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Urban Local Government and Environmental Management in Bangladesh: A Study on Chunarughat Paurashava

Mohammad Shahjahan Chowdhury and Purnendu Deb*

Abstract

Urban local government is a vital part for the delivery of services to people. Along with other responsibilities, urban local government in Bangladesh is also responsible for environmental management. This study aims to identify the role of Paurashavas (which are administrative units at every municipality composed of elected members) in protecting a healthy and clean environment. Examining Chunarughat Paurashava, the study finds that Paurashavas have an important role in environmental management such as garbage collection, waste disposal, sewerage construction, public park protection, and so on. However, the provision of these kinds of services is hindered by various lacks, like infrastructure, logistic support, trained manpower, and funds, as well as peoples' participation. The study makes various recommendations to overcome these problems.

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I. Introduction

The dread of environmental degradation has touched almost all conscious people all over the world. The problem has taken an acute form in developing countries such as Bangladesh. At the same time, rapid urbanization has led to the establishment of urban local government bodies. In Bangladesh, it has led to the establishment of Paurashavas (which are administrative units at every municipality composed of elected members) and City Corporations. Both are providing people living in their areas with local services besides having also some important environment-related functions.

Bangladesh's Paurashava Ordinance of 1977 assigns some duties to Paurashavas, including a) the removal, collection and disposal of refuse, wastes, rubbish, b) the plantation of trees on roadsides, c) the regulation of unsanitary buildings, d) the maintenance of drainage, parks, gardens and playgrounds, e) the establishment of public toilets, f) the disposal of carcasses, g) the supply of water and h) the maintenance of graveyards and cremation grounds (see Government of the People's Republic of Bangladesh (GoB), 1977). However, while performing these duties, a Paurashava faces various problems, including paucity of funds, poor and irregular collection of fees, dependence on governmental grants, a weak monitoring system, low accountability, and a lack of urban planning. All these result in poor delivery of its services, hampering the quality of civic amenities and causing harm to the environment.

The general objective of this study is to examine the role of Paurashavas in the field of environmental management. To this end, this study focuses on the following three specific objectives: a) to assess the present status of environment-related services delivered by the Paurashava authority; b) to find out the problems relating to environmental management; and c) to explore the capacity of Paurashava to provide the services effectively and efficiently.

This study was conducted in Chunarughat Paurashava, which is located in Chunarughat Upazila in the District of Habiganj, and stands on the bank of the river Khuai. It was established on October 10, 2005. With an area of 8.1 square kilometers, it consists of nine wards, 11 Moujas, and 16 Mahallas. It has a population of about 25,000, among whom 55 percent are literate. At present, there are one Upazila Health Complex, two private clinics, one health center of BRAC, and one family planning center.

Figure 1: Location of Chunarughat Upazila



Source: Wikipedia,

http://en.wikipedia.org/wiki/Chunarughat_Upazila.

Data was collected from mostly primary data, which was collected directly from the inhabitants of Chunarughat Paurashava and Paurashava authority through face-to-face structured interviews. Data was collected from 50 respondents, including four councilors, three official members of the Paurashava authority and forty-three other persons, which were selected by means of purposive

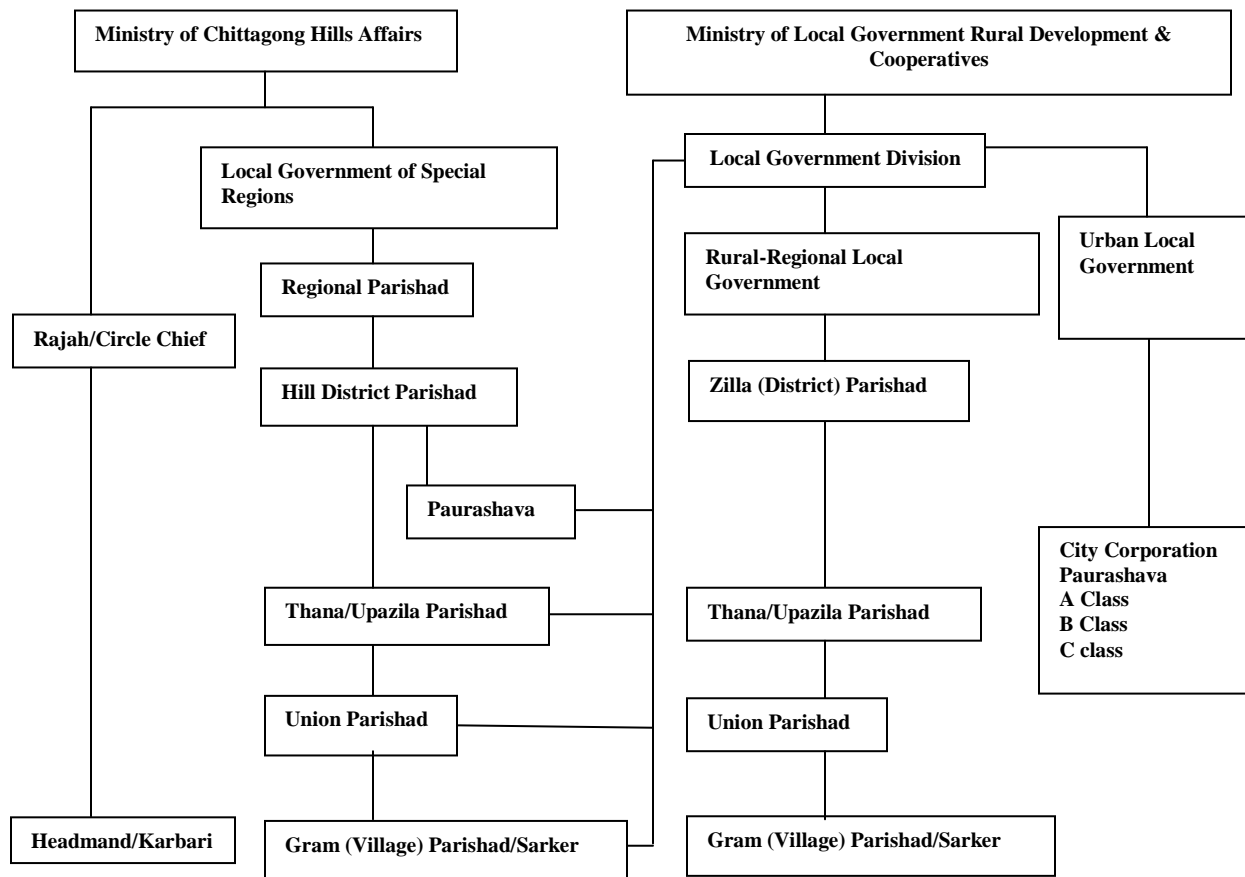
sampling from various wards. The 50 respondents belong to various age groups and have different genders, educational qualifications and professions. Please see Appendix 1 for details on age, gender, educational qualifications and professions of the 50 respondents.

This paper is structured as follows. The next section provides some background on the present system of urban local governance and Paurashava. The third section presents a review of the literature, while the fourth section presents the analytical framework. The main results are presented in fifth section before the last section provides conclusions and recommendations.

II. Present System of Urban Local Governance and Paurashava

Bangladesh has been experiencing a rapid urbanization and growth of social problems since its inception in 1971. Population growth as well as economic growth are leading factors to creating urban areas throughout the country, and therefore, the need for proper management of these urban areas is needed to be met by a body of elected members. Paurashava is such a body which ensures providing people with civic amenities through delivering some services mentioned in the Paurashava Ordinance of 1977. The present structure of Paurashavas and the functions that they perform have gone through a long period of evolution (detailed in Appendix 2).

Figure 2: Local Government System in Bangladesh



Source: <http://www.unescap.org/huset/lgstudy/newcountrypaper/Bangladesh/Bangladesh.pdf>.

With the power of imposing taxes, preparing budgets, maintaining funds and public order, and of preparing, acquiring and holding property, and implementing plans for public service and economic development (Articles 59 and 60 of the Constitution of the People's Republic of Bangladesh), it is the lowest tier of urban local governance. At present, the rural local government in Bangladesh has three tiers, while urban areas have a two-tier special set of local government excluding the Cantonment Board (Talukdar, 2009). Table 1 and Table 2, respectively, point out the present structures in rural and urban settings.

Table 1: Present Rural Local Government Structure in Bangladesh

Level	Unit	Name	Headed by	Election method	Revenue authority
Upper most tier (Rural/ Regional)	District	Zilla Parishad	Elected Chairman	Indirect election	Yes
Central point (Rural)	Thana	Upazila Parishad	Elected Chairman	Direct election	Yes
Lowest tier (Exclusively rural)	Union	Union Parishad	Elected Chairman	Direct election	Yes

Source: Talukdar (2009), p. 45

Table 2: Present Urban Local Government Structure in Bangladesh

Level/ Unit	Name	Headed by	Election method	Revenue authority
Mega City	City Corporation	Elected Mayor	Direct Election	Yes
Small City/ Town	<i>Paurashava</i> (Municipality)	Elected Mayor	Direct Election	Yes
Cantonment Area	Cantonment Board	Government Nominated Chairman	Not Applicable	No

Source: Talukdar (2009), p. 45

III. Literature Review

While there is a substantial literature on various aspects of local government in Bangladesh, there is no study examining the role of Paurashavas in the field of environmental management. However, the following eight studies (published within the last ten years) cover a variety of related issues and provide some useful background.

A report by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) (2005) has identified the lack of sufficient financial support and the lack of efficient human resources as the major causes which make the urban governments share common governance challenges such as managing growth or decline, reacting to spatial re-structuring, managing transport infrastructure, ensuring adequate housing and providing social services. Rapid and unplanned urbanization poses environmental hazards through immediate local impacts on health and safety. Moreover, poverty and slum areas are leading to open sewers, air pollution, illegal dumping of liquid wastes, poor drainage, contamination of water, poor quality of solid waste management etc. Besides, local self-governments are financially dependent on the central

government and therefore, they cannot make decisions locally and thereby environmental issues are affected.

Fox and Menon (2008), based on fiscal perspective, presented Bangladesh as a highly centralized state in which local self- government was less devolved and the local political structure changes in accordance with the change in central government. Moreover, fiscal transfer is done through the Annual Development Program (ADP), but only a small share of the ADP allocation reaches the local self-governments. Besides, complex and fluid structure, less accountability, problems in income and expenditure, limited access to revenue sources and weak monitoring system of quality service delivery have made the local self-governments in Bangladesh ineffective

Jahan et al. (2005) highlighted on national urban sector policy paper, urban sector policy issues, urban planning and on financial management of Paurashavas as all of these occupied an important part in the proper functioning of the Paurashavas in Bangladesh. Rapid urbanization needs effective urban local governance and proper delivery of civic services. But intensifying urbanization, a lack of proper urban planning, problems in financial management and institutional weakness always lead to poor quality of the civic services delivered by the Paurashavas in Bangladesh. As a result, environmental issues like solid waste management, dispose of refuses, land management, controlling pollution, urban poverty, town planning, public health and others are not focused properly and it creates problems in the municipalities. Effective urban governance is a must to solve those.

Fakier, Stephens, Tholin and Kapelus (2005) explained that environmental governance incorporated environmental management and urban governance and that responsible and accountable governance, regulations, participation through integrated mechanisms and structures, coordination, institutional duties for regulating environmental impacts and people's access to environmental information ensured good quality of environmental governance. Local governments have a key role to play in this regard. Decentralization and delegation of environmental management functions to urban local government bodies ensures service provision, implementation of environmental policies, plans and programs of central government.

Ahmad (2005) explained how the complex socio-economic environment of coastal urban areas like Chittagong, Khulna, Barisal, Jessore and other area had led to problems in urban services and infrastructure. Different types of pollution, threat to flora and fauna, degradation of ecosystem, lack of healthy sanitation, traffic congestion, lack of piped water supply, haphazard dwelling, salinity, land erosion, population growth, water logging, arsenic etc. are common in urban centers. To solve these problems governmental policies and effective roles of NGOs are very important.

Rahman and Hassan (2006) examine the poverty-environment nexus and how urban services, urban management, solid waste management, public-private community partnerships and others provide a healthy and livable environment. At the urban level, there are detrimental effects of industries on the environment, poor condition of drainage system, health problems in slum area, contamination of water, degrading soil quality, unhygienic condition, poor state of garbage disposal etc. Moreover, urbanization trends, how urbanization is affecting the environment, poor quality of urban services including water supply, sanitation, open space and parks, health services also occupy great importance. All these are caused by mismanagement of urban areas.

Siddiqui (2005) discusses local government institutions at both rural and urban level and these

are Union Parishad, Upazila Parishad, Zilla Parishad, City Corporation and Paurashava. The present structure of local government in Bangladesh went through a long period of evolution. In addition, changes were brought in these institutions after the independence of Bangladesh. The central government has heavy control over these institutions. These institutions have weakness in their management, and that is why they are not being able to render their services in a satisfactory way.

Ahmad (2002) has pointed out that with rapid growth of urbanization the structure of urban local self governments in Bangladesh has been changed, and since the very beginning, these institutions have been suffering from various problems. The functions of Paurashavas have been designed to ensure civic amenities and good management of municipalities. However, they cannot provide urban people with good quality of civic amenities. That is why all these services should be delivered properly in order to have a good management of urban areas in Bangladesh.

IV. Analytical Framework

Based on the literature review, an analytical framework has been developed including two key concepts: urban local governance and environmental management. In this analytical framework, illustrated graphically in Figure 3 on the next page, urban local governance is considered the independent variable whereas environmental management is the dependent variable.

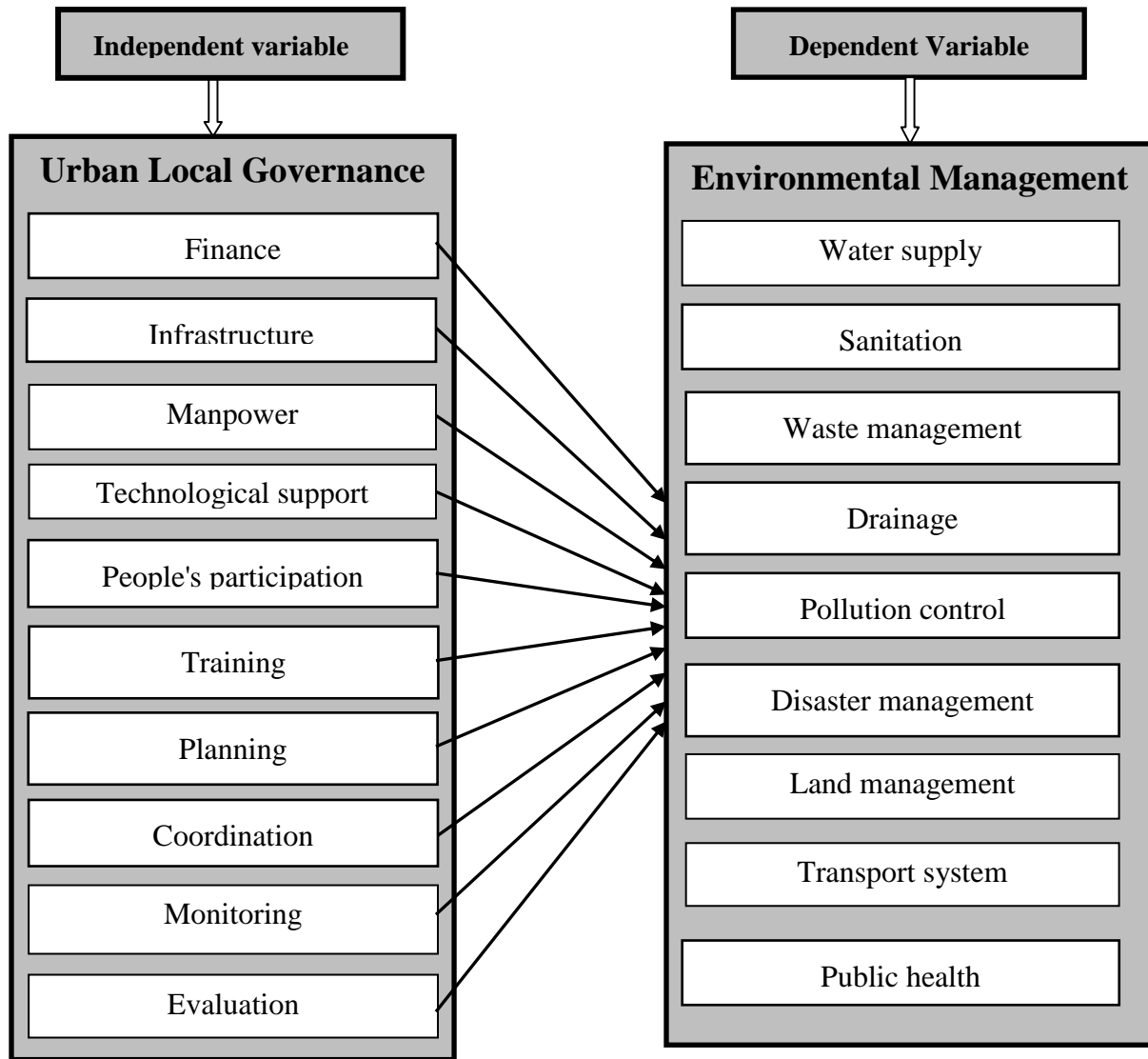
A proper functioning of urban local governance would ensure good quality of environmental management. Finance, infrastructural facilities, manpower, technological support, people's participation, training, planning and coordination are the main parts of urban local governance. On the other hand, proper provisions to ensure water supply, sanitation, waste management, drainage, controlling pollution, disaster management, land management, transport system and public health are vital to implement environmental management and thereby a healthy and livable environment at municipalities. Urban local governance is responsible for it. To this end, every Paurashava ensures its financial support through revenue grants, development grants, special allocation and revenue collection.

Infrastructural facilities for ensuring water supply, sanitation, drainage and disaster management and use of less expensive technological tools help the trained manpower of the Paurashavas to ensure the issues included in environmental management. In this case, having a plan and coordination among all the functions, supported by people's participation in decision making and in activities to keep the surrounding environment clean, pave the way for environmental management. If there is any problem in any component of urban local governance, it will hamper the quality of environmental management and thus will affect the surrounding environment posing threat to healthy life.

V. Results

The main results of this study are structured into six sub-sections: 1) the rating of critical environmental problems, 2) the level of satisfaction with the present status of the services, 3) the rating of the services provided by Paurashava in terms of severity of problems, 4) the respondents' opinions on urban local governance based on 17 specific questions, 5) the issues hampering the capability of the Paurashava, and 6) some results from the qualitative analysis. Appendix 3 provides the detailed tables with the data for the various graphs of this section.

Figure 3: Analytical Framework



Source: Authors' framework.

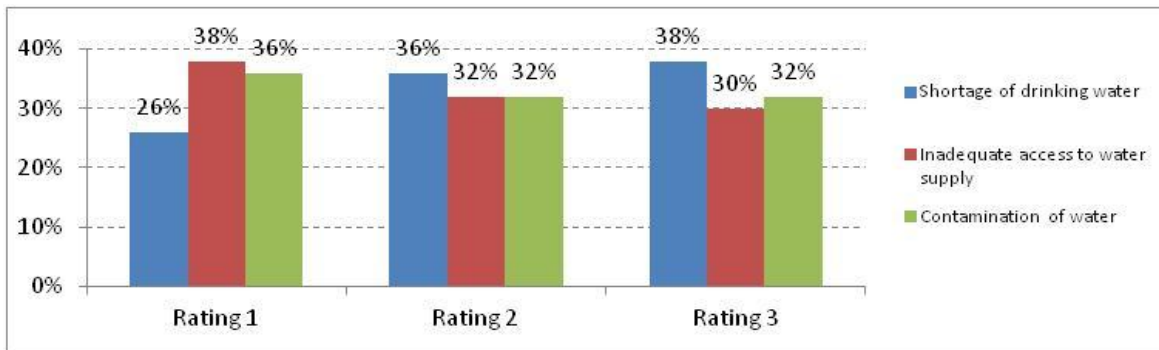
V.1. Rating of Critical Environmental Problems

We had asked each of the 50 respondents to provide their ratings of critical environmental problems with regards to various aspects of the following nine services: water supply, sanitation, waste management, drainage, pollution control, disaster management, land management, transport system, and public health. Depending on how many problems respondents had to rank within each of these nine services, the rating was from 1 to 2 (for services with two problems), from 1 to 3 (for services with three problems), or from 1 to 4 (for services with four problems). All the graphs in this section are based on field data collected by the authors.

V.1.a. Water supply

A Paurashava is responsible for providing or causing to be provided to the municipality a supply of wholesome water sufficient for private and public use. But it has been seen that mismanagement of this service leads to various problems such as shortage of drinking water, inadequate access to water supply and contamination of water. As Figure 4 shows, inadequate access to water supply is the most severe problem of the Paurashava (38 percent of the respondents rated it the top concern), followed by shortage of drinking water (36 percent of the respondents rated it second) and contamination of water (32 percent of the respondents rated it third).

Figure 4: Rating of Critical Environmental Problems in Water Supply



V.1.b. Sanitation

It is the duty of the Paurashava to ensure proper sanitation system in the municipality and to that end it makes adequate arrangements for public toilets, urinals and drains and for removing refuse from public toilets, urinals and drains. Besides, proper and healthy sanitation system is a must for a healthy and livable city. To serve the objectives of this study, interview of the respondents was made to make a rating of the problems suffered in sanitation system of the Paurashava. On the whole, respondents have reported that inadequate public toilets/urinals are the most critical problem in the municipality (46 percent), followed by poor maintenance of sanitation system (48 percent) and inadequate drainage or other facilities (42 percent) (see Figure 5).

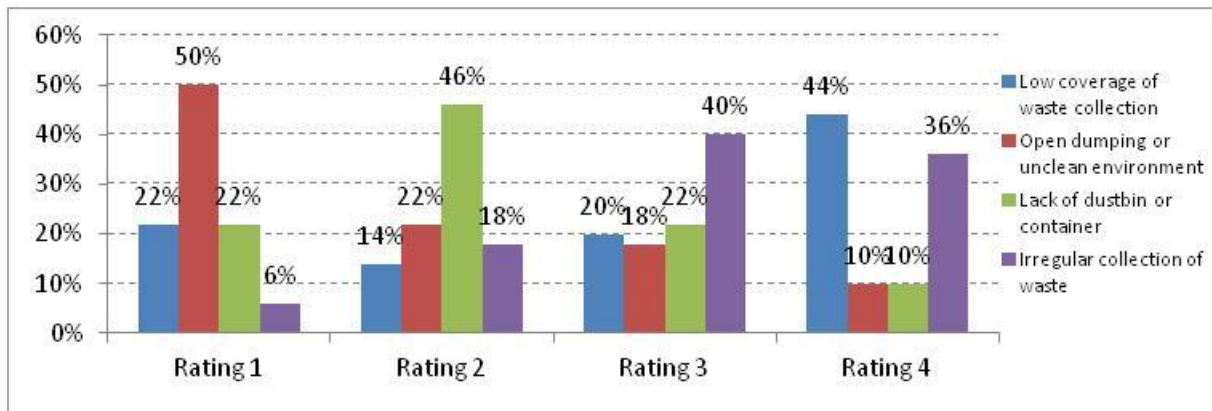
Figure 5: Rating of Critical Environmental Problems in Sanitation



V.1.c. Waste management

Regular collection and proper disposal of refuse and garbage is key to public health and control of environmental pollution in every Paurashava. But mismanagement of waste management causes some common problems like low coverage, open dumping, irregular collection of waste and lack of dustbins. The analysis of data reveals that, 50 percent of the respondents have identified open dumping of waste and unclean environment as the most critical problem in Chunarughat Paurashava, whereas lack of dustbin or containers has, as reported by 46 percent of the respondents, been regarded as moderate to most critical, followed by irregular collection of waste (40 percent) and low coverage of waste collection (44 percent) respectively (see Figure 6).

Figure 6: Rating of Critical Environmental Problems in Waste Management



V.1.d. Drainage

Every Paurashava is responsible for providing an adequate system of drains in the municipality and for constructing, maintaining, keeping and clearing the drains for safe public health situation. Making a rating of the problems and analysis of data show that 32 percent of the respondents have agreed that drains are clogged, and it is the most severe problem in drainage system. Poor maintenance of the drains has, as felt by 32 percent of the respondents, been reported as moderate to the most severe problem, which has been followed by water stagnation in different seasons of the (26 percent) and low coverage of drains (34 percent) (Figure 7).

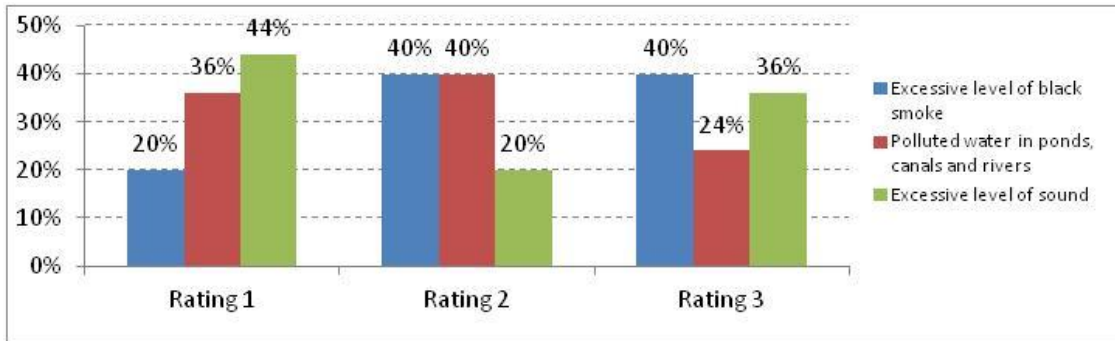
Figure 7: Rating of Critical Environmental Problems in Drainage



V.1.e. Pollution control

For the sake of public health, a Paurashava is responsible for taking measures to control pollution of environment, and for this purpose, it causes measures to be taken. Excessive level of sound has been cited as the most crucial problem by the majority of the respondents (44 percent), followed by polluted water in ponds, canals and rivers (40 percent) and excessive level of black smoke (40 percent) respectively (Figure 8).

Figure 8: Rating of Critical Environmental Problems in Pollution Control



V.1.f. Disaster management

Frequent flooding is the most common pattern of natural disaster in Bangladesh and a Paurashava is to rescue people from flood affected areas, to provide the flood-stricken people with relief for fighting of flood. Respondents were interviewed on these issues and majority of the respondents (70 percent) have identified the poor measures for fighting flood in the Paurashava as the most critical problem followed by poor relief service in the Paurashava (70 percent) (Figure 9).

Figure 9: Rating of Critical Environmental Problems in Disaster Management

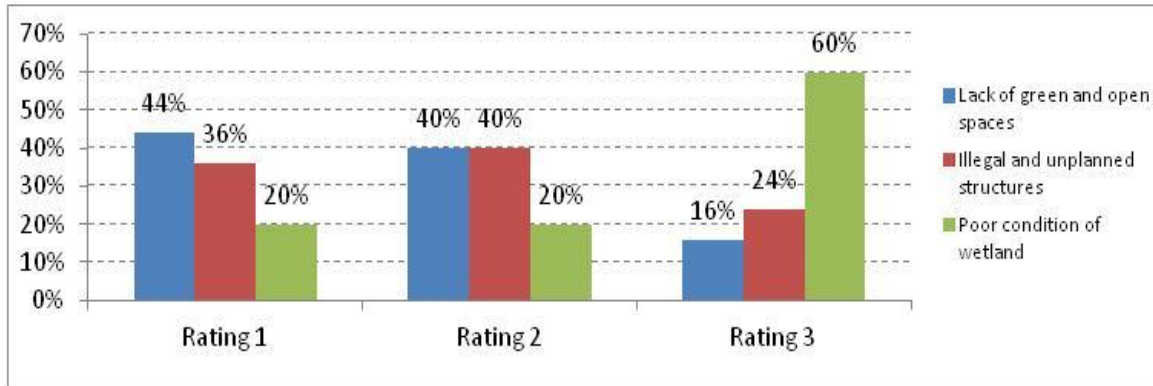


V.1.g. Land management

It is a duty of every Paurashava to approve of site and building plan for the erection and re-erection of a building and to prepare a town planning. Besides, it also ensures tree plantation, preserving forests, and providing and maintaining open spaces. Analysis of data depicts that 44 percent of the respondents have agreed that lack of green and open spaces is the most critical

problem, followed by illegal and unplanned structures (40 percent) and poor condition of wetland (60 percent) respectively (Figure 10).

Figure 10: Rating of Critical Environmental Problems in Land Management



V.1.h. Transport system

Every Paurashava makes arrangements for the control and regulation of traffic and public vehicles, providing and maintaining public streets and other means of public communication for the convenience of the people. But some common problems are always faced in this regard. Traffic congestion has been perceived to be the most severe problem by 40 percent of the respondents, followed by lack of paved access for pedestrians and vehicles (46 percent) and increased level of motorized-private transport (48 percent) (Figure 11).

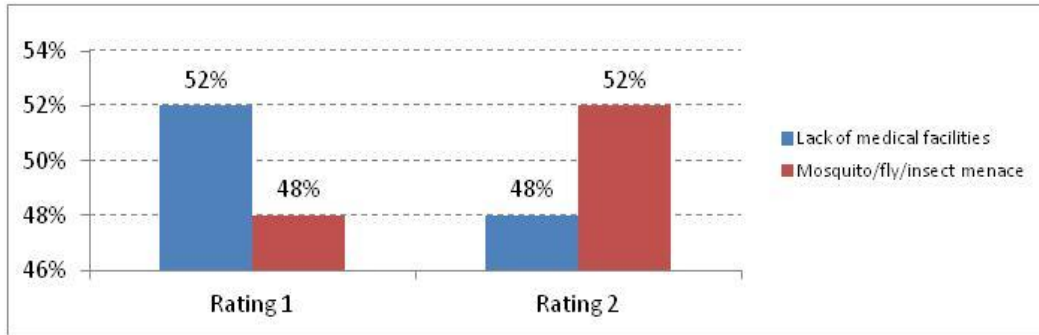
Figure 11: Rating of Critical Environmental Problems in Transport System



V.1.i. Public health

For the promotion of public health in the municipality, a Paurashava takes necessary measures for establishing, managing and maintaining health and maternity centers, hospitals and dispensaries. Weak management capacity always causes severe problems and worsens public health in the municipality. Analysis and presentation of data has found lack of medical facilities to be the most critical problem according to 52 percent of the respondents, followed by mosquito/fly/insect menace (52 percent) (Figure 12).

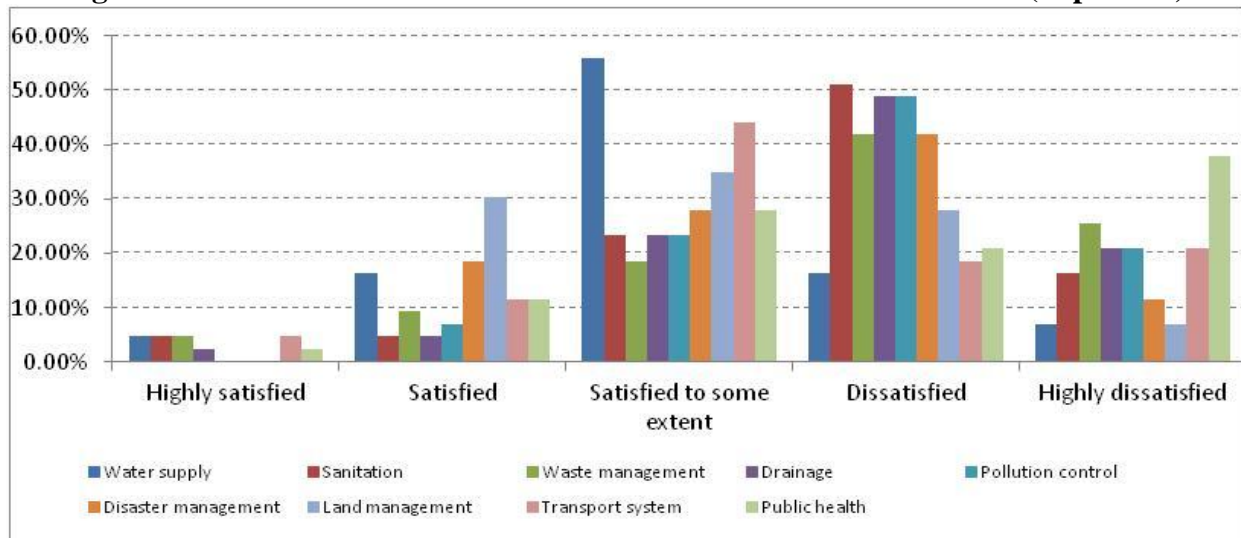
Figure 12: Rating of Critical Environmental Problems in Public Health



V.2. Level of Satisfaction with the Present Status of the Services

Quality service delivery is a must to ensure civic amenities in the municipality. As per the objectives of the study, it is important to know the level of satisfaction of people with the service, which can help to apprehend the quality of services delivered in the municipality. To that end 43 respondents, all of whom are unelected, non-official and inhabitants of the Paurashava, are interviewed. On the whole, respondents are satisfied to some extent with water supply (55.9 percent), land management (34.88 percent) and transport system (44.19 percent). Most of the respondents are dissatisfied with sanitation (51.16 percent), waste management (41.86 percent), drainage (48.83 percent), pollution control (48.83 percent) and with disaster management (41.86 percent). Furthermore, 37.21 percent of the respondents are highly dissatisfied with public health (Figure 13).

Figure 13: Level of Satisfaction with the Present Status of the Services (in percent)

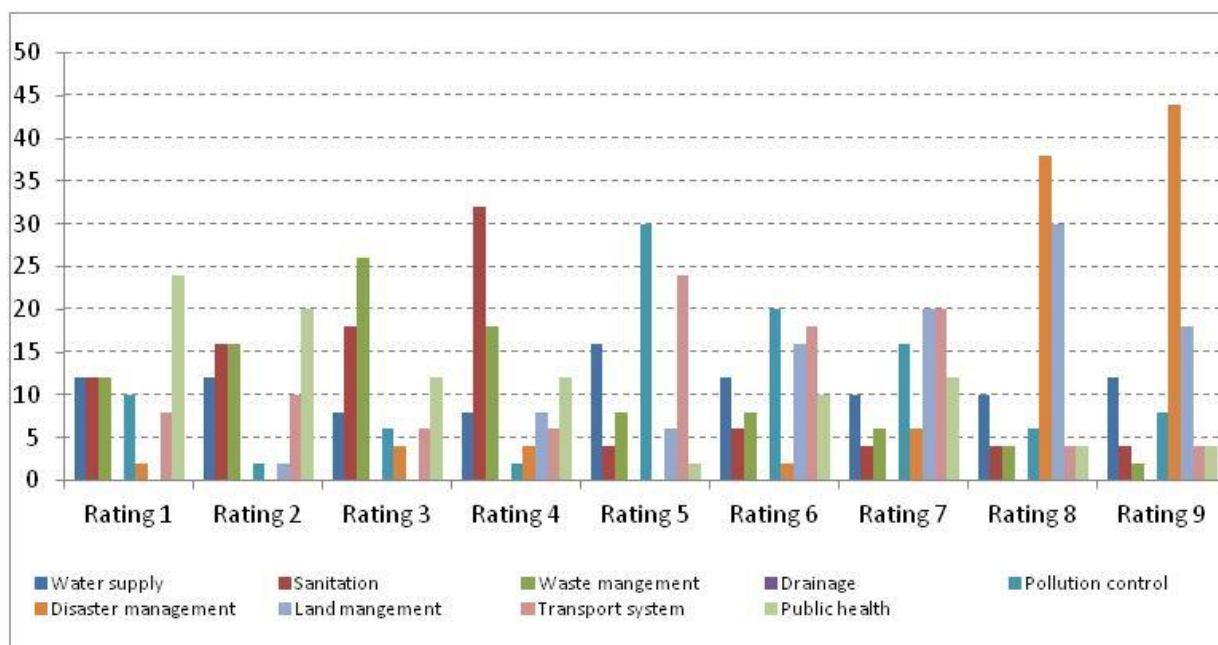


Source: Field data collected by authors.

V.3. Rating of the Services Provided by Paurashava in Terms of Severity of Problems

A Paurashava is a form of urban local self-government, responsible for providing civic amenities to the people of the municipal area. But with the rise of number of inhabitants living in municipal area, there has been a tremendous pressure on Paurashava authority to ensure minimum quality of the services. The already weak management capacity of Paurashava is not being able to put up with this severe pressure, which results in poor and inefficient service delivery. As a part of this study, services were ranked in terms of the severity of the problems faced in every service area. The analysis and presentation of data shows that 24 percent of the respondents have identified public health as the most problem oriented service in the Paurashava, followed by drainage system (22 percent), waste management (26 percent), sanitation (32 percent), pollution control (30 percent), transport system (18 percent), land management (20 percent), disaster management (38 percent) and water supply (12 percent) (Figure 14).

Figure 14: Rating of Services in Terms of Severity of Problems (in percent)



Source: Field data collected by authors.

V.4. Opinions on Urban Local Governance¹

Finance is the most important part of the total management of the Paurashava. Meager collection of tax, fees, rates and tolls as well as insufficient government grants result in weak management capacity and thereby in poor service delivery. Therefore, it is essential to know whether or not the Paurashava has financial crisis. To that end, data was collected from 7 members of the Paurashava, three of whom are official members and four are councilors. All the respondents

¹ The results in this section are based on the data presented in Appendix Table A3.d.

(100 percent) clearly opine that there is financial crisis in the Paurashava with no one (0 percent) answering negatively or being unwilling to answer.

Financial support is the most important part of the management of the Paurashava. When interviewed, 70 percent of the respondents think that lack of finance hampers quality of services such as water supply while 18 percent do not think so with 12 percent abstaining from answering.

Infrastructural facilities such as drains, dustbins, public toilets, urinals, tube wells, water tanks etc. are an indispensable part of quality service delivery. In this regard, 86 percent of the respondents think that there is infrastructural problem in the Paurashava, with 4 percent of the respondents being unwilling to answer, whereas only 10 percent thinks there is not any infrastructural problem in the Paurashava.

When asked, most of the respondents (88 percent) perceive that weak infrastructural facilities damage sanitation and drainage system while only 8 percent go against the statement. 4 percent of the respondents do not answer in this regard.

Having sufficient manpower is a must for ensuring effectiveness and efficiency in service delivery. When interviewed, 60 percent of the respondents remain agreed with the opinion that there is not sufficient manpower needed to collect and dispose refuse and garbage in the Paurashava, with only 14 percent being unwilling to answer, where as 26 percent opine that there is sufficient manpower.

Analysis of data shows that 78 percent of the respondents think that insufficient manpower hampers proper waste management whereas only 8 percent do not think so with 14 percent respondents being unwilling to answer.

Using technological instrument in collecting and disposing refuse and garbage can facilitate quality service delivery as well as a healthy environment. When asked, most of the respondents (68 percent) go with statement that Paurashava does not use any technological instrument in collecting and disposing refuse and garbage whereas 18 percent go against the statement with only 14 percent of the respondents abstaining from answering.

With the rise in the number of urban people, it is not so easy for a Paurashava to ensure proper waste management and to keep a clean environment in the municipality. Participation of people in these activities is, therefore, an integral part of waste management. The analysis of data reveals that 42 percent of the respondents participate in collecting and disposing refuse and garbage and in keeping the surroundings clean, while the same percent (42 percent) of the respondents do not participate. 16 percent of the respondents do not answer in this regard.

On the whole, 75 percent of the respondents opine that low level of people's participation worsens waste management whereas 26 percent opine that low level of people's participation does not worsen waste management with no one (0 percent) refraining from answering.

Manpower, including the staff of Paurashava, is an indispensable part of quality service delivery and providing them with proper training is a must. When interviewed, more than half of the respondents (58 percent) reply that Paurashava does not provide its manpower with any training, with a comparatively large proportion of the respondents abstaining from answering, while only a few (14 percent) think that Paurashava provides its manpower with training.

Proper planning brings in efficiency and effectiveness in service delivery as well as a healthy and livable environment. Analysis of data shows that 42 percent of the respondents express their consent with the statement that Paurashava does not follow or have any planning for proper delivery of services while a significantly large proportion of the respondents (32 percent) say that Paurashava follows or has planning. 26 percent of the respondents remain answerless in this regard.

Coordination among different services such as drainage system, waste management, sanitation and control of pollution enhance the capability of the Paurashava to provide the services effectively and efficiently. On the whole, 42 percent of the respondents perceive that there is no coordination among services while 34 percent think that there is coordination among services, with a large proportion (24 percent) of the respondents abstaining from answering.

An effective monitoring system helps to identify problems and, thereby, take measures to ensure quality in the services. 40 percent of the respondents report that there is no monitoring of the services delivered by the Paurashava with significantly large number of respondents (28 percent) being unwilling to answerless. Furthermore, 32 percent think that there is monitoring system in the Paurashava.

When interviewed about monitoring system of the Paurashava, 88 percent of the respondents report that weak monitoring system impedes pollution control while, 10 percent of the respondents do not report the same with only 2 percent respondents refraining from answering.

As stated before, evaluation of the services delivered facilitates identification of problems and quality service delivery. When interviewed, all of the 7 respondents (100 percent) opine that the Paurashava authority evaluates the services delivered while no one (0 percent) opines negatively and no one refrains from answering.

Effective evaluation process includes the opinions of the inhabitants of the municipal area as the Paurashava is responsible for provide them with civic amenities. Their opinion can help identify problem area and form strategies to be followed. On the whole, 70 percent of the respondents say that the Paurashava does not collect any information from them for the evaluation of the services whereas only 10 percent say that the Paurashava authority collects information from them in this regard. 20 percent of the respondents do not answer in this regard.

It is of utmost importance to know whether or not the Paurashava has the managerial capacity to deliver the services effectively and efficiently as there has been tremendous pressure on it due to rapid urbanization and increase in the number of urban people. As shown in table- 5.22, 46 percent of the respondents consider the Paurashava to be capable of delivering the services effectively and efficiently, whereas 54 percent consider it to be not capable of delivering the services effectively and efficiently.

V.5. Issues Hampering the Capability of the Paurashava²

As this study explores the capacity of Paurashava to provide the services effectively and efficiently, it is essential that some issues, which can strengthen the management capacity of a Paurashava, are diagnosed. All the respondents (100 percent) have identified lack of finance as the most critical factor, which has been followed by weak infrastructural facilities (42.9 percent),

² The results in this section are based on the data presented in Appendix Table A3.e.

lack of participation of people (28.6 percent), lack of technological support (42.9 percent), insufficient manpower (28.6 percent), evaluation of the services (28.6 percent), training of the manpower (28.6 percent), coordination among the services (57.1 percent), no monitoring of the services (42.9 percent) and no planning for the proper delivery of the services (28.6 percent) respectively.

V.6. Selected Results from the Qualitative Analysis

The final set of results are based on a qualitative analysis exploring the capacity of Chunarughat Paurashava, examining a variety of issues that are responsible for strengthening or weakening the Paurashava management capacity.

A first concern is the limited infrastructural facilities of Chunarughat Paurashava. With a total of 36.2 kilometers of drain (6.2 kilometers of which are Pakka and the remaining 30 kilometers are Kacha drain), 45 dustbins or containers, 1500 tube wells, and no provision for public toilets or urinals, this Paurashava has been delivering services for the last six years.

With the help of nineteen persons, including five sweepers, two waste management supervisors, the direct supervision of the Mayor, Councilors and other officials, this Paurashava has been operating its waste management, drainage and sanitation system. To this purpose, manpower directly involved in collecting and disposing refuse/garbage hardly use any modern technological tools except for a garbage truck, two rollers and a fogger machine (used for the purpose of reducing the mosquito/fly/insect menace). The Paurashava is mostly using indigenous tools like shabol, belcha, spade, van etc.

Participation of people in collecting and disposing refuse/garbage and in keeping their surroundings clean is a part of proper waste management. The Paurashava authority has complained about the non-cooperative attitude of people in this regard, yet it has been following some measures with a view to increasing people's participation. With regard to participation of people, there are two committees in the Paurashava: the Town Level Coordination Committee (TLCC) and the Ward Level Coordination Committee (WLCC). TLCC is a committee, comprising of 50 members including the Mayor and other Councilors, responsible for organizing regular meeting in the Paurashava, where there is representation of mass people. This committee motivates people to participate by means of discussion and sharing views. It looks after the overall condition of the municipality. The WLCC is a committee comprising of 11 members including the women Councilor of respective ward, with the Ward Councilor as its Chairman, in every ward of the Paurashava. This committee ensures participation of people in every ward. Besides all these initiatives, some other processes, including mike, leaflet, papering, poster and banner, are also followed. Furthermore, dustbins or containers have been put at different parts of the municipality for the convenience of people so that they can keep their surroundings clean.

Providing the manpower with effective training is another vital aspect. Chunarughat Paurashava authority makes provisions for practical training of its manpower involved in waste management. Furthermore, the Chief Engineer of the Paurashava, Mayor himself and all other Councilors deliver oral instructions to the persons. Furthermore, they have emphasized on the efficiency of the sweepers involved in these activities.

As to planning, Chunarughat Paurashava authority follows monthly, annual, five-year, project and undoubtedly instant planning. Respondents have emphasized a lot on the importance of

planning for the proper delivery of the services. All the services are delivered in accordance with the existing planning, but whenever there arises any unexpected problems, both formal and informal meeting is organized and effective decisions are taken to solve that problem immediately. This process has been identified as instant planning.

Coordination among services is also emphasized as there is some ways of coordination in this Paurashava except for some discussions or meetings. The Mayor, Councilors, Chief Engineer, Secretary and other staff officials try to ensure some sorts of coordination when there is any meeting or discussion. Moreover, elected members also ask after the people about the present status of the services. At the meeting of TLCC and WLCC, the issue of coordination among services is given great care. To this end, monitoring of the services is also done informally and sometimes formally. The Mayor, Secretary, Councilors, Chief Engineer and other official members monitor the services on their own, and ordinary people frequently help in this process by means of instantly informing the authority of any problem arising in their respective wards. Measures are taken instantly and effectively, but in this case the Ward Councilors have the main role to play.

Evaluation process of the services is also done in the same way- by means of meeting and discussion and of opinion of the people. Paurashava authority itself perceives that though it is not being able to give the highest level of service, the overall quality of the services is satisfactory, and with the meager amount fund, nothing more than the present status can be delivered. In the long run with a huge amount of fund respondents hope to deliver the best quality of services, but now they are cordially trying to give their hundred percent with the limited resources.

When interviewed, respondents were both in favor of and against the capacity of the Paurashava to deliver the services effectively and efficiently. Those who consider the Paurashava authority to be capable of delivering service effectively and efficiently have highlighted on skilled and sufficient amount of manpower, efficient manpower, coordinate planning of the Paurashava, cordial and speedy initiative supported by coordinated effort of the all the members of the authority. Furthermore, respondents have also focused on the equitable development of all the wards, which has been ensured in the last five years by means of proper utilization of money and other resources.

On the other hand, respondents, who think that Paurashava authority does not have the required capacity, have identified irresponsible performance of both the elected and official members, lack of consciousness among people, lack of skilled and experienced manpower, political influence, nepotism, lack of intention to deliver quality service, not following effective planning and the gulf between mass people and Paurashava authority as the main obstacles.

Most of the respondents show their dissatisfaction with the present quality of the services; a significant number of them are satisfied to some extent. All of them have identified Chunarughat Paurashava as a new one and there is a huge potentiality of doing better in the future, but for that, responsible performance of the Mayor, Councilors and all other official members is a must.

As the present status of the service is not so much satisfactory, respondents have identified some areas to be given priority for improvement soon. Public health, drainage, waste management, sanitation, and pollution control have gained that priority, and development of these sectors ought to be ensured as soon as possible.

Respondents have opined with respect to the improvement of the quality of the services. Regular collection of taxes, fees, rates and tolls, sufficient amount government grants, paying the taxes regularly, development of infrastructural facilities including number of drains, public toilets and urinals, dustbins, widening the streets, using modern tools for waste management and sanitation, proper use of money have been highlighted in the opinion of the respondents. In addition to these, making provisions for hospitals and doctors, justifying the opinion of the mass people, effective training of the manpower, responsible performance of the members of the Paurashava authority are also key to improvement of service areas. Besides, organizing regular meeting and seminars has also been given priority for accelerating participation and cooperation of people.

When asked about strengthening the capacity of the Paurashava authority, respondents have suggested different ideas. The most important factor of all, according to the opinion of the most of the respondents, is increasing financial support or fund constituting of income source of the Paurashava and government grants. It has been reported that people are callous to paying the taxes regularly and government support for various projects is meager, which weakens the financial management of the Paurashava. Respondents have also recognized the importance of a permanent office building for the Paurashava. However, recruiting sufficient number of sweeper, using more garbage trucks, modern tools, strong monitoring system, modern planning, accountability of the Paurashava authority and cooperation from both people and government ought to be guaranteed. Besides, keeping the Paurashava authority free from political influence, curbing administrative corruption, formation and strict implementation of people-oriented policy and improvement of infrastructural facilities are all the other issues to address soon.

VI. Conclusions and Policy Recommendations

Bangladesh's increasing population is posing a severe threat to the both the natural and physical environments. It is a matter of concern that people living in the municipalities should be provided with civic amenities. The services rendered by the Paurashava authority are supposed to ensure these civic amenities. But mismanagement of these services lead to a dreadful life and a threat to the environment. Urban local governments are the front line organizations, which deal with all types of social, political, economic and environmental problems, and they should devise more effective ways to ensure healthy environment.

Increasing the level of every Paurashava's management capacity of is a must to that end. Weakness and limitations of the Paurashavas have to be identified and proper measures must be taken to remove them. The potentiality of the Paurashavas also requires proper management. Utilization of local resources, people oriented leadership and participation of people must be ensured alongside developing the elements of Paurashava managements. This can ease the current pressure on the Paurashavas. Moreover, Paurashavas can mobilize political, economic, cultural and other resources in order to protect environmental resources. Though they are burdened with responsibilities, yet it is of great importance that all the problems existing in the Paurashavas in Bangladesh be removed. Only then can they ensure a good quality of services and thereby a healthy and livable city. The following are ten key recommendations based on our previous analysis.

First, Financial crisis worsens the quality of services most. Except for its own income, every Paurashava receives government grants for various projects. The amount of different grants is

practically meager compared to the demand. Moreover, a new Paurashava finds it difficult to increase its income from local sources. Both, local income sources and government grants have to be increased.

Second, with a limited financial support, it is seemingly hard to develop the infrastructure of a Paurashava. Services such as waste management, sanitation, drainage and water supply get worse due to weak infrastructure. Therefore, infrastructural facilities will have to be developed.

Third, sufficient manpower and proper training is also required. Manpower of a new Paurashava is usually inexperienced; that is why proper training has to be provided to them for the development of their skill so that it becomes easier to solve problems easily and soon. Moreover, technological support adds more efficiency to the management of a Paurashava. In this age of technology, it has become one of the most essential resources of management. Incorporating modern technology in different service areas can bring quality. Not every Paurashava with its limited finance can start using technology. Therefore, the government has to come forward to make provisions for technological support.

Fourth, proper planning is required to ensure quality of the services and to stop waste of money. Moreover, it also brings coordination among all the services, which is also missing in the Paurashava.

Fifth, a weak monitoring system bars the development of the service quality. Both formal and informal monitoring systems have to be created and strengthened, and the management has to be responsive to the demand of people. Lack of responsiveness weakens evaluation of the services and weak evaluation system cannot bring satisfaction and hardens identification of problems in different service areas. Therefore, evaluation system should be made strong, and participation of people must have to be ensured.

Sixth, an increased consciousness of people about the functions of the Paurashava is urgently needed. Their spontaneous participation and cooperation is a great asset for the well-being of a Paurashava. It is almost impossible for a Paurashava to provide all the services effectively and efficiently without their participation and cooperation.

Seventh, the gulf between the Paurashava authority and the general people has to be removed. It creates misunderstanding, which results in improper performance of the Paurashava.

Eighth, the political affiliation brings inefficiency in the management of a Paurashava. It also creates corruption and chaos in the management. Proper measures have to be taken to keep the Paurashava free from political influence and corruption.

Ninth, weak or no accountability of the members of the Paurashava creates the opportunity to commit corruption and nepotism. Therefore, the government has to make provisions for strict and effective accountability of the members of the Paurashava.

Finally, all the committees of the Paurashava have to be strengthened.

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Appendix 1: Age, Gender, Educational Qualifications and Professions of Respondents

As shown in Table A1.a, most of the respondents (18%) belong to age group 16 to 20 and 41 to 45 years. The lowest age of the respondents is 16 while the highest age is 62 years. The far majority (88 percent) of the respondents is male, whereas a little proportion (12 percent) is female (Table A1.b). Respondents from almost all educational levels were interviewed in this study. On the whole, 34% of the respondents have completed or are studying at honors level, while a significantly higher proportion (26%) has completed S.S.C. Corresponding figures for H.S.C. and Class VIII are 20% and 12%, whereas only a few (8%) have Masters degree (see Table A.1.c.). Most of the respondents (34%) are students, whereas a significant proportion (24%) are businessmen, 8% of the respondents are Councilors of the Paurashava, and 6% are Paurashava officials (Table A1.d).

Table A1.a: Age Distribution of Respondents

Age group (Year)	Frequency	Percentage
16-20	9	18%
21-25	8	16%
26-30	6	12%
31-35	5	10%
36-40	4	8%
41-45	9	18%
46-50	5	10%
51-55	2	4%
56-60	0	0%
61-65	2	4%
Total	50	100%

Table A1.b: Gender of Respondents

Gender	Frequency	Percentage
Male	44	88%
Female	6	12%
Total	50	100%

Table A1.c: Educational Qualifications of Respondents

Educational qualifications	Frequency	Percentage
Class VIII	6	12%
S.S.C	13	26%
H.S.C	10	20%
Honors	17	34%
Masters	4	8%
Total	50	100%

Table A1.d: Profession of Respondents

Profession	Frequency	Percentage
Student	17	34%
Service holders	12	24%
Business	12	24%
Councilors	4	8%
<i>Paurashava</i> officials	3	6%
Retired	1	2%
Farmer	1	2%
Total	50	100%

Appendix 2: Historical Background

The British introduced a new system with a view to maximizing land revenue collection and maintaining law and order situation. They destroyed the indigenous local-self government system by introducing Zamindari system in 1793 (Jahan et al, 2005; Siddiqui, 2005). The deteriorating economic and law and order situation caused the Sepoy Rebellion in 1857. Change in urban local-self government structure was inevitable and following the establishment of a Municipal Corporation in Madras in 1687, the law of 1793 with regard to Municipal Administration laid the foundation of municipal corporation, with the Justice of the Peace as its head, in Madras, Calcutta, and Bombay (Ahmad, 2000; Siddiqui, 2005).

The District Municipal Act of 1864, enacted by the Bengal Council, established a municipal body consisting of the Divisional Commissioner, the Magistrate, the Executive Engineer and 7 commissioners, appointed by the government (Ahmad, 2000; Siddiqui, 2005). Besides this, the Town Police Act of 1856, the District Town Act of 1869 brought some changes in municipal body. Local Government Act of 1873 brought about a change in the District Municipal Act of 1864, making provisions for election of two-thirds of the members of municipal bodies (Jahan et al, 2005; Siddiqui, 2005). Following the change, the Municipal Act of 1878 divided the municipalities into first class and second class (Siddiqui, 2005). The Bengal Municipal Act of 1884 specified that an area having three-fourths of the population employed in non-agricultural pursuits, with at least a population of 3000 and an average of 1000 inhabitants per square miles could be declared a municipality (Siddiqui, 2005).

The Bengal Municipal Act of 1932 was enacted ensuring the representation of the minor classes in the municipal body, and the law was in action until the enactment of Municipal Administration Ordinance in 1960 (Jahan et al, 2005; Ahmad, 2000; Siddiqui, 2005). After the promulgation of military rule on October 7, 1958, the Basic Democracy Order, a system of indirect democracy, was introduced in 1959. It divided the urban areas into Town Committee, established in an area with a population of fifteen thousand or less, and Municipal Committee, established in an area with an population of at least fifteen (Siddiqui, 2005).

The Municipal Administration Ordinance of 1960 established Town Committee in a town having a population of fifteen thousand or less, and Municipal committee was formed in other towns (Siddiqui, 2005). Since 1977, Paurashavas in Bangladesh have been functioning in accordance with the Paurashava Ordinance, 1977 with their present structure. In the earlier period, the functions of municipal body included issues such as law and order, taxation, irrigation, protection from criminal offense, solving disputes, digging canals, famine relief, roads and communication, waterways, cleaning and renovation of buildings and roads and management of slaughter houses (Siddiqui, 2005). But the recent pattern of urbanization and population growth has caused the inclusion of a great many complex and important issues such as public health, controlling pollution, solid waste, water supply, drainage system, trees, parks and gardens and town planning (GoB, 1977).

On the other hand, weak institutional and financial capability, dependence on intergovernmental transfer, archaic accounting and financial rules, unplanned growth of Paurashavas due to absence of planning, highly centralized control by the government, inefficient human resources, little investment capability and some other problems always contribute to weak service delivery and weak and non-existence operations and maintenance (Jahan et al., 2005). This leads to many

problems hampering both public life and the environment as the services delivered by the Paurashavas are either directly or indirectly related to proper management of both physical and natural environment of a municipality.

It is a fundamental responsibility of the state to ensure the promotion of local government institutions, where people's participation is ensured. To that end, Article 59 and Article 60 of the Constitution of the People's Republic of Bangladesh (see Government of the People's Republic of Bangladesh (GoB) (2008)) ensure local governments in every administrative unit of Bangladesh and some functions, including taxation, budgeting and maintaining fund. Article 4A of the Paurashava Ordinance, 1977, the first legislation on Paurashava in Bangladesh, makes every municipality an administrative unit. The existing 311 Paurashavas, a democratic pattern of urban local government, are functioning in accordance with the ordinance. The District Municipal Act 1864, the Bengal Municipal Act, 1932, the East Bengal Building Construction Act 1952, the Town improvement Act 1953, the Municipal Administration Ordinance 1960 and some other pieces of legislation contributed to the evolution of Paurashava in the British and Pakistan period.

After independence in 1971, it was of great importance to strengthen the local-self government bodies with an eye to ensuring rural and urban development, but almost nothing was done in this regard except for changing the tiers of local government. Soon after independence, the name of the Union Council was changed to Union Panchayat, which was later reverted to Union Parishad, and the Thana Council became Thana Development Committee while the District Council was named Zilla Board or District Board (Talukdar, 2009). The name of Town Committee was named Shohor Committee and Municipality was named Nogor Panchayet (Ahmad, 2002). The following Acts contributed a lot to the development of the present structure of Paurashava in Bangladesh.

The Act of 1793 established British Borough-styled Municipal Corporation in Calcutta, Madras and Bombay. All the authority of that Corporation was vested in Governor General, popularly known as 'Justice of the Peace'. Thus local self-government was introduced in the Presidency cities of India. This system was further developed in 1856 by means of appointment of three Commissioners by the government. The Charter Act of 1863 ensured the post of a Secretary in this system. Earlier, Town Chowkidari Act of 1813 ensured the duty of Town Chowkidari and this system continued till 1837 (Ahmad, 2000).

The Municipal Act of 1850 introduced municipality in Dhaka, Chittagong and Mymensing of Bengal Council. The District Municipal Act of 1864 appointed seven nominated resident as the Municipal Commissioners. At that time Municipality consisted of District Magistrate, Police Super, Engineer and seven other Commissioners (Ahmad, 2002). The incorporated election of two-thirds of the members of municipal bodies formed under the Act of 1864 (Siddiqui, 2005). Moreover, Town Police Act of 1856, District Municipal Development Act of 1864, and District Town Development Act of 1868 contributed to the development of Paurashava (Ahmad, 2002).

The Bengal Municipal Act of 1884, passed during the viceroyalty of Lord Ripon, introduced the election of two-thirds of the members by the tax payers and the remaining members were appointed by the government. Besides, the posts of Chairman and Vice-chairman were also filled by means of election. In fact, this Act strengthened the base of Paurashava in Bangladesh (Ahmad, 2002).

The demand for self-autonomy was ensured by the Act of 1919, which led to the passing of the Bengal Municipal Act of 1932. By this Act unnecessary provisions were weeded out, and further advances in local government were made. More functions were given to Municipal Boards, The provisions for declaring a new Municipality and altering the limits of existing ones, the number of Municipal Commissioners and the election procedures were retained from the Act of 1884, except for Dhaka and Chittagong. Some of the elected seats were reserved for the minority community. In levying rates and taxes and in the utilization of municipal funds, the powers of Municipal Commissioners were widened and clarified. All the Paurashavas in Bangladesh continued to operate under this Act till 1960 (Siddiqui, 2005).

A new Municipal Administration Ordinance was enacted in 1960 to bring the Municipalities in line with the so-called Basic Democracies institutions in rural areas Chairman (Siddiqui, 2005). All the Municipalities were divided into two classes in Basic Democracy. A Town committee was set up in a Municipality having a population of 15000 or less, and a Municipal Committee was set up in a Municipality having a population of more than 15000. The election to Town Committee was the same as Union Council, but its functions were like Paurashava. The election to Municipal Committee was held in two stages (Ahmad, 2002). A Municipal Committee consisted of elected members, that is, the Chairman of Union Committees within the Municipality and an equal number of appointed and official members, including the official Chairman (Siddiqui, 2005).

The Paurashavas in Bangladesh have been functioning under the Paurashava Ordinance, 1977. The 1977 Paurashava Ordinance has fundamentally been changed in the Paurashava Act No. 58 of 2009.

- Chapter I (Constitution and Composition of Paurashavas) of Part II of the 1977 Paurashava Ordinance and the Paurashava Act No. 58 of 2009 provide provisions for declaration of urban area. According to article 3(2) of this chapter, “the government shall not declare any rural area to be an urban area unless it is satisfied that three-fourths of the adult people of the area, to which it refers are chiefly employed in pursuits other than agriculture, and such area contains not less than fifteen thousand population, and average number of not less than two thousand inhabitants per square mile.” Every Paurashava is a body corporate having perpetual succession and a common seal, with the power to acquire and hold property, both movable and immovable, and by its name sues and is sued (GoB, 1977).
- Article 6(1), 6(2) and 6(3) of part II of the Paurashava Act No. 58 of 2009 describe the composition of a Paurashava. A Paurashava consists of (a) a Mayor, elected by direct election on the basis of adult franchise, (b) such number of Councilors, elected by direct election on the basis of adult franchise, as may be fixed by the Government and (c) such number of Councilors, elected by direct election on the basis of adult franchise, (one-thirds) as are exclusively reserved for women. The Mayor and Councilors are paid such honorarium as may be prescribed. The term of a Paurashava is a period of five years commencing on the day of its first meeting after its constitution. A Paurashava holds its first meeting on such date, not later than thirty days from the day on which the names of its Mayor and Councilors are notified in the official Gazette, as may be appointed by prescribed authority. Every Mayor and every Councilor of a Paurashava, before he enters upon his office, makes in the prescribed manner and within the prescribed period, an oath in the prescribed form (GoB, 1977).
- According to article 31 and 32 of chapter IV (Functions of Paurashavas) of the 1977 Paurashava ordinance, and the second schedule of the Paurashava Act No. 58 of 2009, every Paurashava has

two types of functions: compulsory and optional functions and transfer of functions from a Paurashava to the Government and vice versa. Part IV (Functions in detail) of the 1977 Paurashava Ordinance gives a clear idea of the functions of a Paurashava. The summary of all the functions are shown in Table A2.

Table A2: Compulsory and Optional Functions of a Paurashava's Sectoral Activities

Sector	Compulsory functions	Optional functions
Public Health	Provision of sanitation Control of Pollution Solid waste collection and disposal Registration of birth, marriages	Control of insanitary buildings and land Provision of receptacles for solid waste Provision of public toilets
Water Supply and Drainage	Provision of water supply Provision of drainage	Controlling tank excavation and reclamation of low lying areas Provision of bathing ghats Provision of dhobi ghats Regulation of water courses Regulation of ferries Operation of public ferries Regulation of public ferries
Food and Drink	Regulation of private markets	Regulating manufacture and trade of food and drink Regulating milk supply Providing public markets for food and drink Provision of slaughterhouses
Animals		Providing veterinary hospitals and dispensaries Prevention of animal disease Control of stray animals Provision of animal's homes Regulation of the sale of animals Provision of a livestock improvement scheme Control of dangerous animals Holding cattle shows
Town Planning		Preparation of a master plan Preparation of land development schemes Execution of land development schemes
Building Control	Review of building applications Inspections of new buildings	Control of dangerous building
Streets	Provision and maintenance of streets Provision of street lighting Street watering Passing by law for regulation of traffic Licensing public vehicles other than motor vehicles	Definitions of streets lines and buildings lines
Public Safety	Civil defense	Provision of the fire brigade Flood disaster management Famine relief Control of dangerous and offensive trades Provision of facilities for cremation or burial
Trees, Parks and Gardens	Tree planting in streets and public places	Provision of parks and gardens Farming and enforcement of forest plants Control of dangerous crops
Education and Culture	Enforcement of compulsory education	Provision of schools Aiding private educational institutions Provision of school meals Provision of libraries and cultural facilities
Social Welfare		Provision of welfare homes Providing welfare services
Development		Preparing development plans Promotion of community development Undertaking commercial schemes

Source: Jahan et al. (2005), pp. 89-90.

Appendix 3: Summary Tables with Some Results based on Interviews

Table A3.a: Rating of the 50 Respondents of Critical Environmental Problems

Sl. No.	Services of Paurashava	Critical environmental problems	Rating			
			1	2	3	4
1	Water supply	Shortage of water drinking water	26%	36%	38%	
		Inadequate access to water supply	38%	32%	30%	
		Contamination of water	36%	32%	32%	
2	Sanitation	Inadequate public toilets/urinals	46%	34%	20%	
		Poor maintenance	14%	48%	38%	
		Inadequate drainage or other facilities	40%	18%	42%	
3	Waste management	Low coverage of waste collection	22%	14%	20%	44%
		Open dumping or unclean environment	50%	22%	18%	10%
		Lack of dustbin or containers	22%	46%	22%	10%
		Irregular collection of waste	6%	18%	40%	36%
4	Drainage	Low coverage	22%	20%	24%	34%
		Poor maintenance	28%	32%	32%	8%
		Water stagnation	18%	30%	26%	26%
		Drains are clogged	32%	18%	18%	32%
5	Pollution control	Excessive level of black smoke	20%	40%	40%	
		Polluted water in ponds, canals and rivers	36%	40%	24%	
		Excessive level of sound	44%	20%	36%	
6	Disaster management	Poor measures for fighting flood	70%	30%		
		Poor relief service	30%	70%		
7	Land management	Lack of green and open spaces	44%	40%	16%	
		Illegal and unplanned structures	36%	40%	24%	
		Poor condition of wetland	20%	20%	60%	
8	Transport system	Traffic congestion	40%	20%	30%	
		Increased level of motorized-private transportation	18%	34%	42%	
		Lack of paved access for pedestrians and vehicles	32%	46%	22%	
9	Public health	Lack of medical facilities	52%	48%		
		Mosquito/fly/insect menace	48%	52%		

Table A3.b: Level of Satisfaction with the Present Status of the Services

Services		Highly satisfied	Satisfied	Satisfied to some extent	Dissatisfied	Highly dissatisfied	Total
Water supply	fi	2	7	24	7	3	43
	%	4.65%	16.28%	55.9	16.28%	6.98%	100%
Sanitation	fi	2	2	10	22	7	43
	%	4.65%	4.65%	23.26%	51.16%	16.28%	100%
Waste management	fi	2	4	8	18	11	43
	%	4.65%	9.3%	18.6%	41.86%	25.58%	100%
Drainage	fi	1	2	10	21	9	43
	%	2.33%	4.65%	23.26%	48.83%	20.93%	100%
Pollution control	fi	0	3	10	21	9	43
	%	0%	6.98%	23.26%	48.83%	20.93%	100%
Disaster management	fi	0	8	12	18	5	43
	%	0%	18.6%	27.91%	41.86%	11.63%	100%
Land management	fi	0	13	15	12	3	43
	%	0%	30.23%	34.88%	27.91%	6.98%	100%
Transport system	fi	2	5	19	8	9	43
	%	4.65%	11.63%	44.19%	18.6%	20.93%	100%
Public health	fi	1	5	12	9	16	43
	%	2.33%	11.63%	27.9%	20.93%	37.21%	100%

TableA3.c: Rating of the Services in Terms of Severity of Problems

Service area		Rating									Total
		1	2	3	4	5	6	7	8	9	
Water supply	fi	6	6	4	4	8	6	5	5	6	50
	%	12%	12%	8%	8%	16%	12%	10%	10%	12%	100%
Sanitation	fi	6	8	9	16	2	3	2	2	2	50
	%	12%	16%	18%	32%	4%	6%	4%	4%	4%	100%
Waste management	fi	6	8	13	9	4	4	3	2	1	50
	%	12%	16%	26%	18%	8%	8%	6%	4%	2%	100%
Drainage	fi	10	11	10	5	5	4	3	0	2	50
	%	20%	22%	20%	10%	10%	8%	6%	0%	4%	100%
Pollution control	fi	5	1	3	1	15	10	8	3	4	50
	%	10%	2%	6%	2%	30%	20%	16%	6%	8%	100%
Disaster management	fi	1	0	2	2	0	1	3	19	22	50
	%	2%	0%	4%	4%	0%	2%	6%	38%	44%	100%
Land management	fi	0	1	0	4	3	8	10	15	9	50
	%	0%	2%	0%	8%	6%	16%	80%	30%	18%	100%
Transport system	fi	4	5	3	3	12	9	10	2	2	50
	%	8%	10%	6%	6%	24%	18%	20%	4%	4%	100%
Public health	fi	12	10	6	6	1	5	6	2	2	50
	%	24%	20%	12%	12%	2%	10	12	4%	4%	100%

Table A3.d: Opinions on Urban Local Governance

Sl. No.	Questions	Opinions			Total	
		Yes	No	No comment		
1	Do you think that there is financial crisis in the <i>Paurashava</i> ?	fi	7	0	0	7
		%	100%	0%	0%	100%
2	Do you think that lack of finance hampers quality of delivering services such as water supply?	fi	35	9	6	50
		%	70%	18%	12%	100%
3	Do you think that there are infrastructural problems?	fi	43	5	2	50
		%	86%	10%	4%	100%
4	Do you think that weak infrastructural facilities damage sanitation and drainage system?	fi	44	4	2	50
		%	88%	8%	4%	100%
5	Do you think that there is not sufficient manpower needed to collect and dispose refuse and garbage?	fi	30	13	7	50
		%	60%	26%	14%	100%
6	Does insufficient manpower hamper proper waste management?	fi	39	4	7	50
		%	78%	8%	14%	100%
7	Does the <i>Paurashava</i> use any technological instrument in collecting and disposing refuse/garbage and in keeping healthy sanitation system?	fi	9	34	7	50
		%	18%	68%	14%	100%
8	Do you help or participate in collecting and disposing refuse and garbage and in keeping your surroundings clean?	fi	21	21	8	50
		%	42%	42%	16%	100%
9	Do you think that low level of people's participation worsens waste management?	fi	37	13	0	50
		%	74%	26%	0%	100%
10	Does the <i>Paurashava</i> provide the manpower with any training?	fi	7	29	14	50
		%	14%	58%	28%	100%
11	Does the <i>Paurashava</i> follow or have any planning for proper delivery of the environment related services?	fi	16	21	13	50
		%	32%	42%	26%	100%
12	Do you think that there is coordination among all the environment related services that the <i>Paurashava</i> delivers?	fi	17	21	12	50
		%	34%	42%	24%	100%
13	Is there any monitoring system for ensuring proper delivery of the services?	fi	16	20	14	50
		%	32%	40%	28%	100%
14	Do you think that weak monitoring system impedes pollution control?	fi	44	5	1	50
		%	88%	10%	2%	100%
15	Does the <i>Paurashava</i> evaluate service delivery?	fi	7	0	0	7
		%	100%	0%	0%	100%
16	Does the <i>Paurashava</i> collect any information of its service delivery from mass people?	fi	5	35	10	50
		%	10%	70%	20%	100%
17	Do think that your <i>Paurashava</i> is capable of delivering the services efficiently and effectively?	fi	23	27	0	50
		%	46%	54%	0%	100%

Table A3.e: Issues Hampering the Capability to Provide Service Effectively and Efficiently

Issues		Rating										Total
		1	2	3	4	5	6	7	8	9	10	
Lack of finance	fi	7	0	0	0	0	0	0	0	0	0	7
	%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Weak infrastructural facilities	fi	0	3	3	1	0	0	0	0	0	0	7
	%	0%	42.9%	42.9%	14.2%	0%	0%	0%	0%	0%	0%	100%
Insufficient manpower for collecting and disposing refuse/garbage	fi	0	0	2	2	2	1	0	0	0	0	7
	%	0%	0%	28.6%	28.6%	28.6%	14.2%	0%	0%	0%	0%	100%
Lack of technological support in collecting and disposing refuse/garbage and in sanitation system	fi	0	2	0	3	2	0	0	0	0	0	7
	%	0%	28.6%	0%	42.9%	28.6%	0%	0%	0%	0%	0%	100%
Lack of people's participation	fi	0	2	2	1	0	0	0	0	0	2	7
	%	0%	28.6%	28.6%	14.2%	0%	0%	0%	0%	0%	28.6%	100%
No training is provided to manpower	fi	0	0	0	0	2	2	2	1	0	0	7
	%	0%	0%	0%	0%	28.6%	28.6%	28.6%	14.2%	0%	0%	100%
No planning is followed for proper service delivery	fi	0	0	0	0	0	0	1	2	2	2	7
	%	0%	0%	0%	0%	0%	0%	14.2%	28.6%	28.6%	28.6%	100%
Lack of coordination among services	fi	0	0	0	0	1	0	1	4	1	0	7
	%	0%	0%	0%	0%	14.2%	0%	14.2%	57.1%	14.2%	0%	100%
No monitoring system for proper service delivery	fi	0	0	0	0	0	0	1	1	3	1	7
	%	0%	0%	0%	0%	0%	0%	14.2%	14.2%	42.9%	14.2%	100%
Lack of evaluation of services	fi	0	0	0	0	0	2	1	0	0	4	7
	%	0%	0%	0%	0%	0%	28.6%	14.2%	0%	0%	57.1%	100%