

Integrating ESG Frameworks into Urban Governance: A Master Plan for Sustainable Development and Green Investment in Ramnagar, Uttarakhand

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Abstract:

The Environmental, Social, and Governance (ESG) framework evaluates organizations based on their impact on people and the environment through its three main pillars. While it's gaining traction in the corporate world, there's an increasing recognition of its importance for Indian municipalities, especially given the country's rapid urbanization and pressing infrastructure needs. As Indian cities face challenges like deteriorating environmental conditions and financial constraints, **Urban Local Bodies (ULBs) require a comprehensive framework to assess their performance on socio-environmental issues. Existing standalone assessments—like Swachh Survekshan (cleanliness), the Ease of Living Index, and Service Level Benchmarking—have laid the groundwork, but a unified ESG framework can provide a more holistic evaluation.** This paper addresses the gap by formulating a comprehensive master plan for the city of Ramnagar, Uttarakhand integrated with ESG framework that includes parameters spanning across the key themes of ESG. This new framework aims to incorporate both quantitative and qualitative metrics. A methodological approach is used to devise a **score for assessing the performance of cities.** By evaluating various aspects of city performance, the paper aims to **identify gaps, prioritize improvements, and strengthen the Ramnagar municipality to better position itself in the market.** This method serves **as a fiscal instrument for the municipal corporation** of Ramnagar to attract investments through mechanisms like green bonds and ultimately enhance its credit rating. The goal is to equip stakeholders and decision-makers with a practical toolkit to implement policies that effectively **tackle ESG-related challenges.** This proactive approach can help cities improve their overall sustainability and livability, fostering a better environment for residents and investors alike.

Keywords: ESG, sustainability, Master Plan, Urban Local Body (ULB)

Introduction:

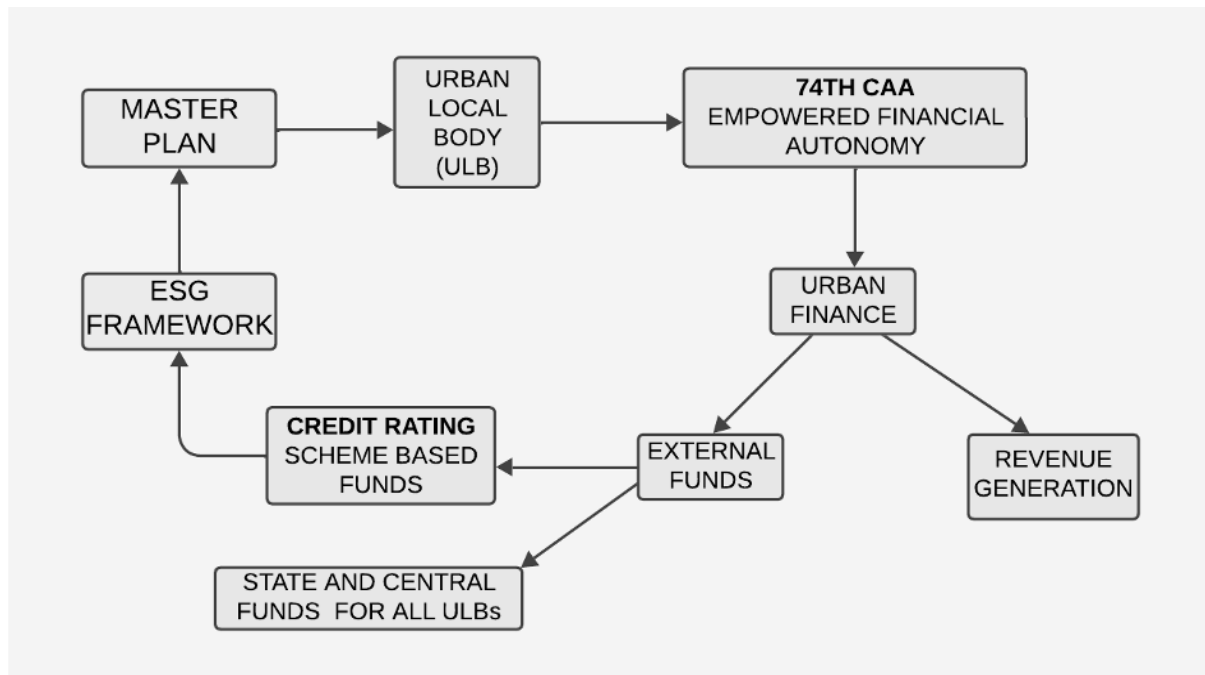
Urban development plays a crucial role in shaping the future of cities, and the effective regulation of this process is often guided by a "Master Plan." As a statutory document, the master plan provides a comprehensive, long-term framework—typically spanning 20 years—for managing growth and facilitating change within designated areas. Despite its importance, the implementation of urban developments as outlined in these master plans frequently faces significant challenges, primarily stemming from inadequate funding and resource allocation by Urban Local Bodies (ULBs). Many ULBs struggle with fiscal constraints due to various factors, including

ineffective budgetary analysis, unforeseen economic conditions, and the escalating demand for essential public services. Traditionally, funding for urban development has come from sources such as property taxes, water, and sewage fees, user charges, and loans; unfortunately, these streams often fall short of addressing both the maintenance of existing infrastructure and the financing of new infrastructure projects. Consequently, cities may find themselves increasingly reliant on grant funding, which further limits their capacity for sustainable urban growth.

To overcome these limitations, there is an urgent need for cities to diversify their funding strategies by seeking investments from the free market, including private investors and venture capitalists. However, the ability of ULBs to attract such investments is often hindered by the absence of standardized credit rating systems, making it challenging for these entities to effectively communicate their financial health and project viability to potential investors. This research paper proposes the integration of Environmental, Social, and Governance (ESG) parameters with the master planning process as a potential solution. By establishing a qualitative and standardized framework for credit ratings, this integration aims to enhance the investment appeal of ULBs, facilitating a more robust financial ecosystem for urban development and enabling cities to meet the demands of future growth.

The framework used to assess the performance of the municipality of Ramnagar has been developed by Centre of Water and Sanitation(CWAS) in collaboration with Pricewater Coopers (PwC) and CEPT University, Ahmedabad. Several national and international frameworks were considered by CWAS and PWC to identify common themes in ESG in Indian cities. This ESG framework includes indicators of global development goals and national initiatives in addition to municipal functions prescribed for local governments. The ESG rating is established for the city based on the scores assigned to the three pillars.

Figure 1: Integration of Master Plan and ESG Framework



Source: Created by Author using the website Lucidchart

Literature Review:

A master plan is a legally visionary document that outlines a city's land use strategy, allocates areas for public purposes, and establishes rules governing land use and building regulations. It is a visionary plan for any city or regional development. It focuses on aspects such as land use zoning (residential, commercial, industrial), infrastructure development (water, sewage), and social amenities (education, healthcare). With an operational period of 20 years with a review every 5 years, the Master Plan aims to guide urban growth, ensuring balanced development while addressing challenges like urbanization, sustainability, and resource management. However, the planning systems in India, inherited from the colonial era, are outdated and fail to address modern challenges like climate shocks and flooding. Current plans often overlook the infrastructure necessary to support designated land uses, such as transportation and civic amenities, compromising urban development. While cities like Delhi, Mumbai, and Bengaluru's draft Master Plan have started incorporating considerations like climate change, public health, safety, and gender, the legislative framework remains unchanged. As a result, master plans are still primarily limited to enforceable aspects like land use, zoning regulations, and development controls. To incorporate the needs of master plans, ULBs largely depend on funds and investments. Municipal bodies or local governments generate public funds through mechanisms such as property taxes, user charges (e.g., water, and waste management), and grants from state or central governments. The financial assets available to local bodies are

greatly influenced by fiscal policies, such as taxation and the distribution of funding from the central government. Local governments frequently struggle with inefficiencies and the lack of standardized financial structures, even when funding is readily available.

The ESG (Environmental, Social, and Governance) framework plays a critical role in addressing deficits in public funding for master plans by enabling the issuance of green bonds, social bonds, and other sustainable financial incentives. Governments and organizations can draw in investors who are socially responsible by incorporating ESG principles. These investors may then make investments in projects that support social justice, environmental sustainability, and sound governance. This provides a mechanism to bridge funding gaps, ensuring that master plans are executed effectively, with long-term benefits for communities and development. The ESG assessment for cities serves multiple purposes. It not only provides a comprehensive review of urban sustainability practices but also acts as a tool for mobilizing additional investment. Cities can use the ESG framework to attract green financing and impact investment by demonstrating their commitment to sustainability, inclusion, and good governance.

The Environmental, Social, and Governance (ESG) framework is increasingly being applied to assess sustainability, ethical practices, and risk management in various sectors, including urban development. Traditionally used to evaluate corporate performance, ESG criteria now play a critical role in urban planning and governance, helping cities address sustainability challenges and promote long-term resilience. This framework allows investors, policymakers, and local governments to evaluate cities' performance in critical areas such as environmental sustainability, social inclusion, and governance effectiveness. ESG investing, which focuses on companies committed to ethical and sustainable practices, has expanded to cities as a means to assess the alignment of urban development strategies with broader environmental and social goals.

In the context of urban development, ESG provides a structured approach to evaluating cities' impacts on their environment and inhabitants, with an emphasis on accountability, transparency, and long-term sustainability. Environmental criteria in ESG focus on how cities manage natural resources, minimize carbon emissions, reduce pollution, and prepare for climate change. Social factors prioritize social inclusion, equitable access to services, and the well-being of residents, especially marginalized groups. Meanwhile, governance aspects ensure that city governments adhere to principles of transparency, stakeholder engagement, and efficient public service delivery.

To assist in this assessment, organizations like CWAS (Centre for Water and Sanitation) and PwC India have developed ESG frameworks specifically designed for evaluating urban governance and development in Indian cities. These frameworks incorporate global development goals and national commitments, aligning municipal functions with broader sustainability targets such as the United Nations Sustainable

Development Goals (SDGs). The framework reviews various aspects, including waste management, water usage, energy efficiency, transport systems, and social equity, helping cities assess their progress and identify areas for improvement.

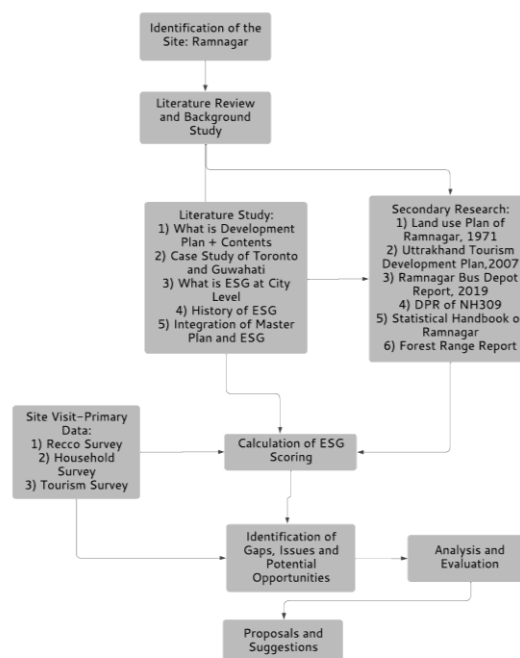
The ESG (Environmental, Social, and Governance) framework adopted by Toronto in 2019 provides valuable insights into sustainable urban development and governance. Toronto's initiatives, such as the Transform TO Climate Action Strategy and the Housing TO 2020-2030 Action Plan, highlight the city's commitment to reducing carbon emissions, improving social equity, and promoting economic resilience. These programs demonstrate the importance of integrating urban development with sustainability goals to foster long-term environmental and social benefits. One of the standout features of Toronto's approach is its innovative financing mechanisms, the use of sustainable energy plan financing (SEPF). The city successfully issued green bonds worth \$630 million between 2018 and 2020 to fund environmentally sustainable projects, including energy-efficient buildings and green infrastructure. Toronto also introduced social bonds aimed at financing critical community services and affordable housing. These strategies underline the direct correlation between strong ESG frameworks and the ability to attract investments for urban transformation. The use of globally recognized reporting standards, including the Global Reporting Initiative (GRI) and alignment with the United Nations Sustainable Development Goals (SDGs), enhances transparency and accountability, further reinforcing investor confidence. Toronto's governance model integrates risk management frameworks, digital innovation, and inclusive practices to ensure equitable development. (City of Toronto Environmental, Social & Governance (ESG) Performance Report, n.d.) These practices not only address immediate urban challenges but also position the city as a global leader in sustainable governance. The case of Toronto serves as a benchmark for cities like Ramnagar.

Methodology:

This research includes with a comprehensive literature review focused on the integration of Master Plan and Environmental, Social, and Governance (ESG) principles. The literature was meticulously sourced from a diverse range of credible primary and secondary resources to ensure a robust foundation for the study. Recognizing that ESG originated primarily as a corporate concept, a paucity of literature was identified addressing its application within urban development and city planning. To overcome this limitation, a comparative analysis was conducted to explore the intersections between the ESG framework and Master Planning practices. This comparative approach facilitated a deeper understanding of how these two concepts can inform and enhance urban development strategies. Further, the city of Ramnagar was assessed based on the framework proposed by CWAS and PwC which spans across 60 indicators. This quantitative assessment provided valuable insights into the city's existing scenario through extensive primary surveys conducted such as household, tourism, and traffic surveys, allowing for the identification of significant gaps and issues in ESG integration. Subsequently, a detailed analysis was performed

to pinpoint potential opportunities regarding the data collected through office surveys at the municipality level for enhancing ESG performance in urban settings. Based on this analysis, specific strategies and solutions have been proposed for parameters that exhibited low-performance scores. Following the implementation of these strategies, a revised scoring system was employed to measure improvements and track progress over time. This methodology ensures a systematic and evidence-based approach to assessing and enhancing the integration of ESG principles within urban Master Plans, ultimately contributing to more sustainable and equitable urban development outcomes.

Figure 2: Methodology



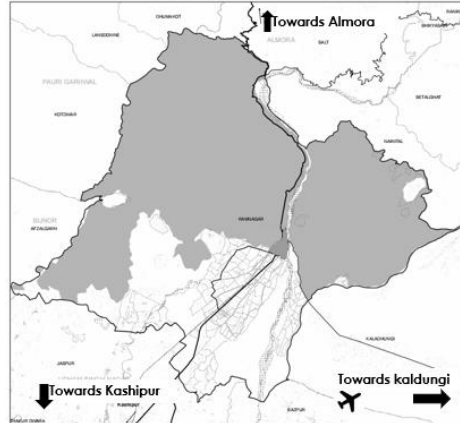
Source: Created by Author using website Lucidchart

Case of Ramnagar:

Ramnagar is a town located in the Nainital district of Uttarakhand, India. Situated at the foothills of the Kumaon region as a Part of the Terai belt, near the Shivalik range of the Himalayas. The town serves as an important hub for wildlife tourism and agriculture, particularly for crops like litchi, sugarcane, and rice. Kosi River provides a vital water source for the region and supports Agricultural productivity and biodiversity. It serves as an essential gateway to the Jim Corbett National Park, one of India's most famous wildlife sanctuaries. In addition to the park, Ramnagar offers several other tourist attractions, including Corbett Waterfall, the Garjiya Devi Temple, a hilltop religious site with stunning views of the Kosi River; and the Kosi River itself, offering

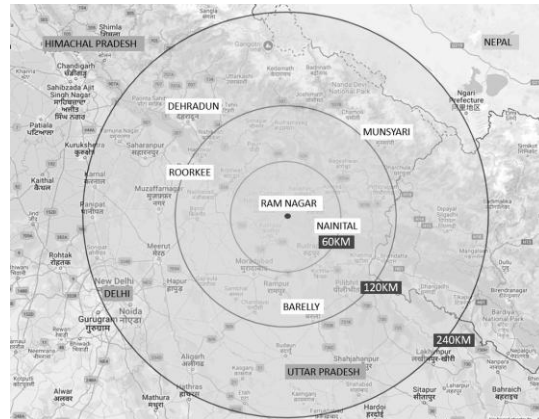
boating and fishing opportunities, Sitabani Forest Reserve, known for birdwatching and nature walks, and the Dhela and Jhirna Zones within Corbett Park for wildlife safaris. Ramnagar is connected to major cities through National Highway 309 (NH 309), facilitating seamless travel to and from significant urban areas. The highway acts as a primary route for passengers and goods, contributing to the local economy by linking the city with other regions in the state and beyond. For intra-city travel, Ramnagar is serviced by intermediate public transport (IPT) such as taxis, autorickshaws, and local buses, which provide efficient access to key locations within the city. Ramnagar is home to a terminal railway station, which acts as a key rail hub in the region. The station connects to several major cities and facilitates both passenger and freight movement. It is in proximity to Kathgodam Railway Station (70 km), which provides further links to the broader railway network across northern India. The Pantnagar Airport, located approximately 82 km from Ramnagar, serves as the nearest domestic airport, offering both commercial flights and cargo services.

Figure 3: Ramnagar connectivity map



Source: USGS(2024)

Figure 4: Ramnagar regional connectivity map

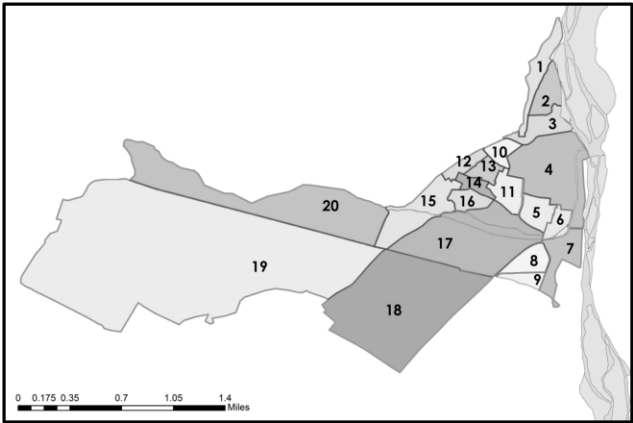


Source: Created by Author using USGS, Calcu maps (2024)

Ramnagar is governed by the Nagar Palika (Municipal Council), which is the primary urban local body responsible for the administration and development of the town. The Nagar Palika oversees key functions such as urban planning, infrastructure development, waste management, water supply, sewage, and public health services.

The town is divided into 20 wards under the jurisdiction of the Nagar Palika. (Palika, n.d

Figure 5: Ward map



Source:USGS (2024)

Figure 6: Demography

Demographic Parameter	2011	2024
Total Population	54,787	67,256
Male Population	28,386	34,857
Female Population	26,401	32,399
Sex Ratio	930	
Population Density	220 people/hectare	271 people/hectare
Population Growth	22.8%	

Source: Census,2011

Results and Discussion:

A. Environmental Indicators

The air in Ramnagar currently exhibits an Air Quality Index (AQI) of 86, the scale of which remains to be debatable in regard to its classification within the hierarchy of air quality standards. On average, this AQI categorizes the air quality as moderate and satisfactory. Based on the survey conducted, it is evident that vehicular pollution in Ramnagar has been relatively well-managed. However, it is crucial to acknowledge that the influx of vehicles generated by tourism can adversely affect the overall air quality in the region. It is imperative to mention that the city has had changes in land cover and land use in the last two decades. The city consists of a green cover of 13.35 square meters, which is adequate for Ramnagar as per the guidelines. However, the available open space is approximately only 0.2 square meters per capita, which is insufficient for the needs of the citizens, especially for children and senior citizens. Furthermore, the city lacks provisions for subsidies, the adoption of green building practices, effective disaster management resilience strategies, and the establishment of dedicated cycling lanes along its roadways. Additionally, the narrow roadways within Ramnagar contribute to issues such as footpath encroachment and the absence of adequate pedestrian pathways, as evidenced by a score of 0.06 in this area. While public transport is a critical component of the city's transportation system, its effectiveness is hindered, reflected in a score of 0.25. The water quality in Ramnagar remains satisfactory, as indicated by a score of 1, with citizens expressing appreciation for the non-revenue water management. The city has also achieved a score of 1 in the absence of baseline water stress, demonstrating effective water resource management. However, there is a notable lack of initiatives in the realms of SMART systems for water supply management and the rejuvenation and conservation of water bodies and open spaces. Ramnagar is actively focusing on solid waste management, with a designated trenching ground and a material recovery facility located outside the city limits. Currently, the city's solid waste management system scores at 65%, yet there is significant room for improvement. Transitioning from post-collection segregation to source segregation of waste is a critical proposal that could enhance overall efficiency. Moreover, the extent of solid waste recycled and properly disposed of currently scores at 0.25 and 0.30, respectively. This situation necessitates a concerted effort to increase manpower and deploy more advanced smart systems to facilitate better waste management. Lastly, a District Environmental Plan for Nainital has been published in the year 2020 as per the National Green Tribunal, detailing various challenges and proposed solutions for the city. However, it is imperative to note that the report does not include actionable plans for implementing electric vehicle infrastructure and increasing public awareness of this critical issue, which is necessary for government intervention.

Sn.	Indicator Name		Indicator Factors	Existing Status	Existing Score	Proposed Score
1	Urban Emissions	1.1	Air Quality Index	86	0.83	0.83
2	Urban green ecosystem to address environmental challenges	2.1	Green Cover per capita (sqm/capita)	13.35	1	1
		2.2	Open Space per capita (sqm/capita)	0.2	0.98	1
3	Urban Energy Ecosystem	3.1	Gross Electricity consumption in the city(kWh)	2.2	0.75	0.75
		3.2	Provision of subsidies on opting renewable sources	No	0	1
		3.3	Green buildings Adoption	0	0	1
4	City's resilience towards disaster and climate change	4.1	Disaster and climate preparedness	No	0	1
		4.2	Climate Vulnerability Index	0.377	0.62	0.62
5	Sustainable and robust commute system	5.1	Cycle Lane coverage in road network length(%)	0	0.00	1
		5.2	Footpath coverage in road network length(%)	5.9	0.06	1
		5.3	Availability of Public Transport	2.9	0.25	1
6	Water Resource Management	6.1	Quality of Water Supplied	63	1.00	1
		6.2	Percentage of non-revenue water (%)	20	1	1
		6.3	Baseline of water stress(m ³ /capita)	0	1	1
		6.4	SMART systems deployed in water supply management	No	0	1
		6.5	Rejuvenation and conservation of water bodies and open areas	No Action	0	1

7	Efficient Waste Management system	7.1	Collection efficiency of wastewater networks	0	0.00	1
		7.2	Adequacy of ww treatment capacity(%)	0	0.00	1
		7.3	Extent of reuse and recycling of treated wastewater(%)	0	0.00	1
		7.4	Extent of segregation of municipal solid waste(%)	65	0.65	1
		7.5	Extent of municipal solid waste processed and recycled(%)	20	0.25	1
		7.6	Extent of scientific disposal of municipal solid waste(%)	30	0.30	1
		7.7	SMART systems deployed in waste management	No	0	1
8	Policy Interventions to encourage sustainable development	8.1	Presence of policy interventions	0	0.25	1
FINAL SCORE					8.94	

Figure 7: Environment ESG Scores

*The indicators and the calculations have been done based on the framework proposed by CWAS and PwC.

To improve the score and address the gaps exhibited in the environmental pillar, proposals include establishing seasonal Kosi River Festivals and a River Bio-Park, celebrating the river's cultural and ecological value, while providing educational and recreational opportunities. The redevelopment also includes the development of community spaces along the river and the installation of smart water meters for real-time consumption tracking, encouragement of water conservation and efficient use. In line with environmental sustainability, the project shall incorporate green corridors that connect urban areas with nature, promoting eco-friendly transportation options and enhancing biodiversity. A disaster management plan to address the region's flood risks, ensuring that the community has been proposed for emergencies. To further engage residents, a community testing and reporting app has been recommended that enables real-time reporting of environmental hazards and health concerns. The adoption of green buildings incentivized, encouraging the use of energy-efficient, eco-friendly construction methods. Additionally, the expansion of

electric vehicle (EV) infrastructure, including charging stations, promotes clean energy and reduces the region's carbon footprint. Finally, real-time waste data analytics and a centralized dashboard implemented for more effective waste management, improving environmental monitoring and decision-making. Together, these initiatives work on transforming the Kosi River region into a model of sustainable urban development and community resilience.

B. Social Indicators

Social parameters indicate that everyone should have access to urban resources and opportunities with dignity, equality, and without discrimination, irrespective of their circumstances or background. Integrating marginalized groups and ensuring fair participation in the economic, cultural, and social fabric of the city are the main goals of social inclusion. Through improved access to healthcare, education, and improved transportation networks, communities can grow. In order to promote sustainable development and lessen poverty, economic inclusion aims to guarantee that everyone has equal access to financial resources, jobs, and entrepreneurial opportunities.

With 90% of households connected to a water supply and 100% coverage of toilets and wastewater services, the city does well in the WASH (Water, Sanitation, and Hygiene) category. However, only 80% of households receive solid waste management (SWM) services; complete coverage is the goal. A rise in land prices from 23,000 per sq. m in 2022 to 27,000 per sq. m in 2023 is reflected in the home price index, which suggests rising demand and possible affordability issues for lower-income groups. With only 1% of the population living in homelessness within the city limits and a balanced sex-birth ratio of 1.1% the gender and social inclusion statistics are more encouraging and show that homelessness is being effectively managed. Basic services in slum areas still need improvement, though, especially in the areas of waste management, sanitation, and water. Municipal primary healthcare facilities, the city performs highly in the healthcare category. The literacy percentage of 81.76%, which is somewhat below the goal of 100%, indicates that both the accessibility and quality of education should be improved. Concerning safety and surveillance measures include a high proportion of road accident fatalities (33.77%) and a crime rate of 3.049%. Given that current smart infrastructure only receives a score of 0.2 out of 1, these concerns necessitate the creation of smarter monitoring systems, improved road safety measures, and more robust law enforcement. With an unemployment rate of 0.33%, which represents a significant proportion of the labor force (12,574 people) without employment possibilities, economic inclusion also presents challenges. Although the 79% score in Ease of Living index (EOL) indicates modest progress in the overall well-being of citizens, stronger policies and economic opportunities are required to promote job creation and lessen inequality within the city.

Figure 8: Social ESG Scores

Sn.	Indicator Name		Indicator Factors	Existing Status		Existing Score	Proposed Score
1	WASH Services	1.1	Coverage of water supply connections	90		0.9	1
		1.2	Coverage of toilets	100		1	1
		1.3	Coverage of WW network services	100		1	1
		1.4	HH Coverage of SWM services	80		0.8	1
2	Housing Price Index	2	Housing Price Index	Circle rate for 2024	Circle rate for 2022	0.00	0.00
				27000	23000		
3	Gender and Social Inclusion	3.1	Percentage of houseless people (%)	no of homeless population	Total population	1	1
				0 within Municipal boundary	67,256		
		3.2	Sex ratio at birth	1035.4		1	1
		3.3	Slum areas covered through basic services	Coverage of water supply connections in slums		1	1
				Coverage of individual toilets in slums/			
				Coverage of wastewater network services in slums			
				Household level coverage of solid waste m			

				anagement services in slums		
4	Robust Health Infrastructure	4.1	Municipal primary healthcare institutions	1	1	1
5	Education	5.1	Literacy rate (%)	81.76	0.81	1
6	Safety and Surveillance	6.1	Average Crime Rate (%)	3.049	0.96	1
		6.2	Road accident fatality rate (%)	Road accident fatality rate (per lakh population)	0.66	1
				33.77		
		6.3	SMART systems deployed / Integrated Command and Control Centre	2	0.2	0.5
7	Economy, inequality and employees	7.1	Unemployment rate (%)	Unemployed persons	0.33	1
				12,574		
		7.2	Economic Ability(score)	79	0.79	1
	FINAL SCORE				11.75	13.5

*The indicators and the calculations have been done based on the framework proposed by CWAS and PwC.

Proposals focus on enhancing infrastructure, empowering communities, and fostering sustainable growth in the region. Central to this initiative is strengthening supply connections under the Jal Jeevan Mission, which aims to provide reliable access to safe drinking water for all households. For solid waste management at a household level proposals include community-driven green waste composting programs, promoting local waste management practices and reducing landfill waste. Emphasis on decentralization of educational institutions, particularly focusing on increasing access to women's education, ensuring that girls and women in rural areas have opportunities for quality education. In parallel, aims to increase economic opportunities for local communities by supporting small businesses, creating jobs, and attracting investments in key sectors. To foster inclusive development, more

women-inclusive planning, involving women in decision-making processes and urban development projects. The installation of road signs and identification of black spots will enhance road safety, reducing accidents and improving the transportation network. Additionally, the management of streetlights will be optimized using smart systems to improve safety, reduce energy consumption, and enhance urban security. Lastly, focus on skill development and vocational training programs tailored to local needs, along with a Women Entrepreneurship Fund to support female entrepreneurs in launching and growing their businesses.

C. Governance Indicators

Responsible investing and financial management focus on directing funds toward projects that align with environmental, social, and governance (ESG) principles. This ensures that financial resources are used sustainably, supporting long-term economic resilience. (WEF *Defining the G in ESG 2022*, n.d.) In Ramnagar, financial management faces challenges as funds are often limited and primarily focused on immediate needs. Dependency on the traditional funding methods often misses opportunities to incorporate sustainability into urban projects. The city receives a score of 1.04 for having reserve funds for disaster Management. Additionally, the absence of connection charges for poor households ensures equitable access to water supply and sanitation (WSS) services, resulting in a score of 1. The policy to provide individual WSS services to slum areas also adds another 1 to the city's score. The ratio of actual ULB expenditure to the budgeted expenditure is 1, showing efficient financial management and earning a corresponding score. The extent of own revenue compared to total revenue scores 0.54, highlighting moderate self-reliance in funding. However, other parameters, such as cost recovery in urban services, ULB expenditure per capita, and expenditure on slum service provision relative to total ULB expenditure, scored 0, indicating room for improvement in these areas. These gaps emphasize the need for enhanced financial strategies and focused investments to improve urban service delivery strategically. Adequate capacity, resource planning and management involves identifying and allocating the right resources—whether financial, human, or material—in a manner that validates efficient use and addresses current and future needs. Adequate capacity means that urban local bodies (ULBs) have the skills, knowledge, and infrastructure to manage projects and handle growth sustainably, ensuring optimal use of limited resources. The Nagar Palika struggles with limited financial resources and insufficient infrastructure. Human resource constraints, such as a lack of trained personnel is further impacting the town's ability to plan and execute development projects effectively. Additionally, there are no dedicated systems for long-term planning or monitoring resource allocation, leading to inefficiencies. General body meetings are conducted regularly, ensuring accountability and efficient decision-making, which earns the city a full score of 1 in this parameter. Additionally, the ratio of total establishment expenditure to total expenditure of the ULB is 1, resulting in another score of 1. However, certain other aspects remain underdeveloped, with a score of 0 due to the lack of available data or implementation. Accountability in local urban bodies (ULBs) means that the

officials and departments responsible for urban governance are answerable to the public for their decisions, spending, and performance. Accountability in Ramnagar Nagar Palika is limited due to the absence of clear mechanisms for public oversight. There are no proper systems to track project progress, check budget use, or address complaints effectively for the citizens. Citizens often lack information about municipal actions, which creates gaps in trust and governance. Ramnagar's Urban Local Body (ULB) value for complaint mechanism is 80 which makes its score of 0.88 . The city has established mechanisms for civic engagement and complaint resolution, contributing to its governance performance. This feature enhances transparency and accountability, scoring 0.5. Additionally, Ramnagar supports civic engagement through platforms such as social media, which further adds 0.33 to its score. These efforts have resulted in an overall score of 1.71 in this domain. However, other areas remain underdeveloped, leaving room for further improvements in governance and citizen-centric services. Transparency in Urban Local Bodies (ULBs) ensures that governance processes, such as budgeting, planning, and project implementation, are open and accessible to citizens, fostering trust, accountability, and active public participation. Nagar Palika has taken steps toward increasing public engagement but Faced challenges including limited digital communication, inaccessible budget details, and weak citizen participation mechanisms. Project updates and grievance redressal systems in Ramnagar are currently absent, with no dedicated public grievance system or online platform for tracking project progress. Ramnagar has no rating in the DMAF (Data Maturity Assessment Framework) portal for data maturity certification and the crediting rating system also has not adopted any accrual-based accounting system which makes its score 0. However, regular reporting of financial statements are done to the state government, and segregation of budget heads for urban services has been implemented these contributes to Ramnagar achieving a score of 0.4 on this parameter.

Figure 9: Governance ESG Scores

Indicator Name			Existing Status		Existing Score	Proposed score
Responsible Investing and financial management	1.1	Own revenue vs Total revenue (%)	Indicator Score (Year 1)+Indicator Score (Year 2)+Indicator Score (Year 3)			1
			1.62	3	0.54	
	1.2	Extent of cost recovery in urban services (water,	Extent of cost recovery in urban services			1
					0	

		sanitation, SWM) (%)				
	1.3	Expenditure Per Capita	Total Expenditure (Capital + Revenue) of ULB	Total population of city		1
				77,000	0	
	1.4	Utilisation ratio of actual expenditure to budgeted expenditure	Actual ULB expenditure	Revised budgeted expenditure by ULB		1
			4	4	1	
	1.5	WSS services to slums	0.5	0.5	1	1
	1.6	Equity in connection charges and user charges	Connection charges for poor HH	Connection charges for non-poor HH		1
					1	
	1.7	Reserve funds for disaster management / climate resilience	0.5	0.54	1.04	1.04
Adequate capacity, resource planning and management	2.1	Gender and social parity in decision makers	Women ER + (ST,SC,OBC)ER	Total ER		1
	2.2	Municipal staff adequacy for services	Total staff employed in WW and water services	Total no of WW and water connections		1
					0	
	2.3	Establishment Expenditure Vs Total Expenditure	Establishment Expenditure	Total Expenditure		1
			4	4	1	
	2.4	General body meetings	Yes	Yes	1	1
	2.5	City investment plan / city development	Criteria 1	Criteria 2		1
			No	No	0	

		plan in public domain				
Accountability in ULB function	3.1	Platforms for citizen engagement	Yes		0.33	1
	3.2	Citizen charter	No		0	1
	3.3	Efficiency in redressal of customer complaints	Criteria 1	Criteria 2		1
			Yes	No	0.50	
	3.4	Complaint mechanisms	70		0.88	1
	3.5	E-governance initiatives	0		0	1
Transparency in ULB function	4.1	Data maturity certification	0		0	1
	4.2	Credit rating score of the ULB	0		0	1
	4.3	Efficient municipal accounting practices	0		0	1
	4.4	Transparent municipal accounting practices	0.4		0.4	1
				TOTAL	7.96	21.4

*The indicators and the calculations have been done based on the framework proposed by CWAS and PwC.

Improving Civic engagement, transparency, and efficiency in municipal governance is the vision for the city of Ramnagar. Use of GIS technology in the public domain, which enables citizens to access real-time geographic data, improving urban

planning, land use management, and disaster response. Development of an online platform for citizens to interact with the Urban Local Body (ULB), submit feedback, and track ongoing projects. This allows citizens to get updates regularly through blogs, newsletters, and mobile apps, ensuring continuous communication and keeping citizens informed about municipal activities. To further improve transparency and accountability, a Citizen Charter shall be incorporated to outline clear service standards, timelines, grievance redress mechanisms, and commitments to service quality for all municipal services. In addition, a Centralized Digital Grievance Redressal System to allow citizens to lodge complaints and track resolutions. The introduction of a 24-hour complaint resolution system which ensures timely responses to citizen issues, fostering trust and satisfaction. A city-level open data portal can also be created, providing citizens with access to real-time information on municipal activities, budgets, and service metrics. To streamline service delivery, digitizing property tax and water billing processes will improve payment compliance, while the integration of DCB (Demand Collection and Balance) tables with the billing system that enables accurate tracking of payments and dues. Lastly, the ULB website provides the public with access to annual financial reports and audited accounts, guaranteeing financial transparency and public confidence.. These initiatives will create a more accessible, accountable, and efficient municipal governance system.(IFLA Governance Review-Background and Context, n.d.)

Conclusion:

As per the evaluation, the city scores the highest in the social indicator i.e. 11.75, demonstrating a balanced inclusion and infrastructural development. On the other hand, the city lags in the Environmental and Governance pillars, with a score of 8.94 and 7.96 respectively. This can be improved by integrating an ESG-centric master plan with targeted proposals. These recommendations and suggestions are designed and specified as per the requirements of Ramnagar that would lead to an increasing score, thereby promoting sustainable development and authentic investment. This improvised score strengthens the city's credibility, opening doors to innovative financing mechanisms such as green bonds, climate funds, and partnerships with international and national development programs. Indian cities are already being evaluated on various government-approved frameworks such as Service level Benchmarking, Ease of living Index, Swachh Survekshan, Good Governance Index, Municipal Performance Index, etc and a wealth of information is available in public domain, however the lack of a nationally agreed holistic framework can be achieved through the same. Ramnagar can submit its ESG-aligned master plan to platforms like the Green Climate Fund (GCF) to access grants and concessional loans for green infrastructure, biodiversity conservation, and climate resilience projects. Similarly, national initiatives such as AMRUT (Atal Mission for Rejuvenation and Urban Transformation) and the Smart Cities Mission offer Opportunities for securing funds to transform critical urban infrastructure. Additionally, by emphasizing on transparency and sustainability, Ramnagar can explore municipal bonds as a tool to raise capital and can attract global investments in climate-resilient urban development using ESG

framework. These strategies not only improve Ramnagar's investment potential but also position it as a leading example among small Urban Local Bodies (ULBs), capable of drawing eco-tourism investments, promoting public-private partnerships, and accessing funding streams for transformative urban projects at both national and international levels. The investigation of in-depth ESG assessments with more cities should be considered for the awareness of this topic. It is recommended that State and National Governments embrace the ESG framework with the already existing master plan in order to make cities climate resilient. This will support and increase the dynamic manner at which these cities augment in all three indicators and assist in evaluating how cities contribute to national and international commitments. ESG assessments for cities like Ramnagar becomes essentially more important as the city needs funds to uplift its infrastructure thereby preserving the ecological value. A good ESG rating will signify judicious use of funds by the city, low investment risk and consequently easier borrowing from banks, capital markets and bi/multilateral funding agencies.

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