revenue owing to their strong economic base and the

capacity to mobilise sufficient tax and non-tax revenues. Importantly, the revenue autonomy ratios (proportion of the tax and non-tax revenue in total municipal revenue) for all the city governments registered declined from 51 percent in 2010-11 to 43 percent in 2017-18. This indicates the growing fiscal dependency of the city governments, especially the Municipal Councils and Nagar Panchayats, on higher levels of government for meeting their revenue shortfalls.

Reforms in property tax governance and ring-fencing of user charges, as announced by the Finance Minister, are therefore timely interventions for improving the financial health of the city governments. Property Tax is the most important urban local tax in India and its importance has increased in the post-GST period. However, with a contribution of only 0.15 percent to India's GDP, the revenue collections from property tax are significantly low.

Wide spread use of manual and paper-based systems of property register; improper valuation methods without any link to actual (market) value of properties; inefficient tax collections and absence of penal measures for delayed or non-payment of property taxes coupled with lack of grievance redressal mechanisms have seriously undermined the revenue generation potentials of property tax in India.

Moreover, the city governments in India hardly utilize user fees to cover even operation and maintenance costs of basic services mainly due to narrow political compulsions, e.g., fear of losing votes and peoples' dissatisfaction with the municipal services. The recent World Bank report highlighted that water and sewerage utilities in Indian cities recovered, on average, only 55% of their operating costs in recent years. So, successful operationalization of the budgetary announcements remains a huge challenge for Indian cities.

The Fifteenth Finance Commission's grant conditionalities in the form of notification of floor rates for property tax and subsequent linking of property tax collections with the growth of states' own GSDP lay strong foundations for the financial accountability of municipalities. In addition, it requires overhauling the current practices, at a much higher scale as envisioned in this year's budget. In fact, the success of these reforms is dependent on garnering sufficient and sustained public and political support at the city levels. Equally important is to empower the city governments to impose taxes and fees and to strengthen the linkages between local taxes and local expenditures on municipal services by encouraging accountability and transparency of the city governments to their citizens.

Further, Indian cities today are in an appalling state. An analysis of crime rates given by the National Crime Records Bureau (NCRB) suggests that cities in India fare poorly in terms of safety of living. The World Air Quality Report, prepared by Swiss organisation IQAir, is an index that listed 35 Indian cities with the worst air quality tag for 2021, and little has changed since then. With respect to the ease of doing business, India ranks 63rd across the world among 190 countries. Of late, the climate change induced risks including cyclones, flooding, heat waves and so on have made the Indian cities vulnerable due to their location and diversity of geography. Mainstreaming climate change mitigation and adaptation measures in urban planning and policy frameworks is critical. So we need regional planning with active involvement of empowered city governments.

Promising Yet Concerning

This budget has a renewed thrust for municipal bond issuances. However, municipal bonds accounted for less than one-tenth of the total commercial debt raised by the city governments during 2011-18. Out of the 94 cities under the Smart Cities and AMRUT programs, only 59 percent received an investment grade rating or above in 2018. In the last four years, out of 28 Municipal Corporations securing investment-grade credit ratings, only five cities issued municipal bonds. Apart from the weak financial health of the city governments, several structural bottlenecks including non-transparent financial management, absence of specific laws for addressing the insolvency of the cities, over-collateralisation and absence of secondary markets constrain the municipal bond market in India.

While it reemphasizes the need for greater fiscal autonomy of the city governments, it is equally necessary to build their capacities to manage commercial debt financing in a meaningful, effective and transparent manner. Indian Cities urgently need an integrated policy and regulatory environment to improve revenue mobilization and to access and leverage public as well as private funds for financing urban infrastructure on a sustainable basis.

In essence, Indian cities are undoubtedly the largest drivers of economic growth in the 21st century, but not at the cost of inequity and lack of inclusivity. With an increasing population and an expanding economy, actions must be undertaken to enable the country to urbanise. During the timeline of the Amrit Kaal, rethinking and prioritizing urban policies and practices is urgently required to facilitate growth with inclusiveness towards New India @ 2047.

References

- 1) Soumyadip Chattopadhyay and Arjun Kumar. 2022. *Cities and Budget 2022-23 towards India@100 in 2047. Insights*. IMPRI Impact and Policy Research Institute, New Delhi. <https://www.impriindia.com/insights/budget-cities-pandemic/>
- 2) Soumyadip Chattopadhyay and Arjun Kumar. 2022. *Affordable Urban Housing and Budget 2022–23: A Reality Check*. *Economic & Political WEEKLY*. Vol. 57, Issue No. 21, 21 May, 2022. <https://www.epw.in/journal/2022/21/commentary/affordable-urban-housing-and-budget-2022%E2%80%9323.html>
- 3) Arjun Kumar. 2022. *Urbanization, Housing and Household Amenities in India and China*. *Shelter*. Volume 23, Number 1, April 2022. Human Settlement Management Institute (HSMI), Housing and Urban Development Corporation (HUDCO), New Delhi. <https://hudco.org.in/writereaddata/EB/HUDCO-SHELTER-April22/HUDCO-SHELTER-April22.html>
- 4) Soumyadip Chattopadhyay and Arjun Kumar. 2021. *Aatma Nirbhar Cities & Union Budget 2021- How does the Union Budget fare in addressing Challenges of Cities amidst the Pandemic and towards Transforming Urban India?*. *The Urban World*. Volume 14, Number 3, July-September, 2021. Regional Centre for Urban & Environmental Studies (RCUES), All India Institute of Local Self Government (AIILSG), Mumbai. https://www.aiilsg.org/pdf/RCUES_AIILSG_Mumbai_The%20Urban%20World_Quarterly%20Publication_%20July-September%202021.pdf
- 5) Soumyadip Chattopadhyay and Arjun Kumar. 2021. *The rhetoric vs reality of ‘atmanirbhar’ cities*. *Analysis*. *The Pioneer*. 18 March 2021. <https://www.dailypioneer.com/2021/columnist/s/the-rhetoric-vs-reality-of—atmanirbhar—cities.html>
- 6) Soumyadip Chattopadhyay and Arjun Kumar. 2020. *Smart city making in India: Union budget 2020 and the way forward*. *Expert Speak*. Observer Research Foundation, New Delhi. <https://www.orfonline.org/expert-speak/smart-city-making-in-india-union-budget-2020-and-the-way-forward-61933/>
- 7) Soumyadip Chattopadhyay and Arjun Kumar. 2020. *Not such a smart move after all*. *Analysis*. *The Pioneer*. 13 March 2020. <https://www.dailypioneer.com/2020/columnists/not-such-a-smart-move-after-all.html>
- 8) Soumyadip Chattopadhyay and Arjun Kumar. 2019. *Financing urban projects*. *Analysis*. *The Pioneer*. 20 July 2019. <https://www.dailypioneer.com/2019/columnists/financing-urban-projects.html>
- 9) Soumyadip Chattopadhyay and Arjun Kumar. 2019. *Tapping the revenue potential of property tax in India*. *Perspectives*. *Ideas for India*. 23 October 2019. <https://www.ideasforindia.in/topics/macroeconomics/tapping-the-revenue-potential-of-property-tax-in-india.html>
- 10) *Cities and Union Budget 2023-24. Panel Discussion*. *The State of Cities – #CityConversations*. IMPRI #WebPolicyTalk. 7 February 2023. <https://www.impriindia.com/event/cities-budget-2023-24/>
<https://www.indiabudget.gov.in/>
- 11) IMPRI’s 3rd Annual Series of Thematic Deliberations and Analysis of Union Budget 2023-24 | Feb 2- 7, 2023 | #IMPRI #WebPolicy Talk <https://www.impriindia.com/union-budget-2023/>



Issues of Planning and Governance in Peri-Urban Interface in Kolkata Metropolitan Area, India

Dr. Joy Karmakar,

Lecturer,

Serampore College, Hooghly, West Bengal.

Abstract

It is well researched that peri urban interface of Indian metropolitan cities are experiencing a major transformation. Transformations of peri-urban interface are results of different factors including development of transit road at peri urban interface. Peri-urban interface of Kolkata metropolitan area is facing a major challenge with respect to planning and governance. This paper presented a case study and highlighted transformation of peri-urban interface through development of logistics hub along the transits. Old planning strategies failed to prevent haphazard growth in the area. So the article argues for new policies and strategies to manage such peri-urban interface.

Keywords: *Peri-urban interface, logistics hub, urban growth, metropolitan area*

Introduction

The growing population in urban areas is pushing the population beyond the urban boundaries in most of the metropolitan cities in Asia. Such movement of people across the juridical boundary is transforming the peri-urban areas. Actually, there are many factors which accelerate this transformation. Transit Oriented Development (TOD) is one of the recent trends which can be noticed around the metropolitan cities and along the transits, several land use transforming activities

can be observed. There are two scales of TOD: a regional (or interurban) one and a neighborhood one (Calthorpe, 1992). Thus TOD can be thought of as a multi-scale concept. At the local scale, TOD focuses on urban projects around some stations. It is worthwhile to note here that transforming peri-urban areas into viable areas in terms of ecological and human health requires assertive long term planning strategy since this area perceived as a critical asset for city building.

The Kolkata Metropolitan Area (KMA) suffers numerous problems related to city's infrastructure and service delivery of basic amenities to keep pace with growing market demand and rapid population growth. Moreover it is also observed that fragmented, uncoordinated growth, spatial constraints and growing pressure on existing infrastructure is resulting in congestion that is contributing to large inefficiencies in passenger and freight flow and adversely affecting economic competitiveness and sustainable growth in the region. The inefficient flow of passenger and freight traffic within the KMA has had an adverse effect on the livability and competitiveness of the KMA and is hindering the growth of West Bengal's logistics sector (World Bank, 2019).

The essence of this article is to advance the argument that peri-urban interfaces (PUI) in KMA pose a challenge to city environs in terms of both

environmental and economic health because regional planning has not been rightly appreciated, applied and appropriated by policymakers, planners and related practitioners and researchers in recent years. A case study of Chanditala II block has been analyzed in this context to explore the types of transformation experiencing this peri-urban interface. It is observed that in this peri-urban interface logistics hub plays a major role in transformation of the area. To manage such peri-urban interface whatever policies have been taken becomes outdated as well as inadequate now. Therefore, to organize the peri-urban interface of the KMA requires policies related to logistics hub, land use and industry.

Conceptualizing Logistic Hub in Peri-Urban Interface (PUI)

The word logistics came from the Greek word 'logistikos' meaning 'skilled in calculating'. The idea of logistics appeared first during the war and it comprised of procuring food, clothing ammunition etc. for military forces. However, this idea started to gain importance in business world during 1950s. Thereafter, many factors contributed to the growth of this sector including deregulation, penetration of information technology and globalization. Therefore, logistics is a process of planning, implementing, controlling efficient flow and storage of goods and services from the production to the consumption centers in order to meet the customer requirements. Broadly, logistics have three major components namely transportation, storage and distribution. Transportation refers to different modes of transport infrastructure include ports, road, rail and air. Storage refers to different forms and types of warehouses and distribution include service providers like freight forwarders, multimodal operators and 3PL (Third Party Logistics) players (Das et al., 2014).

Urban freight planning in developing countries focuses on the removing of congestion, air pollution and the preservation of the transport

serviceability of urban centers. It is because of various problems including congestion during peak hours are induced by urban freight traffic. Some of them directly affect the overall quality of life and safety of the urban people. Due to this cities set up several distribution centers on the outskirts of a city or close to a freeway exit. Such distribution centers are often called proprietary logistics hubs owned and operated by a single company for their specific business only. The aim of the logistic hub is to break the transport run into the long-haul and the delivery portion. It is usually uneconomical to send long-haul truck to all the various urban drop-off points, so the load is broken up at a logistics center. Such center is called distribution center or urban consolidation center (UCC) or truck terminal or freight consolidation center. If such center provides the space, the collective services and the access not only for a single but for several logistics, storage etc. is called as logistic park or hub or freight village (Knight Frank, 2020).

Indian logistics industry is still in its nascent stage and is highly fragmented, though thousands of logistics company ranging from international giants to the highly localized small players present in the country. There is a huge scope of potential growth in this sector. Policy makers noted that growing consumerism and e-commerce has created a need for faster deliveries even in smaller and suburban cities. It is also observed that after the implementation of GST in 2017 third party logistics has gained prominence for storage and distribution of goods. Though there is no dominant logistics player so Third-Party Logistics (3PL) and Fourth-Party Logistics (4PL) service providers are growing (Viswanadham & Puvaneswari, 2004). As a result, smaller cities and peripheries of megacities are witnessing a huge demand of different types of warehousing at the city periphery (Knight Frank, 2020). Within the peri-urban context logistics scholarships provides very limited exploration (Rose et al., 2017). Kolkata is one of the largest megacities in India, where several logistics hubs have been developed in peri-urban

areas of the city. This paper will explore one of such peri-urban logistics hub. These peri-urban logistics hub has influenced range of issues inclusive of its governance, economy, and land use to demography over a decade. My understanding of peri-urban is fraught with complexities. Peri-urban is an area of transition between rural and urban, regardless of legal boundaries, the area exhibits involuntary interactions among multiple actors and clustered social and structural systems which forms a complex organization in which logistics operations occur (Rose et al., 2017).

Relevance of Logistic Hub in Peri-Urban Areas

Several factors include customer expectation, introduction of short life cycles products, competitive global market and cost reduction measures compel the business enterprises to focus attention on logistics industry. Today, logistics sector covers all the aspects of value chain including integration of transportation, distribution, warehousing and value added services such as payment collection, packaging, documentation, customer brokerage facilities, kitting, repair management, reconfiguration etc. (Herzog, 2010). Warehousing and transport terminal are the key part of the logistic sector which requires geographical space to set up. These components of logistic sector are establishing at the margins of the cities due to several reasons. Distribution of goods and services from the city periphery to city center is not only reducing transport cost but also reduce air pollution and congestion in the city. These deliveries are referred to with the term “last mile”. In addition cheaper land price and adequate infrastructure at the city periphery compel the entrepreneurs to set up warehouse there. However, scholars raised several concerns about peri-urban or urban fringe areas with respect to its environment, ecology, and lack of planning intervention by the local government. Apte (2008) pointed out that peri-urban area needs to be dealt with carefully to capture opportunities embedded in these areas. Otherwise haphazard

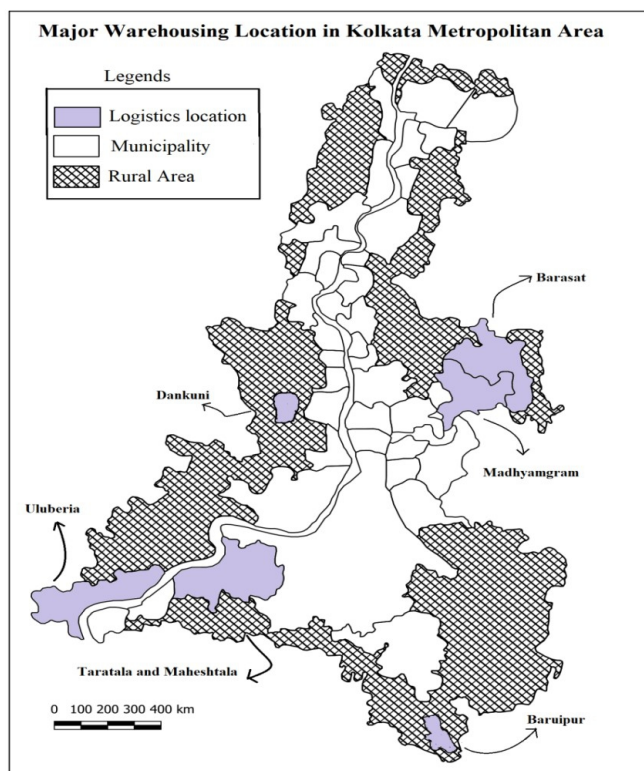
growth will restrict future potentialities in these areas. Though, the growth of the logistics industry in India is still limited due to poor conditions of infrastructure and transport vehicles, complex tax laws, lack of IT infrastructure, shortage of professionally competent logisticians and insufficient technological aids (Viswanadham and Puvaneswari, 2004). These limitations makes logistics cost higher in the India than other countries.

Urban Growth and Logistic Hub Potential in Kolkata Metropolitan Area (KMA)

Demand for warehousing service provider is increasing in India and one estimate suggests that within few years there will be increase supply of warehouse space (KPMG, 2019). West Bengal’s strategic location on the east coast of India and its status of being the country’s fourth- largest state economy result in the potential for the state to be developed as the logistics hub of the entire region. In addition, ‘look east policy’ of India focuses on regional cooperation among BIMSTEC (Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand) countries, signing of the India- Bangladesh Protocol for Inland Transit and Trade (IBPITT) and the upcoming BBIN (Bangladesh, Bhutan, India and Nepal) motor vehicle agreement will alter the attention on the role of West Bengal’s logistics infrastructure in facilitating efficient trade and commerce in the region. Warehousing and storage capacity is over 1.8 million tons in West Bengal. In fact West Bengal is one of the leading states in east and north-east India in terms of warehousing and storage capacity. The recent e-commerce boom and the availability of robust multi-modal connectivity near Kolkata and its suburbs has made the region one of the fastest emerging warehouse market in the country. Estimates also suggests that the city’s warehousing market will attract investments worth INR50 billion by 2022 (KPMG, 2019). More than 50 percent of warehousing storage is available in Nadia, North 24 Parganas, Kolkata, Purba and

Paschim Medinipur districts. Kolkata and its suburban areas witnessed a demand of 3.4 million sq. ft. of grade ‘A’ warehousing space in 2018. Moreover it is reported that there is an increase of demand of warehousing space in the city and it is projected to increase from 17.1 million sq. ft. to 35.8 million sq. ft. by 2022 (KPMG, 2019). Following Map 1 is representing the spaces of warehousing around Kolkata Metropolitan Area.

Map 1



Source: Kolkata Metropolitan Development Authority (KMDA), reproduced by author, 2021

Demands of warehousing space are mainly along important national highways on the outskirts of the city. It is reported that NH 16 (Mumbai road) and National Highway 19 (NH 19; Delhi road) accounted for 82 percent of the Grade A and B warehousing space and 85 percent of the total uptake in 2018. Moreover it is also reported that almost 500 acres of land across villages along NH 19 and NH 16 to be taken up for establishing warehousing facilities and ancillary units. Table 1 shows some prominent warehousing location around city outskirts.

These areas are occupied by different types of warehousing service inclusive of rail side warehouse, Bonded warehouse, Retail distribution center, Go down, Foodgrains warehouse, Service parts distribution center, Industrial warehouse, 3PL warehouse, Cold storage warehouse. In the following sub section a specific case study of logistics hub explained different impacts of logistics hub in the city outskirts.

Emerging Center of Logistic Hub in KMA: Case of Chanditala II Block

Chanditala II block is one of the few blocks in Kolkata Metropolitan Area (KMA) which has experienced a massive change over last two decades. Such changes are ranging from demography, economic to administrative status of the block. Chanditala II block is located in the western bank of the Hooghly River in Hooghly

Table 1: Warehousing Clusters in and around Kolkata

Warehousing Cluster	Major Warehousing Location
Dankuni and Suburb	Durgapur Expressway and Old Delhi Road (NH 19)
NH 16	Chamrail, Dhulagarh, Sankrail, Uluberia
Taratala- Mahestala	Hide Road, Taratala Road, Garden Reach Road
Madhyamgram and Barasat	Madhyamgram, Barasat, Agarpara, Ganganagar

Source: KPMG, 2019

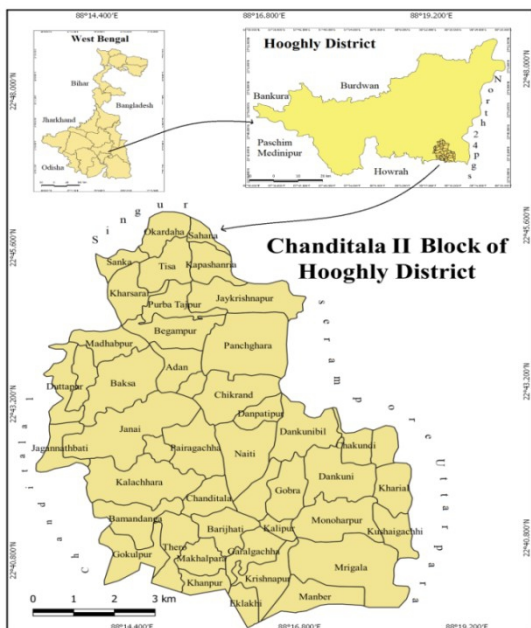
district. This area is well connected with Kolkata and Howrah by road and railway networks. This is one of the finest examples of Corridor development where National and Asian highways as well as rail network exist parallel and settlement and several warehouses also exist across these transport network.

Whebell (1969) for the first time introduced the concept of 'corridors' with respect to Canada. In his view corridor represents “linear pattern of major towns joined by highly developed 'bundles' of transport routes”. Moreover, Corridor development happens in continuous, cumulative stages from initial occupancy to metropolitanism through transport improvements (rail, early automobile, rapid transit). Surface characteristics, settlement behavior, time, direction and distance are important elements of the corridor mode. Albrechts and Tasan-Kok (2009) noted that corridors and axis development exist on different scales and from variety of views and it is not confined to urbanization corridors rather it includes ecological,

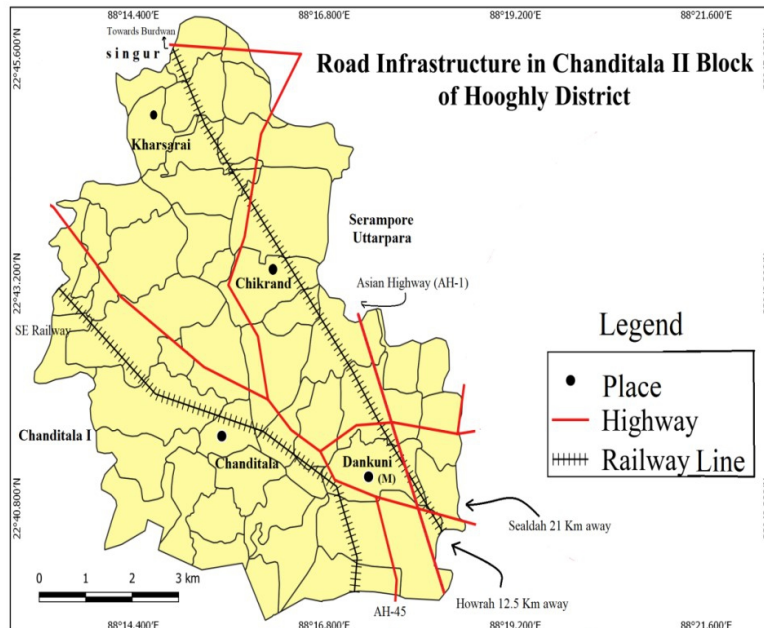
transportation or economic development corridors. UN-Habitat also uses the term urban corridors in 2008, identifying them as “a number of city centers of various sizes” which are “connected along transportation routes in linear development axes that are often linked to a number of mega-cities, encompassing their hinterlands”. Chittenden (1990) highlighted that a corridor is a metropolitan scale, linear zone or area (approximately 2 kilometers wide) surrounding a major high street (or activity spine), containing high concentrations of transportation, land-uses and densities.

Therefore, corridor as an idea that represents multiple facets of changes ranging from transport network, demography, economy, services, and land use to administrative status. The following section elaborates how corridors connect with large activity nodes, traversing urban or inter-urban areas, surrounding a major transport facility or facilities providing an appropriate regional level of mobility manifested in Chanditala II block in Hooghly district over the two decades.

Map 2



Map 3



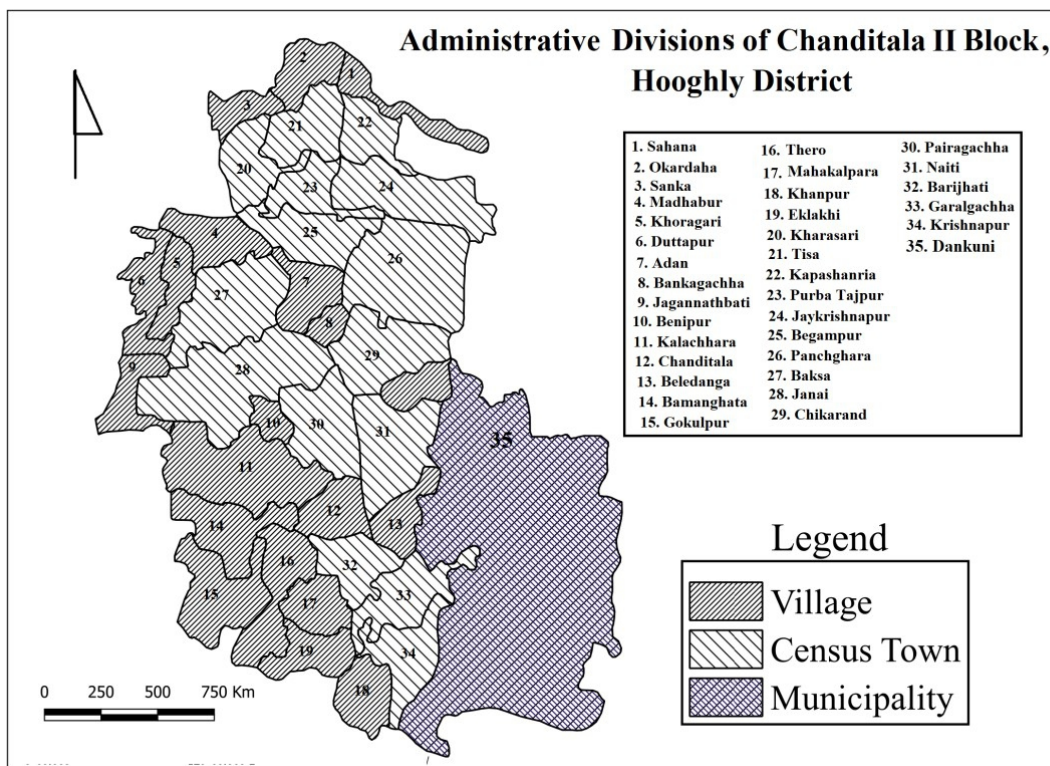
Source: Census of India Atlas, reproduced by author, 2021

Governance

Governance in peri-urban area is a complex issue especially in developing countries like India. Peri-urban areas are neglected in policy and practice because these areas are at the borders between urban and rural areas (Shaw and Das, 2017). No specific policy related to peri urban governance is formulated rather master plan for cities legitimize the peripheries but they left peripheries ‘intentionally’ unregulated in a “fuzzy zone” (Roy, 2002). Simon (2008) highlighted that the complex nature of peri-urban interface with differing significance and importance according to various factors inclusive of land tenure systems, rate and scale of urbanization, availability of employment, standards of living and median incomes, resources, and the capacity of local governance institutions etc. With such intricacy of factors playing an active role in the transition zone, it is crucial to evaluate such landscape in holistic way.

Chanditala II block is an example of complex peri-urban transition zone where different types of governance coexists but works separately. The area is governed by nine panchayats namely Kapasaria, Panchghara, Begampur, Baksha, Naiti, Janai, Chanditala, Garalgachha and Barijhati. Part of the area also comes under Dankuni municipal jurisdiction. The area is also part of KMDA. It is worthwhile to note that areas comes under panchayat are not completely rural in nature rather large part of the area is urban in nature as per census definition. Such urban areas are crucial for future planning and governance. These areas are also potentially attractive for developments of industry, warehouse and logistics hub because of large plots of land, cheap land price and adequate infrastructural facilities. However, such transitional areas lack in coordination among the various types of governance authority. In fact, our local, state and union

Map 4



Source: reproduced by author from Census of India data 2001 and 2011

governments are facing an intricate task of creating future urban areas that are livable as well as sustainable.

Warehouses and Infrastructure

Dankuni is a part of the Amritsar-Delhi-Kolkata Industrial Corridor as well as Eastern Dedicated Freight Corridor (EDFC). So it is expected that modern warehouses, largely pre-engineered block (PEB) structures are to be built in the region. In fact, locations around old Delhi road are popular warehouse hubs. Dhulagori-Uluberia is another logistics hub located south of this region. Following are some of the major companies which have set up different types of warehouse.

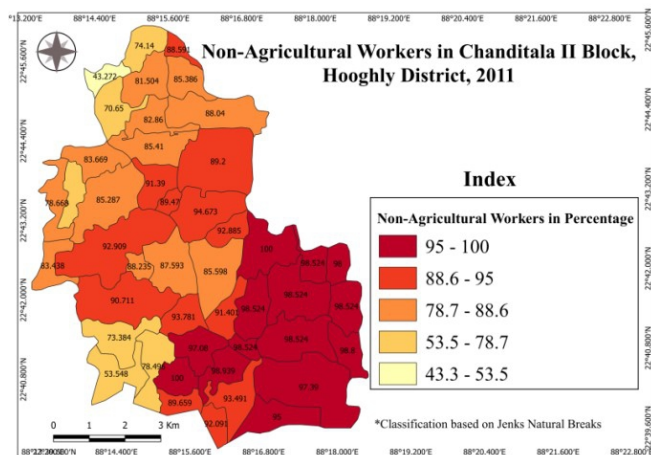
Rent in Dankuni area for warehouse varies from 25 to 26 INR per sq foot and in case of Old Delhi road it is 18 to 22 rupees per sq. feet. The focused on Eastern Dedicated Freight Corridor (EDFC) enable fast tracking completion for Sonnagar-Dankuni stretch on this rail transport node. Policy makers believed that after completion of this stretch it will play a key role in supply chain of eastern India. Moreover, it is reported that easy access to labour in an around Dankuni will make attractive for warehouse set up. It is also observed that land rent and rates remained stable since the lockdown was announced and there are shifts of warehouse demand pattern in the post lockdown period. It is worthwhile to point out that there is rising demand for in city warehouse, multi-story facilities and

Table 2: Companies in Dankuni and its Surroundings

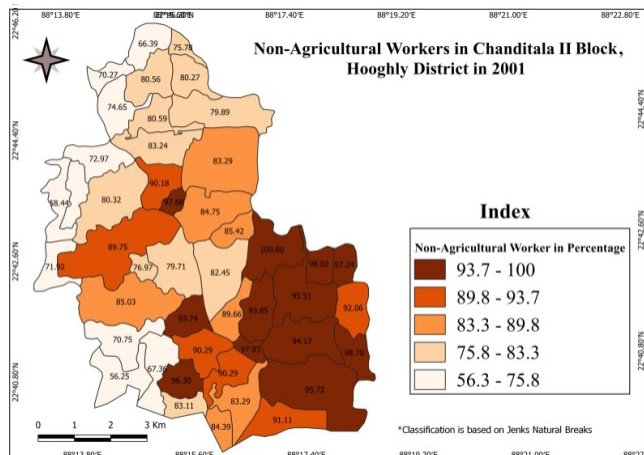
Occupiers	Occupier Industry
Amazon	E-commerce
Delhivery	Logistics
Reliance Retail	Retail
Godrej and Boyce	FMCD
ITC	FMCG
Max Life style	Retail

Source: Knight Frank, 2020

Map 5



Map 6



Source: reproduced by author from Census of India data 2001 and 2011

omnichannel distribution among the various companies. It is believed that due to this changing situation land price in the peripheries may decrease slightly.

With the changing infrastructure and presence of new warehouse in the area, the composition of working population has also changed. Part of the block (south east direction) declared as municipal area and rest remain under rural jurisdiction. More than 90 percent nonagricultural working population can be found in municipal area and its outgrowth areas like Garalgacha, Kharsarai, Begampur, Bankagachha etc. while in rural areas more than 50 percent of the working population is engaged in the non-agricultural works. This clearly indicates that transformation of peri-urban areas is not limited to the land use or infrastructure but it also transformed the labour force. However, there are some mouzas include Bamandanga, Khoragari, Gokulpur, Okardaha and Sanka where almost 25 percent working population still engaged in agriculture and its allied activities.

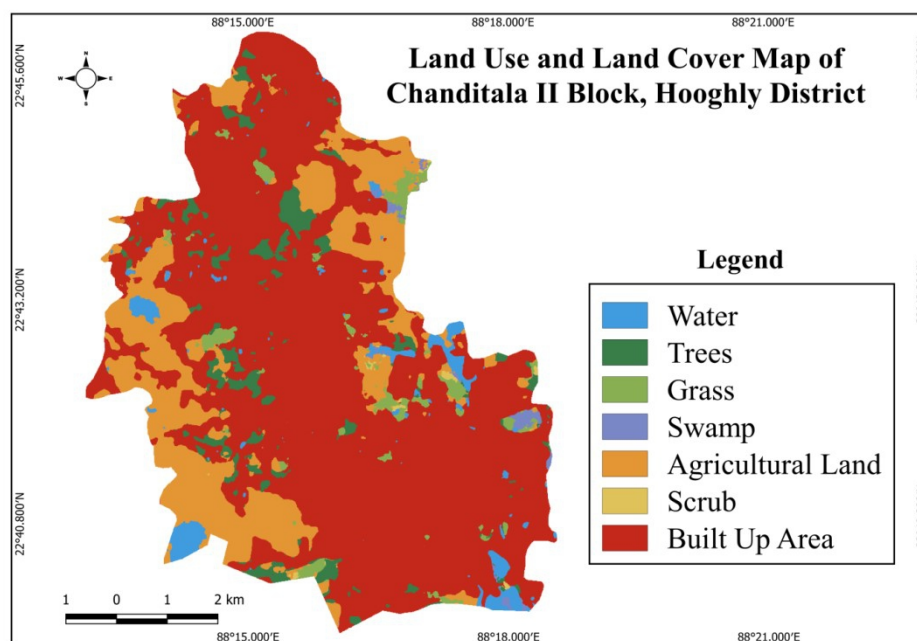
Land Use

As noted earlier that this area undergone a change in land use pattern for last two decades. Such

changes in land use represent transformation from agricultural land to build up areas or from farm land to non-farm areas. Transformation of farming areas to non-farm use is often considers as undesirable due to loss of land resource and consequent urban inefficiencies created by sprawled housing (Alterman, 1997). In contrast to this approach, some scholars notes that farming retreats triggers ‘new urban’ employment opportunities and expand local markets for farm produce. Moreover, it is also argued that alternative land use is desirable or inevitable, regardless of planning preferences (Wills 1992; Bowie 1993; Barr 2003). Advocates of market oriented policy criticize the legitimacy of policies aimed at supporting non-productive activities and providing markets distortions (Potter and Burney 2002).

In the case of Chanditala II block almost 45 percent of the total area is under non-farm or built up area. Built up areas incorporates settlement, small and medium industry, warehouses, roads, railway network etc. Only 23 percent area of the block is still under agriculture practice. In fact, it is worthwhile to note that growth of built up areas in Chanditala II blocks are along the roads and railway networks as evident in the Map 7. Such change in land use or in

Map 7



Source: Reproduced by author from ESRI land use map 2020

other words future urban growth in peri urban areas have significant impact on livability of cities.

These changes in land use create a more diverse mix of landholders with different values, property aspirations and economic circumstances. Moreover, conflict over land use in peri-urban areas become common due to the presence of diverse landowners as well as competing government priorities over land use.

Journey from Peri-Urban Area to a Township: Case of Dankuni

A large part of the Chanditala II block forms Dankuni municipality established in 2010 and located in south east direction. This initiative of conversion from peri-urban area to urban area had taken in early 1980s by the then Calcutta Metropolitan Development Authority (CMDA). Kolkata¹ Metropolitan Development Authority (KMDA) took several such new area development

initiatives for managing the peri-urban areas and transforms it into township later. So they choose Dankuni as one of the new area for future development since the area is well connected by rail network and highways. National Highway 2 (NH-2) is on the west of Dankuni and eastern railway track at the west of the township. In fact several other projects were there near Dankuni. Projects include Industrial Township of Coal India, truck terminal in the west of National Highway 2 (NH-2) and railway goods yard. KMDA emphasized the area for residential and industrial development. Keeping this thing in mind they proposed 361.3 acre for residential area which is divided into 33 sectors and 75 acre for industrial area located in the eastern part of township. Some amount of land was designated for buffer zone between industrial and residential area. 10 acres of land proposed for central park in the township. The gross density of the residential area proposed 125 persons per acres. Following Table 3 shows the

Table 3: Proposed Land Use Break-up for Dankuni Township

Usage	Area in acres	Percentage of total area
Residential	361.3	60.20
Industrial area	75	12.50
Commercial	14	2.33
Mixed use	10	1.66
Institutional	26.18	4.36
Recreational	7.50	1.25
Utility and services	7.34	1.22
Transport and Communication	84.3	14.05
Open Space	14.55	2.42
Total	600.17	100

Source: New Area Development at Dankuni, KMDA report no. 154, 1981

¹The colonial name Calcutta was changed into Kolkata in 2001

detail break up of proposed land use plan given by KMDA in 1981.

Main element of the project is to develop planned industrial as well as residential area in the peri-urban area. Residential area distributed mainly for Economically Weaker Section (EWS) and even loan was facilitated for EWS. After the planned intervention the area remained rural juridical status for almost three decades and area transformed completely within this time period with industry and large warehouses. Dankuni is also a part of the government's Amritsar Kolkata Industrial Corridor (AKIC) and Eastern Dedicated Freight Corridor (EDFC). The area is witnessing consumption led demand as it is located closely to Kolkata. Another important factor accelerating growth is consolidation of warehouses post GST implementation. Players will prefer to consolidate their small warehouses across the eastern region owing to removal of state borders². Table 4 shows sector wise demand of warehouse in Dankuni and its surrounding area.

Therefore it is evident from the Table 4 that there is a growing demand for different types of warehouse in Dankuni. Moreover, these warehouses are made up primarily steel and concrete structures which make warehouse durable and a place for long term

investment. Size of the warehouse varies from 15,000 sq feet to 80,000 sq feet and lease rentals are also varies from 15 to 18 rupees per sq ft.

Discussion

It is evident from above analysis that logistics hub in the Chanditala II block plays crucial role in the process of peri-urbanization in Kolkata Metropolitan Area. Government of West Bengal (GoWB) is yet to publish logistics policy for the state. In the meantime The World Bank is supporting the GoWB in implementing the West Bengal Inland Water Transport, Logistics and Spatial Development Project (WBIWTLSDP) through investment project. This project is focused on efficiency and safety of passenger and freight movement across the Hooghly River. It establishes a spatial planning framework to enhance accessibility within Kolkata Metropolitan Area (KMA).

Moreover, The World Bank also highlighted that the role of Eastern Corridor to play in regional logistics efficiency. Part of Eastern Dedicated Freight Corridor (EDFC) is passing through the Chanditala II block and has great influence on the establishment of several warehouses and small industries along the road. Dankuni as a town plays a major role not only

Table 4: Different Sectors of Warehouse Demand in Dankuni and its Surrounding Area

Different Sectors	Range of Demand in Percentage
Consumer Durables	25-35
Industrial Products	25-35
FMCG	15-25
Textiles	5-15
Others	5-15

Source: CRISIL Research, Knight Frank 2020

as terminal or logistics hub but also as industrial center. The town played an important role in transforming the labour force of the area. However multiple governance stakeholders makes complex situation in creating and developing policies regarding land and land use.

We can learn and make future policy based on such examples of corridor development. In fact, this pattern of urbanization where corridors plays an important role can be noticed too in other metro cities in India. These areas need a policy support to prevent not only haphazard urbanization but to develop a balanced and harmonious land use. However, the then Ministry of Urban Development (MoUD) has proposed a policy that focused on the mobility of people rather than on the movement of vehicles in handling urban transport and this will catalyze more orderly and efficient spatial development toward “compact city” through “densification” along public transport corridors (ADB, 2010). This is a fundamental departure from the current inefficient retrofitting approach to control urban sprawl. It is evident from the past experiences that FSI (Floor Space Index) linked land use control measure are prone to geographically-random urban development and

tend to be rather expansionary so MoUD has taken “corridor densification” approach³.

Conclusion

Peri-urbanization is very common phenomena in peripheries of Indian metropolis for almost three decades. Case study of Chanditala II block shows the role logistics hub and its connection with urbanization within the KMA. Logistics hubs along the eastern corridor transformed land use and labour force of the area. However, there is a conflict over multiple governance system in area. Broadly speaking it requires a sound policy to manage such area. Government of West Bengal is expected to declare its logistics policy soon to manage such area. It is expected that the new policy will stress on corridor densification approach rather than traditional practices which may further strengthen the haphazard growth of different types of land use. Moreover, KMA requires policy on urbanization which will focus on such peri-urban area and out growth since huge number of outgrowth have been registered in KMA in 2011. Therefore essence of this article is to advance an argument that peri-urban interface of the KMA needs an inclusive policy to manage urban transformation.

References

- 1) *Albrechts, L. & Tasan-Kok, T. (2009). Corridor and axis development, In International Encyclopedia of Human Geography; Kitchin, R., Thrift, N., Eds.; Elsevier Science & Technology: London, UK, pp. 298–304.*
- 2) *Alterman, R. (1997). The challenge of farmland preservation: lessons from a six-nation comparison, Journal of American Planning Association, 63(2), 220–244*
- 3) *Apte PM (2008). Planning and Development of Peri Urban Areas: Financing and Management of Infrastructure. Paper submitted at the 56th National Town & Country Planners Congress of ITPI at Kolkata, India, December 2007*
- 4) *Asian Development Bank (April, 2010) Urban Innovation and Best Practices: Urban Development Policy of India Part II, Policy paper, Asian Development Bank.*
- 5) *Barr, N. (2003). Future agricultural landscapes, Australian Planning, 40(2):123–127*

³The corridor development approach connects major activity nodes, creating the purposeful interaction that requires high-density residential (densification) and commercial development focused along major transport corridors. Corridors are not merely seen as transportation corridors, but the model portrays its additional function in the integration of segregated settlements.

- 6) Bowie I (1993) *Land lost from agriculture: a dubious basis for rural policy*. *Urban Policy Research* 11, 217–229
- 7) Calthorpe Associates. (1992). *Transit-Oriented Development Design Guidelines*. San Diego: Calthorpe Associates.
- 8) CRISIL (2017) *Big box beckons GST set to alter the warehousing landscape*, New Delhi
- 9) Das, S., Rathi, V., Bachkaniwala, H., Bangera, Y., & Gupta, H. (2014). *India logistics & warehousing: A Definitive view on Mumbai and Pune warehousing markets*.
- 10) Herzog, B. O. (2010). *Urban Freight in Developing Cities Sustainable Transport: A Sourcebook for Policy-makers in Developing Cities*. <http://www.sutp.org>
- 11) Knight Frank. (2020). *India warehousing market report*. New Delhi
- 12) KPMG. (2019). *West Bengal 2.0 confluence for logistics*, New Delhi
- 13) Potter C, & Burney, J. (2002). *Agricultural multifunctionality in the WTO—legitimate non-trade concern or disguised protectionism?* *Journal of Rural Studies*, 18:135–147
- 14) Rose, W. J., Bell, J. E., Autry, C. W., & Cherry, C. R. (2017). *Urban logistics: Establishing key concepts and building a conceptual framework for future research*. In *Transportation Journal* (Vol. 56, Issue 4, pp. 357–394). American Society of Transportation and Logistics, Inc. <https://doi.org/10.5325/transportationj.56.4.0357>
- 15) Roy, A (2002). *City Requiem, Calcutta: Gender and the Politics of Poverty*. Minneapolis, MN: University of Minnesota Press
- 16) Shaw, R and A Das (2017). *Identifying Peri-urban Growth in Small and Medium Towns using GIS and Remote Sensing Technique: A Case Study of English Bazar Urban Agglomeration, West Bengal, India*. *The Egyptian Journal of Remote Sensing and Space Science*, 21 (2), 159-72
- 17) Simon, D (2008). *Urban Environments: Issues on the Peri-urban Fringe*. *Annual Review of Environment and Resources*, 33, 11-19
- 18) UN-Habitat. *State of the World's Cities (2013). Prosperity of Cities; Earths can: London, UK*
- 19) Viswanadham, N. and Puvaneswari, M. (2004) *India Logistics Industry, Technical Report, The Logistics Institute Asia Pacific National University of Singapore Retrieved from https://www.csa.iisc.ac.in/~nv/11India%20Logistics%20Report_Aug2004.pdf*
- 20) Whebell, C.F. (1969) *Corridors: A theory of urban systems*. *Annals of Association of American Geographers* 59, 1–26.
- 21) Wills, A. (1992). *Do our prime farmlands need saving?* *Agricultural Science* 5(4), 25–27
- 22) World Bank. (2019). *West Bengal Transport and Logistics Improvement Project, Report No: PIDISDSC23822, World Bank, Washington DC*



Women and Work in Asia and the Pacific – Experiences, Challenges and Ways Forward¹

Book Review

Reviewed by Ms. Vaishali Ojha

Assistant Professor,

KES Shroff College of Arts and Commerce, Mumbai.

Drawing on a wide range of quantitative and qualitative evidence, this volume is well-researched and well-written, providing a nuanced and complex view of the issues to interpret and provides a much-needed examination of working women's challenges and opportunities during the Covid-19 pandemic and with an eye to the future. This book enhances the understanding of how the four thematic areas- demography, globalization, technological development, and sustainability put forth in the Global Thematic Report on the Working Group's (2020) to the UN Human Rights Council intersect with working women's lives in various national contexts and the significant challenges faced by working women. The Asia Pacific region's highly diverse and shared characteristics in terms of scale, regulatory environment, development stage, economic structure, culture, religion, politics, history, institutions, and other terms led to the selection of ten countries, including Aotearoa New Zealand, Australia, Japan, China, Cambodia, India, Sri Lanka, Fiji, Pakistan, and the Philippines, to conduct comparative assessments of the four thematic areas in relation to working women. The region's already diverse labour markets, work environments, and contextual dynamics are becoming more extreme, which emphasizes the need for such analyses of the difficulties and opportunities faced by working women to guide seamless, multilateral, multilevel, and context-sensitive initiatives that will significantly advance gender equality and inclusion. The contributors of

the book suggest that to combat structural discrimination against working women and other communities it is of paramount importance for countries to have a gender-sensitive, multi-layered, and integrative policy with responses in all areas like the labour market, socio-economic policy, institutional arrangements, health development, and social security. The chapters in this book confirm and further illuminate the diversity of the Asia Pacific region in the context of the various work settings in which women participate, and different perspectives of gender equity at work and beyond, as well as the development of these concepts across countries. Furthermore, the authors highlighted the common issues and challenges faced by working women and their communities in different. The book offers a non-exhaustive list of cross-national, interconnected recommendations for advancing gender equity at work across all sectors, framed by the main analytical dimensions and emergent themes.

Chapter one 'Working Women in Aotearoa New Zealand' authored by Jane Parker and Noelle Donnelly, starts by discussing the working environment and concerns for women in New Zealand, a small, developed economy in the South Pacific and a country that turned from a protectionist to a liberal economy in the mid-1980s. The author has written about the changes in the workforce during and before COVID-19, with women making up 50.4 percent of New Zealand's population and

almost half of its labour force. Women are joining the labour force at a higher rate than men, staying longer, and participating in jobs like tourism and caregiving, as well as education and training. The government changed immigration policy in the 1960s to focus on talents and diversification, boosting the population and proportion of women in the labour force. Women will need care and financial support, have a pension gap, and live longer than men yet earn less. The changes have been made by the government in their pay, and they might be less skilled, but the success has been seen from the past dynamics. Although there is greater success in globalisation, technological advancement, and demographic change, The government of New Zealand has shifted its focus from low-skilled, low-paid work to training education and more secure, skilled, and decent work. Although women in New Zealand are underutilised, they are paid less than their counterparts, and there is still scope for improvement in the thought process and in the government.

Maria Baird, Rae Cooper, and Daniel Dinale examine in chapter two 'Working Women in Australia,' examines the working environment and challenges for women in the demographic diversity of the country. The author has divided the chapter into two parts the first part of the chapter discusses the ever-changing and challenging socioeconomic factors of the country. Women's labour market experiences are impacted by life events such as maternity, mid-career care requirements, and care for elderly people for mature workers, leading to gender pay disparity and superannuation gaps. The authors identify that The Australian Labour Law has improved women's work participation with reforms such as the Paid Parental Leave Act 2010 and the Workplace Gender Equality Act 2012. However, the unorganized sector of unpaid care work is still out of reach of these provisions. In the second part of the chapter, the authors contextualize the four factors listed by the UN Working Group on 'Discrimination Against

Women and Girls' (2020), noting that they include the emergence of a platform labour market, the need for genders specific labour requirements in community, healthcare, and other caregiving services, and the requirement for policies that address women's economic and social vulnerabilities in order to maintain a sustainable future. The most significant issue is the demographic change since it has an impact on the workforce's age distribution as well as women's capacity to combine labour force participation with paid leave and child care. Another factor is technological advancements since the rise of a platform labour market has benefited women and parents of young children. Globalization, migration policy limits, and gender inequality are all contributing factors to the need for unpaid or low-pay gendered job requirements in communities, healthcare, and other caring services. Sustainability is linked to climate change action and gender. Policies must address women's economic and social vulnerabilities to maintain.

Chapter three 'Working Women in Japan' by Shingou Ikeda and Kazufumi Sakai begins with a bicameral legislature and a unitary parliamentary monarchy, Japan is a highly urbanised and populous nation. Japan now has the second-largest economy in the world, a high UN Human Development Index, the world's longest life expectancies, and a declining population. Japanese Government's constructive and action-oriented approach to reducing the gender pay gap and gender discriminatory practices is worth noting. As such there are many acts and legislation passed by the government like the Equal Employment Opportunity (EEO) Act, Act on Promotion of female participation and career advancement in the workplace. Though EEO Act has significantly contributed to increasing women's job continuity, women's participation in leadership posts, and labour force participation. In order to support women's job continuity, the EEO Act prohibited gender discrimination and the Child Care Leave

Act proposed long-term leave for childcare, strengthening the EEO Act. Another significant statute by Japan government is the Next-Generation Act, of 2003 requiring employers to make an action plan for supporting employees' childcare needs. Companies that meet government requirements can receive the 'Kurumin Mark', which stands for 'Excellent'. Not only government Japanese employers also contributed meaningfully by improving the working condition, pay scale, and childcare leave provisions and taking corrective measures against gender discrimination. The author in this chapter has explained the entire labour force participation age-wise as Japan's Economy has a great impact on its population being the most aging population in the world. The diagrams and tables presented by authors clearly showed Japan's population is aging but simultaneously accelerating the expansion of employment in its medical care and welfare sectors. Like other countries of the world, Japan has also witnessed some drastic changes due to COVID-19. Companies with the help of Information and telecommunication technologies are upgrading their working conditions to uphold and alter gender roles which will help women reduce the challenge of conflicts between paid work and domestic work. To curb the challenges imposed by globalisation, and Japan's aging population, the Japanese government has identified 14 key industries with labour shortages, among those some industries like nursing care, agriculture, food, and beverages have a relatively high proportion of female labour force. The difficulties caused by linguistic and cultural differences are another challenge faced by foreign workers, and it has been observed by the author that foreign female workers in Japan face challenges that are twice as difficult as those faced by foreign male workers. As far as the sustainability issue is concerned it has been suggested that a gender-sensitive policy should be formed which will allocate resources and opportunities irrespective of gender ensuring equitable access. EEO act should bring some amendments for part time or fixed term

contract role (called atypical forms of work) also the employer's expected behaviour to reduce gender discrimination at workplace. The need to re-evaluate gender roles in family care is highlighted by an increase in unmarried adult sons and husbands caring for their sick or elderly wives due to Japan's ageing population.

In chapter four 'Working Women in China' Huiping Xing unveils that China being the third largest country with 1.4 billion people ranks among the bottom five on international assessment parameters like democracy, government transparency etc. The author further stated that China's government has enacted various statutes for the enforcement of gender equality at the workplace, prohibition of gender discrimination, equal pay for equal work, and other regulation for the protection of women's employment rights but still, many of the regulations stand controversial and are also exaggerated from on paternalistic views and notions. Some of the debatable and protective discrimination laws include stating a list of suitable occupations and retirement ages for men and women, and no legal definition of gender discrimination making it difficult to determine what constitutes discrimination along with these challenges a time-consuming and difficult process for women who have experienced employment discrimination. In line with women and the challenges of technology, globalization, sustainability, and demographic in China, this chapter concluded as Globalisation has not challenged traditional gender assumptions in China, but has enabled women to combine both 'breadwinner' and 'carer' roles but face gendered stereotypes, discrimination, and exploitation. The author identifies with respect to the factors mentioned in the UN Working Group on 'Discrimination Against Women and Girls' (2020) global thematic report that in China, Gender discrimination still exists in the workplace and other areas of the economy, even though market reform, technological advancement, and globalization have given Chinese women new job

and employment opportunities. Contrarily, the elimination of the OCP (One Child Policy) to ease the burden of an elderly population and improve the sustainability of Chinese families have made it harder for employers to discriminate against women who are of childbearing age when hiring new employees and promoting existing employees. The chapter ends with very constructive policy suggestions to improve the working condition of women. For inclusive, equitable, and sustainable development of the Chinese economy, it is pertinent to have an integrated and aligned policy framework.

Using quantitative and qualitative analysis to understand the impact of COVID-19 on Cambodian working women and the challenges of globalisation, demography, technological advancement, and sustainability exposed to them, chapter five 'Working Women in Cambodia' by Kristy Ward and Michele Ford explains that the COVID-19 pandemic revealed a labour shortage caused by the Cambodian government's reliance on low-skilled, low-value production, insufficient regulatory enforcement, and slow adoption of technology. To promote recovery and increase women's access to the workforce, these restrictions must be removed. Cambodia's female labour force participation rate is the highest in Southeast Asia, with a shift from agricultural production to manufacturing. Women in Cambodia have increased their participation in the garment, tourism, and construction industries since 2008 due to social and educational advancements. It was found by the researchers that Cambodian employment regulations have poor enforcement of labour standards, and limited options for reporting violations and dispute resolution. Women are left in precarious and low-paying jobs because the employment relations system is gender-biased and ignores violations of labour laws. Just like other countries in the Asia-Pacific region, the Cambodian government must take charge of the opportunities led by globalisation, technological

upgradation, demographics, and sustainability. The authors suggest some corrective actions for the government and other regulatory bodies, some of which include the radical transformation of care responsibilities for women, increasing digital literacy, gender-inclusive employment legislation, and considering potential multiparty responses involving all the stakeholders across the diverse set of people at the workplace.

Dr. Vibhuti Patel in chapter six 'Working Women in India' provides an overview of the historical, social, and cultural factors that have shaped women's employment in India. It argues that women's employment in India has been limited by patriarchal norms and gender biases, and it is one of the world's lowest. Women are concentrated in low-paying, informal, and precarious jobs, with limited job security, few benefits, and little opportunity for advancement. The chapter explores various measures in the form of affirmative action policies, labour laws, and campaigns led by women's organizations and trade unions that were instrumental in raising awareness and advocating for women's rights in the Indian workforce. Dr. Patel highlights key recommendations for addressing the challenges faced by women in the Indian workforce, such as flexible work arrangements, affordable childcare, and gender-responsive budgeting. It also calls for strengthening labor laws and regulations to protect women's rights and ensure equal treatment. Finally, it emphasizes the importance of raising awareness and promoting a gender-sensitive and inclusive work culture. In further sections of the author examines women's employment status in India and highlights the difficulties they face, focusing on historical and cultural context, highlighting the intricate and multifaceted causes of India's low rates of female labour force participation, and offering a nuanced analysis of initiatives and policies to address these problems. It also emphasises how gender intersects with other social identities like caste, class, religion, etc. Technology

is transforming the workplace and opening new opportunities for women, but it also presents challenges and implications for their economic and social well-being such as limited access to technology, inadequate training and education, and social norms. Collaboration between government, industry, and civil society organizations is needed to create an enabling environment for women's employment.

The insightful and practical policy recommendations provide compelling evidence for the need for action to ensure that women can fully participate in the digital, global, and sustainable economy with a diverse demographic profile.

Kasuni Weerasinghe and Thilini Meegaswatta in chapter seven 'Working Women in Sri Lanka' highlights the economic and social conditions that shape the experiences of women in the workforce in Sri Lanka.

Women in Sri Lanka have a relatively high rate of literacy, but their labour force participation rates have remained lower than those of men. They contend that this is a result of workplace discrimination, gender norms, and policies. It also provides a detailed analysis of the various challenges that women face in the workforce, such as limited access to training and education, lack of opportunities for career advancement, and discrimination based on gender, age, and marital status. The authors identified two major challenges for women in Sri Lanka: lack of access to training and education, and gender-based discrimination in the workplace. Financial constraints and family responsibilities limit women's opportunities for career advancement and make it difficult for them to compete with men in the workforce. Gender-based discrimination also reinforces traditional gender norms that prioritize domestic responsibilities over professional aspirations. The authors examine the impact of government policies on women's labour force participation in Sri Lanka.

They highlight opportunities and strategies for promoting gender equality, such as engaging with men and boys to challenge traditional gender norms and providing women with access to childcare services. They conclude by recommending a comprehensive approach to address the unique challenges faced by women in the workforce. The authors provide an analysis of the challenges and opportunities facing women in the workforce, as well as the impact of government policies. It highlights the need for a comprehensive approach to promote gender equality, increase access to education and training, improve working conditions, and eliminate discrimination in the workplace.

Chapter eight 'Working Women in Fiji' by Natalia D'Souza, pointed out that Gender inequalities in Fiji have been exacerbated by political coups, weakening their labour market positions and outcomes, and resulting in economic, social, and environmental costs. Fiji has a large informal economy, with most women employed in unpaid caregiving and domestic work in Fiji. National-level factors such as political instability, reduced collective organisation, labour market deregulation, and limited representation have contributed to a 'feminisation' of the workforce. Regarding the employment regulations are concerned the author states that The Fijian Government has declared a Country Gender Assessment and Eight international agreements to address gender inequality in the labour market and regulatory context, but progress on gender equity has been stalled due to freedom of association and the COVID-19 crisis. The international border closures following COVID-19 have had a significant impact, particularly on the informal economy of women and micro- and small businesses, which contribute significantly to Fiji's GDP through tourism. Fiji's Demographic setup revealed that women of all demographic groups face cumulative lifespan difficulties that increase their instability inside as well as outside of the scope of paid work. While

during the lockdown remote working became a new way of working, in Fiji, women are likely to be negatively impacted by potential digital skills gaps. The chapter concludes with designing and implementing of a sustainable recovery strategy that should create decent jobs, enhance opportunities for collective organization and social dialogue, invest in technological infrastructure and upskilling, and support women's roles.

Chapter nine 'Working Women in Pakistan' by Fatima Junaid and Afia Saleem, discusses the historical context of women's employment in Pakistan, where women make up only 25% of the formal sector workforce. It also notes that women are often employed in low-paying and low-skilled jobs and are more likely to work in the informal sector. The authors examine the challenges faced by working women in Pakistan, such as cultural and social norms, lack of access to education and training, and limited legal protections and benefits. These factors make it difficult for women to find and keep jobs and acquire the skills and knowledge needed to succeed in the workforce. Discrimination in the workplace is a major challenge for working women in Pakistan, with limited career advancement opportunities and a glass ceiling. To address this, more investment in education and training is needed, as well as policies and programs that promote gender equality. The authors provide a detailed and informative analysis of the challenges faced by women in the Pakistani labour force.

The final chapter 'Working Women in Philippines' by Daisy Arago, Jane Brock and Peter Brock found that women there face social inequalities and economic disadvantages due to rural land ownership, urbanization, and a low-value-added export economy. The authors critically evaluate the reports and data showing that the low percentage of women in the workforce is largely due to workplace discrimination based on gender, sexual harassment, the wage gap, and the lack of flexible work schedules. Low wages, low productivity, and

insecure work in service, manufacturing, and agro-corporations disproportionately affect women. The authors critically evaluate the challenge of the migration of labour, The Philippines has a legacy of state-sponsored women's mobility, with migration into "feminized" labour sectors being promoted as an opportunity for women. However, the de-skilling of migrant women remains a significant issue, with many Filipino women migrating to work in low-skilled sectors. Women form a large portion of the informal economy, running home businesses, providing personal services, and subcontracting for low-paying production jobs, low pay, risks to their health and safety, and violence. Regarding employment regulations in the Philippines, progress toward achieving equality for working women has been slow and sporadic. The authors also presented the main conclusions and suggestions made by The National Trade Union Center Of The Philippines' Project (NTUC Phl) stating that the underrepresentation of women and young people in union leadership is a result of inadequate policies, structures, and resources. The authors conclude with helpful and practical suggestions for turning the effects of globalisation, technology, demographics, and sustainability into opportunities for working women in the Philippines, including urgent multilateral attention from the government and other regulatory bodies for gender-inclusive employment policy, gendered development and implications of technological advancements for workers, and social change towards an equitable allocation of wealth, resourcing, and social power.

To summarise the book '**Women and Work in Asia and the Pacific - Experiences, challenges and ways forward**' by Jane Parker, Marian Baird, Noelle Donnelly, and Rae Cooper is a valuable resource for anyone interested in understanding "Women and Work". It includes theoretical foundations and grassroots perspectives from both urban and rural areas considering all the stakeholders and should be read by academicians, researchers, students, and practitioners.



ROUND & ABOUT

Mr. Fazalahmed Khan
Advisor, AILSG, Mumbai.

Task Forces to be set up at Municipal Wards for Air Pollution Control in Mumbai

Of late, Mumbai has been in the news for wrong reasons i.e. for the rise in its air pollution. According to the figures mentioned in the Economic Survey of Maharashtra, 2022-23, Mumbai has 44,75,760 vehicles. Construction activities are going on with high pitch. Hence, there is no surprise for the rise in air pollution. Number of electric vehicles is yet to catch up and there is steady increase in the CNG vehicles. The Brihanmumbai Municipal Corporation (BMC) had set up a seven-member expert committee to suggest measures to curb air pollution. The Committee in its 41 page report has blamed ongoing construction activities as being the primary cause behind dust pollution. It has also said that open burning of solid waste; unclean fuel used in hotels, eateries, bakeries and household; smoke emitted from crematoriums, vehicular emissions and displaced road dust contribute to Mumbai's worsening air quality.

On consideration of its report, the Corporation has issued a Circular on 29 March, 2023 to set up task forces at all the 24 municipal wards to take action against the air pollution generating sources.

The first task force will comprise officials from BMC's building, factories and building proposal department, which monitor the dust mitigation measures implemented in construction sites. The second task force will include officers from solid waste management department that will keep a check on open waste burning and garbage dumping in public spaces. The third task force will comprise officials from the BMC's health department, which will monitor crematoriums and air pollution caused by burning of unclean fuel in eateries, bakeries, hotels and restaurants.

As per the instructions contained in the BMC's Circular, It will be binding upon the contractors to adhere with the contract conditions as well as the instructions mentioned in the expert's committee's action plan. The site engineers and supervisors overlooking construction works will have to implement mitigation plans. Every task force will submit a weekly report to Ward Officer, who will submit their final action taken report on 5th and 20th of every month to the Additional Commissioner and the Deputy Municipal Commissioner (Environment).

(References: 1. Economic Survey of Maharashtra, 2022-23 [http://mls.org.in/PDF2023/BUDGET/ESM_2022_23_Eng_Book.pdf]. 2. The Sunday Express, Mumbai, 9 April, 2023)

Climate Change Update - 1

1.5°C Tipping Point

The overarching goal of the Paris Agreement (2015) is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. However in recent years, world leaders have stressed the need to focusing on limiting global warming to 1.5°C. That is because the Intergovernmental Panel on Climate Change (IPCC) has indicated that crossing the 1.5°C threshold risks unleashing far more severe climate change impacts, including more frequent and severe droughts, heat-waves and rainfall. (<https://unfccc.int/process-and-meetings/the-paris-agreement>).

The World Meteorological Organization (WMO) in its climate update released on 17 May, 2023 said that “Global temperatures are likely to surge to record levels in the next five years, fuelled by heat-trapping greenhouse gases and a naturally occurring El Niño event. There is 66% likelihood that the annual average near-surface global temperature between 2023 and 2027 will be more than 1.5°C above pre-industrial levels for at least one year. There is 98% likelihood that at least one of the next five years, and the five-year period as a whole, will be the warmest on record. This report does not mean that we will permanently exceed the 1.5°C level specified in the Paris Agreement which refers to long-term warming over many years. However, WMO is sounding the alarm that we will breach the 1.5°C level on a temporary basis with increasing frequency,” said WMO Secretary-General Prof. Petteri Taalas.

(Reference: WMO Press Release, Geneva, 17 May, 2023)

Climate Change Update - 2

The three Assessment Reports of the IPCC, which came out in 2021, 2022 and 2023 have already warned of the dire consequences on continual increase in the global surface mean temperature. A report of the WMO for the year 2022, which came out in April, 2023, has reiterated these warnings.

- (1) The unusual heat in Europe last year, during which several countries experienced record breaking temperatures, contributed to the deaths of at least 15,000 people, more than any other single extreme climate event. Country-wise position is as under:

Spain – about 4600 deaths, Germany – 4,500 deaths, U.K. – 2800 deaths, France – 2,800 and Portugal – 1,000 deaths.

- (2) On an average global average temperature in the year 2022 was 1.15° Celsius higher than the pre-industrial times, which is the average of the 1850-1900 period.

- (3) The warmest year so far has been 2016 when average global temperatures were measured to 1.28° Celsius higher than the pre-industrial times.
- (4) 95 million people across the world had already suffered displacement because of climate change. Most people displaced in climate or weather related events remained within the territories where they resided, while in some situations people were forced to flee across international borders in search of safety.
- (5) The year 2023 is predicted to be warmer than 2022, with the likelihood of more intense heat-waves and droughts occurring.

(References: 1. WMO Report on State of the Global Climate 2022. 2. The Indian Express, Mumbai, 22 April, 2023)

Biomethanation Plants

Biogas is a mixture of methane, CO₂ and small quantities of other gases produced by anaerobic digestion of organic matter in an oxygen-free environment. The precise composition of biogas depends on the type of feedstock and the production pathway; these include the following main technologies:

Biomethane (also known as “renewable natural gas”) is a near-pure source of methane produced either by “upgrading” biogas (a process that removes any CO₂ and other contaminants present in the biogas) or through the gasification of solid biomass followed by methanation.

(Reference: International Energy Agency (IEA) <https://www.iea.org/reports/outlook-for-biogas-and-biomethane-prospects-for-organic-growth/an-introduction-to-biogas-and-biomethane>).

In the Budget 2023-24, the Finance Minister has announced setting up **75 biomethanation plants**, which convert wet waste into biogas. The Ministry of Urban Affairs has approved 42 of such facilities. The target of the scheme is to create capacity of 15,000 tonnes per day (TPD). As reported there are 99 biomethanation plants functioning in cities with a total capacity of 2,288 TPD. In order to facilitate setting up of such plants, the Ministry has signed an MoU with the Engineers India Ltd. for developing the waste-to-energy and biomethanation plants.

The Finance Minister also announced setting up **500 biogas plants** across the country. Of these, 75 plants are proposed in urban areas.

(Reference: The Indian Express, Mumbai, 8 April, 2023).

BMC's Plan of a Bio-gas Plant

The BMC along with the Mahanagar Gas Limited has planned to set up a bio-gas plant in Mumbai, which will process about 1,000 tonnes of wet waste daily. The bio-gas then will be purified and compressed to be used as auto-fuel. While announcing the project, the BMC has given some useful information, which is briefly mentioned below:

1. The city daily generates about 6,400 tonnes of dry and wet waste every day (average of 2022-23) of which about 3,500 tonnes is wet waste. The proposed plant will recycle about one third of the wet waste generated in the city.
2. The gas mixture produced will have 70% Methane, 29% Carbon dioxide. The gas mixture can be used as a fuel for heating, cooking and generating electricity.
3. The remaining material, called digestate, can be used as a fertilizer or soil conditioner.

(Reference: The Times of India, Mumbai, 6 May, 2023)

Miyawaki Gardens in Mumbai

Urban forestry, protection of environment and promotion of ecology is one of the mandatory functions to be performed by Urban Local Bodies as included in the XII the Schedule of the Constitution of India. Over the decades every municipal corporation has had an avowed aim of making the city green city. However, the results do not seem to be encouraging as to fulfillment of this objective. Mumbai with an area of about 487 sq.kms has about 29,74,238 trees according to the Tree Census of 2018, which may not be a commendable figure. This year (2023-24), the Corporation has planned 14 new urban forests on Miyawaki pattern. This is a method conceptualized by Japanese botanist Akira Miyawaki in the early 1970's to restore indigenous ecosystems under which native trees are densely planted within small patches. The earlier experience of the city with this technique has been encouraging. In Chandivali's Nahar Shakti Udyan, over 41,000 trees were planted on 13 acres. According to a Press Report, this year target for the BMC is to plant 1,00,000 trees of which 55,000 have been planted. However, some experts are not convinced of Miyawaki technique, which they call it as one of many techniques and as unnatural. Similarly, Miyawaki is confined to certain parks. Diversity in plantation is always recommended. Tree plantation is an age old practice. Social Forestry Department of Government of Maharashtra has circulated a list of trees, suitable for the agro-climatic conditions of the State. Mumbai is home to so many varieties of trees. What is more important is to have the plantation across the city with diversity of the trees. Technical inputs can also be obtained from the experts like the Bombay Natural History Society (BNHS) and the Social Forestry Department of the Government of Maharashtra.

(Reference: The Times of India, Mumbai, 24 April, 2023)

The World Environment Day

The World Environment Day is celebrated on 5 June every year. An excerpt from the website of the World Environment Day, which highlights the dangers of plastic pollution and the urgent actions needed. [<https://www.worldenvironmentday.global>]

The theme for World Environment Day on 5 June 2023 focussed on solutions to plastic pollution under the campaign #BeatPlasticPollution. The world is being inundated by plastic. More than 400 million tonnes of plastic is produced every year, half of which is designed to be used only once. Of that, less than 10 per cent is recycled. An estimated 19-23 million tonnes end up in lakes, rivers and seas. Today, plastic clogs our landfills, leaches into the ocean and is combusted into toxic smoke, making it one of the gravest threats to the planet. Not only that, what is less known is that microplastics find their way into the food we eat, the water we drink and even the air we breathe. The good news is that we have science and solutions to tackle the problem—and a lot is already happening. What is needed most now is a surge of public and political pressure to scale up and speed actions from governments, companies and other stakeholders to solve this crisis. This underscores the importance of World Environment Day mobilizing action from every corner of the world.

THE HOST COUNTRY: World Environment Day 2023 was hosted by Côte d'Ivoire in partnership with the Netherlands. Côte d'Ivoire is showing leadership in the campaign against plastic pollution. Since 2014, it has banned the use of plastic bags, supporting a shift to reusable packaging.

“The scourge of plastic pollution is a visible threat that impacts every community,” said Jean-Luc Assi, Côte d’Ivoire’s Minister for the Environment and Sustainable Development. “We are proud to champion diverse treatments for the plastic pandemic.” World Environment Day 2023 was supported by the Government of Netherlands, which is one of the countries taking ambitious action along the plastic lifecycle. It is a signatory of the New Plastics Economy Global Commitment and a member of the Global Partnership on Plastic Pollution and Marine Litter.

“Plastic pollution and its detrimental impacts on the health, economy and environment cannot be ignored. Urgent action is required. At the same time, we need true, effective and robust solutions,” said Vivianne Heijnen, Netherlands’ Minister for the Environment. “As part of several policies aimed at plastics, The Netherlands and the European community at large are fully committed to reduce the production and consumption of single-use plastic, which can and must be replaced with durable and sustainable alternatives.”

AMBIKAPUR Shows the Way

Urban Management is one of the prime subjects of our times. Cities are bubbling with the gamut of activities. They are termed as engine of growth, where whole range of the sectors-administration, industry, business, health, services, transport, education, science and technology, culture, entertainment, etc. are flourishing like never before. One can talk about the cities, in a positive way as

well as negative way. The other side is the congestion, pollution, acute lack of infrastructure, slums, poverty among riches, and lack of housing for the poor as well as lower middle class. One of the unnoticed facts about urban management is that sometimes, the small, non-descript cities show the way with genuine innovation and exceptional initiative. This piece is about Ambikapur, a small town in the north Chhatisgarh with a population of less than 2 lakh. A few shining facts about Ambikapur are as under:

1. First in Swachh Survekshan 2017-2020 (category 1-3 lakh population).
2. National winner Swachh Survekshan 2021 (best practice and innovation).
3. Skoch Urban Award 2015 & 2016.
4. UN 3R Awards 2017.

The movement started when IAS officer Ritu Sain was posted as District Collector, Sarguja. There was a 25 year old dumpsite on the city's border, spread over 16 acre, always stinking. Now it is a 14 acre botanical garden. According to Mayor Dr. Ajay Kumar Tirkey (an orthopedic surgeon by profession), “Ritu Sain scientifically supported the three-layer waste disposal method and worked as a bridge between the corporation, district administration, urban administration and Chhatisgarh Development Department”. [Words in italics, made so by the columnist for emphasis]. There are 470 “Swachhata Didis” [read 'garbage collectors']. Supervisors go round Ambikapur, armed with tablets and Bluetooth printers to upload information of garbage lifted from homes and business. All the 48 wards are dustbin-free. Around 48-51 metric tonnes of garbage is collected every day. Wet waste is composted and the dry waste is segregated into 22 categories. According to Pratishtha Mamgain, the Commissioner of the Corporation is earning Rs. 9-10 lakh every month from selling waste.

(Reference: The Times of India, Mumbai, 9 April, 2023)

Noise Pollution

Noise pollution hardly makes any news because it seems people have become used to it. On certain occasions, when Sumaira Abdulali of Awaaz Foundation, the lone fighter against this noise pollution, stands at certain places in Mumbai with his audiometer and press covers it then the readings find place in the news Website of this NGO is a veritable source of information on noise pollution.

An excerpt from the Economic Survey of Maharashtra 2022-23, which was presented in the State Assembly, a day prior to the presentation of the Budget 2023-24, is reproduced below with some editing –

Noise pollution is mainly due to industrial activities, construction activities, road traffic, operations of railways, aeroplanes (*and indiscriminate use of vehicle horns and of firecrackers*) cause health issues such as hearing loss, anxiety, etc. To assess the impact of noise pollution, Ambient Noise Level Monitoring Program is conducted by MPCB in major cities. The noise levels are measured at various locations which includes residential, commercial and silence zone. As per noise pollution (Regulation

& Control) Rules 2000, the standards of noise level limits for **residential zone are 55 decibel during day time and 45 decibel during night time**. Day night noise levels in selected cities during Diwali in 2022 are given below –

Location	24 October, Day Decibels	24 October, Night Decibels
Mumbai, Shivaji Park	82.0	79.9
Mumbai, Chembur	83.6	64.1
Thane, Gokhale Road	70.0	69.2
Thane, Wagle Estate	76.0	66.5
Pune, Swargate	86.9	74.1
Nasik, Bytco Point	77.7	70.2
Aurangabad, City Chowk	73.6	61.3
Nanded (Ganesh Nagar)	58.2	57.3
Nagpur, Sadar	72.5	68.1
Chandrapur Jatpura Gate	76.2	72.6
Amravati, Rajkamal Chowk	77.2	76.5
Akola, Collector Office	70.4	59.6

Comments: The readings of Diwali festival time. But firecrackers are played in the night; hence it shows that during the day time also the sound limits were much higher than the prescribed limits.

Call for Research Papers!

The **Regional Centre for Urban & Environmental Studies** is pleased to invite contributions for **Urban World** in the form of articles and research papers from researchers, authors, publishers, academicians, administrative and executive officers, readers on : **Urban Governance, Planning and Development**.

Articles could be between 2000 to 4000 words. They may contain compatible tables, charts, graphs, etc. We reserve the right to edit for sense, style and space. Contributions may be e-mailed in digital form as a Word file to the Director, RCUES, Mumbai.

Regional Centre for Urban and Environmental Studies (RCUES) of
All India Institute of Local Self-Government (AIIILSG),
M.N. Roy Human Development Campus, Plot No.6, 'F' Block,
Opp. Government Colony Bldg. No.326, Bandra (East), Mumbai-400051.
Tel : 8657622550 / 51 / 52 / 54
Email: dir.rcues@aillsg.org

Regional Centre for Urban and Environmental Studies, Mumbai Advisory Committee

♦ Dr. K. H. Govinda Raj, IAS	Principal Secretary, Urban Development Department, Government of Maharashtra, Mumbai.	Ex-Officio Chairperson
♦ Mr. Kuldip Narayan	Jt. Secretary (HFA), Ministry of Housing and Urban Affairs, Government of India, New Delhi.	Member
♦ Mr. Mukesh Kumar, IAS	Principal Secretary, Urban Development and Urban Housing Department, Government of Gujarat, Gandhinagar.	Member
♦ Mr. Kunji Lal Meena, IAS	Principal Secretary, Urban Development and Housing Department, Government of Rajasthan, Jaipur.	Member
♦ Mr. Ramesh Verma, IAS	Secretary, Urban Development Department, Government of Goa, Goa.	Member
♦ Ms. Kavitha Padmanabhan, IAS	Commissioner & Secretary, Urban Development Department, Government of Assam, Guwahati, Assam.	Member
♦ Mr. Abhishek Singh, IAS	Secretary, Urban Development Department, Government of Tripura, Agartala, Tripura.	Member
♦ Mr. Surendra Nath Tripathi, IAS (Retd.)	Director-General, Indian Institute of Public Administration, Indraprashta Estate, New Delhi.	Member
♦ Dr. Deepak Pawar	Professor & Head, Department of Civics and Politics, University of Mumbai, Mumbai.	Member
♦ Dr. Jairaj Phatak, IAS (Retd.)	Director-General & Director, RCUES, All India Institute of Local Self-Government, Mumbai.	Member-Secretary

Regional Centre for Urban and Environmental Studies (RCUES), Mumbai (Fully supported by Ministry of Housing & Urban Affairs, Government of India) undertakes

Urban Policy Research.
♦
Tailored Training and Capacity Building Programmes in Urban Management and Urban Governance.
♦
Capacity Building for Urban Poverty Alleviation.
♦
Anchoring Innovative Urban Poverty Reduction Projects (Aadhar) for Municipal Corporations.
♦
Project Management & Social Auditing.
♦
Information, Education & Communication (IEC) in Urban Sector.
♦
Training of Trainers (TOT) in Urban Management.
♦
Technical Advisory Services in the Urban Development Urban Management Sector
♦
Study Visits for ULBs for Experience Sharing and Cross Learning
♦
Community Based Interventions.
♦
Human Resources Development.
♦
Interdisciplinary Programmes.
♦
Knowledge Management.
♦
Networking.



**Regional Centre for Urban & Environmental Studies
All India Institute of Local Self-Government, Mumbai**

Bandra Kurla Campus:

All India Institute of Local Self-Government

M. N. Roy Human Development Campus, Plot No.6,

'F' Block, Opp. Government Colony Bldg. No.326,

Bandra (East), Mumbai - 400051, India.

Tel. 8657622550 / 51 / 52 / 54

Email : dir.rcues@aiilsg.org