

Role of AMRUT Project in Urban Governance of West Bengal: A Review of Barddhaman Municipality (2015-2020)

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Abstract

The term "urban governance" refers to the effective planning, financing, and reforms in the delivery of urban services to people. Deficits in India's urban basic infrastructure pose a threat to inclusive governance. As a result, schemes such as AMRUT have been developed to fill infrastructure gaps and improve service delivery through effective planning, financing, decentralized-digital reforms, and people's participation. This paper will critically investigate the underlying process that projects like AMRUT use to develop urban planning, financing, reforms, and services more accountable, effective, transparent, and inclusive.

Keywords: Urban governance, Planning, Financing, Reform, Urban Service, AMRUT

Abstrak

Istilah "pemerintahan perkotaan" mengacu pada perencanaan, pembiayaan, dan reformasi yang efektif dalam penyampaian layanan perkotaan kepada masyarakat. Defisit dalam infrastruktur dasar perkotaan India menimbulkan ancaman bagi pemerintahan yang inklusif. Akibatnya, skema seperti AMRUT telah dikembangkan untuk mengisi kesenjangan infrastruktur dan meningkatkan penyampaian layanan melalui perencanaan yang efektif, pembiayaan, reformasi digital terdesentralisasi, dan partisipasi masyarakat. Makalah ini akan menyelidiki secara kritis proses mendasar yang digunakan proyek-proyek seperti AMRUT untuk mengembangkan perencanaan kota, pembiayaan, reformasi, dan layanan yang lebih akuntabel, efektif, transparan, dan inklusif.

Kata Kunci: Tata kelola kota, Perencanaan, Pembiayaan, Reformasi, Pelayanan Perkotaan, AMRUT

INTRODUCTION

The processes of industrialization, urbanization, and liberalization have accelerated India's rapid economic growth in the post-globalization period, with the city gaining prominence as the primary driving force of that growth. The city grew to be an important backdrop for economic development, capital flows, and labor development. The gradual emergence of the city as the center of financial activity resulted in a large number of people migrating from villages to cities in search of a better life and a livelihood. The urban push migration causes a deficit in urban public sector service delivery. In this situation, government projects are made people-oriented, active, efficient, accountable, transparent, human rights-oriented, and decentralized by reforming the city's institutional management and building the city's service infrastructure.

The AMRUT, a "neoliberal-style" national urban reform project launched by the NDA government in 2015, seeks to establish governance by building infrastructure and transforming government management into providing basic services to city residents. Therefore PPP model is being used to implement urban infrastructure services such as universal piped drinking water supply, sewerage and septage, rainwater drainage, underground drains, footpaths, green gardens, and parks for children in the fiscal five-year. The project encompasses 500 towns and cities in India, both large and small, and

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decentralizes infrastructure implementation through local municipalities, or puranigams. The active implementation of the AMRUT project in India's federal structure highlights the principle of cooperative federalism, in which states share equal power, responsibility, and dignity.

The Centre's collaborative efforts and coordination with states and local governments are crucial to the project's success. The 10% incentive amount distributed by the centre as a relevant state award encourages service delivery in the concerned state if the project program is implemented prespecified time frame. When the benefits of AMRUT service reach the city's marginalized poor and women, the city flourishes in terms of inclusiveness. If the city authorities complete the work and institutional reforms successfully, the municipality of that city is brought under the Smart City project, and the city's development is achieved through the use of high technology, capital, human resource development, and efficient management.

The AMRUT Water Power Expedition Project builds infrastructure for polluted water treatment and rainwater harvesting systems in the city, intending to eradicate India's drinking water crisis by 2030. Another component of the project is the Clean India Mission, which contributes to the physical and mental development of the people by providing a scientific method of waste collection, segregation, transportation, processing, and landfill disposal in the city. Above all, ensuring an environment of urban restructuring and financial growth necessitates the effective implementation of 54 milestones with 11 governance reforms under this project.

RESEARCH OBJECTIVES

1. To assess the effective impact of the AMRUT as an intensified urban governance project on basic public service delivery in West Bengal from fiscal years 2015 to 2020.
2. Understanding the AMRUT as an urban development process ensures governance efficiency, accountability, and transparency in providing basic public services in the city.
3. To explain the extent to which effectiveness and participation are required in the implementation of the AMRUT project in the Barddhaman Municipality of West Bengal during the fiscal years 2015-2020 to sustain the establishment of inclusive urban governance.

REVIEW OF LITERATURE

There is an attempt to form a SLIP at the ULB level and a SAAP plan at the state level in India's AMRUT project, but no attempt to form an overall City Development Plan. Although there is a precedent of rampant CDP misuse in previous JNNURM projects, properly decoupling CDP planning from the overall development functions of the city would have a negative impact on the AMRUT project (Ahluwalia, 2017).

JNNURM and AMRUT projects provide job opportunities to city dwellers in addition to city infrastructure development, quality of life improvement, and risk management work, allowing city dwellers to earn as much money as they need. However, the growing rural-to-urban migration limits job opportunities in cities (Basole, 2019).

JNNURM urban renewal project functions cannot be decentralized in accordance with local city realities. As a result, decentralization is viewed as a type of bureaucratic technical administrative management of the state at work. Since bureaucratic decentralization is activated in the context of local city realities, all urban reform projects must abandon the homogeneous management model and be effective in the context of the local city (Bhide, 2017).

Implementation of social sector development projects such as Beti Bachao Beti Patra, Swachh Bharat Abhiyan, and JNNURM, AMRUT urban renewal projects in building basic infrastructure in India is equally important (Das, 2018).

The administrative and institutional reform program of the AMRUT project has yielded positive results in state and local governments. Because the 10% Incentive Grant based on reforms encourages states and ULBs (Kulshrestha, 2018).

The development of city infrastructure and basic services is only possible if the government tightens governance through accountability, transparency, and investment in the implementation of urban regeneration programs, as well as thorough program evaluation and monitoring (Mehta, Mehta, 2010).

It will be possible to achieve sustainable development, financial growth, equity, and environmental protection in Indian cities by combining Smart City and AMRUT projects. If the project is actively implemented, improvements in infrastructure and services will improve the quality of public life in the city (Murugaiah et al, 2018).

Proper implementation of AMRUT projects can significantly improve the city's liveability and risk management capacity. However, sloppiness in project implementation and a lack of coordination between the internal workings of government departments drove the city away from self-reliance (Parasuram et al, 2016).

The waste economy in India is largely run by unorganized workers. Workers in waste management risk their lives and are forced to work out a precarious living for little pay. This act is stigmatized in society. Government Swachh Bharat Mission, AMRUT project using technology, planning, and garbage management As much emphasis is placed on the management of the economic problem, less emphasis is placed on the issue of caste (caste) associated with this economy, pollution, which remains problematically silent forever (Patel, 2016).

Successful implementation of neoliberal urban regeneration schemes such as JNNURM and AMRUT is only possible when the program works in tandem with the city's socioeconomic history. As a result, the evolution of the city becomes an important factor in government policy-making (Priyadarshi, 2018).

Although the JNNURM and AMRUT projects work to develop certain towns and cities across India, the National Urban observes a pattern of neglect in infrastructure development and investment in most small towns and urbanized areas outside the reach of these projects. As a result, urban development projects for underserved small towns must be prioritized (Shaw, 2018).

A policy review of the JNNURM and AMRUT projects revealed that the JNNURM project is relatively successful in building basic services and houses for the poor, but it is biased toward metropolitan development. The AMRUT project, on the other hand, is to improve the infrastructure of 500 small and medium cities. The AMRUT project must be implemented on time, learning from the mistakes and errors of previous JNNURM projects (Tata Institute of Social Science, 2015).

The majority of the growth in Indian city GDP has fueled the transition of the Indian agrarian rural economy to factory industries and then to service industries. As a result, the Indian government launched urban renewal projects such as JNNURM, UIDSSMT, SMART CITY, AMRUT, and CLEAN INDIA to transform the city into a driver of economic growth through controlled planned urbanization (Tripathi, Kaur, 2017).

RESEARCH METHOD

The primary empirical data used in this study are the Ministry of Housing and Urban Affairs (MOHUA) report obtained through RTI, the Question Answer Phase Report of the Lok Sabha Ministry on

AMRUT, Census data, information obtained from AMRUT's website, the SAAP report of West Bengal state, and the annual performance audit of Barddhaman. A semi-structured interview method with serving municipal officers has also been used.

Secondary information from various books used in the existential literature review, as well as national and international research papers, have been extensively used in the research method to aid in basic research and analysis. Above all, there has been a consistent effort in this social research epistemological endeavor to examine every judgment with the aid of the appropriate combination of qualitative and quantitative evidence.

RESULTS AND DISCUSSION

Urban governance through AMRUT

In the face of an increasingly urban population, post-liberalized India's urbanization process faces a severe shortage of urban infrastructure and services critical to the sector of urban governance's sustainability. Rural-urban migrant's lives, livelihoods, and productivity suffer as a result of a lack of housing, education, health, and basic services. In this regard, the Centre's High Powered Expert Committee issued a financial estimate in 2011 for the construction of the basic infrastructure required by India's growing urban population. According to the committee's report, a total of Rs 39.2 lakh crore is required in India for the construction of basic infrastructure and services such as water supply, sewerage systems, garbage disposal, rainwater drainage, and underground drains, Rs 17.3 lakh crore for road construction, and Rs 19.9 lakh crore for management and maintenance (Ahluwalia et. al, 2011). This estimate will then be used by the Government of India to plan and implement the next urban infrastructure development scheme in India.

Before this report, the UPA government launched the JNNURM project in 2005 to address the shrinking of urban infrastructure and services as the urban population grew, and the NDA government replaced the previous JNNURM in 2015 with the Smart City and AMRUT based on the 'Sectoral Specific Development Project.'

Whereas 100 cities are chosen under the Smart city design to make overall transformational changes, the AMRUT project is designed to build basic infrastructure amenities such as public water supply, sewage and septic tank construction, underground rainwater drainage, pedestrian walkways, and green parks across 500 cities. The AMRUT scheme is supposed to be completed in five years, but due to the slow pace of implementation, the deadline was pushed back to 2022 after 2020.

The Smart City and AMRUT urban reform projects encourage private investment and initiative in urban infrastructure and institutional reforms, which can be viewed as a contributing factor to urban neo-liberalization (Priyadarshi, 2018). The impact of neo-liberalization has strengthened ICT-based institutional and systemic managerial reforms in addition to building basic infrastructure. As a result, the AMRUT scheme specifies eleven types of reforms that must be implemented within a specific time frame. Given the timely completion of the institutional renovation process, a 10% Incentive Fund is remitted.

Each work under the AMRUT is selected, planned, implemented, maintained, and evaluated by the respective states. In this case, the State must get the Centre to approve the State Annual Action Plan (SAAP) by the end of the year. As a result, the JNNURM-led 'project by project' approval process by the centre is no longer in effect, which contributes to the respective state's increased autonomy (Clark, 2016). Therefore, it creates a distinct feature of Cooperative Federalism in India.

Swachh Bharat Abhiyan is a subsidiary scheme of AMRUT. This project is taking steps to conduct garbage collection, segregation, transportation, treatment, and disposal in landfill areas in a scientific manner. Preventing open defecation is critical to maintaining the city's good health. Before assessing the progress and reforms of the scheme in West Bengal and the municipality of Barddhaman, it is critical to understand the project's many components, including its thrust areas, project area coverage, finance, planning, management, and reforms.

Thrust Areas

Thrust areas included in the project are:

1. Universal piped drinking water supply,
2. Construction of sewers and septic tanks,
3. Construction of underground drains for rainwater drainage to prevent flooding,
4. Construction of footpaths to reduce vehicular pollution and create parking spaces,
5. To develop a pleasant environment through landscaping, construction, and renovation of gardens for children.

Area Coverage

1. 500 cities across India are included in the scheme.
2. Notified Municipalities, including all Municipalities of over one lakh population including Containment Boards, besides,
3. All capital cities of states and Union Territories including urban areas with a population of more than 10 lakhs come under it.
4. All heritage cities under the HRIDAY scheme belong to,
5. 13 cities with a population of 75,000 to more than 10,000 living on the banks of the Mahanadi are included,
6. 10 cities like hills, islands, and tourist areas are brought under it.

Finance

To complete the AMRUT project program in the financial plan for the year 2015-2022, the central government has committed to spending 50,000 crore rupees, with the remaining 50,000 crore rupees shared by the states and union territories. Under the scheme, 50,000 crores in central assistance funds are distributed to all states and union territories. However, based on all of the SAAP reports submitted by the states and union territories, the Central Government has sanctioned a total of Rs 77,640 crore of project funds, of which Rs 35,990 crore is considered the central grant amount (GoI, MOHUA, 2020).

The project includes Rs 39,011 crore (50%) for the construction of water supply infrastructure, Rs 32,456 crore (42%) for the construction of sewerage and septage infrastructure, Rs 2,969 crore (4%) for the construction of rainwater drainage underground infrastructure, and Rs 1,436 crore for the construction of footpath infrastructure out of the approved SAAP of Rs 77,640 crore. Between FY 2015-2016 and 2019-2020, a total of Rs 1,768 crore (2.2%) was spent on green garden/park infrastructure construction (GoI, MOHUA, 2019).

A more thorough examination of the allocation rates of the Centre and the States reveals that (1) Municipal Corporations with populations greater than 10 lakhs receive one-third of the money for implementation by the Centre. The remainder, (2) less than 10 lakhs population is located by the states

and municipalities. The Centre shares half of the funds with the municipality of the most populous city, with the remainder allocated by the state government at a rate of 45% and the municipality at a rate of 5%. The ratio (50:50) of a state's population and the number of statutory municipalities is sent to the concerned state for the implementation of the central fund scheme, according to the 2011 census. Furthermore, the central grant, i.e. sanctioned central funds, is distributed in three installments at the rate of 20:40:40.

The Centre allocates 80% of the sanctioned funds for project implementation and 2% for Administrative & Office Expenses (A&OE), with the State providing the remaining 8%. Furthermore, if the plan is successfully implemented, the Centre pays the state an additional 10% of incentive money each year, and the State High Powered Steering Committee (SHPS) makes the final decision on how to use the incentive money.

Planning

The concerned state selects, plans, implements, evaluates and supervises the project works in the AMRUT. The project work is completed in the state by the end of the year, and the state's SAAP report is approved by the central government. States are not required to seek permission from the Centre on a project-by-project basis. As a result, the State has enabled the rapid progress of the AMRUT project implementation. The policy of cooperative federalism aids in the development of India's federal structure, which is based on equal partnership between the Centre and the states in project development (Kulshrestha, 2018). Furthermore, the Centre does not penalize states if project work is not completed on time; rather, the 10% incentive amount encourages states and municipalities to complete project work on time. While the previous JNNURM scheme favored larger urban-centric development plans (Tata Institute of Social Science, 2015), the AMRUT scheme does not show such symptoms. Rather, the AMRUT scheme does not differentiate between large cities and small-medium towns, giving equal weight to each town and city. Bottom-up project development occurs when plan implementation begins at the grassroots level, i.e. the local municipality. The plan's components are explained in detail below.

1. **Service Level Improvement Plan (SLIP):** The local municipality of each city involved in the project collects and evaluates data on service delivery baseline gaps) and prepares possible service improvement plan outlines (GoI, MOUD, 2015). At this stage of planning, municipalities solicit input from local citizens. The municipality determines the amount of money for operation and management in addition to specifying the necessary funds and priority areas in the adopted plan.
2. **State Annual Action Plan (SAAP):** Every year, the State develops the SAAP based on the SLIP report of each State municipality covered by the project. Where state municipalities are given special priority for planning development work by identifying backward municipalities in terms of infrastructure and services by assessing the municipality's revenue financial capacity and baseline gap. The state therefore allocates the AMRUT scheme to priority line municipalities (GoI, MOUD, 2015).
3. **Resource Person:** Cities with populations greater than 5 lakhs have a Program Development and Management Consultant (PMDC) office that manages cities with populations less than 5 lakhs. Project planning, targeting, monitoring, and management all play a role in operational functions. (GOI, MOUD, 2015).

Project Management

The process of completing the AMRUT scheme at the central, state, and local city levels is discussed in detail below.

1. **Central level:** The Apex Committee (AC) was established with the Secretary of the Central Urban Development Ministry as its chairman. This committee approves the state's SAAP report and allocates funds for the project to the appropriate state or union territory. Furthermore, it advises on resource sustainability, private investment, and land use through the use of innovative strategies to efficiently improve project performance. To serve as a project supervisor by coordinating all project activities (GoI, MOUD, 2015). A third-party organization (for example, an Independent Review and Monitoring Agency) must be appointed to assess the project's progress.
2. **State level:** Under the chairmanship of the Chief Secretary, the State High Powered Steering Committee (SHPSC) determines infrastructural gaps based on the Service Level Benchmark included in the project and implements institutional capacity building and other reforms to ensure their successful implementation. The state prepares an annual action plan and submits it to the Centre for approval once a year. The State is responsible for assessing, and paying for the progress of the works included in municipal projects. SHPSC coordinates project work in collaboration with the State Level Technical Committee (SLTC), which is chaired by the state Principal Secretary (GoI, MOUD, 2015).
3. **Local level:** Based on the approved SAAP Bid Document and Detailed Project Report, the city's local body is responsible for implementing the project efficiently and quickly within the time frame. The municipal authorities must be prudent in order to reduce the amount of extra cost by completing the project within the time frame specified.

Reforms

To achieve the overall program project's efficiency, effectiveness, and financial sustainability, state and local public institutions are being systematically restructured. Thus the AMRUT scheme calls for the achievement of 54 milestones over the next four years to 11 digital reforms in states and union territories (GoI, MOUD, 2015).

1. **E-governance:** The local municipal corporation informs citizens by developing a website based on the Digital India program. Data storage of birth-death-marriage, property tax, mutation, grievance redressal, E-Procurement, personnel, and pension system management are carried out using E-Mass software.
2. **Skill training of municipal staff:** Provide professional training to municipal employees to operate efficiently.
3. **Double Entry Accounting System:** The annual financial statements of the municipality are published on the website by an accountant.
4. **Town Planning:** Every municipality is required to establish a 'Nagar Bikas Nigam' (Urban Development Authority). Master Plan preparation, SLIP report preparation, construction, and maintenance of children's garden are planned as a public-private partnership using the GIS system.
5. **Fund and Functions decentralization:** The establishment of the State Finance Commission will result in the Decentralization of 18 municipal functions mentioned in the Constitution's 12th Schedule, as well as the timely implementation of all Finance Commission recommendations.

6. **Renovation of Building:** Buildings must be renovated at regular intervals. A solar power system on the rooftops of all government buildings with an area of more than 500 square metres, as well as a rainwater harvesting system in all government buildings with an area of 300 square metres, will be built through state policies and action plans. Furthermore, a single window clearance is in place to expedite building construction approval.
7. **Establishment of financial intermediation organizations at the state level:** This organization is in charge of financing options such as Pool Finance, External Funding, and Float Municipal Bonds.
8. **Increase in the collection of municipal tax rates:** Municipalities must develop strategies for collecting property taxes and rent, as well as adopting policies and plans on a regular basis and collecting user fees for advertising, entertainment, and water use. Furthermore, the municipality is responsible for publishing the Post Demand Collection Book (DCB) of duties on the website.
9. **Credit Rating:** An assessment of municipalities credit ratings are arranged. As a result, the municipality benefits from capital-market borrowing via municipal bonds.
10. **Energy and Water Audit:** Street light and revenue-zero water accounts are kept to prevent electricity waste, and energy-efficient lamps are installed on the road. The municipality takes steps to build environment friendly structures.
11. **Swachh Bharat Mission:** This mission is concerned with solid waste management. The municipality is taking the initiative to conduct scientific garbage collection, transportation, and disposal from every home. Protecting urban public health by preventing open defecation is becoming increasingly important in establishing a national image (GoI, MOUD, 2015).

AMRUT Project in West Bengal: Review on Barddhaman Municipality (2015-2020)

West Bengal is the fourth most populous state in India, with a population of 9.13 crore according to the 2011 census. The state had a population of 8.02 crores according to the 2001 census. Population growth has been at a rate of 13.84% so far. In 2011, West Bengal accounted for 7.54% of India's total population.

West Bengal is undergoing a rapid urbanization process. Urban areas are home to 31.8% of the state's population. In 125 Statutory Towns, 29.1 million people live. In contrast, 781 Census Towns are spread across 3% of the state (State Mission Directorate: 2017).

West Bengal's urban areas are rich in high population density, natural resources, and citizen-centric governance, as well as a long history. The number of Census Towns in the state's urban areas has risen dramatically in recent decades. On the other hand, the Kolkata metropolitan area is home to 72% of the state's population (State Mission Directorate, 2017).

The AMRUT project protects rights by developing basic infrastructure and city services to meet the needs and secure the rights of the entire urban population. AMRUT projects must be actively implemented at a specific time in order to improve the city's quality of life and productivity.

The project began in 2015, with 55 AMRUT cities in West Bengal being prioritized. Collected data suggest that out of the approved SAAP Rs 4,035 crore, 896.44 crores (22.21%) worth a total of 368 projects have been effectively implemented. Among the areas executed are 10 projects for the construction of water supply infrastructure (745.88 crores), 1 project for the construction of sewerage and septage infrastructure (15 crores), 1 project for the construction of rainwater drainage underground infrastructure (60 crores), 2 projects for construction of footpath infrastructure (5 crores), Green Implementation of 354 projects (Rs. 70.56 Crore) has been completed in the construction of Parks and

Gardens. Infrastructure is reflected in West Bengal service delivery capacity as a result of 368 (78.66%) of the total 480 projects that were effectively successful and efficiently implemented in table 1 (MOHUA, 2021).

However, the use of 22.21% of the sanctioned SAAP funds over the five years demonstrates the slow pace of project execution. Furthermore, the implementation of works in the main priority areas (construction of water supply, sewerage, and septage infrastructure) is slower than that of works in the second priority areas (construction of green gardens and parks), which impedes the achievement of the project's main objectives at times. As a result, the time limit for completing the project work has been extended to 2022, indicating that the main work objective was not met within the time frame specified. Though the awarding of tenders for 93 projects (3,059.25 crores), NITs for 18 projects (78.95 crores), and DPRs for 1 project (0.3 crores) for work completion by 2022 show potential encouragement to effectively deliver remaining work (MOHUA, 2021). However, the snail's pace implementation of the AMRUT project raises serious skepticism over the extended 2022 deadline for effective implementation of the entire project.

Table 1. West Bengal AMRUT sector-wise work progress till 22/02/2021, Cost in Crore

Amenities	Works Completed (1)		Contract Awarded (2)		NITs (3)	Issued (4)	DPRs Approved (4)		Total (1+2+3+4)	
	Nos.	Cost	Nos.	Cost			Nos.	Cost	Nos.	Cost
	Water Supply	10	74.88	34	2623.76	2	73.42	0	0	46
Sewerage and septage management	1	15	2	177.5	0	0	0	0	3	192.50
Stormwater drainage	1	60	6	241.5	0	0	0	0	7	301.50
Pedestrian transport	2	5.00	0	0	0	0	0	0	2	5.00
Green space and park	354	70.566	51	16.49	16	5.53	1	0.3	422	92.88

Source: MOHUA

Over four years, from FY 2015-2016 to FY 2018-2019, the AMRUT project in West Bengal completed 58 milestone implementations of reform works. Incentives totaling 24.89 crores are available in the fiscal year 2016-17 and 16.80 crores in the fiscal year 2018-19 for the successful implementation of reforms. West Bengal also received Central grants totaling 14.75 crores in the 2015-16 fiscal year, 12.84 crores in the 2018-2019 fiscal year, 11.06 crores in the 2019-2020 fiscal year, and 15.38 crores in the 2020-21 fiscal year (TCPO, 2021) for administrative and maintenance work.

The West Bengal reform works were evaluated by the Government of India's Town and Country Planning Organization (TCPO). According to this report, West Bengal met 70.90% of the 28 reform-related milestones in FY 2015-16. While most reform areas are progressing satisfactorily, the Digital India project, 90% municipal tax collection, 90% water usage user charge bill preparation and collection, an action plan to prevent water waste, and the establishment of a separate account for user charges have been ineffectively implemented at 0%. Another 15 Milestones were successfully completed at a 100% rate, and 3 Milestones were completed at a 98.15% rate, indicating the most efficient performance (TCPO, 2021).

In West Bengal, 81.78% of the 12 reform-based milestones were successfully completed in the fiscal year 2016-17. Whereas E-Mass coverage shows the slowest effective progress at 4.83% and the fastest effective progress at 100% to reach six milestones (TCPO, 2021).

The majority of the reform-based 8+2 milestones effectively progressed at a rate of 72.97% in FY 2017-18. Under the Swachh Bharat Mission project, the ODF rate reflects the lowest effective progress of 30% in waste removal work, 53.59% in garbage collection work, 69.33% in garbage transportation work, and 30.64% in the scientific method of disposal work. The highest effective progress of 100% work rate to achieve the remaining 5 milestones (TCPO, 2021).

The 2018-19 financial year shows the lowest progress rate of 66.67% compared to the previous financial year of 1+2 milestones of reforms. With the help of GIS technology, the ineffective implementation of planning work is at a null rate of 0%. The highest effective rate of 100% in the execution of the publication of annual financial statements on the website, as well as the construction of a green garden and park in each AMRUT city, demonstrates the success of reform. (TCPO, 2021).

As the work of any urban development project is developed in the unique historical, economic, and social context of the concerned city, the governance analytical evaluation of the AMRUT project's work must be analyzed by discussing the growing city's unique historical, economic, and social context. Barddhaman city serves as the capital of the East Barddhaman district. Since British rule, the city has served as the district's capital. The city was established on May 1, 1865. In 1865 the municipal area was 12.8 sq. km. and had a population of 39,818. As per the 2001 census, the area of the municipality is 26.30 sq. km. and the population increased to 2,85,602 as of the 2011 census, the municipality has a population of 3,14,638 with a male-to-female ratio of 51:49, with a population density of 746 per km. The municipality's total education rate is 89.07%, with males educated at 92.52% and females educated at 85.48%. Barddhaman Municipality is classified as a Group A urban area. The municipality works with 35 wards daily. On the banks of the Damodar and Banka rivers, entire towns were built. There are 63,012 registered holdings in the municipality, of which 55,686 pay taxes (Barddhaman Municipality, 2019).

The social sector of Barddhaman has 600.23 km of municipal paved roads, 35 km of PWD paved roads, and 36 km of unpaved roads. Infrastructure construction includes 156.20 km of broad Pucca, 82 km of broad Katcha, and 2 km of extensive underground drainage infrastructure. 6 overhead reservoirs, 58 deep tubewells, and a daily water supply of 72 lakh gallons in the municipal area, 7 primary schools provide primary education. In the district, there are 5 health posts, 27 sub-health posts, and 1 public health Centre that provide medical services and protect public health. Among the residents of Barddhaman Municipality, livelihood practices include agriculture, small and medium businesses, and work. This municipality is home to 15,148 low-income BPL households.

The AMRUT project was launched in the fiscal year 2015-2016 to address the basic infrastructure and service needs of Barddhaman's large population (see table 2). In this urban area, the emphasis is on public piped water supply and green gardens or park infrastructure. According to February 2021 data, the municipality's SLIP amount is a total of 280 crores, with 9 infrastructure worth 1.28 crores (0.45%) of construction works of green gardens or parks completed. Contracts for three water supply infrastructure projects worth Rs.204.38 crore were awarded to the private sector, and two projects worth Rs.73.42 crore were awarded to NITs (MOHUA, 2021).

Table 2. Barddhaman AMRUT sector-wise work progress till 22.02.2021, Cost in Crore

Amenities	Works Completed (1)		Contract Awarded (2)		NITs Issued (3)		DPRs Approved (4)		Total (1+2+3+4)	
	Nos.	Cost	Nos.	Cost	Nos.	Cost	Nos.	Cost	Nos.	Cost
Water supply	0	0	3	204.38	2	73.42	0	0	5	277.8
Sewerage and septage management	0	0	0	0	0	0	0	0	0	0

Stormwater drainage	0	0	0	0	0	0	0	0	0	0
Pedestrian transport	0	0	0	0	0	0	0	0	0	0
Green space and park	9	1.28	0	0	0	0	0	0	9	1.28

Source: MOHUA

The municipality is adamant about finishing the water supply contracting and NIT's work by 2022. According to municipal data for March 2021, the municipality has registered 30,000 water service recipients, who will be enrolled once the project work is completed. The benefits of this project will be distributed among the municipality's 35 wards based on household needs. Municipal ratepayers and holdings will be prioritized in water supply distribution, resulting in more inclusive water service. Furthermore, according to the plan, water supply will be done to the recognized slums considered by the municipality, as a result of which the city's marginal people will receive certain benefits and their needs will be met at an inclusive level. Shopping malls, hospitals, and market establishments will not benefit from this scheme because they have their supply system and thus certain targets will be met effectively. Barddhaman city, the infrastructure construction work in the AMRUT project's main priority area (i.e. water supply) is not completed in the time frame specified, whereas the well-executed second priority area (i.e. green garden or park) remains inclusive in the provision of project service delivery. That means that while 9 parks have been completed in the last five years, the municipality has been unable to complete at least one of the five water supply projects. The slow pace of project implementation is regarded as the primary cause of ineffectiveness and further extension till 2022.

Although the AMRUT project implemented radical reforms to make municipal government more efficient, proactive, and sustainable, a critical evaluation of operational management reforms in Barddhaman Municipality, in addition to improving urban infrastructure and services, is required. As an output of the AMRUT project, the credit rating and water energy audit for the municipality of Barddhaman were completed on time. The municipality implemented the OBPS system, as a result of which the municipality improved in terms of ease of doing business. The training of 45 municipal employees completed the capacity-building work. During the fiscal year 2016-2018, there is a significant shortfall in the number of municipal officials and staff in Barddhaman Municipality. The number of employees in 2016 was 626 out of 1,221 sanctioned posts, then fell to 578 in 2017 and 434 in 2018. (Barddhaman Municipality, 2019). According to data for the fiscal year 2018-2019, the municipality's workforce vacancy rate was 64.46%, causing issues in the management of active municipal functions. Aside from that, the Barddhaman Municipality has a 70:30 ratio of male and female employees, indicating that there are fewer female employees in the workforce, and the 1,117 contractual employees' workforce cannot perform the necessary real tasks that would otherwise be performed by permanent staff. Barddhaman Municipality was managed by elected public representatives from 2013 to 2018, but due to the lack of elections in the latter case, there was no local active political leadership in the municipality's management, so proper implementation of public welfare projects was hampered and alienated from public participation. There is a lack of public communication and participation in the absence of active local political leadership in the municipality, thus the municipal administrator often saddled with additional duties and responsibilities. As a result, the efficient active implementation of public services and welfare work, public accountability, and the establishment of grassroots democracy faces a crisis. The West Bengal government's lack of political will is also cited as a major reason for delays in regular municipal elections. Barddhaman Municipality does not publish annual audit reports on standard basis from 2019 to 2021 due to a lack of

engagement in local political leadership and municipal administrative inefficiency, creating opacity in administrative operations. During the 2017-2018 fiscal year audit was published on time, and the annual audit for the next three fiscal years was not made available on the municipal website at specific times showing management opacity.

The annual audit of Barddhaman Municipality 2017-2018 and conducted interviews, suggest the revaluation of property tax has not been done during 2006-2018 due to the municipality's local political unwillingness, so the municipality suffers financial tax collection at the lowest rate. Although this work was completed later with the assistance of the Mayukh Bhavan Valuation Board, tax collection at a higher rate began in the municipality on April 1, 2018. Furthermore, various irregularities in municipal administration can be seen, which are classified as demand and collection tax not kept properly by the municipality. Negligence has also been discovered in the upkeep of the age-based classification of the Outstanding category property tax. Municipalities send half-yearly or quarterly property bills to ratepayers without specifying a period. As a result, tax payments were remain opaque. Municipalities collect property tax arrears at a snail's pace. As a result, the amount of unpaid property tax and interest continues to rise. Taxes and fines are mostly collected offline by municipalities at this time, indicating the lack of an online system. Furthermore, the lack of supervisory-level password protection in municipal assessment department software creates opacity and irregularities in the workplace. Furthermore, until March 31, 2018, stock verification signatures for holograms used in birth-death certificates are not available in the Municipal Register. In the renewal of trade licenses, there is a noticeable gap in the municipality's maintenance system. There is no mention of municipal stockpiles of medicines and medical parts. The municipality never provided any liability for outstanding RA bills until March 31, 2018 (Barddhaman Municipality, 2019).

However, beginning with the fiscal year 2018-2019, the municipality has corrected previous irregularities and proceeded transparently. For example, beginning with the fiscal year 2018-2019, the municipality has regularly maintained the Tax Demand and Collection Book (DCB) and published it on the municipality's website. The municipality has begun to collect taxes and fines online. Ratepayers pay property taxes quarterly once a year. To increase its revenue, the municipality relied solely on property taxation and advertising, despite the trend of new innovative practices emerging. For example, the Barddhaman Municipality has successfully materialized the work of rented marriage halls, as well as issuing trade licenses online and facilitating digital communication between the government-citizens (G-C communication), as well as creating transparency. Furthermore, a noteworthy digital online system for birth and death certificates, water connection registration, and grievance redressal was developed. The use of a double-entry accounting system contributes to the innovative aspect of reform work in the municipality of Barddhaman. Though municipality's water fee indifference is hastening potential revenue collection shortfalls and, as a result, deviating municipalities from becoming financially self-sustaining.

Under the Swachh Bharat Mission, the Barddhaman Municipality performs Solid Waste Management work inefficiently. Because there has been no scientific progress in collecting garbage from every house, the old method of collecting garbage from dustbins, transporting, and dumping it without renewal does not set a precedent for developing solid waste management. In growing cities, a lack of collection compared to waste generation, the discharge of untreated sewage Baka rivers, a lack of awareness among people about waste segregation, and the inadequacy of separate dustbins for wet and dry waste in every municipal ward are all contributing to increased pollution of the city's environment. In addition to a lack of modern technology and equipment, Barddhaman's solid waste management is inadequate due to a lack of manpower. The absence of a central database of solid waste management in

each state of India, as well as a lack of routine maintenance, are observed to be widespread (Singh, 2020). Although official documents state that Barddhaman is 100% ODF (OPEN DEFLECTION FREE), faeces is perceived to be a daily occurrence in everyday life. To truly make Barddhaman city 100% ODF, public education and penalties for ODF rule violations must be implemented gradually. Furthermore, rather than relying on official paperwork, the municipality should take the initiative to actively monitor the activities.

The Ward Committee is critical to the successful implementation of public welfare initiatives in the municipality; true democracy can only emerge at the local level if this ward committee performs its duties effectively. On paper, Barddhaman had 35 ward committees from 2013 to 2018, but only 10 of them were successful in carrying out their duties, according to municipal officials.

CONCLUSION

With the development of AMRUT and SMART CITY projects in cities across India, an overall improvement in other sectors such as education, health, income, and housing is also required. Leaving aside improvements in all of these areas, the city cannot produce itself as smart and sustainable. Nonetheless, the AMRUT, SMART CITY project brings a radical change in the city's financial and social structure, allowing for an improvement in basic service delivery functions. Furthermore, well-planned rural reform schemes (Rurban) in rural areas vis-a-vis urban reform schemes in urban areas are required to maintain a good balance between urban and rural development.

Due to the scarcity of government investment in infrastructure development in India's urban areas, private capital investment is becoming the most important aspect. Overall, neoliberal ideology-driven urban reform projects tend to overemphasise the market over the social sector; therefore, primary emphasis should be placed on the social sector as it is a prerequisite for the formation of a decent social living environment in the city. The social system of the city should therefore strive to protect social harmony by making civic trust and breaking free from the grip of communalism, militancy, misogyny, and violence. Furthermore, it is essential to ensure the participation of the government, business organizations, voluntary multi-stakeholder organizations, and the city's weaker sections in the decision-making process, without it will be extremely difficult to achieve an inclusive and sustainable developed city. Political and bureaucratic will, as well as mutual coordination between the Centre and the States, are crucial for the proper implementation of the AMRUT Scheme functions, on which effective Cooperative Federalism can be developed in practise. Instead of publishing the Finance commission's recommendations through the channel of government orders and ceasing to exist in bureaucratic torpidity, the government should proactively implement them on time. According to the 74th constitution amendment, the state must decentralize powers and functions in order to strengthen the fiscal condition of municipalities. Regular municipal elections are required for the effective implementation of AMRUT project; electionless municipalities frequently result in vacancies in political leadership, hampered the local public participation process. As a result, people become disillusioned with urban services. Furthermore, the municipality's lack of appropriate technical support and necessary manpower leads to negligence in the regular maintenance and implementation of development projects. As a result, no work can be completed at a specific time; it goes without saying that the municipality's staff recruitment and capacity building training are also in short supply. The additional increase of 10% incentive amount allocated to AMRUT scheme is very useful in practise and attracts any state municipalities; this amount also needs to be increased for more encouragement to complete the project work within the specified time frame. The City Development Plan should be returned to the AMRUT project for planning and implementation process so

that the city's overall development can be realised through coordinated development and investment action. Above all, effective governance can be maintained by harnessing appropriate skills, capacity, and responsibility by the project's tender organization as well as local city government acting as controller, regulator, and supervisor over the tender company.

Apart from successfully completing the AMRUT project's 368 works, the State of West Bengal has successfully completed the awarding of remaining tender, demonstrating the state's modest administrative efficiency and effectiveness in infrastructure construction. Reform-based progress such as enabled e-governance, staff training, urban planning, decentralization of funds and functions, energy and water audit process, and full collection of entertainment tax by municipal bodies have materialized the development under West Bengal AMRUT during the 2015-2019 project period. However, progress on key AMRUT project works such as water supply is slower than progress on less important areas such as park/garden, the value of the project's priority areas is diminished. Furthermore, the lack of political will on the part of the state government to organise and conduct regular municipal elections erodes democratic governance at the grassroots level. Needless to say, the State Government's political will is required to close the gaps in the irregular municipal election. Proactively implementing Finance Commission recommendations on time by the state also required serious consideration in order to avoid the bureaucratic red tape. Thus, the path of decentralization could be accelerated in both space and time, bureaucratic red tape could be eliminated, and effective delivery of public services could reach the local people.

Among the water supply and park construction works of the AMRUT project in Barddhaman city, implementation of 9 park construction projects, at least one priority area of water supply infrastructure is yet to be implemented, defeating the project's main goal. However, the successful tendering of the AMRUT project's remaining 5 water supply works ensures that the extension will be completed by 2022. Municipality published audit report on a regular basis throughout the fiscal year 2017-2018, but failure to publish in the following next year created opacity in municipal functions. On the other hand, until 2018, irregularities and opacity in the municipality's declaration of Demand and Collection Tax were observed, but in the subsequent period, the declaration of Demand and Collection Tax record publish through regular online municipal website re-establishes the municipality's transparent governance. Furthermore, the municipality's reluctance to impose user charges on water supply, combined with rising levels of arrear taxes, directly harms the municipality's revenue capacity. Garbage collection, transportation, and disposal works under SWM in Barddhaman suffer from technological backwardness, the use of old methods. The complete lack of implementation of garbage collection from every household, open toilets, and, most importantly citizen apathy have failed to create a clean environment. However, if the municipality properly uses modern information technology to implement the Government-Citizen connection in its institutional operations, it will generate more efficiency in service delivery. Facilities as Grievance Redressal, Property Tax Payment, Penalty Value Collection, Birth-Death Certificate, Trade License Issuance, Marriage House Booking, and Enrollment for AMRUT's Water Connection are all done online, demonstrating the efficient, transparent, and accountable nature of urban governance in Barddhaman. Furthermore, the completion of skill training for 45 civic staff, credit rating, energy and water audit, implementation of Double Entry Accounting System, formation of Barddhaman Development Authority as planning unit, and execution of Online Building Permit System (OBPS) shows modest improvement in municipality's efficiency, transparency, and inclusive governance

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