

II. CLOSING THE GREEN FINANCE GAP: BRIDGING THE DIVIDE BETWEEN CLIMATE ACTION AND URBAN FINANCING

- Tejaswini Kaushal*

ABSTRACT

With urban centers accommodating a majority of the global population, these cities are responsible for substantial waste generation, energy consumption, and greenhouse gas emissions, making them highly susceptible to climate change effects such as heat waves, flooding, and health crises. However, urban local bodies (ULBs) in developing countries face significant challenges in ensuring financial support for low-emission and climate-resilient urban infrastructure projects. 'Green financing,' which involves instruments like green bonds and green loans, is an upcoming solution, and several international and national institutions and frameworks have already been established to regulate it. With the rolling out of green financing guidelines by SEBI and RBI, green financing has also been enjoying much significant limelight in the national context. However, due to the uncertain taxation policies, dearth of regulatory frameworks, inadequate technological and infrastructural appendages, and lack of efficient finance models at the municipal levels, a dissonance in demand and supply of green finance has led to a Green Finance Gap. This paper explores the concept of Green Finance in the national and international context, focusing chiefly on the Green Finance Gap and its impact on urban financing in an effort to address the urgent need for immediate action to create sustainable solutions for our future.

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* The authors is a second-year students of B.A. LL.B. at Dr. Ram Manohar Lohiya National Law University, Lucknow. Views stated in this paper are personal.

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I. INTRODUCTION

With over half of the world’s population residing in cities and singlehandedly causing an eighty percent increase in greenhouse gas emissions,¹ these urban centers have undoubtedly become the epicenters of environmental and social challenges.² Consequently, cities are highly vulnerable to the damaging effects of climate change, including devastating heat waves, flooding, and health crises.³ Therefore, about eighty percent of the global annual climate change adaptation costs are projected to fall solely upon urban areas.⁴

The rapid urbanization of the Global South particularly has led to an increase in greenhouse gas emissions, waste generation, and energy consumption. However, urban local bodies (“ULBs”), especially in

¹ Oriana Romano, ‘The Circular Economy in Cities and Regions’ (*OECD*) <<https://www.oecd.org/regional/cities/circular-economy-cities.htm>> accessed 19 March 2023.

² *ibid.*

³ Intergovernmental Panel on Climate Change, *Climate Change widespread, rapid and intensifying* (9 August 2021) <<https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>> accessed 21 March 2023.

⁴ Ari Huhtala, ‘Climate Finance in the Urban Context’ (2010) 4 DCAF <https://www.uncclean.org/wp-content/uploads/library/wb72_0_0.pdf> accessed 20 March 2023.

developing countries, face significant challenges in accessing financial support for climate-resilient and low-emission urban infrastructure projects. With the global consciousness starting to prioritize environmental concerns, numerous nations now give prominence to attaining “green growth” in their economies while simultaneously pursuing economic development. The successful transformation of conventional economic sectors into eco-friendly ones and the substantial expansion of crucial green emerging industries necessitate the financial sector’s adequate support.⁵

In light of the same, this paper explores the concept of Green Finance through its instruments like Green Bonds (“GBs”) and Green Loans (“GLs”) and their importance in addressing the finance needs of green projects, with a focus on the Green Finance Gap and its impact on green urban development financing. In Section II, the paper delves into the understanding of green finance, the current Indian urban development initiatives, and the role of green urban financing. Section III highlights the dissonance in demand and supply of green finance due to lacunae in the urban financing strategies that have caused a Green Finance Gap. Section IV analyses the current position of Indian reforms and thereafter recommends strategies for bridging the green finance gap by referring to international models.

⁵ Zheng He et al. ‘Research on the Impact of Green Finance and Fintech in Smart City’ (*Hindawi*, December 2020)
<https://www.researchgate.net/publication/347474509_Research_on_the_Impact_of_Green_Finance_and_Fintech_in_Smart_City> accessed 21 March 2023.

II. UNDERSTANDING GREEN FINANCE FOR ULBS: SIGNIFICANCE, TRENDS, AND THE GREEN FINANCE GAP

A. Comprehending Green Finance and its Trends

The United Nations Environment Programme (“UNEP”) has presented the objective of Green financing as follows:⁶ “Green financing is to increase the level of financial flows (from banking, micro-credit, insurance, and investment) from the public, private and not-for-profit sectors to sustainable development priorities.”

GBs, as green finance instruments are globally governed by the Green Bond Principles (“GBP”), 2018,⁷ which defines GBs as “Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Green Projects [...]”

Similarly, GLs are currently governed by the Green Loan Principles (“GLP”), 2018,⁸ which define GLs as “Green loans are any type of loan instrument made available exclusively to finance or refinance, in whole or in part, new and/or existing eligible Green Projects.”

⁶ United Nations Environment Programme, *Green Financing*, <<https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-financing#:~:text=Green%20financing%20is%20to%20increase,sectors%20to%20sustainable%20development%20priorities..>> accessed 23 March 2023.

⁷ ‘The Green Bonds Principles’ (2018) ICMA <<https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bonds-Principles-June-2018-270520.pdf>> accessed 27 March 2023.

⁸ ‘Green Loan Principles’ (2018) GLP <https://www.lma.eu.com/application/files/9115/4452/5458/741_LM_Green_Loan_Principles_Booklet_V8.pdf> accessed 24 March 2023.

In the Green Horizon Summit (2020), the GB market was predicted to be worth USD 2.36 trillion globally by 2023,⁹ and regardless of GB supply decreasing by 25.6% in 2022 (to USD 443.72 billion from USD 596.30 billion in 2021), it is expected to make a rebound and increase by more than 30% in 2023¹⁰ amid policy push by countries.¹¹ Sustainability-linked bonds were earlier predicted to be the asset class in the ‘environmental, social, and governance’ (“ESG”) debt market that would expand the fastest,¹² but the phenomenon of ‘greenwashing’ has adversely affected this market lately.¹³

B. Indian City Development Initiatives and Their Current Funding Sources

According to the 2011 census, urban areas in India had a population of 377 million people, which accounted for 31% of the country’s total

⁹ ‘Green Horizon Summit’ (*World Economic Forum*, 9 November 2020)

<<https://www.weforum.org/events/green-horizon-summit-the-pivotal-role-of-finance-2020>> accessed 25 March 2023.

¹⁰ Isla Binnie, ‘Green bonds are set to drive corporate ESG debt out of slump in 2023’ (*Reuters*, 6 January 2023)

<<https://www.reuters.com/business/sustainable-business/green-bonds-are-set-drive-corporate-esg-debt-out-slump-2023-barclays-2023-01-04/#:~:text=Corporate%20ESG%20bond%20issuance%20fell,predominantly%20driven%20by%20green%20bonds>> accessed 20 March 2023.

¹¹ Sanne Wass, ‘Global green bond issuance poised for rebound in 2023 amid policy push’ (*S&P Global*, 25 January 2023)

<<https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/global-green-bond-issuance-poised-for-rebound-in-2023-amid-policy-push-73931433>>.

¹² *ibid.*

¹³ Tejaswini Kaushal, ‘Revealing the Faultlines: The perils of corporate greenwashing in India’s ESG landscape’ (*CCL NLUO*, 6 March 2022)

<<https://www.ccl.nluo.ac.in/post/revealing-the-faultlines-the-perils-of-corporate-greenwashing-in-india-esg-landscape>> accessed 26 March 2023.

population.¹⁴ By 2036, urban cities in India are projected to accommodate 600 million people, accounting for 40 percent of the country's population.¹⁵ Accordingly, improving Indian urban infrastructure has been enjoying precedence, driven by the pursuit of the constitutional obligation towards ULB self-governance.¹⁶ Recently, India's strategy for urban development has been reflected in the pursuit of establishing "smart cities," a term coined in the 2008 IBM Report.¹⁷ The Smart Cities Mission, 2015,¹⁸ is one initiative by India that aims to develop 100 smart cities across India by June 2023, out of which 20 are projected to meet the deadline.¹⁹ Others include the Atal Mission for Rejuvenation and Urban Transformation ("AMRUT"), 2015,²⁰ for improving livelihood conditions for over 500 cities nationwide; Swachh Bharat Mission for cleanliness;²¹ Digital India for technology and connectivity;²² and the National Urban Livelihoods Mission²³ for improving livelihood opportunities

¹⁴ National Institute of Urban Affairs, *India's Urban Demographic Transition* (4 November 2011) <https://mohua.gov.in/upload/uploadfiles/files/CensusResult_2011%5B1%5D.pdf> accessed 18 March 2023.

¹⁵ 'India's Urban Infrastructure Needs to Cross \$840 Billion Over Next 15 Years: New World Bank Report' (*The World Bank*, 14 November 2022) <<https://www.worldbank.org/en/news/press-release/2022/11/14/india-s-urban-infrastructure-needs-to-cross-840-billion-over-next-15-years-new-world-bank-report>> accessed 26 March 2023.

¹⁶ Constitution (74th Amendment) Act 1992.

¹⁷ Sam Palmisano, "Smart Earth: Next Generation Leadership Agenda" (2009) API <https://connect-world.com/PDFs/articles/2009/AP_I_2009/AP_I_2009_02.pdf> accessed 27 March 2023.

¹⁸ Government of India, *Smart Cities* <<https://smartcities.gov.in/>> accessed 26 March 2023.

¹⁹ Damini Nath, 'Smart Cities Mission' (*The Indian Express*, 16 March 2023) <<https://indianexpress.com/article/explained/explained-law/smart-cities-deadline-8499073/>> accessed 23 March 2023.

²⁰ Press Information Bureau, *AMRUT Scheme* (22 December 2022) <<https://pib.gov.in/PressReleasePage.aspx?PRID=1885837>> accessed 21 March 2023.

²¹ Government of India, *Swachh Bharat Mission* (24 March 2023) <<https://swachhbharatmission.gov.in/>> accessed 26 March 2023.

²² Government of India, *Digital India* <<https://www.digitalindia.gov.in/>> accessed 24 March 2023.

²³ Ministry of Housing & Urban Poverty Alleviation, *National Urban Livelihoods Mission* <[https://mohua.gov.in/upload/uploadfiles/files/18NULM%20mission%20document\(3\).pdf](https://mohua.gov.in/upload/uploadfiles/files/18NULM%20mission%20document(3).pdf)> accessed 25 March 2023.

in urban areas. State governments also prepare State Action Plans for Climate Change (“SAPCCs”) based on their state-specific priorities and delegate them to ULBs.²⁴

For funding new projects, the traditional sources available to ULBs include tax revenue, non-tax revenue, debt, and grants-in-aid.²⁵ However, Indian cities are held to be among the weakest in the world regarding their financial self-sufficiency and resource-raising capacity.²⁶ This poor governance and financial situation also make it challenging for cities to access external financing.²⁷

However, certain contemporary tools have also evolved to allow independent and efficient fund-raising by ULBs.²⁸ These include Value Capture Financing (“VCF”)²⁹, External Commercial Borrowings (“ECBs”) [post-compliance to Foreign Exchange Management Act (“FEMA”), 1999³⁰

²⁴ Shreyans Jain, Rajashree Padmanabhi ‘A Snapshot of Urban Green Finance in Two Indian Cities’ (November 2021) CCFLA <https://www.climatepolicyinitiative.org/wp-content/uploads/2021/11/CCFLA-Indian-cities-report_FINAL-1.pdf> accessed 26 March 2023.

²⁵ “Financing of Smart Cities”, Smart Cities Mission, Ministry of Urban Development, <http://smartcities.gov.in/upload/uploadfiles/files/Financing_of_Smart_Cities.pdf> accessed 18 March 2023.

²⁶ TCA Sharad Raghavan, ‘India’s urban local bodies among weakest globally’: RBI decries reliance on state, central grants’ (*The Print*, 11 November 2022) <<https://theprint.in/india/governance/indias-urban-local-bodies-among-weakest-globally-rbi-decries-reliance-on-state-central-grants/1209487/>> accessed 19 March 2023.

²⁷ ‘Report on Indian Urban Infrastructure and Services’, March 2011, The High Powered Expert Committee for estimating the investment requirements for urban infrastructure services, <<http://icrier.org/pdf/FinalReport-hpec.pdf>> accessed 20 March 2023.

²⁸ Prachee Mishra, ‘Financing Urban Development’ (*PRS Legislative Research*, 30 June 2013) <<https://prsindia.org/theprsblog/financing-urban-development?page=132&per-page=1>> accessed 21 March 2023.

²⁹ Value Capture Finance Policy Framework, Ministry of Urban Development, February 2017, <<http://smartcities.gov.in/upload/5901982d9e461VCFPolicyFrameworkFINAL.pdf>> accessed 22 March 2023.

³⁰ Foreign Exchange Management Act 1999.

and the Reserve Bank of India (“**RBI**”)’s Master Circular on ECBs³¹ with annual revisions³²] and Municipal bonds [post- compliance with the Securities and Exchange Board of India (Issue and Listing of Debt Securities by Municipalities) Regulations, 2015,³³ as amended in 2019³⁴]. For instance, in November 2022, nine municipal bodies raised approximately 38.40 billion rupees through bonds from 2016-17 to 2020-21.³⁵

An ancillary tool for capital flow facilitation from the above-mentioned is credit ratings. For ULBs, the credit rating is assigned based on assets and liabilities, revenue streams, and other governance practices. These indicate what projects might be more lucrative for investments, directly enhancing an entity’s capacity to raise funds.³⁶ For instance, Pune Municipal Corporation raised INR 2 billion by selling municipal bonds to finance water

³¹ Reserve Bank of India, *External Commercial Borrowings, Trade Credits and Structured Obligations* (RBI/FED/2018-19/67, 2019-2019), <https://rbi.org.in/Scripts/BS_ViewMasDirections.aspx?id=11510>, accessed 20 March 2023.

³² Reserve Bank of India, *External Commercial Borrowings (ECB) Policy* (RBI/2022-23/98, Circular No. 11), <<https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=12366&Mode=0>>, accessed 23 March 2023.

³³ Securities and Exchange Board of India (Issue and Listing of Debt Securities by Municipalities) Regulations, 2015, Securities and Exchange Board of India, July 15, 2015, <http://www.sebi.gov.in/sebi_data/attachdocs/1436964571729.pdf> accessed 27 March 2023.

³⁴ Securities And Exchange Board Of India, *Issue And Listing Of Debt Securities By Municipalities* (No.SEBI/LAD-NRO/GN/2019/40), <https://www.sebi.gov.in/legal/regulations/sep-2019/securities-and-exchange-board-of-india-issue-and-listing-of-debt-securities-by-municipalities-amendment-regulations-2019_44519.html> accessed 24 March 2023.

³⁵ Parth Welankar, ‘₹200 crore raised through through municipal bonds stuck in Pune civic body’s to-do list’ (*The Hindustan Times*, 10 July 2018) <<https://www.hindustantimes.com/pune-news/200-crore-raised-through-through-municipal-bonds-stuck-in-pmc-s-to-do-list/story-xlFLWgGuhVurTZAikQ2YEI.html>> accessed 19 March 2023.

³⁶ Press Information Bureau, Ministry of Urban Development, *Credit rating of cities under urban reforms begins* (September 6, 2016), <<https://pib.gov.in/newsite/PrintRelease.aspx?relid=149563>> accessed 25 March 2023.

supply projects, as it received an AA+ credit rating. The Indian government funds urban development initiatives through a combination of the above-mentioned sources, alongside budget allocations, loans from international financial institutions such as the Asian Development Bank (“ADB”) and the World Bank, and public-private partnerships (“PPPs”). Private entities are encouraged to invest, develop, and operate certain aspects of smart city projects through PPPs.³⁷ For instance, under the Smart Cities Mission, the central government provides up to INR 5 billion (USD 70 million) to each selected city over five years, while the state government and ULBs also contribute a matching amount.³⁸

Moreover, in the Budget 2022-23, the Ministry of Housing and Urban Affairs has been allotted an estimated INR 764.32 billion, a 2.5% increase over the previous financial year.³⁹ The government has also expressed its intention to establish an Urban Infrastructure Development Fund for public agencies to develop urban infrastructure in tier-2 and tier-3 cities.⁴⁰ Managed by the National Housing Bank, the Fund is expected to receive an annual allocation of INR 100 billion to adopt urban planning reforms. The cities will

³⁷ NITI Aayog, ‘Reforms In Urban Planning Capacity In India’ (September 2021) <<https://www.niti.gov.in/sites/default/files/2021-09/UrbanPlanningCapacity-in-India-16092021.pdf>> accessed 24 March 2023.

³⁸ Government of India, *About Smart Cities*, <<https://smartcities.gov.in/about-the-mission>> accessed 27 March 2023.

³⁹ PRS Legislative Research, *Demand for Grants 2023-24 Analysis: Housing and Urban Affairs*, <<https://prsindia.org/budgets/parliament/demand-for-grants-2023-24-analysis-housing-and-urban-affairs>>, accessed 22 March 2023.

⁴⁰ Press Information Bureau, *Highlights of the Union Budget 2023-24* (1 February 2023), <<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1895315>>, accessed 26 March 2023.

also be given incentives to implement property tax reforms and set aside user charges to enhance their creditworthiness for municipal bonds.⁴¹

C. Green Finance and ULBs in India: Where the paths merge

The 15th Finance Commission's report, namely 'Finance Commission in Covid Times Report for 2021–26' (2020),⁴² recognized cities as the primary drivers of economic growth and in need of a tailored strategy to allocate grants to ULBs for project incubation and implementation. Further, the High-Powered Expert Committee for Estimating the Investment Requirements for Urban Infrastructure Services (2011) highlighted that a major reason for the pitiable urban infrastructure is the dismal ability of ULBs to raise funds.⁴³ A World Bank report of November 2022 also highlighted low Own Source Revenue ("OSR") and higher dependence on commercial loans over municipal bonds as significant factors contributing to the inadequate commercial funding of urban infrastructure in India.⁴⁴

Green financing can be a panacea to relieve the ULBs' credit deficit. ULBs face capacity constraints in raising finance for sustainable projects, making green finance instruments like GBs and GLs appealing. By issuing GBs, ULBs can access a wider pool of investors specifically interested in sustainable investments while enjoying a lower debt servicing cost.

⁴¹ *ibid.*

⁴² Ministry of Finance, *Government of India Excerpts from Department of Economic Affairs (2021). Explanatory memorandum as to the action taken on the recommendations made by the Fifteenth Finance Commission in its final report submitted to the President on November 9, 2020* <<https://fincomindia.nic.in/ShowContentOne.aspx?id=9&Section=1>> accessed 28 March 2023.

⁴³ Report n 27.

⁴⁴ Sohaib Athar, Roland White, Harsh Goyal, 'Financing India's Urban Infrastructure Needs' (*World Bank Group*, 15 December 2021) <<http://documents.worldbank.org/curated/en/099615110042225105/P17130200d91fc0da0ac610a1e3e1a664d>> accessed 27 March 2023.

Furthermore, GBs can help municipal bodies meet their sustainability goals and demonstrate their commitment to environmental responsibility. These bonds are specific for undertaking “green activities,” a term postulated under the Climate Smart Cities Assessment Framework developed by India’s National Institute of Urban Affairs (“NIUA”).⁴⁵ Soft loans⁴⁶ and Green Masala Bonds⁴⁷ of Indian Renewable Energy Development Agency Limited (IREDA) are other popular instruments for financing green projects in India.

The Securities and Exchange Board of India (“SEBI”) took a regulatory initiative for GBs in May 2017 with the issuance of ‘Disclosure Requirements for Issuance and Listing of Green Debt Securities.’⁴⁸ The SEBI has also released three circulars⁴⁹ over the last six months to regulate green

⁴⁵ MoHUA, *ClimateSmart Cities Assessment Framework 3.0, (Technical Paper, 2022)* <https://niua.org/cube/sites/all/themes/zap/assets/pdf/CSCAF_3_0_Technical_document.pdf> accessed 24 March 2023.

⁴⁶ PIB Delhi, *IREDA signs MoU with MAHAPREIT to provide loans for Green Energy projects IREDA to provide Techno-Financial consultancy to MAHAPREIT for RE projects* (PIB, 22 August 2022) <<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1853602>> <<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1853602>> accessed 27 March 2023.

⁴⁷ Gopal K. Sarangi, ‘Green Energy Finance In India’ (August 2018) (No. 863) ADBI <<https://www.adb.org/sites/default/files/publication/446536/adbi-wp863.pdf>> accessed 25 March 2023.

⁴⁸ Securities and Exchange Board of India, *Disclosure Requirements for Issuance and Listing of Green Debt Securities* (CIR/IMD/DF/51/2017), <https://www.sebi.gov.in/legal/circulars/may-2017/disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_34988.html>, accessed 21 March 2023.

⁴⁹ Securities and Exchange Board of India, *Issue of Green Debt Securities by an issuer under Securities and Exchange Board of India (Issue and Listing of Municipal Debt Securities) Regulations, 2015* (SEBI/HO/DDHS/DDHS_Div1/P/CIR/2022/158) (November 24, 2022) <https://www.sebi.gov.in/legal/circulars/nov-2022/issue-of-green-debt-securities-by-an-issuer-under-securities-and-exchange-board-of-india-issue-and-listing-of-municipal-debt-securities-regulations-2015_65404.html> accessed 21 March 2023; Securities and Exchange Board of India, *Dos and don’ts relating to green debt securities to avoid occurrences of greenwashing* (SEBI/HO/DDHS/DDHS) (February 03, 2023), <<https://www.sebi.gov.in/legal/circulars/feb-2023/dos-and-don-ts-relating-to-green-debt->

financing, curb greenwashing, and establish a regulatory regime for GBs.⁵⁰ The Union Budget 2022–23 similarly announced Sovereign Green Bonds issuance to reduce the economy’s carbon intensity, as follows:

“As a part of the government’s overall market borrowings in 2022-23, sovereign Green Bonds will be issued for mobilizing resources for green infrastructure. The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy.”

Subsequently, in July 2022, the RBI also released its draft “Framework for Sovereign Green Bonds,” providing for the distinguished use of funds for Sustainable Development Goals (“SDGs”), the establishment of a Green Finance Working Committee (“GFWC”), and the evaluation and reporting criteria to gauge and manage the proceeds.⁵¹ The trends that favor this change resonated in the February 2023 GB issue of the Indore Municipal Corporation valued at INR 2.44 billion to fund a solar power plant construction. On the first day of the issue, the investor response exceeded expectations resulting in a whopping oversubscription of INR 6.61 billion.⁵²

securities-to-avoid-occurrences-of-greenwashing_67828.html> accessed 21 March 2023; Securities and Exchange Board of India, *Revised Disclosure Requirements for Issuance and Listing of Green Debt Securities* (RACPOD1/P/CIR/2023/023) (February 06, 2023), <https://www.sebi.gov.in/legal/circulars/feb-2023/revised-disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_67837.html> accessed 21 March 2023.

⁵⁰ Tejaswini Kaushal n 13.

⁵¹ Government of India, *Framework for Sovereign Green Bonds* (2891146/2022/Finance Unit, 2022)

<<https://dea.gov.in/sites/default/files/Framework%20for%20Sovereign%20Green%20Bonds.pdf>> accessed 23 March 2023.

⁵² Shruti Tomar, ‘Indore civic body introduces bonds to raise funds for solar power plant’ (*The Hindustan Times*, 12 February 2023) <<https://www.hindustantimes.com/india-news/indore-civic-body-introduces-bonds-to-raise-funds-for-solar-power-plant-101676143120044.html>> accessed 27 March 2023.

III. THE GREEN FINANCE GAP: HIGHLIGHTING THE LACUNAE IN GREEN URBAN FINANCING

A. The Growing Gap between the Demand and Supply

Despite the ceremonious welcome of the concept of green finance in India, a blatant gap peeks through the current revenue scheme. The GBs, as an instrument, do not enjoy an overwhelming capture of the capital market regardless of their recent projections of popularity. The World Bank, in November 2022, reported that India would have to invest a total of USD 840 billion in the next 15 years to adequately cater to the needs of its rapidly expanding urban population.⁵³ This translates to an average annual investment of USD 55 billion in urban infrastructure.⁵⁴ According to a Fitch Ratings report, as of January 2023, GSSS bonds accounted for just 3.8% (USD 20 billion) of the country's overall corporate bond market, worth about USD 500 billion, which requires more than USD 10 trillion to meet its green goals.⁵⁵ This phenomenon of the 'green finance gap,' which refers to the dissonance between the demand and supply of finance for green or sustainable projects, needs to be addressed, both locally and globally, to accelerate the transition towards a low-carbon and sustainable economy.

⁵³ New World Bank Report n 15.

⁵⁴ *ibid.*

⁵⁵ 'India's green bond issuances just 3.8 pc of overall domestic corporate bond market' (*The Economic Times*, 10 February 2023) <<https://economictimes.indiatimes.com/markets/bonds/indias-green-bond-issuances-just-3-8-pc-of-overall-domestic-corporate-bond-market-report/articleshow/97806148.cms>> accessed 23 March 2023.

B. The Lacunae in Green Urban Financing

Despite the growing awareness and interest in green finance, several dynamics contribute to the green finance gap in India, including limited access to finance, high transaction and debt financing costs, inadequate regulatory frameworks, short tenure of bonds, a lack of awareness and capacity among stakeholders, risks and uncertainties, and a dearth of effective funding models at local levels.⁵⁶ ULBs are particularly affected as they are responsible for providing regular and primary services and infrastructure to their citizens while facing already limited financial resources and capacity. According to the RBI's 2022 report on municipal finances,⁵⁷ significant technology and capacity gaps related to urban climate finance must be addressed for cities to meet their obligations successfully. For instance, Mumbai's Climate Action Plans ("CAP")⁵⁸ are still ineffective, as there is insufficient investment in sustainable public infrastructure.⁵⁹ Additionally, green project ideas often fail to move forward due to a lack of local-level preliminary studies, and such gaps in capacity and technology bring huge financial detriments.⁶⁰

⁵⁶ Government of India n 47.

⁵⁷ *Report on Municipal Finances*, RBI 2022, <<https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/RMF10112022428A45038BB44324B9CC0F3D9DBD3F7A.PDF>> accessed 27 March 2023.

⁵⁸ <<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1847812>> accessed 23 March 2023.

⁵⁹ Tanishka Sachidanand, 'Trying to Stay Afloat: How Mumbai's Climate Action Plan Falls Short', (CCS, Sept 29, 2021), <<https://news.climate.columbia.edu/2021/09/29/why-mumbais-climate-action-plan-falls-short/>> accessed 21 March 2023.

⁶⁰ Anusha Kesarkar Gavankar, 'Rethinking urban green financing for accelerating India's cleantech system' (ORF, 20 February 2023) <<https://www.orfonline.org/expert-speak/rethinking-urban-green-financing-for-accelerating-indias-cleantech-system/>> accessed 21 March 2023.

IV. BRIDGING THE DIVIDE BETWEEN CLIMATE ACTION AND URBAN FINANCING

A. Trends of Urban Green Financing in India

Regulatory guidelines from SEBI⁶¹ and RBI⁶² are now in place. The RBI released a report⁶³ on November 10, 2022, which suggests alternative financing methods for ULBs. This report follows a series of other publications from the RBI highlighting the significance of green financing, starting as early as January 2021.⁶⁴ The RBI's focus on green financing highlights the need for sustainable and environmentally friendly investments in the urban infrastructure sector. By providing alternative financing options, the RBI hopes to facilitate expeditious accomplishments of CAPs and India's ambitious COP26 undertaking⁶⁵ by ULBs. Regionally, India forms a part of the ASEAN Catalytic Green Finance Facility,⁶⁶ which provides grants and catalytic investments to implement innovative solutions to the issues posed by climate change. Internationally, the Global Steering Group for Impact Investment ("GSGII") acts as a regulatory institution for green financing, of

⁶¹ Press Information Bureau n 49.

⁶² Ministry of Finance n 51.

⁶³ Reserve Bank of India, *Alternative Sources of Financing for Municipal Corporations* (Nov 10, 2022), <<https://m.rbi.org.in/scripts/PublicationsView.aspx?id=21362>>, accessed 19 March 2023.

⁶⁴ Saurabh Ghosh, Siddhartha Nath and Abhishek Ranjan, *Green Finance in India: Progress and Challenges*, (January 2021), RBIB <https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs/04AR_2101202185D9B6905ADD465CB7DD280B88266F77.PDF> accessed 27 March 2023.

⁶⁵ Ministry of Environment, Forest and Climate Change, *India's Stand at COP-26* (3 February 2022), <<https://pib.gov.in/PressReleasePage.aspx?PRID=1795071>>, accessed 27 March 2023.

⁶⁶ Asian Development Bank, *ASEAN Catalytic Green Finance Facility (ACGF)*, <<https://www.adb.org/what-we-do/funds/asean-catalytic-green-finance-facility/main>>, accessed 24 March 2023.

which India is one of only 4 Asian members.⁶⁷ The United Nations Framework Convention on Climate Change (“UNFCCC”) Green Climate Fund⁶⁸ and World Bank City Climate Finance Gap Fund⁶⁹ act as an illustration of global alternate funding instruments for Indian ULBs presently.

B. Recommendations for a Greener India

1. Emulating Viable Green Financing Practices From International Models:

Several green financing structures are in place worldwide⁷⁰ for GB issuance to fund ULBs.⁷¹ For instance, 12-year and 32-year Green Gilts were raised by the United Kingdom (“UK”) in 2021,⁷² complemented by a Green Financing Framework and a detailed execution plan for including social co-benefits.⁷³ Effective fund utilization through meaningful metrics, consistency,

⁶⁷ Government of UK, *Accelerating Green Finance* (28 March 2018), <<https://www.gov.uk/government/publications/accelerating-green-finance-green-finance-taskforce-report>>, accessed 26 March 2023.

⁶⁸ Green Climate Fund <<https://www.greenclimate.fund/>> accessed 23 March 2023.

⁶⁹ The World Bank, *City Climate Finance Gap Fund*, <<https://www.worldbank.org/en/topic/urbandevelopment/brief/city-climate-finance-gap-fund>>, accessed 26 March 2023.

⁷⁰ Alex Nicholls, ‘Policies, Initiatives, and Regulations Related to Sustainable Finance’ <<https://www.adb.org/sites/default/files/institutional-document/691951/ado2021bp-policies-initiatives-regulations.pdf>> accessed 24 March 2023.

⁷¹ David Thorpe, ‘More Cities Are Issuing Green Bonds To Finance Climate Friendly Expansion’ (Smart Cities Dive) <<https://www.smartcitiesdive.com/ex/sustainablecitiescollective/more-cities-are-issuing-green-bonds-finance-climate-friendly-expansion/260466/>> accessed 23 March 2023.

⁷² Government of UK, UK’s first Green Gilt raises £10 billion for green projects (21 September 2021), <<https://www.gov.uk/government/news/uks-first-green-gilt-raises-10-billion-for-green-projects>>, accessed 25 March 2023.

⁷³ United Kingdom Debt Management Office, *UK Government Green Financing Framework* (June 2021), <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002578/20210630_UK_Government_Green_Financing_Framework.pdf>, accessed 13 April 2023.

ambition and recognition of local entities under the framework is a referential archetype for India.⁷⁴ Furthermore, while Brazil, the United States, and others have well-established guidelines that necessitate analysis by the Indian rule-makers, developing nations such as Qatar, the Philippines, and Singapore are also set to roll out regulatory guidelines which will hold eventual relevance.⁷⁵

Canada's Green Municipal Fund (“GMF”)⁷⁶, Japan's Hokkaido Green Fund,⁷⁷ and the UK's Green Finance Taskforce (based on a *sui generis* green finance strategy⁷⁸) are prospective models of national green revolving fund for ULB capacity building for replication in the Indian market, an initiative towards which is seen in the establishment of the GFWC by the RBI. Furthermore, the loopholes highlighted in the Framework for the Sovereign Green Bonds by analysts⁷⁹ can be plugged by referring to the ‘European green bond standard’ (EUGBS)⁸⁰ of the European Green Deal⁸¹ and adopting their

⁷⁴ The UK's Green Gilt: Demonstrating the Contribution to Jobs and Leveling Up (Working Paper, July 2021),

<<https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/07/The-UKs-Green-Gilt-Demonstrating-the-Contribution-to-Jobs-and-Levelling-Up-July-2021.pdf>>, accessed 13 April 2023.

⁷⁵ ‘Browse Policies and Regulations’ (Green Finance Platform) <<https://www.greenfinanceplatform.org/financial-measures/browse>> accessed 26 March 2023.

⁷⁶ Green Municipal Fund <<https://greenmunicipalfund.ca/>> accessed 21 March 2023.

⁷⁷ Hokkaido Green Fund <https://www.thewindpower.net/owner_en_994_hokkaido-green-fund.php> accessed 25 March 2023.

⁷⁸ GSG Driving Real Impact <<https://gsgii.org/>> accessed 27 March 2023.

⁷⁹ Kundun Pandey, ‘A framework for sovereign green bonds a step in the right direction but has miles to go’ (Mongabay, 22 November 2022) <<https://india.mongabay.com/2022/11/govt-releases-framework-for-sovereign-green-bonds/>> accessed 15 April 2023.

⁸⁰ ‘EU Green Bond Standard Usability Guide’ (March 2020) <https://finance.ec.europa.eu/system/files/2020-06/200309-sustainable-finance-teg-green-bond-standard-usability-guide_en.pdf> accessed 19 March 2023.

⁸¹ ‘A European Green Deal’ (European Commission) <https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en> accessed 27 March 2023.

principles of taxonomy-alignment, transparency, external review, and supervision⁸² as suited to the Indian economy and investor patterns for establishing an improved regulatory scheme. The GB verification, reporting, and disclosure standards for green use-of-proceeds in EUGBS can provide a comprehensive foundation for India to establish its framework.⁸³

One of the most prominent case studies for India to learn from includes the Green Finance for the Development of Smart Cities project, an initiative funded by the UK PACT Programme.⁸⁴ Innovative strategies to be adopted include fostering effective public-private co-financing partnerships with neighboring countries (potentially with the United Arab Emirates, Bangladesh and Bhutan), creating a designated fund with the proper structure to co-finance strategic green projects in line with the national taxonomy (with emotions being the predominant driver of Indian market sentiments), allowing larger ULBs to raise funds through GBs without indebtedness limit (augmenting autonomy of credit-worthy ULBs), emphasis on private impact funding (and a concurrent dilution of state-funding dependency), validation of revenue models through piloting (attracting public and private investors), bespoke project structuring support (enabling greater ULB-specific capacities over mechanical replication of models), knowledge-sharing networks (targeting improved stakeholder collaboration), and financial matchmaking with

⁸² ‘Commission proposal for a European green Bond standard’ (European Commission, 6 July 2021) <https://finance.ec.europa.eu/publications/commission-proposal-european-green-bond-standard_en> accessed 26 March 2023.

⁸³ Volker Brühl, ‘Green Finance in Europe – Strategy, Regulation and Instruments’ (Intereconomics, 2021) <<https://www.intereconomics.eu/contents/year/2021/number/6/article/green-finance-in-europe-strategy-regulation-and-instruments.html>> accessed 24 March 2023.

⁸⁴ UK Pact (November 2021) <[https://www.ukpact.co.uk/hubfs/Publications%20\(briefs\)/Pathways-for-mobilising-green-finance.pdf](https://www.ukpact.co.uk/hubfs/Publications%20(briefs)/Pathways-for-mobilising-green-finance.pdf)> accessed 20 March 2023.

investors (facilitating stable green finance flows). It also provides a good model for emulating payments-as-a-service (“PaaS”) for collecting green fees (facilitating fund mobility), reaching an agreement on relevant financial instruments beforehand (sidestepping future disputes), refinancing (through loan debt mechanisms), and guarantee schemes to de-risk private investments (through strategic deployment).⁸⁵

2. Nostro and Vostro Account Funds as an Untapped Source of Green Financing:

The international trade and commerce boost has opened up new avenues for the government to generate funds, and the RBI has recently jumped on this bandwagon with amplified vigor. Over 60 Vostro accounts have been opened by Indian Banks lately.⁸⁶ The July 2022 guidelines by RBI regulate these accounts and provide specific provisions for the usage of surplus funds, as follows:⁸⁷

“8. Use of Surplus Balance: The Rupee surplus balance held may be used for permissible capital and current account transactions in accordance with mutual agreement. The balance in Special Vostro Accounts can be used for:

⁸⁵ Esther Choi et al., ‘How to de-risk low carbon investments’ World Resources Institute (22 July 2022) <<https://www.wri.org/insights/de-risking-low-carbon-investments>> accessed 14 April 2023.

⁸⁶ Gyanendra Keshri, ‘RBI approves 60 vostro accounts for rupee trade’ (*Deccan Herald*, 14 March 2023) <<https://www.deccanherald.com/business/economy-business/rbi-approves-60-vostro-accounts-for-rupee-trade-1200181.html>> accessed 27 March 2023.

⁸⁷ Reserve Bank of India, *International Trade Settlement in Indian Rupees (INR)* (RBI/2022-2023/90, Circular no. 10) <https://m.rbi.org.in/scripts/FS_Notification.aspx?Id=12358&fn=5&Mode=0> accessed 23 March 2023.

- a. *Payments for projects and investments.*
- b. *Export/Import advance flow management*
- c. *Investment in Government Treasury Bills, Government securities, etc. in terms of extant guidelines and prescribed limits, subject to FEMA and similar statutory provision.”*

Hence, the banks need to invest the surplus of “Special Rupee *Vostro* Accounts” into T-Bills and G-Secs as per the norms.⁸⁸ These guidelines reflect a scope broad enough for surplus invested in government securities to be diverted towards green projects if the surplus funds do not have an impending-payment obligation. Redirecting the *Vostro* account surplus towards green securities of ULBs can provide substantial funds for green activities regardless of their pay-on-demand and interest-free nature owing to burgeoning deposits and a certain continuous surplus in such accounts.

Similar is the case for the *nostro* funds of India. According to Basel III regulations, banks must have or can readily arrange enough liquid cash to cover expected payment commitments over the following 30 days.⁸⁹ Technically, funds in *nostro* accounts are “locked up” only during the currency settlement duration.⁹⁰ Since most withdrawals from *nostro* accounts may be anticipated in advance, coupled with sufficient flexibility in the currency settlement system and overdraft facility based on the mutual understanding

⁸⁸ KR Srivats, ‘Allowing investment of Vostro account surplus in G-Sec, T-Bills ‘opens new avenues for government to borrow’ (*Hindustan Line*, 13 July 2022) <<https://www.thehindubusinessline.com/economy/surplus-rupee-balances-in-vostro-accounts-can-now-be-invested-in-g-secs-t-bills/article65636159.ece>> accessed 26 March 2023.

⁸⁹ ‘Basel Committee on Banking Supervision’ (*Bank for International Settlements*, December 2010) <<https://www.bis.org/publ/bcbs189.pdf>> accessed 24 March 2023.

⁹⁰ Frances Coppola, ‘There are no such things as Dormant Funds in Banking’ (*Forbes*, 10 February 2019) <<https://www.forbes.com/sites/francescoppola/2019/02/10/there-is-no-such-thing-as-dormant-funds-in-banking/?sh=2c9d0d775aef>> accessed 21 March 2023.

between banks, *nostro* account funds are not kept dormant for the remainder of the period. Instead, they are utilized in short-term investment activities, a practice already employed in India. Additionally, cryptocurrencies assert that they can free up the liquidity needs of banks by allowing payments to be made using their currency rather than a foreign one,⁹¹ facilitating even long-term investments like green securities and green infrastructural projects using *nostro* account funds.

3. Establishing Zone-wise Expert Committees Under a Central Governing Authority for Monitoring Green Projects and Finance:

The recommendation for establishing GFWC by the RBI⁹² is commendable. However, it may be a squandered opportunity because of ineffective ground-level implementation, considering the diverse culture, geography, natural and material resources, green project suitability, consumer demands, and investment patterns in different zones. Release of recommendations by authorities without deadlines and follow-ups on action is futile. The NITI Aayog must act as a proactive player in accelerating, establishing, steering, and monitoring GFWC rather than playing a passive policy-approval authority. Establishing a dedicated Central Body under the aegis of the NITI Aayog will reduce financing inefficiency caused by the deflection of responsibility among several local bodies, accelerating green investment by providing prudent technical guidance and replicating successful

⁹¹ Julio Faura, 'How Blockchain can finally fulfill its promise in Global Payments' (*Coin Desk*, 9 June 2018) <<https://www.coindesk.com/markets/2018/06/09/how-blockchain-can-finally-fulfill-its-promise-in-global-payments/>> accessed 26 March 2023.

⁹² Ministry of Finance n 51.

models of some ULBs in other parts by issuing sovereign GBs *en bulk*. For instance, Indore's pioneering garbage collection and disposal drive that allowed it to multi-fold its self-generated revenue is a potentially replicable model.⁹³

Therefore, an expert committee should spearhead the zone-wise initiation, approval, and implementation of the desired green projects of ULBs. The project implementation should be continually supervised by the aforementioned Central Body and community-based local bodies working independently but subordinate to the expert committee to report the ground-level position of the green projects, ensuring fast initiation and compulsory time-bound deployment for the green projects.

A thorough implementation framework at the grass-roots level is crucial since barely two-thirds of the capital budget for the ten largest ULBs over the last three fiscal years saw utilization.⁹⁴ This trend highlights the causal dormancy of the raised funds exacerbated by a lax implementation mechanism present at the ground level. While regulatory guidelines for green investments are essential, unit-level financing frameworks can help ULBs execute finance-ready projects and adapt policies periodically.⁹⁵ This not only helps enhance GB funding by improving investor confidence in a zone-wise committee

⁹³ 'India's Cleanest City Indore Earns Huge Bucks From Its Waste' (*Outlook India*, 1 October 2022) <<https://www.outlookindia.com/national/india-s-cleanest-city-indore-earns-huge-bucks-from-its-waste-news-227209>> accessed 29 March 2023.

⁹⁴ New World Bank Report 15.

⁹⁵ Shreyans Jain, Rajashree Padmanabhi 'A Snapshot of Urban Green Finance in Two Indian Cities' (November 2021) CCFLA <https://www.climatepolicyinitiative.org/wp-content/uploads/2021/11/CCFLA-Indian-cities-report_FINAL-1.pdf> accessed 21 March 2023.

founded on community participation but also ensures strategic usage of funds raised as per zone-specific needs.

4. Establishing a Multi-stakeholder Approach for Urban Financing:

The multi-stakeholder approach involves forming global alliances and collaborative networks between ULBs, civil society, multilateral organizations, communities, social enterprises, and private investors.⁹⁶ Their collective insights will help mainstream green investment dialogues and ensure vertical and horizontal accountability by prioritizing engagement models and integrating green objectives. Furthermore, since green investments require more capital investment upfront and are perceived as riskier and costlier, contributions by multiple stakeholders will ensure improved risk management and investor confidence.

An essential aspect of the multi-stakeholder approach is the mechanism of PPPs, as emphasized in the 2013 report by the World Bank⁹⁷, and it has seen successful implementation in several cities in India.⁹⁸ A review and remodeling of the existing PPP structure, coupled with custom technical

⁹⁶ United Nations Industrial Development Organisation, *Sustainable Cities and Investments: Addressing the Bottlenecks to Urban Infrastructure Development* (September 2017) <https://www.unido.org/sites/default/files/files/2018-02/BRIDGE%20for%20Cities_Issue%20Paper_3.pdf> accessed 20 March 2023.

⁹⁷ Aldo Baietti, 'A Public-Private Partnership (PPP) Approach to Climate Finance' (*The World Bank*, 1 January 2023) <<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/712651468025506948/green-infrastructure-finance-a-public-private-partnership-approach-to-climate-finance>> accessed 19 March 2023.

⁹⁸ 'Running Water in India's Cities: A Review of Five Recent Public-Private Partnership Initiatives' (*The World Bank*) <https://www.mohua.gov.in/upload/uploadfiles/files/Running_Water_in_Indias_Cities_%20A_Review_of_Five_Recent_PPP_Initiatives.pdf> accessed 19 March 2023.

assistance, capacity building, awareness raising, and incentive provision, can expedite and facilitate the involvement of the private sector.⁹⁹

5. Utilizing the Power of Fintech in Urban Green Financing:

Fintech bestowed upon the financial sector a judicious and efficient integration of technology applications and financial analytics in client screening, fund monitoring, payment settlement, and risk management.¹⁰⁰ Moreover, research has identified three main uses of fintech for green finance: blockchain for renewable energy and carbon credits, blockchain for sustainable development, and innovation in green financial instruments such as GBs.¹⁰¹ Fintech can help create a green financial information database for better communication and coordination between departments, allowing for real-time tracking and monitoring of green credit participation.¹⁰² It can also establish a robust information disclosure system, enabling vertical and horizontal supervision to strengthen cooperation¹⁰³. Europe¹⁰⁴ and China¹⁰⁵ are the two major countries to have leveraged artificial intelligence,

⁹⁹ Ann Gardiner et al, 'Public-Private Partnerships for Climate Finance' (*Norden*, 2015) <<https://norden.diva-portal.org/smash/get/diva2:915864/FULLTEXT01.pdf>> accessed 18 March 2023.

¹⁰⁰ Christophe Christaen et al, 'Green Fintech for Green Finance: Turning Theory into Practice' (*CGFI*, 21 November 2022) <<https://www.cgfi.ac.uk/2022/11/green-fintech-for-green-finance-turning-theory-into-practice/>> accessed 17 March 2023.

¹⁰¹ Jeffrey D Sachs, 'Why is Green Finance important?' (January 2019) (No. 917) ADBI <<https://www.adb.org/sites/default/files/publication/481936/adbi-wp917.pdf>> accessed 19 March 2023.

¹⁰² *ibid.*

¹⁰³ Government of India n 47.

¹⁰⁴ Government of UK, 'UK FinTechs Chosen to Showcase Groundbreaking ESG & Green Finance Solutions During New York Climate Week' (19 August 2021) <<https://www.gov.uk/government/news/uk-fintechs-chosen-to-showcase-groundbreaking-esg-green-finance-solutions-during-new-york-climate-week/>> accessed 18 March 2023.

¹⁰⁵ Tadiwanashe Muganyi et al, 'Green finance, fintech and environmental protection: Evidence from China' (*Science Direct*, July 2021) <<https://www.sciencedirect.com/science/article/pii/S2666498421000314>> accessed 20 March 2023.

blockchain, the Internet of Things, and big data to explore and practice green finance technology.

C. Miscellaneous Suggestions for Effective Implementation

To bridge the green finance gap, administrators and planners must proactively prioritize engagement models, mainstream green objectives, integrate goals into current financial flows, establish frameworks for tracking urban climate finance, undertake in-depth evaluation measures, enhance their resource mobilization capacity,¹⁰⁶ and encourage collaboration of ULBs with climate policymakers, finance practitioners, local communities, and urban planners¹⁰⁷. Participatory development approaches and in-depth studies of green project concepts can help identify financiers for high-quality projects, improve urban quality of life, and deflect the “carbon price risk.”¹⁰⁸ ULBs must maintain a portfolio of planned and existing initiatives to attract additional financing and evaluate technical and financial support gaps.¹⁰⁹

V. CONCLUSION

Green financing plays a vital role in developing sustainable urbanization in India. As ULBs strive to create a green infrastructure that resolves the shortcomings of the Indian economy and ecology, providing technical support for sustainable and climate-resilient urban design and

¹⁰⁶ Priscilla Negreiros et al, ‘The State of Cities Climate Finance’ (*Climate Policy Initiative*, 30 June 2021) <<https://www.climatepolicyinitiative.org/publication/the-state-of-cities-climate-finance/>> accessed 20 March 2023.

¹⁰⁷ David Thorpe n 95.

¹⁰⁸ Darius Nassiry, *The Role of Fintech in Unlocking Green Finance: Policy Insights for Developing Countries*. (Working Paper, 2018) ADBI <<https://think-asia.org/bitstream/handle/11540/9054/adbi-wp883.pdf?sequence=1>> accessed 20 March 2023.

¹⁰⁹ Government of India n 60.

planning is imperative to enhance the capability of ULB personnel. Moreover, regulatory reforms, improved policies, revised tariff rates, improved incentives, and robust approval systems supplemented with state-of-the-art fintech solutions are necessary to create an ecosystem that fosters green financing, thereby reducing transaction costs and improving transparency. It is equally essential to recognize the significance of local conversations and stakeholder collaborations to formulate interlinkages bridging the supply and demand green finance gap. It is time for the world economies to collaborate toward a greener, more sustainable future for our cities. The final remarks to highlight the paramount relevance of stimulating green financing and bridging the green finance gap can be best expressed in the words of Auguste Tano Kouamé, Country Director, World Bank, India:¹¹⁰

“Cities in India need large amounts of financing to promote green, smart, inclusive, and sustainable urbanization. Creating a conducive environment for ULBs, especially large and creditworthy ones, to borrow more from private sources will therefore be critical to ensuring that cities can improve living standards of their growing populations sustainably [...]”

¹¹⁰ World Bank Report n 15.