



# Exploring New Scope for Levying Taxes in the Jhumritelaiya Municipal Council (JMC)

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## Abstract

*Jhumritelaiya Municipal Council has experienced rapid urban population growth since last few decades which has made challenges for Urban Governance to maintain and fulfil the financial liabilities for providing municipal services and facilities sufficiently to the residents. The Jharkhand Municipal Act 2011 allows municipalities to levy a variety of taxes, including: property tax on buildings and land, tax on vacant land, surcharge on the transfer of buildings and land, and tax etc. Since, JMC is unable to maintain and fulfil the financial equipment's and its liabilities due to deficit in allotted available funds and generated revenues. Thus, the study is an attempt to explore new criteria and scope for levying service tax on provided services and facilities available in the JMC. The present study is a quantitative exercise based on the primary data surveyed from the households of 28 Wards in the study area. Analysis and evaluation of the quality of municipal services delivery provided and its satisfactions with available services across all wards has been made for showing pattern and exploring new aspect and scopes for levying taxes on provided services through using geo-statistical and geo-spatial techniques along with the help of diagraphs and figures. The study reveals that there are various aspects of provided services and facilities such as quality of municipal services delivery and its satisfactions with available services on which JMC can levy taxes and user charges for generating revenues for fulfilling its financial needs and recovering deficit between income and expenditures in the study area. However, dissatisfied or unawareness about the provided services and its quality of services delivery indicate that there is need to introduce new services and facilities and older one should be upgraded and innovated for creating new aspects for levying taxes and satisfying the residents expectations and demands. Thus, there is need to underscore the factor responsible and citizen's demands and satisfaction level in order to sustainable management of urban local body of the Jhumritelaiya Municipal Council.*

**Keywords:** *Jhumritelaiya municipal council (JMC), Municipal service, new taxes, Quality of service delivery, Satisfaction with municipal services, Urban local body (ULB).*

## 1. Introduction

Urban local bodies (ULBs), responsible for the management and development of urban areas, are crucial components of municipal governance. They act as the governmental tier nearest to the community, providing infrastructure and essential services that directly influence everyday life in towns and cities (Kundu et al., 1999). The ULBs generally include Nagar Panchayats, Municipal Corporations, and Municipal Councils, with each catering to different sets of urban populations. The ULBs are minor local entities that oversee a city or town with a designated population size (Government of Assam Portal, October 2024). The ULBs are assigned an extensive array of responsibilities by the state governments. These functions generally pertain to public health, welfare, regulatory duties, public safety, infrastructure projects, and developmental activities. Consequently, based on the roles and duties of ULBs, we can categorize the entire literature into six groups designed to achieve the study's objectives, which are: a) income and expenditure, b) physical & human resources, c) financial obligations, d) municipal taxation framework and tax coverage, e) service quality, and f) service provision (Regional Training Institute, 2006).

The Central government regards local governments as important partners in tackling numerous public policy issues and responsibilities, including developing fairer and more effective social service systems and providing significant essential infrastructure that stimulates economic growth and improves quality of life (O'Donnell, 2012). Urban decentralization and its notable effect on service delivery in Jharkhand show that specific duties assigned to local entities have not been formally conveyed via notification, resulting in inconsistent execution. The quality of municipal services can significantly impact a city's social, economic, and environmental results (Bandyopadhyay et al., 2011). Several examples of local government services include: 1) Infrastructure and services such as clean water, sanitation, waste management, transportation and communication networks, energy, health care and emergency services, educational facilities, public safety, and management of green spaces. 2) Additional services include firefighting, police, emergency medical assistance, and various public health department issues (Japan International Cooperation Agency, 2011). Employing primary data comprising two subscales, one concerns customer expectations while the other relates to their perception of the quality of service. It evaluates service quality by analysing five essential factors: reliability, responsibility, compassion, safety, and tangibility. From the viewpoint of customers, the standard of municipal services is considered inadequate, showing significant differences between their expectations and the real perception of every factor influencing service quality, especially regarding reliability and accountability. Consequently, the municipalities possess a clear insight into where to focus their improvements (Živković et al., 2019). As per the Jharkhand Municipal Act, 2011, the allocation of taxes and user fees, such as property tax, is voluntary instead of compulsory. Even with the changes to the Acts, the decentralization of functions has not been successfully implemented in Jharkhand. An unjustified postponement has occurred in assigning duties to urban local entities. The State Municipal Acts show that urban local bodies, specifically, have not been assigned a variety of functions apart from the basic ones. Moreover, the ULBs are unaware of the responsibilities that have been delegated and assigned to them. The limited authority and knowledge of ULBs hinder them from carrying out even fundamental services, much less additional ones (Jharkhand Municipal Act, 2011).

Jhumritelaiya is a municipal council town situated in the Koderma District of Jharkhand. Multiple studies indicate that increasing population complicates the ability of urban governments to adequately provide municipal services that meet residents' demands (Initial Environmental Examination, April 2021). Over the past few decades, Jhumritelaiya Municipal Council (JMC) has faced swift urban population growth, creating challenges for Urban Governance in meeting financial obligations to adequately provide municipal services and facilities to its residents. The Jharkhand Municipal Act 2011 permits municipalities to impose various taxes, such as property tax on real estate and land, tax on unoccupied land, surcharge on the transfer of properties, and other taxes. The JMC struggles to manage and meet its financial obligations due to a shortfall in the funds allocated and revenues generated (Jharkhand Municipal Act, 2011). Consequently, it is essential to investigate new dimensions of tax implementation to create revenue that meets JMC's financial requirements and addresses the residents' desire for sustainable town management in the studied region. Through the assessment of service quality and satisfaction levels with JMC's services, new opportunities for instituting taxes to boost revenue have been investigated to help close the gap between income and expenses for sustainable town management. Consequently, this research evaluates the quality-of-service delivery and the satisfaction regarding the services offered by JMC from the perspective of citizens' opinions and contentment. The research relies on the quantitative examination of primary data collected from households within the Jhumritelaiya Municipal Council, Jharkhand. An evaluation of the service quality and satisfaction with the services offered in the 28 wards of the Jhumritelaiya Municipal Council has been conducted to illustrate the quality level of the services provided, utilizing geo-statistical and geo-spatial methods, along with diagrams and figures within the study area. In summary, the research article is organized into five primary sections: introduction, methods and materials, results and findings, discussion, and concluding remarks.

## 2. Methods and Materials

### 2.1 The study area

Jhumritelaiya Municipal Council is situated on the fragmented plateaus of the Chota Nagpur in eastern India, encompassing a large portion of Jharkhand state along with neighboring areas of Odisha, West Bengal, Bihar, and Chhattisgarh. The municipality is situated at 24°25'48" North Latitude and 85°31'12" East Longitude. Jhumritelaiya Municipal Council is located between 24°24'08.03" north and 24°29'50.58" north latitudes and 85°28'51.01" east to 85°33'37.70" east longitudes (Google Earth Pro, 1 September 2024), covering an approximate area of 50.47 Km<sup>2</sup> (Jhumritelaiya Master Plan 2015-2040).

Jhumritelaiya is situated in the valley of the Damodar River. It has a mean elevation of 383 m (1,257 ft). It is situated 152 km away from the capital of the state - Ranchi. It is located approximately 8 km from the town of Koderma. The two towns are closely connected. Jhumritelaiya is located in the Koderma district's Koderma tehsil (District Gazette of Koderma, 2012). The region experiences a tropical monsoonal climate, with annual rainfall averaging between 100 and 150 cm throughout the area and monthly temperatures ranging from 29 to 32 degrees Celsius. The regional relief tied to the climate patterns has formed many hard rocks influenced by both large and small streams, including Barakar and its tributaries. The distinctive physiographic configuration has led to a significant difference in the pattern of human settlement and growth in the region. Its pattern is diverse in many areas, largely characterized by agriculture alongside urban to semi-urban activities (Das et al., 2020).

In 2010, Jhumritelaiya was officially recognized as a Nagar parishad. Jhumritelaiya town's administrative area consists of 28 wards. The initial settlement in the region, now included in the city, was named Jhumri. It was named Jhumritelaiya because "Telaiya" in Hindi means a small lake. The typical height is 383 meters or 1,257 feet. It is located 152 kilometers from Ranchi, the capital of the state. It is located approximately 8 kilometres from Koderma Town. The two towns are linked together. To enhance city management and encourage sustainable development, it has become essential to measure and evaluate urban growth because of the swift population increase and changes in urban land usage (Jhumritelaiya Nagar Parishad Portal, October 2024).

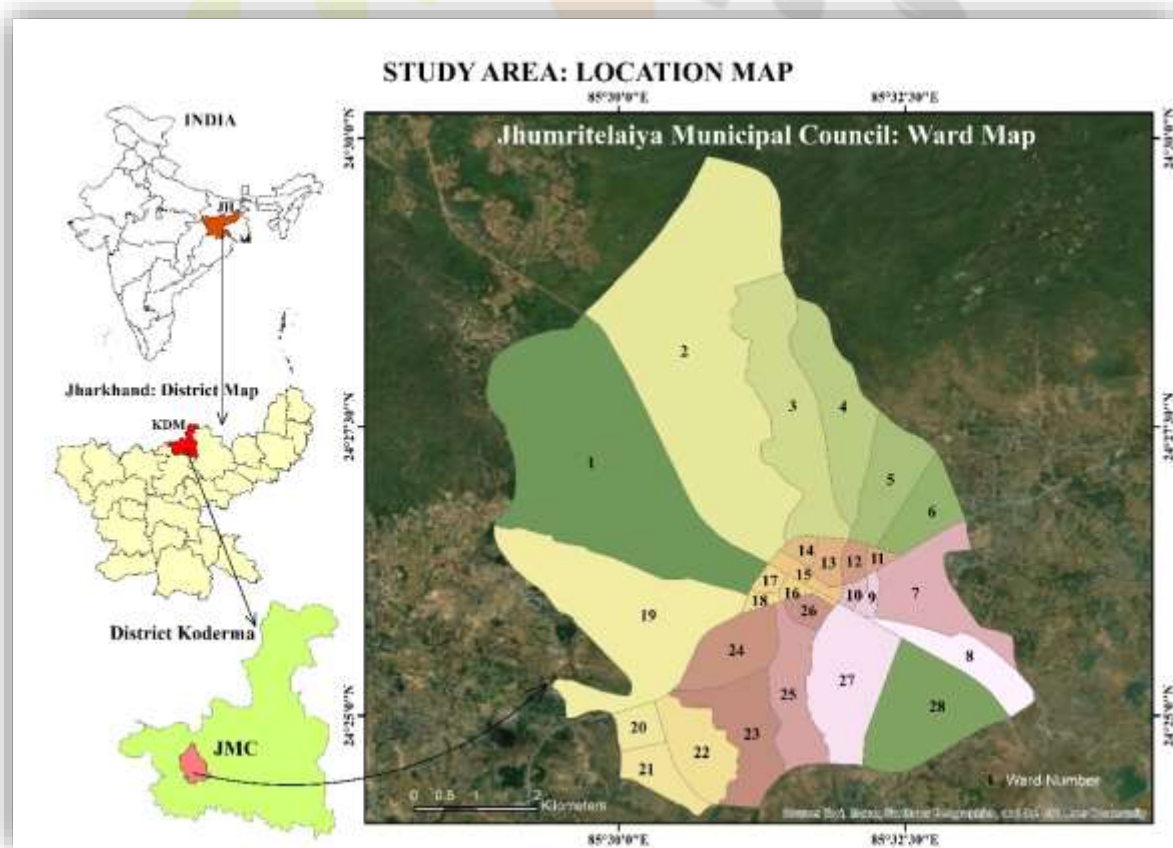


Figure 1. Location Map of the Study Area

As per the 2011 Census, Jhumritelaiya total population was 87,867, consisting of 52.24% males and 47.76% females. The literacy rate in Jhumritelaiya averages at 62%, surpassing the national average of 59.5%. The

percentage for males stands at 72%, whereas the percentage for females is 52%. Sixteen percent of the population in Jhumritelaiya is below six years old. The main language spoken in the town is Khortha. Moreover, inhabitants of this town communicate in English, Bengali, Marwari, Punjabi, Hindi, and Bhojpuri (Census of India, 2011).

## 2.2 Statement of the Problem

In Jharkhand, the provision encourages ULBs to become complacent. Performance is directly impacted by it. The law should make it mandatory, not optional, to levy taxes or levies in a state like Jharkhand, where the current physical levels of services are insufficient to meet the state's expanding population's needs. The challenges of inadequate staffing, combined with the limited financial and operational authority of ULBs, further worsen the already deficient service conditions, even with the involvement of para-statal agencies and development authorities in the state (Bandyopadhyay et al., 2011). The various components of revenues and expenditures for urban local bodies (ULBs) in Jharkhand indicates that, on average, the estimated revenue capacities could yield an additional 77 percent in revenues for these ULBs. The most significant increase in total revenues would occur in cities with populations exceeding 1 lakh, while the smallest cities would see the least growth. On average, cities in Jharkhand generate merely 0.17 percent of their Gross City Products as their revenue (Bandyopadhyay, 2011). The idea of decentralized sustainable development has created a host of responsibilities for the ULBs. Cost indicators-based services determine the expenditure that local governments incur on account of the provision of basic services. Demand Indicators services such as Literacy Rate, Percentage of Households Availing Banking Facilities, and Percentage of households having none of the specified assets are indicative of the income levels of the people residing in the jurisdiction of the local bodies, which are among the factors determining the preferences of inhabitants of a city and thus influence demand for Municipal services (Bandyopadhyay et al., 2011; Ramesh et al., 2020).

Further, there are other basic services such as Water supply, Roads, Street Lights, Sewerage, Solid Waste Management, and Sanitation, the responsibility of which is given to the local governments in terms of Provision and Operation and Maintenance. Additionally, there are infrastructure services, namely Toilet facilities, Electricity connections, Banks per 100 sq km, etc (Cities, U., & Governments, 2014). It is widely believed that without sufficient provisions for these services, we cannot conceive sustainable city development. Further, rapid natural population growth and migration to the cities have caused a case of very rapid urbanization and related aspects causing massive urban growth of all cities and particularly the growth of big cities is exponential and quickly becoming unmanageable. With increased urbanization, the demand for urban services, and the cost to provide and maintain these services also increases (Portney, 2013). It is also felt that 9 sustainable developments of small and medium urban bodies will able to create a cushion against excessive and unchecked urban growth of a few large urban bodies. However, the financial position and administrative efficiencies of ULBs in small and medium cities need to be ensured before conceiving their sustainable development and a buffer against the rapid urbanization of a few large urban bodies (Mega, 2010; (Bandyopadhyay et al., 2011).

Therefore, the financial resource generation, autonomy, and administrative efficiency need to be re-analyzed for small urban bodies. Since, JMC is unable to maintain and fulfil the financial equipment and its liabilities due to deficit in allotted available funds and generated revenues. Therefore, there is need to explore new aspects of scope for levying taxes to generate revenues for fulfilling JMC's financial needs and satisfying their residents' demand for sustainable town management in the study area. To explore new criteria and scope for levying service tax on provided services and facilities available in the JMC.

## 2.3 Conceptual Framework

The Jhumritelaiya Municipal Council functions comprise institutional operations, financial management, administration, and local government in the city. The Commissioner and Director of JMC oversee the ULB's administrative functions, which include managing and guiding its many organs and carrying out its policies and programs. Various administratively managed bodies or institutions, such as those involved in development, public infrastructure, welfare, public safety, and public health. Managing finances and generating income from a range of sources, such as taxes, non-tax sources, grants, and other types of financial aid, are all part of the ULB's financial operation. The establishment of local government and oversight of various government functions are governing functions. ULBs are accountable to their constituents through transparency measures such as open data initiatives and platforms for public interaction.

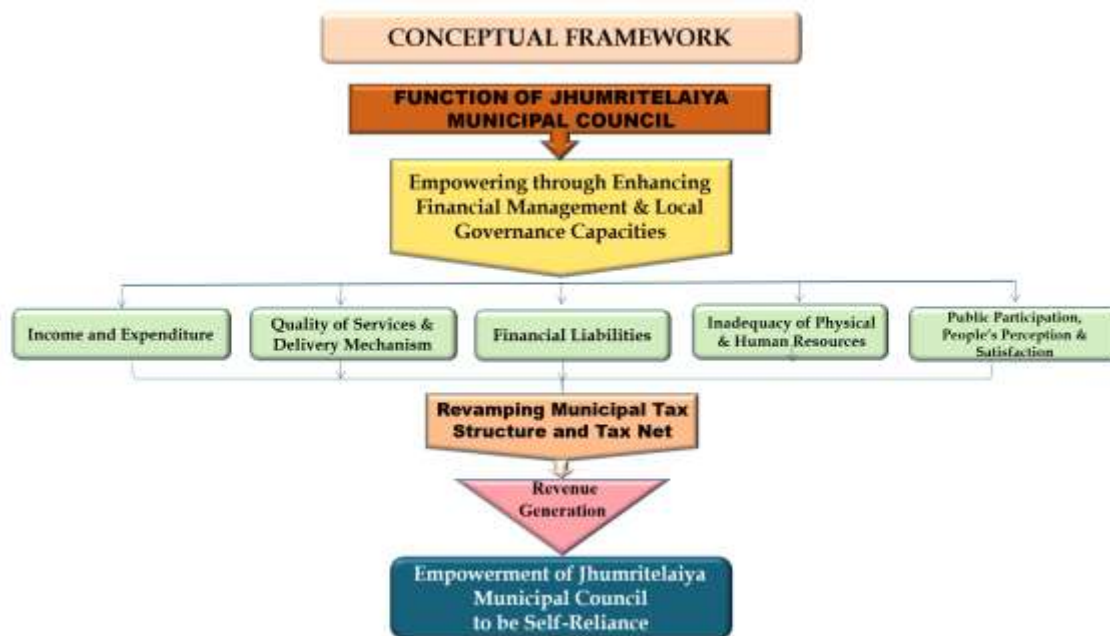


Figure 2. Work Flow Chart

The ULB's administration can strengthen the ULB by improving financial management and local governance skills, managing finances and services quality, addressing financial obligations, ensuring sufficient resources, and promoting public involvement, satisfaction, and feedback for an empowered ULB. During a financial crisis, ULB can redesign municipal tax systems and expand the tax base to increase revenue and make ULB financially independent for social and economic progress.

#### 2.4 Research Methodology and Techniques

The main data source is a survey conducted using a sample questionnaire to gather quantitative information from chosen households within the wards. Additional data sources include census records, satellite imagery, and information released by different government bodies and departments, which have been utilized to enhance the study's analysis. The research relies on the quantitative analysis of primary data collected from households within the Jhumritelaiya Municipal Council, Jharkhand. A design plan for sampling to gather the data shown in Table 1.

According to Table 1 of the sample design, the number of samples from each ward is determined by the proportion of total households present in that ward. A single sample from each household was gathered from a specified ward. Thus, a total of 450 samples have been gathered from 28 wards of the Jhumritelaiya Municipal Council (JMC) in Jharkhand to meet the study's objectives.

#### 2.5 Research Methodology

Assessment of the services and its satisfactions across the 28 wards of the JMC has been done for showing the pattern of quality of municipal services delivery and satisfaction from available municipal services.

Table 1. Sample Design

Ward	Residential	Household	Samples
1	828	1693	31
2	572	1220	22
3	238	446	8
4	570	748	14
5	446	794	14
6	418	782	14
7	674	1625	29
8	311	790	14
9	625	836	15

10	246	553	10
11	299	752	14
12	237	610	11
13	372	622	11
14	543	873	16
15	242	654	12
16	208	298	5
17	308	444	8
18	230	371	7
19	480	1560	28
20	440	637	12
21	503	819	15
22	593	1527	28
23	521	1320	24
24	453	670	12
25	732	1015	18
26	381	634	12
27	1062	1553	28
28	490	954	17
Total	13022	24800	450

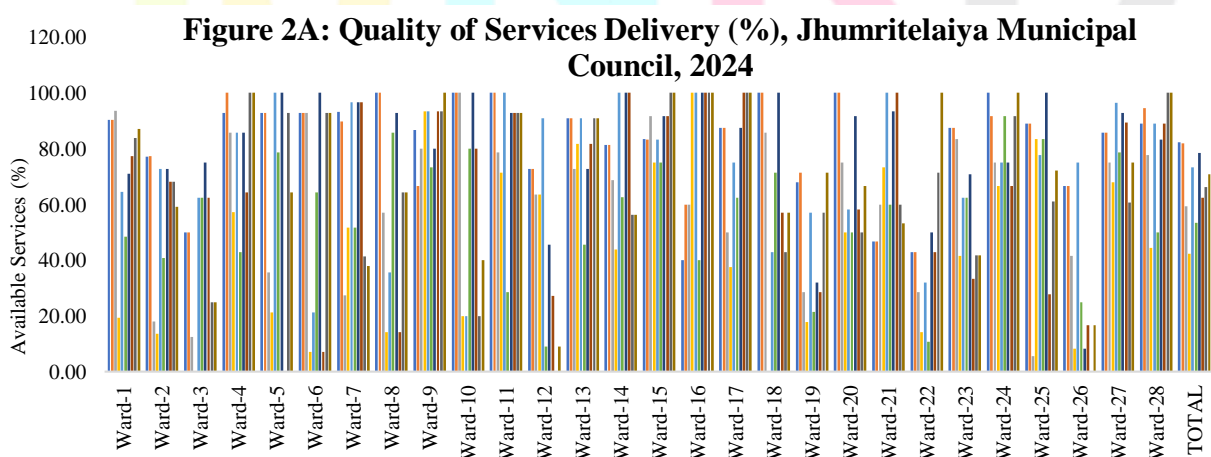
Source: Jhumritelaiya Municipal Council (JMC), Government of Jharkhand, 2024

A cross-tabulation method has been employed to calculate the outcomes for analysis. A cross-tabulation is often used to record and analyse the relationships among two or more categorical variables. Additionally, cartographic techniques like bar graphs and maps produced with GIS have been employed to depict the ward/zonal distribution of service access in JMC of Jharkhand.

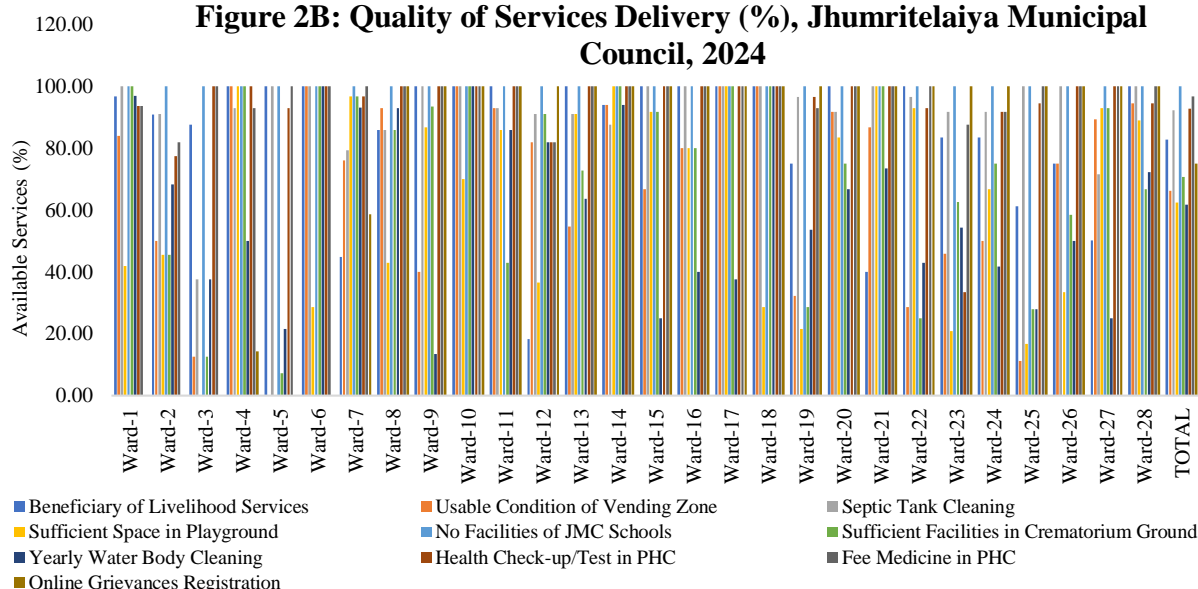
### 3. Results and Findings

#### 3.1 Quality of Services Delivery

Figures 3A and 3B illustrate the distribution of the quality-of-service delivery offered by JMC throughout the wards in the study region. The figure confirms that JMC offers a range of municipal services and facilities throughout the 28 wards in the study area. The municipal services and facilities offered by JMC in the study area include the good quality of supplied water in terms of taste and smell, waste collection once or twice a week, road and gali cleaning once or twice a week, covered drainage, quarterly or semi-annual anti-larva spray, fogging or bleaching spray, accessible community and public toilets, benefits from housing, toilet, and livelihood schemes, usable vending zones, septic tank maintenance, adequate playground space, lack of JMC schools, sufficient crematorium facilities, annual water body cleaning, health check-ups/tests and free medicine in PHCs, online grievance registration services, and many other quality services.



Source: Computed from Primary Data of JMC Household Survey, 2024

**Figure 2B: Quality of Services Delivery (%), Jhumritelaiya Municipal Council, 2024**

Source: Computed from Primary Data of JMC Household Survey, 2024

Furthermore, the data indicates that over 30% to 97% of households in each ward have been verified as utilizing each of these quality municipal service deliveries, with a few exceptions in the research area. Nevertheless, a minor or considerable percentage of the households have rejected the quality of municipal service provision (Figure 3A & 3B). The geographical spread of the quality of municipal service delivery shows that certain quality services, such as the pleasant taste and smell of supplied water, free medicine and health check-ups/tests in PHC, septic tank cleaning, participants in livelihood schemes, functional community toilets, and online grievance registration services, are benefiting over 75% of households in each ward throughout the study region. Conversely, the provision of quality services for beneficiaries of toilet and housing schemes, adequate facilities at crematorium grounds, functional vending zones and public toilets, ample playground space, annual water body cleaning, collection of domestic waste once or twice a week, quarterly or biannual anti-larvae spraying or fogging or bleaching treatment, and one or two road/galis cleanings per week has been documented for 40-75% of households in each ward, with some exceptions.

Comprehensively, the performance of wards receiving quality municipal services has been noted as excellent in Ward-10, Ward-14, Ward-1, Ward-18, Ward-6, Ward-7, and Ward-4. In contrast, Ward-5, Ward-25, Ward-3, Ward-19, and Ward-22 have shown inadequate performance in providing quality municipal service delivery in the study area (Table 3A & 3B). Consequently, it indicates that a spatial imbalance exists in the distribution of municipal service delivery quality throughout the wards in the study area. Nonetheless, a significant majority of households are benefiting from quality municipal service delivery, although a small percentage of households have been denied quality service in the study area.

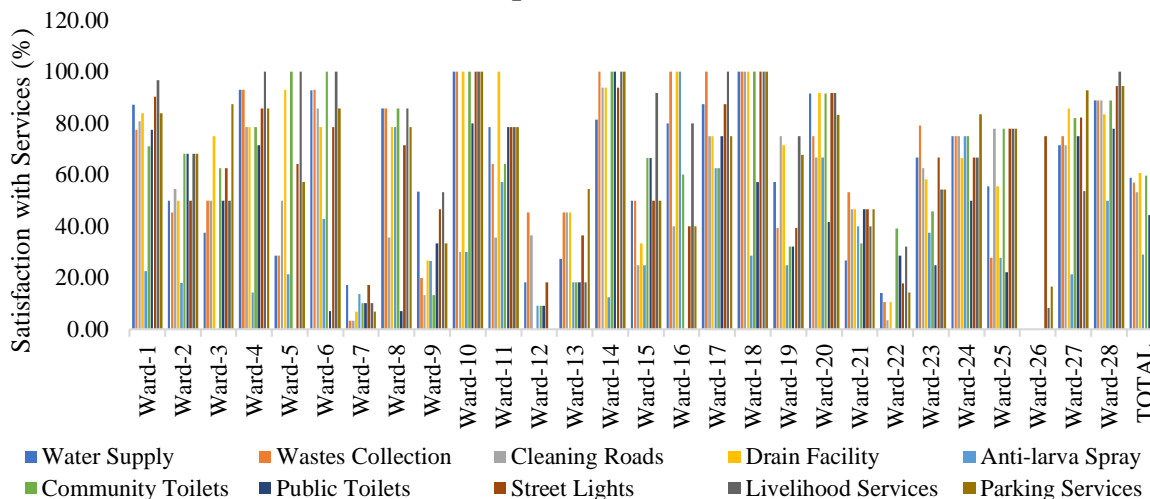
### 3.2 Satisfaction with Available Municipal Services

Figure 3A and 3B show distribution of households satisfied from the available municipal services provided by JMC across the wards in the study area. Figure authenticates that JMC has provided various municipal services and facilities across the 28 wards in the study area. The municipal services and facilities including water supply, domestic wastes collection, cleaning roads/galis, drain facility, anti-larva spray or fogging or bleaching spray, community toilet, public toilet, street light, livelihood service, parking service, vending zone service, septic tank cleaning, playground facility, park facility, crematorium service, slaughter/tanneries, house plan approval, birth/death/marriage registration, health facilities and grievances redressal and other services have been provided by JMC across the wards of the study area. Moreover, the figure reveals that the more than 30% to 70% of the households from each of the ward have been confirmed that the households are satisfied from available each of these municipal services in the study area. Nevertheless, a significant proportion of the households have been recorded dissatisfied from available each of these municipal services (Figure 3A & 3B).

The spatial distribution of households' satisfaction from the available municipal services provided by JMC specifies that the services septic tank cleaning, health facilities, livelihood service, grievances redressal service, parking service, crematorium /burial crematorium ground service, street light service, drain facility, community toilets, water supply, domestic wastes collection, cleaning roads/galis, vending zone and playground services

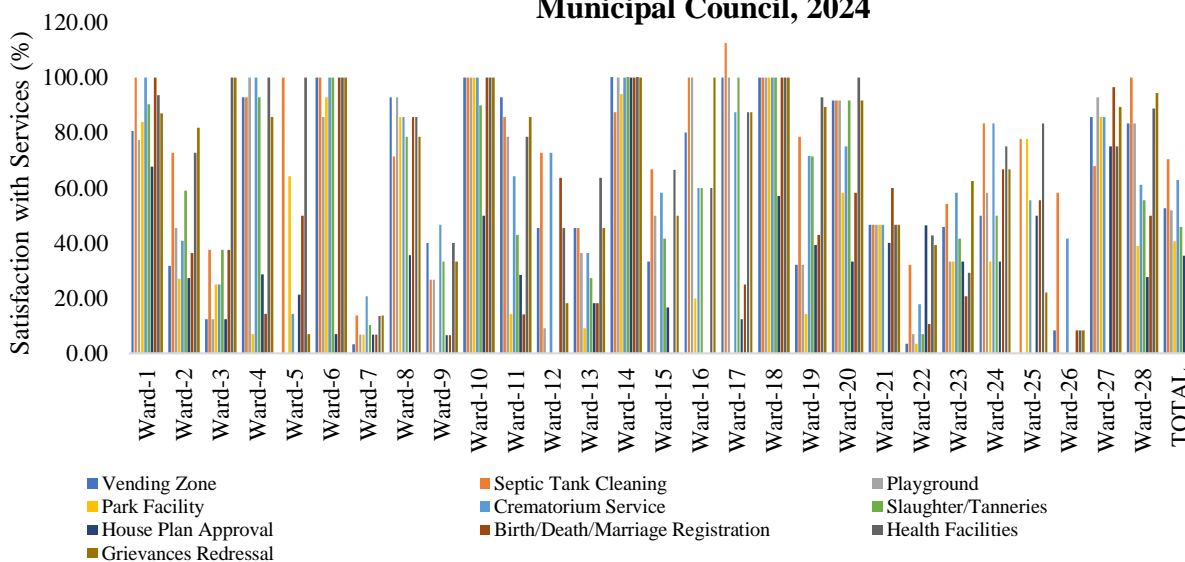
are available to the 50-70% of the households in each of the ward across the study area. Contrariwise, anti-larva spray or fogging or bleaching spray service, house plan approval service, park facility, public toilet service, slaughter/tanneries service and birth/death/marriage registration services have been recorded 30-50% of the households in each of the ward across the study area.

**Figure 3A: Satisfaction from Available Services (%), Jhumritelaiya Municipal Council, 2024**



Source: Computed from Primary Data of JMC Household Survey, 2024

**Figure 3B: Satisfaction from Available Services (%), Jhumritelaiya Municipal Council, 2024**



Source: Computed from Primary Data of JMC Household Survey, 2024

Lucidly, performance of wards’ households’ satisfaction from available municipal services have been recorded excellent in the Ward-17, Ward-16, Ward-4, Ward-8, Ward-6, Ward-10, Ward-18 and Ward-20. Contrarywise, the Ward-5, Ward-25, Ward-3, Ward-22, Ward-26 and Ward-7 have recorded poor performance of households’ satisfaction from available municipal services in the study area (Table 3A & 3B). Therefore, it is reveals that a spatial disparity exits in distribution of households’ satisfaction from the available municipal services across the wards in the study area. However, a majority of the households are availing quality of municipal service delivery; even though a significant proportion of the household have been recorded dissatisfaction from the available municipal services in the study area.

### 3.2 Identification of aspects for Levying taxes/ User charges

The spatial aspect of the quality municipal services indicates a disparity across the wards that show performance of wards in availing quality municipal services delivery are unequal across the ward. As per analysis for Figure 2 A and 2B, the performance of some of the wards i.e. Ward-10, Ward-14, Ward-1, Ward-18, Ward-6, Ward-7, and Ward-4 receiving excellent quality municipal services that indicates in these wards new taxes or user charges can be introduced or it can be increased the rates of taxes or user charges. However, the Ward-5, Ward-25, Ward-3, Ward-19, and Ward-22 has recorded poor performance in receiving quality municipal services (Figure 2 A and 2B). Therefore, the available municipal services in these wards need to improve and upgrade the quality-of-service delivery for fulfilling the needs of residents.

The quality-of-service delivery aspect of the municipal services indicates differential level of quality of services. The service delivery of pleasant taste and smell of supplied water, free medicine and health check-ups/tests in PHC, septic tank cleaning, participants in livelihood schemes, functional community toilets, and online grievance registration services are excellent quality-of-service delivery (Table 2 A and 2B). Thus, there can be increased the rate of taxes or user charges or can be levied new taxes or user charges on innovative undegraded on these services. On the other hand, the quality-of-service delivery of toilet and housing schemes, adequate facilities at crematorium grounds, functional vending zones and public toilets, ample playground space, annual water body cleaning, collection of domestic waste once or twice a week, quarterly or biannual anti-larvae spraying or fogging or bleaching treatment, and one or two road/galis cleanings per week shows poor quality-of-service delivery (Table 2 A and 2B). Therefore, these municipal services must be improved and upgraded to fulfil the expectations of the residents.

The spatial aspect of the satisfaction from available municipal services specifies an inequality across the wards that indicates towards locational variations of performance of the wards' satisfaction from available services across the study area. The analytical discussion for satisfaction from available services reveals that the performance of the Ward-17, Ward-16, Ward-4, Ward-8, Ward-6, Ward-10, Ward-18 and Ward-20 have exceptional satisfaction from available services. Therefore, the rate of taxes or user charges can be increased or a new taxes or user charges can be introduced in these wards. Conversely, the Ward-5, Ward-25, Ward-3, Ward-22, Ward-26 and Ward-7 have recorded poor performance of satisfaction from available municipal services. Accordingly, the available municipal services in these wards need to improve and innovate that can satisfy the residents expectations from these services (Figure 2 A and 2B).

The satisfaction aspects of quality services indicate differential level of quality of services delivery in the JMC area. The quality service delivery of septic tank cleaning, health facilities, livelihood service, grievances redressal service, parking service, crematorium /burial crematorium ground service, street light service, drain facility, community toilets, water supply, domestic wastes collection, cleaning roads/galis, vending zone and playground services have been recorded higher satisfaction (Table 2 A and 2B). Therefore, there can be increased the rate of taxes or user charges or can be levied new taxes or user charges for innovation and upgradation on these services. Alternatively, the anti-larva spray or fogging or bleaching spray service, house plan approval service, park facility, public toilet service, slaughter/tanneries service and birth/death/marriage registration services have been recorded poor performance of quality service delivery (Table 2 A and 2B). Therefore, these municipal services must be enhanced and improved for satisfying the expectations of the citizens in the study area.

## 4. Discussion

The available municipal service quality delivery and its satisfaction to the residents of the JMC revealed that most essential services for daily life are available to the citizens. Majority of services including pleasing taste and smell of supplied water, free medicine and health check-ups/tests in PHC, septic tank cleaning, participants in livelihood schemes, functional community toilets, and online grievance registration services have been recorded better quality service delivery. However, the beneficiaries of toilet and housing schemes, adequate facilities at crematorium grounds, functional vending zones and public toilets, ample playground space, annual water body cleaning, collection of domestic waste once or twice a week, quarterly or biannual anti-larvae spraying or fogging or bleaching treatment, and one or two road/galis cleanings per week has been recorded poor quality service delivery the residents (Table 2A and 2B). Nonetheless, a considerable portion of the households has reported inadequate quality of services in the study area. Additionally, a small number of respondents were found to be unaware of certain services that are free, such as anti-larva spraying, or those that are not available, like school facilities. In contrast, certain services like vending zone services, house plan

approval, and septic tank services suffer from poor quality and are characterized by the lack of essential facilities/infrastructure and the absence of maintenance (Gupta & Joshi, 2023). The service delivery process indicated that most of the service delivery procedures are time-sensitive in offering solutions for issues within the delivery processes. Most essential services are being delivered promptly and solutions are offered within the designated timeframes. Nonetheless, several inconsistencies have been noted in providing services like house plan approval, livelihood services, housing schemes, and service maintenance (Pandey, 2012; De, 2023). The satisfaction from available service quality and services delivery process has been measured at the Likert scale's level of satisfactions. The satisfaction from the provided service quality and services delivery shows that a large majority of the respondents are satisfied with the quality delivery across the wards of the study area. On the other hand, a major section of the respondents has been recorded 'dissatisfaction' or 'neither satisfied nor dissatisfied' with the quality delivery of services to the residents (Table 3A and 3B). This indicates that either they are unaware or dissatisfied or annoyed with the quality of the services. However, a significant proportion of the respondents have registered satisfied experiences with service quality delivery (Nathan, 2011)

## 5. Conclusions

The examination of service quality delivery and satisfaction from the offered services indicates that most households are pleased with the quality of service delivered in the study area. A considerable percentage of the residents are either unhappy or uninformed about the quality of services offered. Nevertheless, a portion of the residents is open to enhancements and advancements in the services and their standards. Investigating alternative methods for imposing taxes in the Jhumritelaiya Municipal Council (JMC) is vital for boosting revenue collection and promoting sustainable urban growth. Our analysis indicates that various potential taxation areas may be explored, such as reforms in property taxes, fees for commercial licensing, environmental charges, and taxes on digital services. Establishing a well-organized and fair taxation system will necessitate openness, involvement of stakeholders, and effective management to reduce opposition and enhance adherence. Moreover, utilizing technology for tax collection and oversight can enhance efficiency and minimize losses. Ultimately, broadening the tax base in an equitable and organized way will allow JMC to enhance public services, infrastructure, and general governance, resulting in a more self-reliant and progressive municipality.

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**Table 2A: Quality of Service Delivery (%) in the Jhumritelaiya Municipal Council (JMC), 2024**

Ward No.	Normal Taste of Water	Normal Smell of Water	1/2 Times Wastes Collection in Week	1/2 Times Cleaning Roads in Week	Covered Drain	Quarterly/Half Yearly Anti-larva Spray	Usable Community Toilets	Usable Public Toilets	Beneficiary of Housing Scheme	Beneficiary of Toilet Scheme
Ward-1	90.40	90.30	93.50	19.40	64.50	48.40	71.00	77.40	83.90	87.10
Ward-2	77.20	77.30	18.10	13.60	72.70	40.90	72.70	68.20	68.20	59.10
Ward-3	50.00	50.00	12.50	0.00	62.50	62.50	75.00	62.50	25.00	25.00
Ward-4	92.80	100.00	85.70	57.20	85.70	42.90	85.70	64.30	100.00	100.00
Ward-5	92.80	92.90	35.70	21.40	100.00	78.60	100.00	0.00	92.90	64.30
Ward-6	92.80	92.80	92.90	7.10	21.40	64.30	100.00	7.10	92.90	92.90
Ward-7	93.10	89.70	27.50	51.70	96.60	51.70	96.60	96.60	41.40	37.90
Ward-8	100.00	100.00	57.10	14.20	35.70	85.70	92.90	14.30	64.30	64.30
Ward-9	86.60	66.60	80.00	93.30	93.30	73.30	80.00	93.30	93.30	100.00
Ward-10	100.00	100.00	100.00	20.00	20.00	80.00	100.00	80.00	20.00	40.00
Ward-11	100.00	100.00	78.60	71.40	100.00	28.50	92.90	92.90	92.90	92.90
Ward-12	72.70	72.70	63.60	63.60	90.90	9.10	45.50	27.30	0.00	9.10
Ward-13	90.90	90.90	72.70	81.80	90.90	45.50	72.70	81.80	90.90	90.90
Ward-14	81.30	81.30	68.80	43.80	100.00	62.60	100.00	100.00	56.30	56.30
Ward-15	83.40	83.30	91.70	75.00	83.30	75.00	91.70	91.70	100.00	100.00
Ward-16	40.00	60.00	60.00	100.00	100.00	40.00	100.00	100.00	100.00	100.00
Ward-17	87.50	87.50	50.00	37.50	75.00	62.50	87.50	100.00	100.00	100.00
Ward-18	100.00	100.00	85.70	0.00	42.90	71.40	100.00	57.10	42.90	57.10
Ward-19	67.90	71.40	28.60	17.90	57.10	21.50	32.10	28.60	57.10	71.40
Ward-20	100.00	100.00	75.00	50.00	58.30	50.00	91.70	58.30	50.00	66.70
Ward-21	46.70	46.70	60.00	73.30	100.00	60.00	93.30	100.00	60.00	53.30
Ward-22	42.90	42.90	28.60	14.30	32.10	10.70	50.00	42.90	71.40	100.00
Ward-23	87.50	87.50	83.40	41.60	62.50	62.50	70.80	33.30	41.70	41.70
Ward-24	100.00	91.60	75.00	66.60	75.00	91.60	75.00	66.70	91.70	100.00
Ward-25	88.90	88.90	5.60	83.40	77.80	83.40	100.00	27.80	61.10	72.20
Ward-26	66.70	66.70	41.60	8.30	75.00	25.00	8.30	16.70	0.00	16.70
Ward-27	85.70	85.70	75.00	67.90	96.40	78.60	92.90	89.30	60.70	75.00
Ward-28	88.90	94.50	77.80	44.40	88.90	50.00	83.30	88.90	100.00	100.00
TOTAL	82.20	82.00	59.40	42.40	73.30	53.50	78.40	62.40	66.20	70.90

Source: Computed from Primary Data of JMC Household Survey, 2024

**Table 2B: Quality of Service Delivery (%) in the Jhumritelaiya Municipal Council (JMC), 2024**

Ward No.	Benefited with Livelihood Services	Usable Vending Zone	Septic Tank Cleaning	Sufficient Playground Space	No Facilities in JMC Schools	Sufficient Crematorium Facilities	Yearly Water Body Cleaning	Health Check-up in PHC	Fee Medicine in PHC	Online Grievances
Ward-1	96.70	83.90	100.00	41.90	100.00	100.00	96.80	93.50	93.50	0.00
Ward-2	90.80	50.00	90.90	45.50	100.00	45.50	68.20	77.30	81.80	0.00
Ward-3	87.50	12.50	37.50	0.00	100.00	12.50	37.50	100.00	100.00	0.00
Ward-4	100.00	99.90	92.90	100.00	100.00	100.00	50.00	100.00	92.90	14.30
Ward-5	100.00	0.00	100.00	0.00	100.00	7.10	21.40	92.90	100.00	0.00
Ward-6	100.00	100.00	100.00	28.60	100.00	100.00	100.00	100.00	100.00	0.00
Ward-7	44.80	75.90	79.30	96.60	100.00	96.60	93.10	96.60	100.00	58.60
Ward-8	85.70	92.80	85.70	42.90	100.00	85.70	92.90	100.00	100.00	100.00
Ward-9	100.00	40.00	100.00	86.70	100.00	93.30	13.30	100.00	100.00	100.00
Ward-10	100.00	100.00	100.00	70.00	100.00	100.00	100.00	100.00	100.00	100.00
Ward-11	100.00	92.90	92.90	85.70	100.00	42.90	85.70	100.00	100.00	100.00
Ward-12	18.20	81.80	90.90	36.40	100.00	90.90	81.80	81.80	81.80	100.00
Ward-13	100.00	54.50	90.90	90.90	100.00	72.70	63.60	100.00	100.00	100.00
Ward-14	93.80	93.80	87.50	100.00	100.00	100.00	93.80	100.00	100.00	100.00
Ward-15	100.00	66.60	100.00	91.70	100.00	91.70	25.00	100.00	100.00	100.00
Ward-16	100.00	80.00	100.00	80.00	100.00	80.00	40.00	100.00	100.00	100.00
Ward-17	100.00	100.00	100.00	100.00	100.00	100.00	37.50	100.00	100.00	100.00
Ward-18	100.00	100.00	100.00	28.60	100.00	100.00	100.00	100.00	100.00	100.00
Ward-19	75.00	32.10	96.40	21.40	100.00	28.60	53.60	96.40	92.90	100.00
Ward-20	100.00	91.60	91.70	83.30	100.00	75.00	66.70	100.00	100.00	100.00
Ward-21	40.00	86.70	100.00	100.00	100.00	100.00	73.30	100.00	100.00	100.00
Ward-22	100.00	28.60	96.40	92.90	100.00	25.00	42.90	92.90	100.00	100.00
Ward-23	83.40	45.80	91.70	20.80	100.00	62.50	54.20	33.30	87.50	100.00
Ward-24	83.30	50.00	91.70	66.70	100.00	75.00	41.70	91.70	91.70	100.00
Ward-25	61.10	11.10	100.00	16.70	100.00	27.80	27.80	94.40	100.00	100.00
Ward-26	75.00	75.00	100.00	33.30	100.00	58.30	50.00	100.00	100.00	100.00
Ward-27	50.10	89.30	71.40	92.90	100.00	92.90	25.00	100.00	100.00	100.00
Ward-28	100.00	94.40	100.00	88.90	100.00	66.70	72.20	94.40	100.00	100.00
TOTAL	82.70	66.20	92.20	62.40	100.00	70.70	61.60	92.70	96.70	74.90

Source: Computed from Primary Data of JMC Household Survey, 2024

**Table 3A: Satisfaction from Available Services (%) in the Jhumritelaiya Municipal Council (JMC), 2024**

Ward No.	Water Supply	Wastes Collection	Cleaning Roads	Drain Facility	Anti-larva Spray	Community Toilets	Public Toilets	Street Lights	Livelihood Services	Parking Services
Ward-1	87.10	77.40	80.70	83.90	22.60	71.00	77.40	90.30	96.80	83.90
Ward-2	50.00	45.40	54.60	50.00	18.10	68.20	68.20	50.00	68.20	68.20
Ward-3	37.50	50.00	50.00	75.00	0.00	62.50	50.00	62.50	50.00	87.50
Ward-4	92.90	92.90	78.50	78.60	14.30	78.60	71.40	85.70	100.00	85.70
Ward-5	28.60	28.60	50.00	92.90	21.40	100.00	0.00	64.30	100.00	57.10
Ward-6	92.80	92.90	85.70	78.60	42.90	100.00	7.10	78.60	100.00	85.70
Ward-7	17.20	3.40	3.40	6.90	13.80	10.30	10.30	17.20	10.30	6.90
Ward-8	85.70	85.70	35.70	78.60	78.60	85.70	7.10	71.40	85.70	78.60
Ward-9	53.40	20.00	13.40	26.70	26.60	13.40	33.30	46.70	53.30	33.40
Ward-10	100.00	100.00	30.00	100.00	30.00	100.00	80.00	100.00	100.00	100.00
Ward-11	78.60	64.30	35.70	100.00	57.10	64.20	78.60	78.60	78.60	78.60
Ward-12	18.20	45.50	36.40	0.00	9.10	9.10	9.10	18.20	0.00	0.00
Ward-13	27.30	45.50	45.50	45.50	18.20	18.20	18.20	36.40	18.20	54.60
Ward-14	81.30	100.00	93.80	93.80	12.50	100.10	100.00	93.80	100.10	100.10
Ward-15	50.00	50.00	25.00	33.30	25.00	66.60	66.60	50.00	91.70	50.00
Ward-16	80.00	100.00	40.00	100.00	100.00	60.00	0.00	40.00	80.00	40.00
Ward-17	87.50	100.00	75.00	75.00	62.50	62.50	75.00	87.50	100.00	75.00
Ward-18	100.00	100.00	100.00	100.00	28.60	100.00	57.10	100.00	100.00	100.00
Ward-19	57.20	39.30	75.00	71.40	25.00	32.20	32.20	39.30	75.00	67.80
Ward-20	91.60	75.00	66.70	91.70	66.70	91.60	41.60	91.70	91.70	83.30
Ward-21	26.70	53.30	46.70	46.70	40.00	33.30	46.70	46.70	40.00	46.70
Ward-22	14.20	10.70	3.60	10.70	0.00	39.20	28.60	17.80	32.10	14.30
Ward-23	66.70	79.20	62.50	58.30	37.50	45.80	25.00	66.70	54.20	54.20
Ward-24	75.00	75.00	75.00	66.60	75.00	75.00	50.00	66.70	66.70	83.40
Ward-25	55.60	27.80	77.80	55.60	27.80	77.80	22.20	77.80	77.80	77.80
Ward-26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00	8.30	16.70
Ward-27	71.40	75.00	71.40	85.70	21.40	82.10	75.00	82.20	53.60	92.80
Ward-28	88.90	88.90	88.90	83.40	50.00	88.90	77.80	94.40	100.00	94.40
TOTAL	58.80	56.90	53.30	60.70	29.10	59.60	44.30	62.90	66.40	63.20

Source: Computed from Primary Data of JMC Household Survey, 2024

**Table 3B: Satisfaction from Available Services (%) in the Jhumritelaiya Municipal Council (JMC), 2024**

Ward No.	Vending Zone	Septic Tank Cleaning	Playground	Park Facility	Crematorium Service	Slaughter/Tanneries	House Plan Approval	Birth/Death/Marriage Registration	Health Facilities	Grievances Redressal
Ward-1	80.60	100.00	77.40	83.90	100.00	90.30	67.70	100.00	93.60	87.10
Ward-2	31.80	72.70	45.50	27.20	40.90	59.10	27.30	36.40	72.80	81.80
Ward-3	12.50	37.50	12.50	25.00	25.00	37.50	12.50	37.50	100.00	100.00
Ward-4	92.80	92.90	100.00	7.10	100.00	92.90	28.60	14.30	100.00	85.70
Ward-5	0.00	100.00	0.00	64.30	14.30	0.00	21.40	50.00	100.00	7.10
Ward-6	100.00	100.00	85.70	92.90	100.00	100.00	7.10	100.00	100.00	100.00
Ward-7	3.40	13.80	6.90	6.90	20.70	10.30	6.90	6.80	13.70	13.80
Ward-8	92.80	71.40	92.90	85.70	85.70	78.60	35.70	85.70	85.70	78.60
Ward-9	40.00	26.70	26.70	0.00	46.60	33.30	6.70	6.70	40.00	33.30
Ward-10	100.00	100.00	100.00	100.00	100.00	90.00	50.00	100.00	100.00	100.00
Ward-11	92.90	85.70	78.50	14.30	64.30	42.90	28.50	14.20	78.60	85.70
Ward-12	45.50	72.70	9.10	0.00	72.70	0.00	0.00	63.60	45.50	18.20
Ward-13	45.50	45.50	36.40	9.10	36.40	27.30	18.20	18.20	63.60	45.50
Ward-14	100.10	87.50	100.00	93.90	100.00	100.10	100.00	100.00	100.10	100.00
Ward-15	33.30	66.70	50.00	0.00	58.30	41.70	16.70	0.00	66.60	50.00
Ward-16	80.00	100.00	100.00	20.00	60.00	60.00	0.00	0.00	60.00	100.00
Ward-17	100.00	112.50	100.00	0.00	87.50	100.00	12.50	25.00	87.50	87.50
Ward-18	100.00	100.00	100.00	100.00	100.00	100.00	57.10	100.00	100.00	100.00
Ward-19	32.10	78.50	32.10	14.30	71.50	71.40	39.30	42.90	92.80	89.30
Ward-20	91.60	91.70	91.70	58.30	75.00	91.70	33.30	58.30	100.00	91.70
Ward-21	46.70	46.70	46.70	46.70	46.70	0.00	40.00	60.00	46.70	46.70
Ward-22	3.60	32.10	7.10	3.60	17.90	7.10	46.40	10.70	42.80	39.30
Ward-23	45.80	54.20	33.30	33.30	58.30	41.70	33.30	20.80	29.20	62.50
Ward-24	50.00	83.40	58.30	33.30	83.30	50.00	33.30	66.70	75.00	66.70
Ward-25	0.00	77.80	0.00	77.80	55.60	0.00	50.00	55.60	83.30	22.20
Ward-26	8.30	58.30	0.00	0.00	41.70	0.00	0.00	8.30	8.30	8.30
Ward-27	85.70	67.90	92.90	85.70	85.70	0.00	75.00	96.40	75.00	89.30
Ward-28	83.30	100.00	83.40	38.90	61.10	55.60	27.80	50.00	88.80	94.40
TOTAL	52.60	70.50	51.80	40.60	62.90	45.80	35.40	48.20	70.40	65.30

Source: Computed from Primary Data of JMC Household Survey, 2024