

Local Government & Community Development Department



Punjab Cities Program

Gap Analysis

of

Municipal Services infrastructure & service delivery

in

Gojra City



Punjab Municipal Development Fund Company

Section-1 City Background

1.1. Tehsil Status

Gojra was given the status of a Tehsil Headquarter and affiliated with newly established district Toba Tek Singh on 01.07.1982. After introduction of PLGA-2001, Tehsil Municipal Administration Gojra came in existence on 12.08.2001. The lands in this Tehsil are quite fertile and produce cash crops for which this city a flourishing market.

1.2. Location

The Town of Gojra is located at 72°-41' East and 31°-9' North. The city is located at 50 km from Faisalabad, 170 km from Lahore and 32 km north of Toba Tek Singh.

1.3. The Climate

The climate of the city is hot in summer and cold in winter. The annual average rain fall in the City is 328 millimeters. During summer, the temperature goes up to 45 degree centigrade with minimum 20 degree centigrade whereas during winter, the temperature falls to maximum 21 degree centigrade and minimum 7 degree centigrade

1.4. Demographic status

The population census report of year 2017 has not been published by Government of Pakistan. However the provisional population as given in the statistic of Pakistan Government is 174,860 persons. As per land scan process the estimated population in close approximation was 235,987 persons in the year 2017 with an annual growth rate of 2.73 % and it is expected to rise to 308,967 persons in the year 2027.

1.5. Data collection

The formats for the data collection about the municipal services were designed and sent to the Municipal Committee. After receipt of these formats, the city was visited to;

- 1) Verify and correct the data provided by the municipal committee.
- 2) Update the descriptive maps of all the services by consultation with MC staff & Public Health Engineering staff.
- 3) Identify the required improvements and extension of the municipal services infrastructure.
- 4) Identification of Public Private Partnership projects already executed
- 5) Identify the capacity of the key officers to undertake the PPP projects and collaborative projects with other government agencies and MCs
- 6) Public opinion surveys regarding the delivery of municipal services.

1.6. Situation analysis and Gap analysis

Situation analysis of the existing municipal services infrastructure and the quality of service delivery was done. Gap analysis was done to identify the problems, bottlenecks and shortcomings in the infrastructure itself and its operation & maintenance for each municipal service along with the correction/updating of descriptive maps which has been described in the following sections.

Section-2 Water supply system

2.1. Existing situation

Jang branch Canal is flowing at the western periphery of the city which originates from lower Chenab canal. The canal is unlined and recharging the ground water in narrow belts on both sides with fresh water. The city has marginally fresh ground water near to the canal but the subsoil water of most of the city is brackish and unfit for human consumption. Skimming tube wells have been installed on the left bank of this canal to harness fresh subsoil water from the shallow aquifers being recharged by the canal. Water from these tube wells is being pumped into ground storage constructed at different locations of the city wherefrom it is again pumped into the overhead reservoirs and fed to the distribution system or pumped directly into the distribution system.

The inhabitants have their own water sources such as hand pumps or motorized pumps. Due to lack of awareness about potable water, the citizen are extracting contaminated water from the shallow aquifers. However 07 No's ultrafiltration plants have been installed in the city for supply of potable water to the citizen and most of the residents are fetching drinking water from these filtration plants.

2.2. Water sources & pumping stations

2.2.1. The existing water sources

The city is divided into eight zones by distribution areas and is designated as 1 to 8 Zones. Originally 25 tube wells were installed on the bank of Jang branch Canal and all of these are operational. There are 5 water works named as Tanki Adalat Wali, Dijkot Road, Mehdi Mohallah, Sultan pura and Anarkali water works equipped with 6 GST and 5 OHR are also available in water distribution system.

Total existing Source capacity

Zone	No. of tube wells	Capacity each (cusecs)	Total capacity (cusecs)	Working hours per day	Daily water production (mgd)	
					Present with 8 hours pumping	Possible with 15 hours pumping
All zone	23	0.5	11.5	8	2.063	3.868
	2	0.75	1.5	8	0.269	0.504
Grand total	25	-	13.00	-	2.332	4.372
Present population of the city					235,987	Persons
Present water production per capita per day					9.9	Gallons

The quantity of water per capita per day presently produced is not enough for the city. However if the water wastage is controlled by consumer metering and the pumping hours are increased to 15 hours per day, the water availability to the consumers will rise to 19 GPCD.

2.2.2. Ongoing scheme being executed by PHED

Presently PHED is executing a water supply project in this Town. The scope of work of this project is described below;

Scope of work of the scheme being executed by PHED

Sr.#	Item of works	Quantities
1	Survey investigation & design services	1-Job.
2	Trial bores	15-Jobs.
3	Tube-wells (0.50-cusec) including Test Well	16-Nos.
4	Pump houses 12 x 12	16-Nos.
5	Transmission main /Collector main	
	a) 20"i/d AC/PVC pipe "C" class	15,200-Rft
	b) 20"i/d AC/PVC pipe "C" class	4,300-Rft
	c) 18"i/d AC/PVC pipe "C" class	1,150-Rft
	d) 16"i/d PVC pipe "D" class	1,000-Rft
	e) 16"i/d PVC pipe "D" class	2,350-Rft
	f) 14"i/d PVC pipe "C" class	400-Rft
	g) 12"i/d PVC pipe "C" class	2,000-Rft
	h) 12"i/d AC/PVC pipe "B" class	4,050-Rft
	i) 10"i/d PVC pipe "D" class	3,000-Rft
	j) 10"i/d PVC /AC/ pipe "B" class	4,875-Rft
	k) 8"i/d PVC pipe "D" class	1,000-Rft
	l) 8"i/d AC/PVC pipe "B" class	5,500-Rft
	m) 6"i/d PVC pipe "D" class	1,000-Rft
n) 6"i/d PVC pipe "B" class	1,000-Rft	
6	Distribution system	
	a) 18"i/d PVC pipe "B" class	800-Rft
	b) 14"i/d PVC pipe "B" class	7,666-Rft
	c) 12"i/d PVC pipe "B" class	10,086-Rft
	d) 10"i/d AC/PVC pipe "B" class	6,925-Rft
	e) 8"i/d AC/PVC pipe "B" class	22,696-Rft
	f) 6"i/d PVC Pipe "B" class	27,768-Rft
	g) 4"i/d PVC Pipe "B" class	41,405-Rft
	h) 3"i/d PVC Pipe "B" class	180,244-Rft
7	Pumping machinery	
	a) For tube-wells	16-Sets
	b) For Intermediate pumping stations	14-Sets
8	Water storage	
	RCC ground storage tank (70,000 glns)	1-No.
	RCC ground storage tank (200,000 glns)	1-No.
	RCC ground storage tank (300,000 glns)	2-Nos.
	RCC ground storage tank (350,000 glns)	1-Nos.

	RCC ground storage tank (500,000 glns)	1-Nos.
	RCC Overhead reservoirs	5-Nos.
9	Hypo chlorinators	14-Nos.
10	Boundary walls	6,000-Rft
11	Single room staff quarters	6-Nos.
12	Central control rooms	3-Jobs.
13	Railway, road & suigas crossings	9-Jobs
14	Electric power connections	30-Jobs

All tubewells, transmission mains, GSTs, & OHRs have been completed. Distribution system is being laid. Funding position of the scheme is given below;

Total cost of the scheme	Rs. 496.396 million
Expenditure incurred upto June, 2018.	Rs 125 million
Allocation in current financial year	Rs 33.33 million
Balance funds not made available as yet	Rs 338.07 million

The scheme can only be completed if balance funds are made available to PHED.

2.3 Existing intermediate Pumping stations (IPS):

Water pumped from tube wells is stored in ground storage tanks constructed in the intermediate pumping stations in the city from where it is further pumped into the overhead reservoirs or directly in the distribution system. The description of these intermediate pumping stations is given below;

Intermediate pumping stations (IPS)

Water works	Total No. of pumps	Capacity each (cusecs)	Total capacity (cusecs)	Working hour per day	Year of construction	Repair of Pumping units	Repair of Pump house
Tanki Adalat Wali	2	0.75	1.5	8	1997	2	2
Dijkot Road	3	0.75-0.5-0.25	1.5	8	1987	2	2
Mehdi Mohallah	2	0.75	1.50	8	2016	-	-
Sultan pura	2	1.00	2.00	8	2005	-	-
Anarkali	2	0.75-0.5	1.25	8	1987	1	1
GrandTotal	11	-	7.75			5	5

2.4 Existing Storage Capacity:

Storage has been constructed in the form of ground storage tanks (GST) and overhead reservoirs (OHR) as it is not possible to feed the OHRs directly from tubewells because of long lengths of transmission mains and high pumping head involved. The status of the ground as well as overhead storage is given below;

Detail of existing storage capacity

S.N	Water works	Ground storage		Overhead storage		Year of construction	Repairs GST required	Repairs OHR required
		No. of GSTs	Capacity (gallons)	No. of OHRs	Capacity (gallons)			
1	Tanki Adalat Wali	1	50,000	2	50,000	1997	1	1
2	Dijkot Road	1	50,000	0	0	1987	1	-
3	Mehdi Mohallah	2	200,000	1	100,000	2016	-	-
4	Sultan pura	1	100,000	1	100,000	2005	-	1
5	Anarkali	1	50,000	1	50,000	1987	1	1
	Total	6	450,000	5	300,000		3	3

2.5 Problems and gaps in the system

2.5.1 Water shortage

After construction of the new system being executed by PHED, water shortage in the entire city will be eliminated.

2.5.2 Un Served Areas (shown in light pink color in the map)

Under mentioned areas of the city will still remain without water supply facility even after the completion of present project being executed by PHE Department.

- 1-Aftah Town
- 2-Green Town
- 3-Javed colony
- 4-Chak 296

2.5.3 Areas with abandoned water supply system

Water supply abandoned areas do not exist in whole water supply system of Gojra Town.

2.6 Water supply hours and consumer connections

Water Supply hours				Consumer connections			
Morning	Midday	Evening	Total	Domestic	Commercial	Industrial	Total
4	2	2	8	7500	26	Nil	7526

2.7 Total coverage of the city

After completion of the ongoing scheme the total coverage of the city will reach 98%.

2.8 Tariff structure

The consumer connections are not metered and hence water wastage should be predominant over here. The tariff comprises of flat rates not even levied according to the area of houses. The water rates are given below;

Tariff Rates per month		
Domestic	Commercial	Industrial
Rs. 150	Rs. 750	Nil

2.9 Required rehabilitation of the old water supply system

Under mentioned components of the existing system need rehabilitation. Component wise details are given below

2.9.1 Tube wells

Repair & Replacements of pumping machinery for Tube wells

Type of Pump	Discharge each (cusec)	Replacement of tube wells	Replacement of pumping units	Repairs of pumping machinery
Vertical turbine pumps	0.5	0	0	08*

*The repairs will include all electrical and mechanical items and PCC pump foundations along with painting of all the installations

2.9.2 Repair of Pump Houses:

Water works	Total Nos	Size (Ft.)	Type of repair
Tube wells	08	12'x12'	White washing, painting, Plastering, electrification & pointing etc.

2.9.3 Distribution system:

90% of the city area will be equipped with the distribution system after completion of the ongoing scheme.

2.9.4 Repairs & replacement of other components

These components include;

- Hypo-chlorinators = 15 Nos;
- Replacement of 8000 Rft. damaged water supply pipe in distribution system;
- Replacement of motor control units = 12 Nos;
- Repair/Replacement of sluice valves, check valves and pump suction pipe all tube wells and IPS.

- Replacement of underground piping & saddles of sub-standard consumer connections -50% of the existing connections = 3763 Nos (Actual Nos will be determined after survey by the consultants).

2.9.5 Water wastage & Water management

Lot of water wastage is occurring in the water supply system in below given ways;

- Some consumer connections have no taps.
- Some consumers keep the taps open in all water supply hours although they do not need water.
- Most of the overhead tanks of the consumers have no float valve and when their tank is full, the water flows down to the drains continuously during the supply hours.

The water wastage requires excessive water production and high electricity consumption. It is exerting a large pressure on the municipal budget. Large savings in the electricity bills and ultimately the O&M cost, can be affected by reducing the water wastage at the consumer ends. It will save lot of water and water shortage can be addressed by conservation of water being wasted at present. The best and efficient way to save water and reduce O&M cost is the *consumer metering*.

Installation of consumer meters on 7220 Nos consumer connections is required.

2.10 O&M Charges and revenue recovery

The operation & maintenance charges and the revenue recovered during the last four years is given below;

Year	2013-14	2014-15	2015-16	2016-17	2017-18	Total for five years
O&M charges (million Rs)	27.94	30.24	28.93	30.13	46.05	163.29
Revenue recovery (million Rs)	4.25	7.20	7.87	7.95	10.00	37.27
Recovery % as compared with O&M exp.	15.09 %	23.82 %	27.20 %	26.38 %	21.72 %	22.82 %
Subsidy injected (million Rs)	23.69	23.04	21.06	22.18	36.05	126.02

The above mentioned data shows a very weak billing and recovery system of the water revenue which is required to be improved by capacity building of the recovery staff.

2.11 Manpower deployment

Slot	Sanctioned strength	Existing strength	Vacant post	Manpower on daily wages	Total man power deployed	Additional MC demand
Tubewell operators	21	4	17	-	4	20
Chowkidars	-	-	-	2	2	10

Electricians	-	-	-	-	-	-
Plumbers	-	-	-	5	5	10
Bill Clerks	-	-	-	4	4	8
Total	21	4	17	11	15	48

Additional demand of staff has been put forward by the MC for the new installations.

2.12 Service delivery

1. Water supply service to almost entire city will be improved after execution of the ongoing scheme by PHED.
2. Few areas (shown in pink in the map) within the municipal limits, will still remain unserved even after completion of the ongoing scheme. No addition in the source capacity will be needed to extend the services to these areas. Only distribution system can be laid and connected with the existing system.
3. After completion of the ongoing scheme by PHED, the supply hours will have to be increased to designed hours to supply adequate quantity of water to the consumers.
4. None of the consumer connection is metered and it is proposed to meter all the consumer connections.
5. MC should reduce the water wastage to conserve fresh water and to save the electricity cost being incurred on production of water and pumping the waste water from sewerage systems.

Section-3 Sewerage system

3.1. Existing situation

3.1.1. Coverage

The city is equipped with sewerage system in 50% area. The city has been divided in to four areas called as Zones with respect to the drainage. The short description of each of the zones has been given as under;

3.1.2. Zone-A:

Zone-A covering 692.17 acres, is comprised of north-western part of the city and entire area is provided with main & branch sewers but lateral sewers have not been laid in some areas which forms almost 50% of the entire area served by this zone. Water is collected in a disposal works constructed on Chack No-298 road in Muhallah Balwantpura through a trunk sewer of 42" diameter and disposed-off for broad irrigation through a 24" dia force main discharging into a rectangular sullage carrier of 3'x2.5' size. The trunk sewer had choked and has been replaced & commissioned by PHED under a presently on-going scheme. The system is regularly being operated by MC.

3.1.3. Zone-B:

The zone spreads over the south-eastern part of the city and covers about 560 acres of land. Two disposal stations named as Sharifpura disposal station and Housing Colony disposal station are already working in this area but covering very small part of this zone. The untreated water after pumping from these stations, is discharged in sullage carriers and used for broad irrigation.

A comprehensive sewerage system covering the area of the entire zone is under construction by PHE Department. The new disposal works of this zone is located at Gojra Toba Road which will be fed by 42" dia outfall sewer and water after pumping will be discharged into an existing sullage carrier of 3'x2.5' size and used for broad irrigation. Some of the main & branch sewers of this system have been constructed but the disposal works is not yet complete and that is why the system has not been operated. The system will only be operated if required funding is made available, Two smaller disposal works mentioned above will be eliminated after commissioning of the operation of the new system.

3.1.4. Zone-C:

This zone, spreading over the northern portion of the city and area of 471.55 Acre, is served by one disposal works taking water from two outfall sewers of 27" & 33" dia. Waste water from this disposal station is disposed-off into a sump through a force main of 24" dia for primary treatment and thereafter it is used for broad irrigation through a sullage carrier.

The system has been completed and operated under the presently on-going scheme by PHED

3.1.5. Zone-D:

The zone located in the extreme west of the city having an area of 667.53 acres is not completely served. The outfall sewer of size of 18" dia, is to be connected with the disposal works of Zone-B. The work on this system has not been taken in hand because of thin funding. The system can only be constructed and operated when complete funding is available.

3.2. Scope of the ongoing scheme

Scope of the scheme being executed by PHED is described below;

Scope of work of the scheme being constructed by PHED

Sr.#	Item of work	Provision in cost estimate	Progress to date
Zone-A			
1	Survey investigation & design services	1-job.	
2	RCC sewers		
	42"i/d (replacement)	1,568-rft	Laid
3	AC force main 24" i/d	950-rft	Laid
4	Sullage carrier (dismantling & replacement)	1,300-rft	Completed
5	Pumping machinery 5.00 cusec 50-BHP	2-sets.	Installed
6	Diesel generator 150-KVA and generator room	1-No.	Completed
7	Road, telephone lines & sui gas crossing	3-jobs	
8	Electric transmission line	2-job.	
Zone-B & D			
1	RCC sewers		
	a) 9"i/d	10,567-rft	
	b) 12"i/d	4,399-rft	320 Ft laid
	c) 15"i/d	3,710-rft	
	d) 18"i/d	6,988-rft	
	e) 21"i/d	1,920-rft	
	f) 24"i/d	1,680-rft	
	g) 27"i/d	215-rft	
	h) 33"i/d	848-rft	
	i) 36"i/d	1,284-rft	
	j) 42"i/d	5,503-rft	3000 Rft laid
	k) 60"i/d	42-rft	Laid

2	Sullage carrier		100-rft	
3	Sump well (size 12'x12')		1-No.	100%
4	Screening chamber (22.46' x 15.13')		1-No.	100%
5	Collecting tank (35' dia)		2-Nos.	100%
6	Pumping chamber (30'dia)		1-No	90%
7	Pumping machinery 5.00 cusec 50-BHP		3-sets.	Arranged
8	Inter connections		1-job	50%
9	Boundary wall		880-rft	70%
10	Staff quarter		1-No.	100%
11	Diesel generator 150-KVA & generator room		1-No.	100%
12	Road crossing		1-job	
13	Electric transmission lines		3-job.	
Zone-C				
1	RCC sewers			
	a)	9"i/d	11,991-rft	Laid
	b)	12"i/d	2,267-rft	Laid
	c)	15"i/d	1,354-rft	
	d)	18"i/d	2,302-rft	Laid
	e)	24"i/d	1,310-rft	Laid
	f)	27"i/d	2,609-rft	Laid
	g)	30"i/d	1,497-rft	Laid
	h)	33"i/d	3,249-rft	Laid
	i)	42"i/d	87-rft	Laid
2	AC force main 24" i/d		3,500-rft	Laid
3	Sullage carrier		3,500-rft	Completed
4	Sump well (size 8' x 6')		1-No.	Completed
5	Screening chamber (24.38' x 11.13')		1-No.	Completed
6	Collecting tank (30' dia)		2-No.	Completed
7	Pumping chamber (20' dia)		1-No	Completed
8	Pumping machinery 5.00 cusec 50 BHP		2-sets.	Completed
9	Inter connections		1-job	Completed
10	Boundary wall		250-rft	Completed
11	Staff quarter		1-No.	Completed
12	Diesel generator 150-KVA		3-No.	Completed
13	Generator rooms		3-No.	Completed

14	Railway, road, water supply, telephone lines & canal crossing	5-job	In progress
15	Electric transmission line	2-job.	DN paid

Total cost of this scheme is Rs 428.694 million out of which funding to the tune of Rs 237.40 million has been made available. The sewerage system in Zone-B & D will remain incomplete if the balance funds are not provided.

3.3. Sewers

Total length of sewers

The length of sewers in the old system as per information given by the Municipal Committee, are given below; these are approximate lengths and may vary if actually measured at site;

Table 3. Approximate lengths of sewers

Sewer dia. (inch)	9	12	15	18	21	24	27	Total length in Km
Length in feet	-	17450	14530	6330	5018	1246	1200	
Sewer dia (inch)	30	36	42	48	54	66	72	15.33 Km
Length in feet	1246	951	2329	-	-	-	-	

After completion of the new scheme, the length of sewers given in the scope of work of new scheme under construction will be added.

3.4. Pumping / disposal stations

3.4.1. Details of pumping stations in operation

The details of the pumping /disposal stations presently working in the Town is given below;

Location	Nos of collect Tanks	Nos of pumps	Discharge each (cusecs)	Total discharge (cusecs)	Motor BHP	working status	Force main/S. Carrier			Ultimate disposal
							Size	Length (ft)	Condition	
Zone-A Bulwantpura	2	2	3.0	6.0	30	Working	24' Dia	972	Good	Broad Irrigation
		1	6.0	6.0	60					
Sharif pura	1	1	1.0	1.0	15	Working	2.5'x3'	1000	Good	do
Housing Colony	1	1	1.0	1.0	15	Working	2.5'x3'	-	Good	do
Zone-C	2	3	5.0	15.0	50	Working	24" dia	1200	Good	do
Zone-B	2	3	5.0	15.0	50	Under construction	Existing sullage carrier of size 3'x2.5'			do

3.5. The main issues and problems in the system

The main problems and bottlenecks confronted by the city are given below;

3.5.1. Areas flooded with waste water

As informed by MC no area of the city is subjected to waste water flooding because of sewer surcharging or chocking now after replacement of outfall sewer of Zone-A by PHED.

3.5.2. Un-served areas

The following areas of the city have not been provided with sewerage system as yet.

1-Javed Colony	2-Chak N0-296	3-Chack No-364 Basti
4-Green town-2	5-Aftah town	6-Major colony
7-Gulshan colony	8-Sultan Pura	9-Nishatabad
10-Qadir colony	11-Siraj town	12-Zubair town
13-Islam Pura		

3.5.3. Disposal/pumping stations

Under mentioned repairs/replacements are needed in the civil works of the disposal stations;

Location of disposal works	Repair of Collecting tanks	Repair of screening chambers	Repair of pump houses	Repair of pumping units
Bulwantpura	2	1	1	1
Sharif pura	1	1	1	1
Housing Colony	1	1	1	1
Total	4	3	3	3

MC intends to eliminate the Sharif pura and Housing Colony disposal station after completion of Zone-B disposal works by laying the connecting sewers. Hence these two disposal works will not be renovated.

3.5.4. Provision of gully grating chambers & manhole covers

No gully grating chambers have been provided at junction of surface drains and the sewers to trap the silt and the floating materials. As such all these materials are flowing into the sewers and are the main reason for chocking the sewers.

The gully grating chambers to connect the surface drains and storm water with the sewers are required to be provided in the entire sewerage system.

Manhole covers at many places are missing and MC is not attending these complaints because of money constraints. Hence MC will need to replace the missing manhole covers along with some base frames. MC should keep adequate number of manhole covers in stock to replace the covers immediately after these are damaged or stolen.

3.5.5. Provision of winch machines

MC is not de-silting the collecting tanks due to which the sewer lines are being choked. Hence 01 No winch machine for the de-silting of collecting tanks will be required to keep the collecting tanks free of silt.

3.5.6. Repairs & replacement of other components

These components include;

- Replacement of sluice valves & check valve = 3 Sets;
- Replacement of pen stock = 3 Sets;
- Repair of sewer safety equipment = 1 set;
- Repair of staff quarters = 2 Nos.

3.6. Waste water treatment

Waste water from all the disposal works is being used for broad irrigation without treatment. Waste water treatment plants are required to be constructed to lower down the BOD level as per National Environmental Quality Standards (NEQS).

3.7. Reasons for choking the sewer lines

The city has main and branch sewers on main roads and streets but a very small area is equipped with lateral sewers. Most of the city is being served with surface drains discharging into the sewers without gully grating chambers which is allowing all the silt and the floating materials in the sewers and is the main reason for choking of sewers. No effective de-silting and cleaning of sewers is being done by MC.

3.8. Consumer connections

No consumer sewer/drain connection survey in the city has been conducted by this time. Hence the exact number of these connections cannot be estimated at this stage.

3.9. Tariff structure

No service charges have been levied for the liquid waste management and the subsidies are being met from other sources of income.

3.10. Operation & maintenance cost vs revenue recovery

The operation & maintenance cost of the sewerage system for the last five years along with the revenue recovery is given below;

O&M Expenditure vs Revenue Recovery (million Rs) (includes manpower, electricity, repairs/replacement & supplies)						
Year	2013-14	2014-15	2015-16	2016-17	2017-18	Total for 5 years
O&M expenditure	4.03	4.26	4.76	7.79	4.03	24.87
Revenue earned	0	0	0	0	0	0

Subsidy injected	4.03	4.26	4.76	7.79	4.03	24.87
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3.11. Manpower deployed

The manpower deployed for the operation & maintenance of the system is given below;

Pump operators	3
Baildars	1
Sewer men	5

The number of sewer men is quite meager as compared to the sewer network. Large length of sewers is now being laid under the ongoing scheme. Hence MC will need large manpower for operation of the scheme.

3.12. Service delivery level & coverage

With the completion & commissioning of the ongoing scheme most of the city will be served but still the need of lateral sewers in large number of streets will persist. Further the most of the area of zone-D will remain without the sewerage system which will need planning and execution of a separate scheme.

Section-4 Solid Waste Management

4.1 Existing situation

4.1.1 Available resources

a) *Equipment & machinery*

Under mentioned collection and transportation machinery is available with MC to handle the solid waste.

S.No	Equipment/machinery	Total available Nos	In working condition	Repair required
1	Tractor trolleys	05	05	05
2	Arm rolls	01	01	01
3	4-5 m3 containers	33	33	30
4	Front blade tractors	01	01	-
5	Front End loader	03	03	03
6	Water bouzers	02	02	-

The existing machinery is neither sufficient nor cost effective and efficient giving rise to low efficiency of collection and disposal of the waste and as a result of that MC is facing increased waste management cost as well as complaints regarding the insanitary conditions in the city. Efficient and cost effective machinery is needed to increase the efficiency of collection and transportation for improving the sanitary conditions in the city and lower down the operational and maintenance costs.

b) **Manpower Deployed**

The manpower deployed for collection, transportation and disposal of the solid waste is given in the table below. As indicated by MC Officers, this manpower is not sufficient to serve the entire city at the given standards. Additional manpower required by the MC is also given here. Actual requirement will be identified after detail design and implementation of the project.

Slot	Sanctioned strength	Existing strength	Vacant post	Manpower deployed on daily wages	Total man power deployed	Additional MC demand
Sanitary workers	193	183	10	-	183	200
Vehicle drivers	05	05	-	-	05	10
Supervisors	04	04		-	04	10
Sanitary inspectors	01	01	-	-	01	05
Other	-	-	-	-	-	10
Total	203	193	10	0	193	235

The city has un-satisfactory solid waste management system. Limitation in resources is described as under

4.2 Reasons for poor service

Physical & financial resources available with MC to handle the solid waste are too limited to serve the whole area of city. Limitation in resources is described here.

- a) Shortage of sanitary workers and vehicle drivers.
- b) Shortage and inefficiency of equipment and machinery.
- c) No landfill site is available for dumping of solid waste. Currently waste is being dumped along the road side which is totally unhygienic.
- d) Steel containers have been placed at main collection points which are not adequate for the entire city. However at some places walled dumps exist wherefrom solid waste is collected and transported to the dumping sites.
- e) The waste is being openly dumped without compaction and provision of earth covers which is creating all sort of hazards say; pollution of underground water, vector and vector borne diseases, obnoxious smell and high insanitary conditions.

4.3 Un-served and partially served areas

The entire city is not served with solid waste collection and disposal. The efficiency of the services is 56% as given below. Most of the areas of the city remain either un-served or these are partially served. The detail of these areas is given blow.

a) Partially served areas

No regular service is rendered in the under mentioned areas. The main complaints are attended by sending the machinery & labor once or twice a week.

1- Shadman park	2- Alfaiz Society	3- Gulshan Colony	4- Nishatabad
5- Ansar colony	6- Sharifpura	7- Hussain colony	

b) Unserved areas

Under mentioned areas are still unserved;

1- Tufail colony.	2- Islampura,	3- Housing Colony
4- Usman town	5- Ashraf colony	6- Qadir colony
7- Siraj town	8- Basit Town	9-Hashim Colony
10-Chack No – 55/2L	11- Ghaziabad	12- Usman town
13- Major colony	14- Green town	15- Aftab town

16- chak 96	17- 364-basti	18- Samanzar colony
19- Wagee town	20- Millat town	21- Tariqabad
22- Tower town		

4.4 Solid waste Generation & Disposal

The solid waste management efficiency along with present dumping sites are given below;

Total waste generated per day		Total waste collected (Tons)		% Efficiency of disposal	Name of dumping sites	
Cubic meters	Tons	Cubic meters	Tons		SiteNo-1	SiteNo-2
142	71*	79	39.5	56%	Dijkot Road Gojra	
Distance from city center (Km)					6 KM	
Open dumping= O Landfill= LF					O	

*Assumed density of loose solid waste = 500 KGs per cubic meter

4.5 Landfill Site development

An area of 18.5 Acre on Dijkot road has been allocated by Revenue Department for construction of landfill site.

However the suitability of the landfill sites will be determined after detailed surveys and design of the project by catering the requirement of the environmental standards in vogue in Punjab.

4.6 Vehicle parking Area:

An area of 2.0 Kanals is available with MC in the city at disposal works of Zone-A which will be converted into proper parking area for equipment and machinery available with MC or to be procured.

4.7 Solid waste management financials (million Rs.)

The annual expenditure incurred by MC for last 5 years is given below which includes manpower, energy, repairs, supplies etc.)

Year	2013-14	2014-15	2015-16	2016-17	2017-18
O&M Expenditure (million Rs)	11.73	10.41	11.18	21.92	11.73

MC will have to levy the sanitation fee to meet the expenditure on solid waste management or at least to lower down the subsidy presently being injected.

4.8 Service delivery

At the average, the service delivery level is poor. Some portion of the city is either unserved or partially served because of shortage of sanitary staff and machinery & equipment whereas the existing machinery and equipment is inefficient having costly operation and maintenance.

The solid waste is being dumped along the Dijkot Road because no proper landfill site is available which is creating hazards like obnoxious smell, sub soil water pollution and breeding of vectors causing water borne and vector diseases. Apart from that this is also creating insanitary conditions resulting in frustration in the citizen. MC has a piece of land measuring 18.5 acres for the development of Landfill site but it could not be developed due to financial constraints.

Section-5 Roads

5.1 City Roads Hierarchy

The main roads in the city and emerging from the city have under mentioned hierarchy;

S.No	Name of the road	Owner department
1	Gojra Jhang Road	Provincial Highway
2	Gojra Dijkot Road	do
3	Gojra bypass Road	do
4	Gojra Toba Road	do
5	Gojra to Okara-Faisalabad Road	District Council
6	All others roads	Municipal Committee

All these roads have been marked on the map of the city in different colors

5.2 Existing situation

Some of the primary roads in MC Gojra are in good condition & few main roads need rehabilitation, resurfacing and widening & improvement. Further many of the secondary roads/streets require either rehabilitation or new construction with concrete pavers. The inventory of the municipal roads is given below;

5.3 Inventory of MC roads

The detail of all these roads is given on the next page.

Inventory of primary & secondary roads in Gojra City

S.#	Name of road		Road Information							Intervention Required		
	From	To	Category of Road	Length (km)	Width (ft)	TST, asphalt or concrete pavers	Median (Yes/No)	Road Condition	Road Drainage (Yes/No) & its condition	Raising (feet)	Drain Section	Raising of manholes (Yes/No) (give Nos)
1	Mochi wala road Ghaffar Park	M.C. Limit	B	1.1	20	asphalt	NO	Satisfactory	YES	Nil	Nil	Nil
2	Mongi road (Lari Addha)	M.C. Limit	B	1.6	20	T.S.T	NO	Poor	YES	Nil	Nil	Nil
3	Pensara road (Ghaffar park)	M.C. Limit	A	0.80	30	asphalt	YES	Satisfactory	YES	Nil	Nil	Nil
4	Jhang road (Club Chowk)	M.C. Limit	A	2.36	30+30	T.S.T	YES	Satisfactory	YES	Nil	Nil	Nil
5	Sammundri road (Lari Addha)	M.C. Limit	A	0.54	21+21	asphalt	YES	Satisfactory	YES	Nil	Nil	Nil
6	Toba road (Railway Phatic)	M.C. Limit	A	1.06	30+30	T.S.T.	YES	Poor	YES	Nil	Nil	Nil
7	Mission road (Ghaffar Park chowk)	Railway Phatic	B	0.46	33+33	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
8	T&T road (Club Chowk)	Ghaffar Park	A	0.46	35+35	asphalt	YES	Good	YES	Nil	Nil	Nil
9	College road (T&T road)	National Bank	B	0.38	24	T.S.T.	NO	Poor	YES	Nil	Nil	Nil
10	National Bank road (Post Office)	College Chowk	A	0.26	40	asphalt	YES	Good	YES	Nil	Nil	Nil
11	Post Office road (O.H.R)	Malikan wala chowk	A	0.50	30+30	asphalt	YES	Good	YES	Nil	Nil	Nil
12	Tehsil Office road (Toba road)	Jhang road	A	0.87	30+30	asphalt	YES	Good	YES	Nil	Nil	Nil
13	Quaid-e-Azam road (Coop-rative Bank	Gadha Khana Chowk	B	0.63	40	asphalt	NO	Good	YES	Nil	Nil	Nil
14	Coop-rative Bank 298 road to	Base Line	B	1.75	16	asphalt	NO	Good	YES	Nil	Nil	Nil
15	Base line (Jhang road)	Toba road	B	3.20	16	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
16	Dajkot road (lari Addaha)	By Pass	B	1.48	30	asphalt	NO	Good	YES	Nil	Nil	Nil
17	Qadri Darbar road (Railway Phatic)	By Pass	B	0.18	30	T.S.T.	NO	Satisfactory	YES	Nil	Nil	Nil
18	Model City road (Pensara road)	Dastgeer colony chowk	B	0.61	20	asphalt	NO	Good	YES	Nil	Nil	Nil

19	Hadir Park road (Tehsil Office road)	Madni town	B	0.12	16	T.S.T.	NO	Satisfactory	YES	Nil	Nil	Nil
20	Awan Colony road (Mongi road)	Godown	B	0.38	20	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
21	Godown	Sain Sharif Dars	C	0.91	12	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
22	Gandha Singh road (Station)	Chak 371/JB	C	0.99	12	T.S.T	NO	Very Poor	YES	Nil	Nil	Nil
23	Ansar Colony road (Filter Plant)	Takia	B	0.41	16	T.S.T	NO	Poor	YES	Nil	Nil	Nil
24	Housing Colony road (Sammundri road)	Marriage Hall	B	0.55	20	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
25	Pensara road	By Pass	B	0.98	16	T.S.T	NO	Very Poor	YES	Nil	Nil	Nil
26	Baba Dais Alam road (Pensara road)	Asghar Colony	B	0.56	12	T.S.T	NO	Very Poor	YES	Nil	Nil	Nil
27	Chemni Peer road (Sammundri road)	Water works Dajkot road	B	0.91	12	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
28	Dastgeer Colony road (Abdullah pur)	Dastgeer Colony	B	0.69	12	T.S.T	NO	Poor	YES	Nil	Nil	Nil
29	Amam Bargha road (Toba road)	National Bank road	B	0.32	20	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
30	Hassania Colony road (Sammundri road)	Takia Chowk	B	0.69	12	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
31	Ali Park road (Hassania colony)	Ali Park	B	0.61	12	T.S.T	NO	Poor	YES	Nil	Nil	Nil
32	Altaf Zakriya	Mochi road	B	0.37	20	T.S.T	NO	Satisfactory	YES	Nil	Nil	Nil
33	Base line road (Jhang road)	Mochi wala road	B	0.69	12	T.S.T	NO	Very Poor	YES	Nil	Nil	Nil
34	Kot Aman Ullah road (298-road)	Water works Sultan pura	B	0.98	16	asphalt	NO	Good	YES	Nil	Nil	Nil
35	Kacha Gojra road (Mochi wala road)	Millat Town	B	1.07	16	T.S.T	NO	Poor	YES	Nil	Nil	Nil
36	Mehdi Mohallah road (Nawaz PCO road)	Park	B	0.38	20	asphalt	NO	Satisfactory	YES	Nil	Nil	Nil
37	Dohbi Ghat	Sharif Pump Pensara road	B	1.07	16	T.S.T	NO	Poor	YES	Nil	Nil	Nil
38	Jhang road	Mochiwala road	B	0.90	16	TST	No	Poor	No	Nil	Nil	Nil
39	Tower Chowk	Mongi road	B	1.20	16	TST	No	Poor	No	Nil	Nil	Nil

Road categories A = dual carriage way B = Single road with two lanes C = Single road with one lane

5.4 Required interventions

A. Resurfacing of roads

Under mentioned roads need resurfacing. These have shown on the map in yellow color.

Sr. No.	Name of Roads	Type	Length (Ft)
R1	Samundri road	TST	1500
R2	Jhang road	TST	7750
R3	Mehdi mohalla road	TST	1250
R4	Samna abad road	TST	1700
R5	Samna abad road	TST	1100
R6	Abdullah pur road	TST	1000
R7	G.Bus stand roads & parking space	Brick pavement & TST	1400
R8	Mehdi mohalla road	TST	300
R9	Ghafar park road kacha gojra	TST	1300
R10	Kacha Gojra roads	TST	1250
R11	Housing colony roads	TST	650
R12	Repair of Concrete pavers, brick pavement & PCC streets		55,000 Sft.

B. Widening and improvement

Under mentioned roads need widening and improvement.

Sr.#	Name of road	ROW	Length	Width	Present Type of pavement	Drains Required	Shoulders Required
		Ft	Km	Ft		(YES/NO)	(YES/NO)
W1	College Road	80	0.38	24+24	TST	Yes	Yes
W2	Pensara road to Asghar Colony	20	1	15	TST	No	No
W3	Railway Station to Chak 371/JB	20	0.99	16	TST	No	No
W4	Tower Chowk To Mongi Road	20	1.2	16	TST	No	No
W5	Mochi wala road to Habib City Via Millat Town	30	0.91	16	TST	No	Yes
W6	Shareef Pump To Qadri Darbar Road	60	0.9	20	TST	Yes	Yes
W7	Mongi Bangla Road (Lari Adda To Gojra Bypass)	24	1.5	16	TST	No	No

C. Construction of New Roads

Under mentioned roads need new construction

Sr. #	Name of road	ROW	Length	Width	Existing type of pavement	Drains Required	Shoulders Required
		Ft	Km	Ft		(YES/NO)	(YES/NO)
N1	Pensara road to Qadri Darbar road	24	1.6	16	TST + kacha road	NO	NO
N2	Base line to Jhang Road	24	2.8	12	do	NO	NO
N3	Hafeez Park road to 297/JB road	24	1.3	16	do	NO	NO
N4	Sharif Petroleum to Stara Chowk Millat Chowk	20	0.85	12	do	NO	NO
N5	Jhang road Altaf Zikriya road to Mochi wala road	24	0.9	16	do	NO	NO
N6	Toba road	70	1.20	40	do	Yes	Yess

Section-6
Parks and open spaces

6.1. Existing situation

6.1.1. Existing Parks

Gojra Town has seven main parks as mentioned below;

S.N.	Name of park	Area in acres	Ownership & maintained by
1	Ali asgar park	5.0	Municipal Committee Gojra
2	Jinnah Park	2.5	do
3	Eid Gah Park	2.5	do
4	Mehdi Mohallah Park	2.0	do
5	Jamia Charagia Park	3.0	do
6	Fatima Park	1.0	do
7	Waliabad Park	1.0 Kanal	do

The facilities presently existing in these parks are described below

S No	Name of Park	1	2	3	4	5	6	7
		Ali Asghar Park	Jinnah Park	Eid gah park	Mehdi Mohallah Park	Jamia charagia park	Fatima Park	Waliabad Park
1	Location							
2	Area of Park in acres	5	2.5	2.5	2.0	3.0	1.0	1.0 Kanal
3	Watering & Irrigation							
a	Tube well	Yes	No	No	No	No	No	No
b	Water Supply from municipal system	No	Yes	Yes	Yes	Yes	Yes	Yes
c	Underground water tank	No	No	No	No	No	No	No
d	Pumping unit	Yes	No	No	No	No	No	No
e	Distribution pipe lines	No	No	No	No	No	No	No
f	Valves	No	No	No	No	No	No	No

g	Sprinkler system	No	No	No	No	No	No	No
4	Landscaping & Plantation							
a	Grass beds	Poor	Poor	Poor	Poor	Poor	Poor	Poor
b	Flower beds	Poor	Poor	Poor	Poor	Poor	Poor	Poor
c	Hedges	Poor	Poor	Poor	Poor	Poor	Poor	Poor
d	Plants	Poor	Poor	Poor	Poor	Poor	Poor	Poor
5	Lights							
a	Poles and masts	Poor	Poor	Poor	Poor	Poor	Poor	Poor
b	Cables	Poor	Poor	Poor	Poor	Poor	Poor	Poor
c	Brackets and lights	Poor	Poor	Poor	Poor	Poor	Poor	Poor
d	Bulbs and tubes	Poor	Poor	Poor	Poor	Poor	Poor	Poor
e	Control units	Poor	Poor	Poor	Poor	Poor	Poor	Poor
6	Structures							
a	Buildings	Poor	Poor	Poor	Poor	Poor	Poor	Poor
b	Fountains & water fall structure	NA	NA	NA	NA	NA	NA	NA
c	Walkways	Poor	Poor	Poor	Good	Poor	Poor	Poor
d	Bridges & culverts	NA	NA	NA	NA	NA	NA	NA
e	Boundary wall & gate	Good	Good	Poor	Good	Poor	Good	Good
f	Toilets	Good	Poor	Poor	Poor	Poor	Poor	Poor
g	Lakes & brooks	NA	NA	NA	NA	NA	NA	NA
7	Mechanical equipment							
a	Pumping units	Poor	NA	NA	NA	NA	NA	NA
b	Swings	NA	NA	NA	NA	NA	NA	NA
c	Children games	NA	NA	NA	NA	NA	NA	NA
d	Fixtures	NA	NA	NA	NA	NA	NA	NA
e	Benches	Poor	Poor	Poor	Poor	Poor	Poor	Poor
8	Sanitation & water supply							
a	Litter bins	Poor	Poor	Poor	Poor	Poor	Poor	Poor
b	Toilet fixtures	Poor	Poor	Poor	Poor	Poor	Poor	Poor
c	Sewerage system	Poor	Poor	Poor	Poor	Poor	Poor	Poor
d	Vegetation cuttings & disposal	Poor	Poor	Poor	Poor	Poor	Poor	Poor
e	Drinking water	Poor	Poor	Poor	Poor	Poor	Poor	Poor
f	Water pipes	Poor	Poor	Poor	Poor	Poor	Poor	Poor

6.2. Rehabilitation of the existing parks

Some of the facilities in these parks are working in good condition but some of these are in poor condition and need to be rehabilitated. On the other hand some important facilities are missing and need to be provided. The detail of all the required interventions in these parks for their upgrading are given blow;

Sr.	Location	Boundary	Concrete	Water supply	Required allied facilities
-----	----------	----------	----------	--------------	----------------------------

No.			wall	pavers	Item Length /No's	Item	Length /No's
1	Ali asgar park	5.0 acres	-	Jogging track	Lawn watering system required	Park light	10
						Play Land area	1 Kanal
						Cafeteria	1
						Landscaping	Complete park
2	Jinnah Park	2.5 acres	-	Jogging track	do	Park light	8
						Play Land area	1 Kanal
						Cafeteria	1
						Wash room	2
3	Eid gah park	2.5 acres	Repair	Jogging track	do	Landscaping	Complete park
						Cafeteria	1
						Park light	7
						Play Land area	1 kanal
4	Mehdi Mohallah park	2.0 acres	-	-	do	Wash room	1
						Benches	4
						Park light	5
						Play Land area	1 kanal
5	Jamia charagia park	3.0 acres	Repair	Jogging track	do	Landscaping	Complete park
						Wash room	2
						Play Land area	1 kanal
						Park light	10
6	Fatima park	1.0 acre	-	Jogging track	do	Benches	5
						Wash room	1
						Play Land area	-
						Park light	5
7	Waliabad Park	1.0 kanal	-	Jogging track	do	Landscaping	Complete park
						Wash room	1
						Play Land area	-
						Benches	5

6.3. Open spaces to parks

The city has 3 open spaces. Municipal Committee desires to convert the open spaces in to parks because of congestion in the existing parks. Construction of these parks will bring about good recreational facilities for the citizen. Details of open spaces for conversion in to parks are given below:

Conversion of open spaces to parks/Play-ground

Sr. No.	Location of open space	Area of open space (Acres)	Proposed utility
1	Chak No. 296/ JB	1.0 Acre	Park
2	Samanzar colony	2.0 kanal	Park
3	Ghaffar park	2.0 kanal	Park

6.4. O&M expenditure and revenue recovery (million PKR)

Year	2013-14	2014-15	2015-16	2016-17	2017-18	Total for 5 years
O&M expenditure	0.422	0.465	0.995	1.077	1.925	4.884
Revenue earned	0	0	0	0	0	0
Subsidy injected	0.422	0.465	0.995	1.077	1.925	4.884

Section-7 Street Light

7.1. Existing situation

Street light facility is available on a very few roads in municipal limits of Gojra Town. In the current analysis the replacement of LED lights is not proposed by MC for any road.

7.2. Rehabilitation of the existing street lights

Under mention roads required rehabilitation of the existing lights.

Sr. No.	Repairs & replacements	Qty.
R1	Jhang road	50
R2	Pensara road	20
R3	Mongi road	14
R4	New Plot 298/JB road	15
R5	Mission road	17
R6	Tehsil office road (Cenima Road)	20
R7	Toba road	30
R8	Mochiwala road	10
R9	Sammundri road	8
R10	Quaid-e-Azam road	10

7.3. Provision of new street lights

MC Gojra requires to provide new street lights on the under mentioned main roads of the city;

Sr. #	Name of road/street	Length (Km)
N1	College Road	0.38
N2	Pensara road to Asghar Collong	1.00
N3	Railway Station to Chak 371/JB	0.99
N4	Tower Chowk To Mongi Road	1.2
N5	Mochi wala road to Habib City Via Millat Town	0.91
N6	Shareef Pump To Qadri Darbar Road	0.90
N7	Mongi Bangla Road (Lari Adda To Gojra Bypass)	1.5
N8	Base Line Road	2.8

7.4. Expenditure on street lights

Undermentioned expenditure on the operation & maintenance of the existing street lights has been incurred by MC Gojra during the last 5 years. This includes the energy cost, manpower cost and cost of repairs and replacements.

(All figures in million Rs)

Year	2013-14	2014-15	2015-16	2016-17	2017-18
O&M Expenditures	3.855	4.242	4.419	4.52	3.855

Section-8

Public Private Partnership projects & Collaborative Projects executed by MC

8.1. Planning & Execution of PPP projects

As informed by Chief Officer, no project in the Public Private Partnership Mode & Collaborative Mode has ever been executed by the Municipal Committee or defunct TMA Gojra. As such the key officers and staff have no experience as well as capacity for planning estimation and execution of such project

Section-9

Budgetary provisions on development of services infrastructure and O&M Cost

9.1. Development expenditure

The expenditure incurred on the development projects from year 2013-14 to the current financial year & source of financing is given below

(All figures in million Rs)

Description	2013-14	2014-15	2015-16	2016-17	2017-18
Expenditure on Development Projects	34.467	47.727	44.086	26.885	60.00
Source of Financing of Development Projects	Own source revenue				
	ADP grants from PFC share				

9.2. Expenditure on O&M of services and revenue generated

Description	2013-14	2014-15	2015-16	2016-17	2017-18
<u>Water supply</u>					
Total O&M cost	27.94	30.24	28.93	30.13	46.05
Revenue earned	4.25	7.20	7.87	7.95	10.00
% revenue earned vs O&M charges	15.09	23.82	27.20	26.38	21.72
Subsidy injected	23.72	23.03	21.06	22.18	36.05
<u>Sewerage/drainage</u>					
Total O&M cost	4.03	4.26	4.76	7.79	4.03
Revenue earned	Nil	Nil	Nil	Nil	Nil
% revenue earned vs O&M charges	Nil	Nil	Nil	Nil	Nil
Subsidy injected	4.03	4.26	4.76	7.79	4.03
<u>Solid waste management</u>					
O&M cost	11.73	10.41	11.18	21.92	11.73
Revenue earned	Nil	Nil	Nil	Nil	Nil
Subsidy injected	11.73	10.41	11.18	21.92	11.73
<u>Parks</u>					
O&M cost	0.422	0.465	0.995	1.077	1.925
Revenue earned	Nil	Nil	Nil	Nil	Nil
Subsidy injected	0.422	0.465	0.995	1.077	1.925

Street Light					
Total Expenditure	3.855	4.242	4.419	4.52	3.855
Revenue earned	The service is not charged.				

Section-10 Manpower deployment & shortage

The manpower deployed by MC Gojra in various Municipal Services is given below. MC is experiencing manpower shortage in some of the services which is also explained herein.

S.No	Description	Sanctioned Regular strength	Actual Regular deployment	Regular Vacant Slots	Employed on daily basis	Shortage of regular personnel	Additional requirement
A	Office manpower						
1	Key officers (BPS-17 & above)	5	3	2	-	2	-
2	Sub engineers	3	3	-	-	-	1
3	Support staff (BPS-16 & below)	83	73	10	-	10	10
	Total office manpower (A)	91	79	12	-	12	11
B	Municipal services						
1	Water supply	21	04	17	11	17	48
2	Sewerage	5	5	-	4	-	50
3	Solid waste management	203	193	10	0	10	235
4	Parks & Roads	26	22	4	-	4	-
6	Street lights	2	2	-	-	-	4
7	Slaughter houses	-	-	-	-	-	4
	Total municipal services (B)	257	226	31	15	31	333
	Grand Total (A+B)	681	305	43	15	43	344