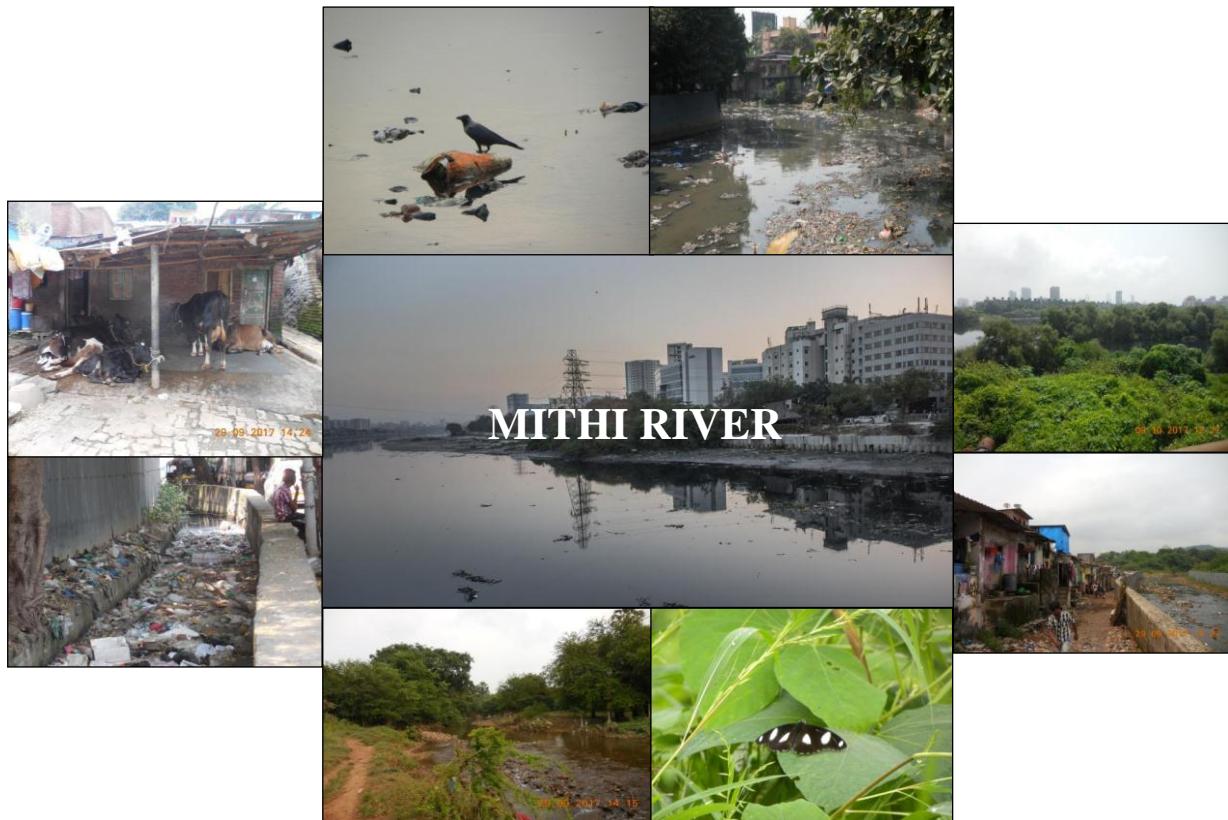


Report on Ecological Study of Mithi River



Report Prepared By



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CHAPTER 1: INTRODUCTION

Mithi river is a complete natural ecosystem in itself. It originates from the confluence of tail water discharges of Vihar lake and Powai lake. It came into focus as one of the major reasons to cause flooding due to the downpour on 26th July, 2005 and was recognized as River of Death when it sank entire city of Mumbai.

Mithi river has a total length of about 17.84 km and catchment area of 7,295ha. It flows through residential and industrial regions of Mumbai. Before meeting Arabian Sea at Mahim creek, Vakolla nalla joins Mithi river at BKC complex. The flow of River is shown in the following image.

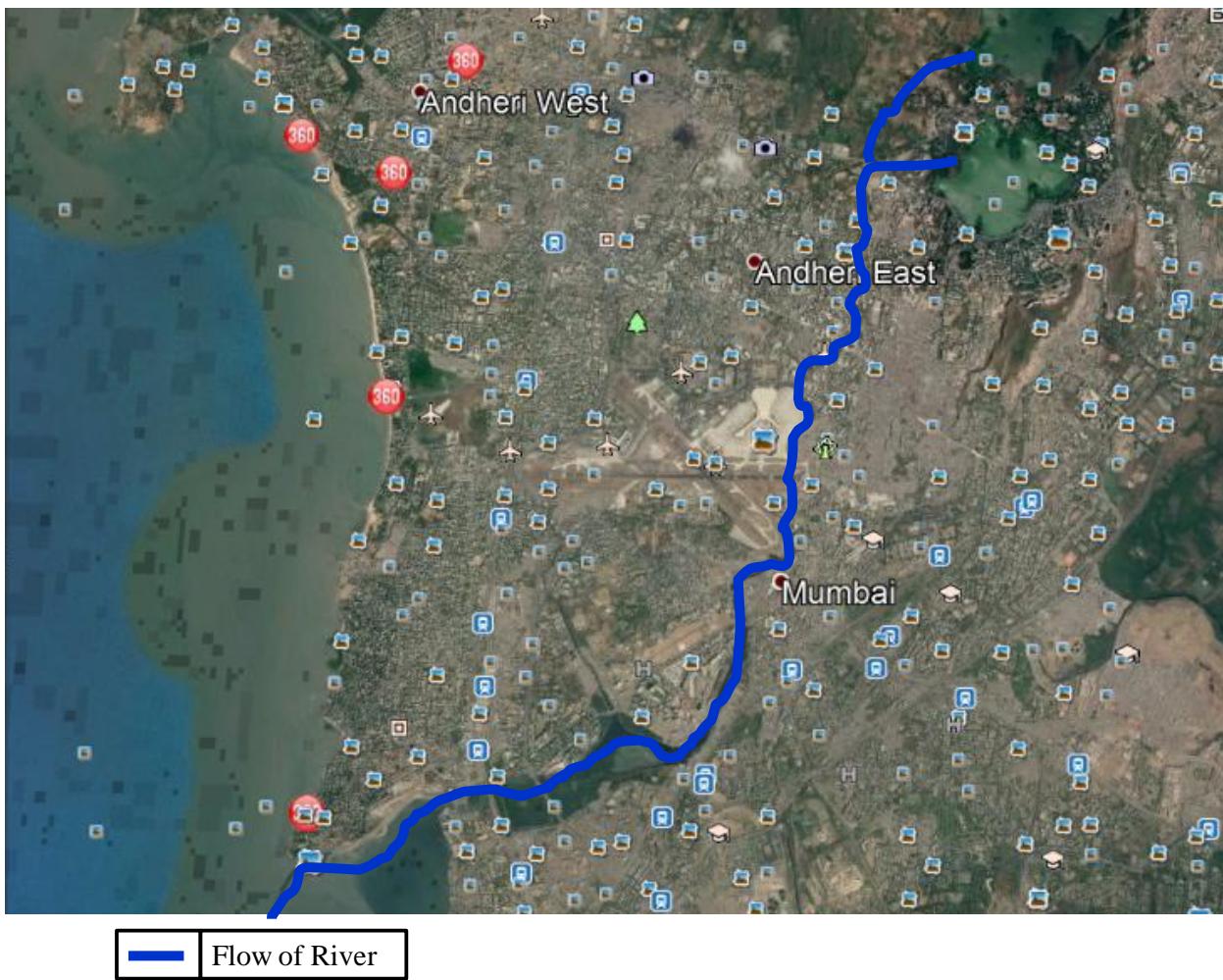


Figure 1.1: Flow Map of Mithi River

Mithi River originates from overflow of Powai and Vihar lakes and flows through the areas of Andheri East (Marol, Sakinaka), Chatrapati Shivaji International Airport Area, Kurla, Bandra Kurla Complex, Bandra, Chunabhatti, Dharavi and meets Arabian Sea at Mahim creek. Mithi has great biological significance. Diversity of flora and fauna is observed at both upper and lower stretch of Mithi. It has mangrove patches along banks at its lower stretch. It is said,

healthy mangroves help provide a better habitat for marine and terrestrial flora and fauna. But, owing to poor water quality life forms are usually rare in the river.

Water quality of river has degraded over time. Sewage and industrial waste are discharged into the river and solid waste is directly dumped into the river. This has reduced the carrying capacity of river and has thus shown poor habitat situation for better life support. Mixing of sewage and industrial waste not only shows poor habitat situation for better life support, but also have greatly harmed the marine life and slowly started to cause harm to the human life as well. The River receives discharges from residential and industrial sector and thus it carries both sewage and illegal industrial discharges and storm water to the Arabian Sea. Complex networks of industrial and residential drainage into Mithi have been the reason for its degradation. Hence the scope of work involves;

- Topographic study of Mithi
- Study of source of pollution from residential and industrial areas
- Study of biodiversity
- Comparative study of changes in areas along Mithi

CHAPTER 2: COMPARATIVE STUDY OF CHANGES IN AREA ALONG MITHI RIVER

Changes in area/scenario along Mithi River were studied and compared with IIT report of Mithi survey (2005). The changes observed while comparing current scenario (2017) with IIT report of Mithi survey (2005) are shown in **Table 2.1**.

Table 2.1:- Comparative study of changes in area/scenario along Mithi River

Sr. No	GPS	Area	2005	2017
1.	19° 6'51.06"N, 72°53'7.07"E	Marol	Empty Space	Construction project – Vasant Oasis (in Figure 2.1)
2.	19° 6'29.44"N, 72°53'14.75"E	Sag Baug	Less settlements	Encroached – more number of slums observed (Figure 2.2 marked in red)
3.	19° 6'9.31"N, 72°52'56.79"E	SakiNaka	Empty Space	New building developed (Figure 2.3 marked in Yellow)
4.	19° 6'29.71"N, 72°53'2.50"E	Saug Baug	Structure present	Redeveloped structures (buildings) (Figure 2.4 marked in yellow)
5.	19° 7'36.06"N, 72°53'0.05"E	Vijay Nagar	Green Cover	Cleared (Figure 2.5 marked in yellow)
6.	19° 7'35.50"N, 72°53'12.89"E	Manohar NAgar	Clear Land (markings shown on google)	Developed – structures/roads (Figure 2.6 marked in yellow)
7.	19° 6'18.33"N, 72°52'52.51"E	Saki Naka	Empty Space(surrounded by slums)	New building developed (in Figure 2.7)
8.	19° 6'7.38"N, 72°52'42.13"E	Near Chatrapati Shivaji International Airport	Empty space	New complex developed (Figure 2.8 marked in yellow)
9.	19° 5'25.97"N, 72°52'49.85"E	Near Chatrapati Shivaji International Airport	Empty space	Covered for Airport runway (Figure 2.9 marked in yellow)
10.	19° 5'15.82"N, 72°52'43.98"E	Near Chatrapati Shivaji International Airport	Narrow river	River widened further (Figure 2.10 marked in red)
11.	19° 4'47.00"N, 72°52'45.86"E	Near Chatrapati Shivaji International	River and green area seen	River widened, New structures developed (Figure 2.11 marked in

		Airport		yellow)
12.	19° 4'21.78"N, 72°52'18.91"E	Kurla	Structures can be observed	Structures cleared (Figure 2.12 marked in pink)
13.	19° 3'50.98"N, 72°52'10.69"E	BKC	BKC Area empty	BKC Area Developed (in Figure 2.13)
14.	19° 3'1.50"N, 72°51'41.69"E	Sion	Old structures can be observed	New buildings developed (Figure 2.14 marked in yellow)
15.	19° 3'20.94"N, 72°52'19.69"E	Chunabhatti	Clear Land observed	New buildings developed (Figure 2.15 marked in yellow)
16.	19° 2'49.94"N, 72°51'26.30"E	Dharavi	Clear area	New building developed (Figure 2.16 marked in yellow)
17.	19° 2'48.89"N, 72°51'31.75"E	Dharavi	Slums observed	New buildings developed (Figure 2.17 marked in yellow)
18.	19° 2'52.56"N, 72°50'26.45"E	Mahim	Slums observed	Slums cleared (Figure 2.18 marked in yellow)
19.	19° 2'50.67"N, 72°50'22.24"E	Mahim	Slums observed	Slums cleared (Figure 2.19 marked in yellow)
20.	19° 2'52.77"N, 72°50'14.61"E	Mahim	Empty space (water observed)	Filled space (in Figure 2.20)
21.	19° 2'50.26"N, 72°50'11.69"E	Mahim	Empty space	Slums encroachment (in Figure 2.21)
22.	19° 3'5.02"N, 72°50'25.80"E	Bandra	Empty space	Slum encroachment (in Figure 2.22)
23.	19° 7'18.90"N, 72°53'1.24"E	Vijay Nagar	Green Cover observed	Cleared space, with some new structures (Figure 2.23 marked in yellow)
24.	19° 7'12.34"N, 72°53'13.61"E	Raje Shivaji Nagar	Clear land, less slums	More slums observed, encroachment (in Figure 2.24)

Changes in area/scenario along Mithi River after comparison with IIT survey report are marked on Google Maps and these are shown in the following images.



Figure 2.1: Construction project – Vasant Oasis

GPS: 19° 6'51.06"N, 72°53'7.07"E

Area: Marol

Description:- According to 2017 and 2005 data, Vasant Oasis project is being constructed in an area which in 2005 was an empty space

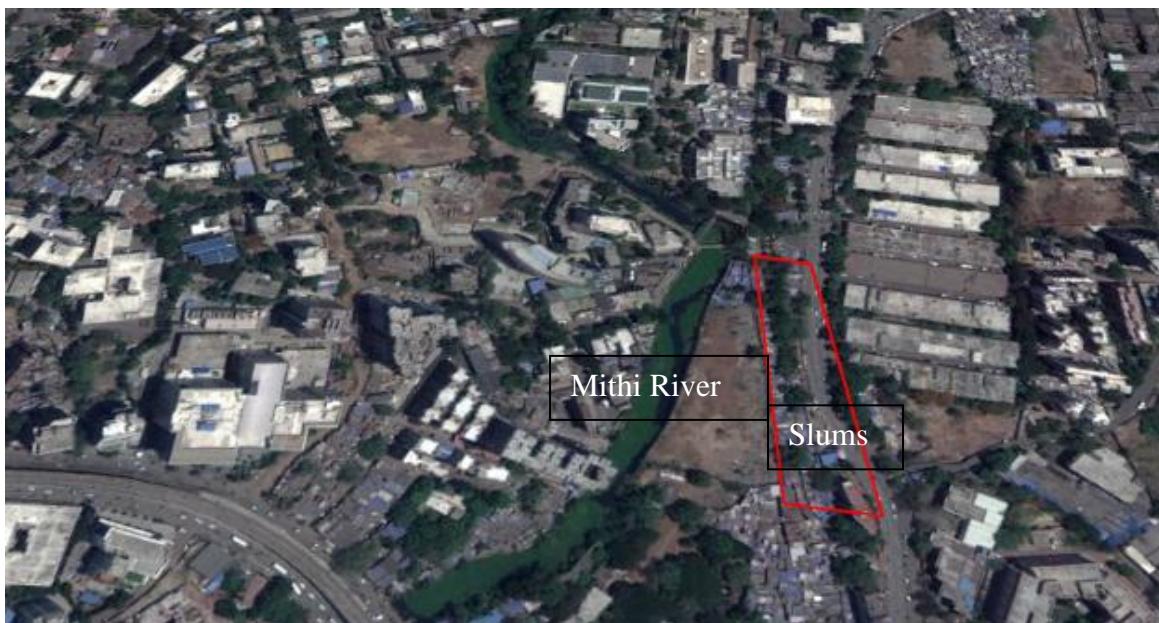


Figure 2.2: Encroachment – More no. of slums observed as compared with 2005 and 2017 data

GPS: 19° 6'29.44"N, 72°53'14.75"E

Area: Sag Baug



Figure 2.3: New building constructed in an empty space, according to 2005 and 2017 data

GPS: 19° 6'9.31"N, 72°52'56.79"E

Area: Saki Naka



Figure 2.4: Redeveloped structures according to 2005 and 2017

GPS: 19° 6'29.71"N, 72°53'2.50"E

Area: Sag Baug

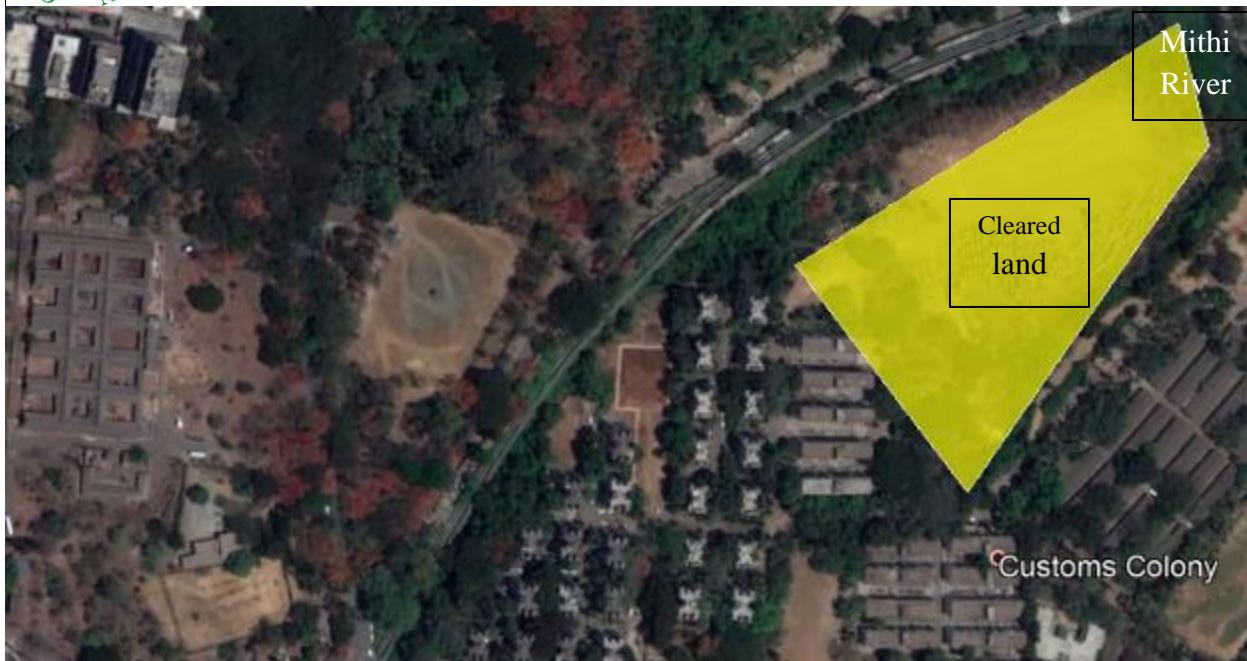


Figure 2.5: Green cover area converted into cleared land, according to 2005 and 2017 data

GPS: $19^{\circ} 7'36.06"N, 72^{\circ}53'0.05"E$

Area: Vijay Nagar



Figure 2.6: Developed – Structures/Roads on comparison with 2005 and 2017 data

GPS: $19^{\circ} 7'35.50"N, 72^{\circ}53'12.89"E$

Area: Manohar Nagar



Figure 2.7: Building constructed in an empty space, according to 2005 and 2017 data

GPS: 19° 6'18.33"N, 72°52'52.51"E

Area: Saki Naka



Figure 2.8: Society developed in an empty space, according to 2005 and 2017 data

GPS: 19° 6'7.38"N, 72°52'42.13"E

Area: Near Chatrapati Shivaji International Airport



Figure 2.9: Empty space covered for airport runway, according to 2005 and 2017 data

GPS: 19° 5'25.97"N, 72°52'49.85"E

Area: Near Chatrapati Shivaji International Airport



Figure 2.10: River Widened further according to 2005 and 2017 data

GPS: 19° 5'15.82"N, 72°52'43.98"E

Area: Near Chatrapati Shivaji International Airport



Figure 2.11: River widened further and structures developed along the bank, according to 2005 and 2017 data

GPS: 19° 4'47.00"N, 72°52'45.86"E

Area: Near Chatrapati Shivaji International Airport



Figure 2.12: Old Structures along river bank are cleared, according to 2005 and 2017 data

GPS: 19° 4'21.78"N, 72°52'18.91"E

Area: Kurla

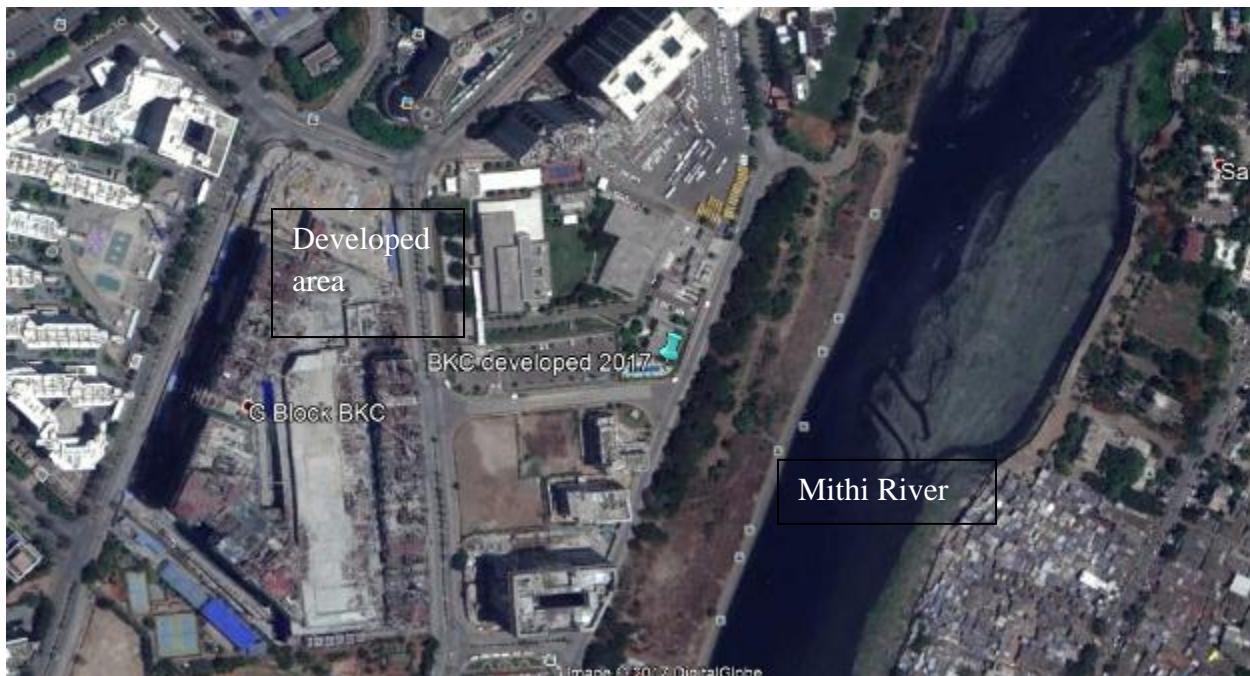


Figure 2.13: BKC Area developed according to 2005 and 2017 data

GPS: 19° 3'50.98"N, 72°52'10.69"E

Area: Bandra Kurla Complex



Figure 2.14: Old structures redeveloped into buildings according to 2005 and 2017 data

GPS: 19° 3'1.50"N, 72°51'41.69"E

Area: Sion



Figure 2.15: Buildings constructed in empty space, according to 2005 and 2017 data

GPS: 19° 3'20.94"N, 72°52'19.69"E

Area: Chunabhatti

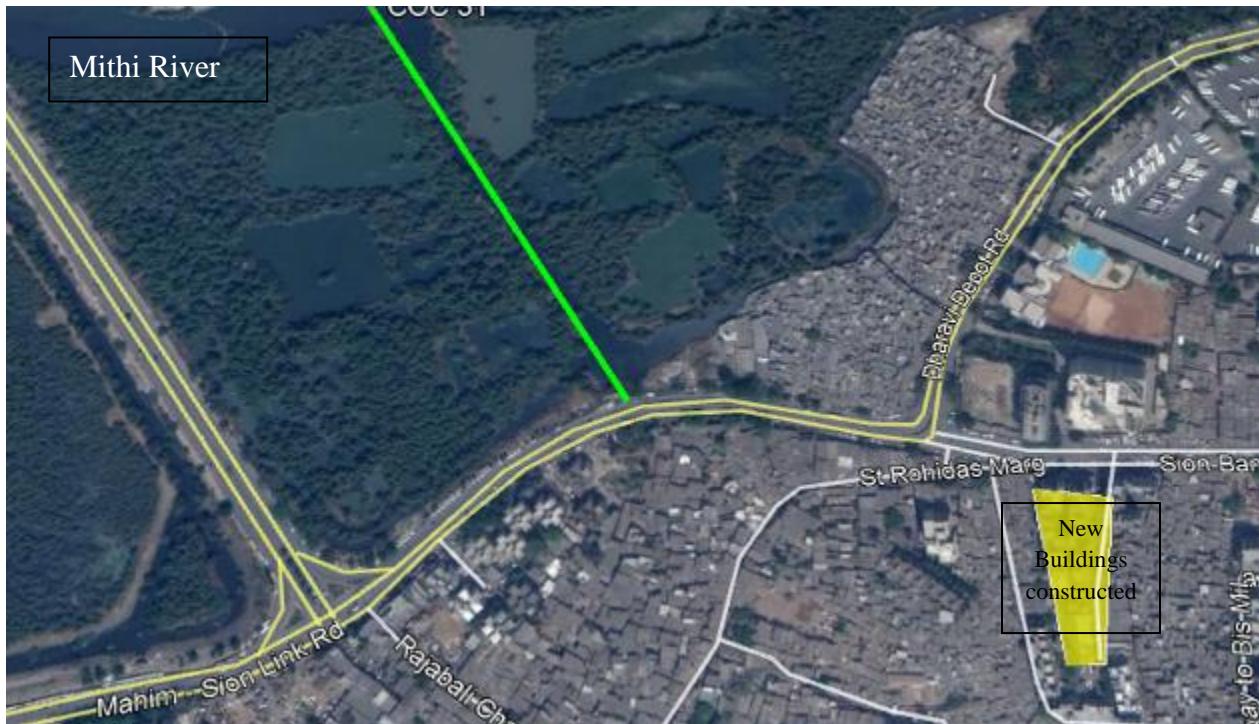


Figure 2.16: Buildings constructed in empty space, according to 2005 and 2017 data

GPS: 19° 2'49.94"N, 72°51'26.30"E

Area: Dharavi



Figure 2.17: Slum area developed into buildings, according to 2005 and 2017 data

GPS: 19° 2'48.89"N, 72°51'31.75"E

Area: Dharavi



Figure 2.18: Slum area cleared according to 2005 and 2017 data

GPS: 19° 2'52.56"N, 72°50'26.45"E

Area: Mahim



Figure 2.19: Slum area cleared according to 2005 and 2017 data

GPS: 19° 2'50.67"N, 72°50'22.24"E

Area: Mahim



Figure 2.20: Empty space along river bank filled in 2017, according to 2005 and 2017 data

GPS: 19° 2'52.77"N, 72°50'14.61"E

Area: Mahim



Figure 2.21: Slums encroachment observed as compared with 2005 and 2017 data

GPS: 19° 2'50.26"N, 72°50'11.69"E

Area: Mahim



Figure 2.22: Slum Encroachment observed as compared with 2005 and 2017 data

GPS: 19° 3'5.02"N, 72°50'25.80"E

Area: Bandra



Figure 2.23: Green cover area converted into cleared land as compared to 2005 and 2017 data

GPS: 19° 7'18.90"N, 72°53'1.24"E

Area: Vijay Nagar



Figure 2.24: Encroachment - More slums observed as compared with 2005 and 2017 data

GPS: 19° 7'12.34"N, 72°53'13.61"E

Area: Raje Shivaji Nagar

CHAPTER 3: TOPOGRAPHY OF MITHI RIVER

Methodology adopted to conduct the Topographic survey of Mithi River.

Manpower Deployed.

1. Sufiyan Kondekar (Surveyor)
2. Jayanta Kumar Das (Surveyor)
3. Halim Mirza (Surveyor)
4. Aijaz Patankar (Processor)
5. Arun Kumar Jha (Driver)

Equipment used.

1. DGPS (1+3) one base + 3 rovers
2. Grab for soil sample
3. Laptop 1 No.

Differential Global Positioning system (DGPS) Geo-Max Zenith 10 was used to pick the Topographical details, to get more accuracy base station was observed for 6 hours at a specified location to get the accurate XYZ (Easting, Northing, and Ground Level) on completion of base station observation, base was installed at base station and 3 Rovers were used to pick up water level, ground level and all other details like buildings, telephone lines, roads etc.

During the course of survey 5 samples were collected with the help of Grab, the locations of sample collected are as follows:

1. Near Vihar Lake
2. Saki Naka
3. CST Road
4. Mithi Vakola Confluence
5. Mahim Bay.

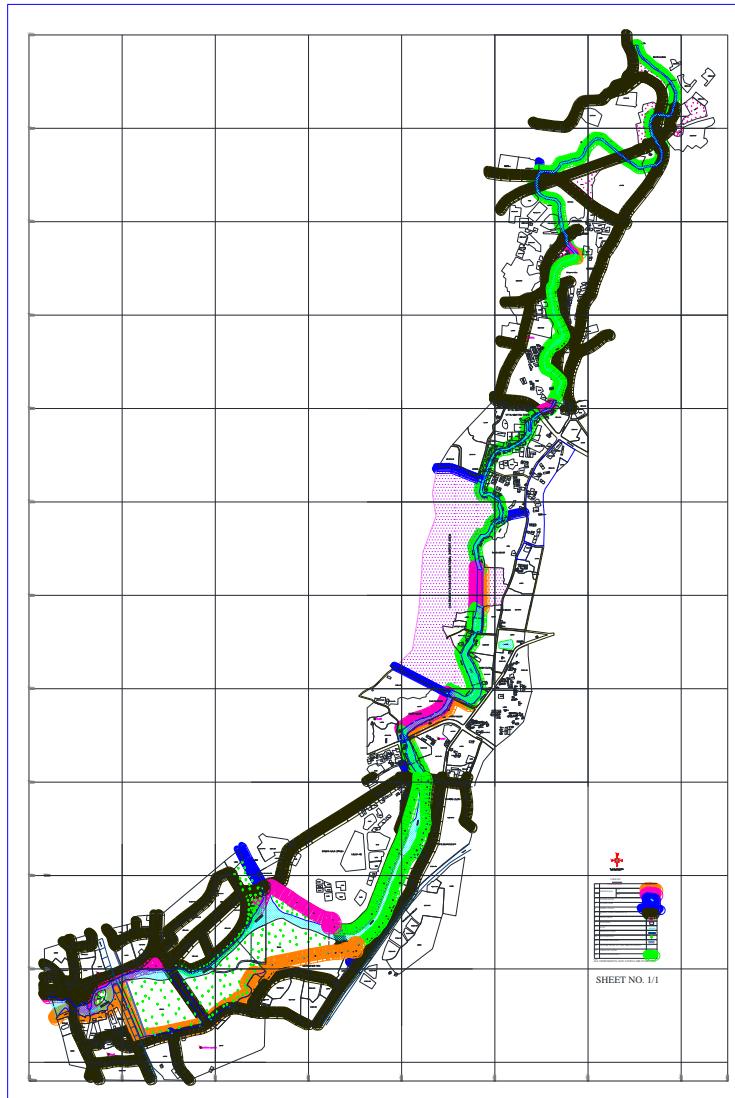
The processed data was exported to Auto CAD and the final drawings were made. The area was around 17 Kms; hence the drawing was made in 3 parts viz. 1/3, 2/3 and 3/3.



Figure 3.1: Base Station observation in progress



Figure 3.2: With DGPS Positions being picked.



LEGEND		
NO	DESCRIPTION	SYMBOL
1	River Bank	L/S
		R/S
2	Water Flow	
3	Water Line	
4	Drain/Nala	
5	Road/ Cart track (CT)	
6	Slum Area	
7	Building	
8	Wall	
9	Railway Line	
10	Mangrove	
11	Water pipe line	
12	Water level at the time of survey	
13	Ground level	7.171
14	Retention wall	9.930

Figure 3.3: Topography Map of Mithi River

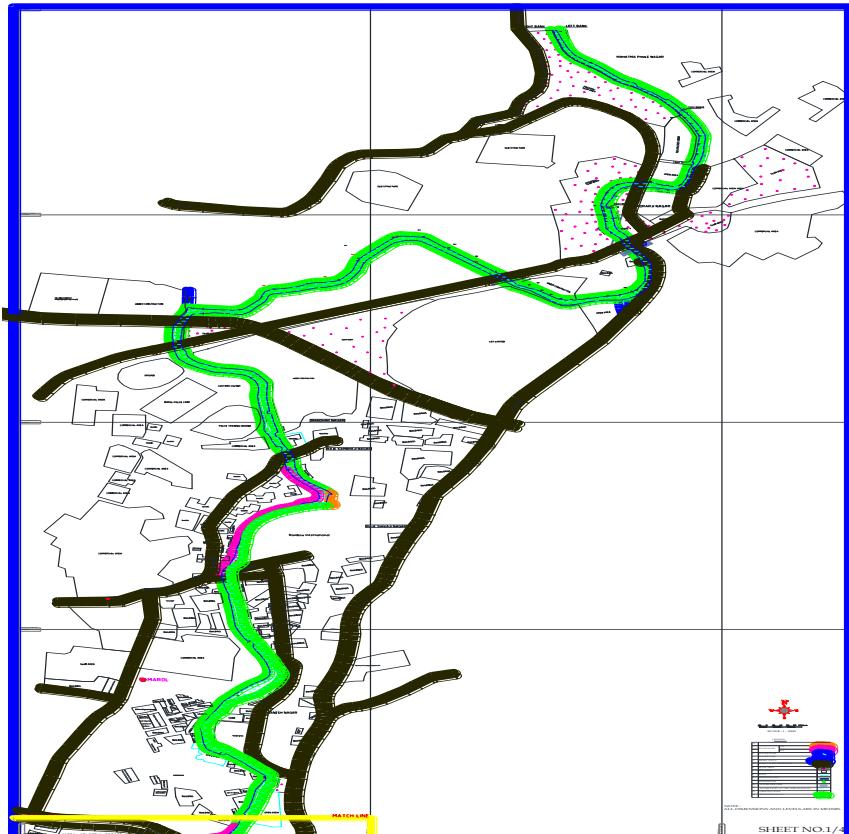
Mithi observations are classified into 4 parts based upon the flow of river and this is shown in **Table 3.1.**

Table 3.1: Categorization of Mithi River

Sr No	Part	Area (Start point to End point)
1	Part 1	Mahatma Phule Nagar to Sag Baug
2	Part 2	Sag Baug to BKC-CST Link Road
3	Part 3	BKC-CST Link Road to BKC Road
4	Part 4	BKC Road to Mahim Bay

The following parts explain the findings observed during Mithi River study

Mithi River – Part 1 – Mahatma Phule Nagar to Sag Baug



LEGEND		
NO	DESCRIPTION	SYMBOL
1	River Bank	L/S
		R/S
2	Water Flow	
3	Water Line	
4	Drain/Nala	
5	Road/ Cart track (CT)	
6	Slum Area	
7	Building	
8	Wall	
9	Railway Line	
10	Mangrove	
11	Water pipe line	
12	Water level at the time of survey	
13	Ground level	7.171
14	Retention wall	9.930

Figure 3.4: Topography Map of Mithi River (Part 1)



Figure 3.5: Start point of river from Vihar Overflow
 $(19^{\circ} 8'35.07"N)$ $(72^{\circ}53'41.89"E)$
 Area : Mahatma Phule Nagar



Figure 3.6: Approach Road near river
 $(19^{\circ} 8'34.89"N)$ $(72^{\circ}53'41.59"E)$
 Area : Mahatma Phule Nagar

1. The initial part of the river is serene with very less human interference. A small approach road was observed near the river bank.
2. Human settlement begins (**19.142166, 72.894224**) with a slum pocket near Mithi River which comprises of many small slums in the area. The slums present are Filter Pada, Mahatma Phule Nagar.
3. The slums are seen in close proximity to the river wall with their wastewater outlet directly connected to the river.
4. The width of the river in this stretch is 24.24 meters which gradually increases as we move downwards. The Maximum width achieved in this section was 42.92 meters which is near TATA Motors concorde showroom.
5. Retention wall can be observed throughout the area. The height of the wall observed is 14.5 Feet and 0.5 feet is the depth of the wall (measurement taken at the ground level) near Filter Pada.



Figure 3.7 : Retention wall start point



Figure 3.8 : Start of Human Settlement
 $(19^{\circ} 8'28.09"N)$ $(72^{\circ}53'40.69"E)$

Area: Mahatma Phule Nagar

Area: Mahatma Phule Nagar

6. From the start point of the retention wall the slum settlements begin. The slum area holds a cowshed.
7. The drain holes through the walls have been converted to wastewater outlets by the slums where a direct disposal is practiced.
8. The Aarey road runs parallel to this section. On the right bank of the river lies NITIE Institute.



Figure 3.9 : Cowshed at slum area
 $(19^{\circ} 8'30.78"N)$ $(72^{\circ}53'39.33"E)$
 Area: Mahatma Phule Nagar

Figure 3.10: Direct outlets from slum settlements
 $(19^{\circ} 8'31.45"N)$ $(72^{\circ}53'38.95"E)$
 Area: Mahatma Phule Nagar



Figure 3.11 : Slum settlements through river bank
 $(19^{\circ} 8'8.14"N)$ $(72^{\circ}53'46.75"E)$
 Area: Passpoli



Figure 3.12 : Direct outlets from slum settlements
 $(19^{\circ} 8'8.14"N)$ $(72^{\circ}53'46.75"E)$
 Area: Passpoli

9. Moving downwards through the river witnesses two more slum settlements named Passpoli and Morarji Nagar. The slums are in close proximity to the retention wall present, with their outlets being directly led into the river. Also slums are observed to dump waste into the river directly which includes vegetable waste, plastic, metals, cloth

material etc. The retention wall here has 11 feet height and 1 feet depth. Further the wall height 13 feet and depth is 1 feet near the pipeline.

10. The area also holds commercial complexes like AURUM IT Park, and also has some area under construction.
11. The initial part of the river shows encroachment by human settlements (upto point 48). Following the trail, the area becomes an open area with scattered structures, the human settlements can be again observed near JVLR (point 55). The left bank of the open area includes Vihar Lake Marg which is covered with green cover.



Figure 3.13: Wastewater from slum area
 $(19^{\circ} 8'25.50"N)$ $(72^{\circ}53'41.41"E)$
 Area: Mahatma Phule Nagar



Figure 3.14: Direct outlets from slum settlements
 $(19^{\circ}7'40.92"N)$ $(72^{\circ}53'3.49"E)$
 Area: Mahatma Phule Nagar

12. Moving further downwards, Manohar nagar can be observed near JVLR. The slum settlement again contributes. The width of the river in this stretch is 27.27 meters. The retention wall measures as 15 feet height and 0.8 depth.
13. The area further consists of slum area which is Raje Shivaji nagar (retention wall measures 19 feet height). The area also has numerous building structures which include LokSarita Apartments, Vinayak Society, Bharat Avenue, Mera Apartment etc.



Figure 3.15: Solid waste disposal
 $(19^{\circ} 8'25.80"N)$ $(72^{\circ}53'43.14"E)$
 Area: Mahatma Phule Nagar



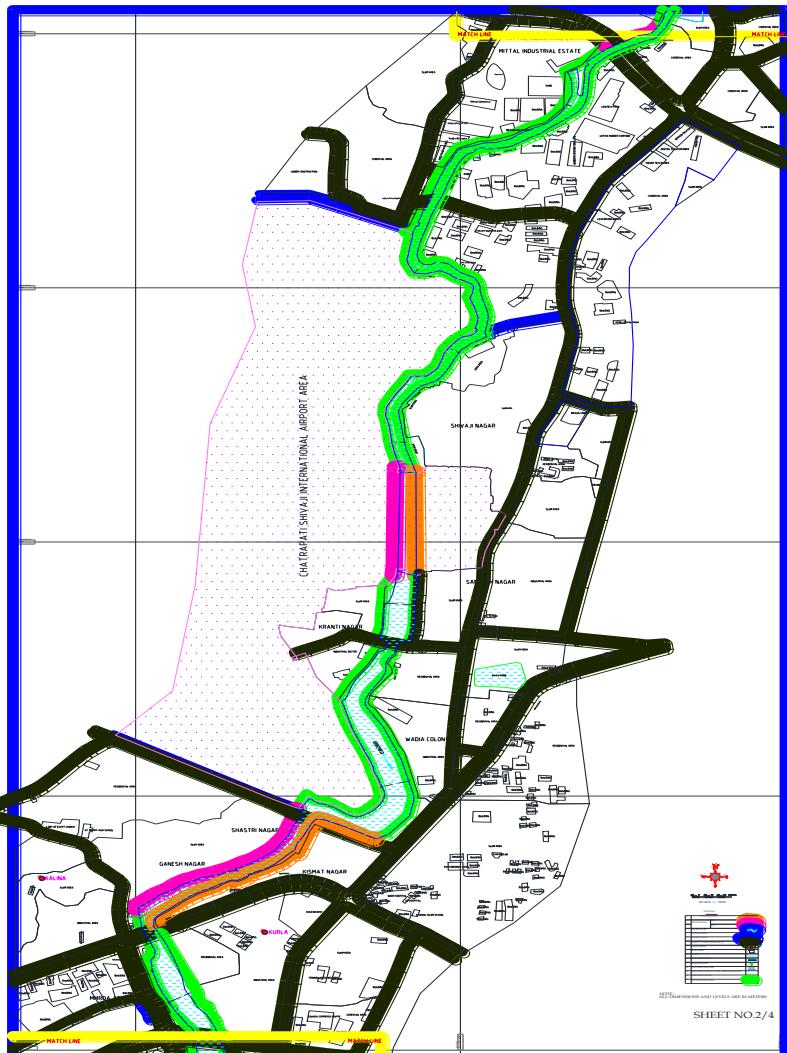
Figure 3.16: Direct outlets from slum settlements
 $(19^{\circ} 8'25.31"N)$ $(72^{\circ}53'43.86"E)$
 Area: Mahatma Phule Nagar

14. Further through the right bank lies a massive construction project labelled as Vasant oasis (residential complex). The width of the river becomes 42.92 meters (Retention wall height 13 feet and 1.5 feet depth). The area lying southwards holds numerous companies. On the left bank lies Marwah house which again is an industrial estate holding many companies. Some of the outlets can be seen in the area.

	
<p>Figure 3.17: Bharat Avenue (19° 7'11.61"N) (72°53'7.25"E) Area : Bhavani Nagar</p>	<p>Figure 3.18: Vinayak Society (19° 7'10.33"N) (72°53'7.63"E) Area : Bhavani Nagar</p>

	
<p>Figure 3.19: Outlet Point (19° 6'36.18"N) (72°53'10.82"E) Area : Sag Baug</p>	<p>Figure 3.20: Commercial Compound (156) (19° 6'34.72"N) (72°53'3.00"E) Area : Sag Baug</p>

Mithi River – Part 2 – Sag Baug to BKC-CST Link road



LEGEND		
NO	DESCRIPTION	SYMBOL
1	River Bank	L/S
		R/S
2	Water Flow	
3	Water Line	
4	Drain/Nala	
5	Road/ Cart track (CT)	
6	Slum Area	House
7	Building	Building
8	Wall	Wall
9	Railway Line	Railway Line
10	Mangrove	Mangrove
11	Water pipe line	Water pipe line
12	Water level at the time of survey	Z.171
13	Ground level	9.930
14	Retention wall	Retention wall

Figure 3.21: Topographic Map of Mithi River (Part 2)

1. The area holds numerous commercial and industrial complexes throughout. The width of the river in this area becomes 32.39 meters.
2. Andheri Kurla road passes through the river in this stretch.
3. A slum area can be observed just before the bridge for MV Road.
4. In close proximity (right bank) to this area lies MITTAL Industrial Estate which holds certain companies like Fed Ex couriers, Nexgen health Pvt Ltd. The river widens here to 50.20 meters. The retention wall holds a height of 16.5 feet and 1.5 feet depth.
5. On the right bank lies the Chhatrapati Shivaji maharaj International Airport, at the beginning of which lies a drain (retention wall height 13 feet and 1.5 depth). Opposite to it, through the left bank lies a huge slum area –Shivaji Nagar. The width of the river here becomes 49.77 meters.
6. Moving further, Lies Kranti nagar where the river expands its width to 99.91 meters. Kranti nagar is a mix of Industrial Area and slums where the retention wall is 12 feet high and 1.5 feet deep. On the left bank lies a huge slum area (Sandesh nagar & Kaju Pada) with which a residential area can be seen.
7. Further near Wadia colony the river width becomes 96.36 meters. Here the river experiences a major change of course. At the end of the Airport Area lies a drain.
8. Further the river is surrounded by slums on both the sides, which are Ganesh Nagar & Shastri nagar (right bank), Kismat nagar (left bank). Shastri nagar holds scrap industries
9. Moving downwards lies Mumbai – Pune highway where the river has a width of 99.39 meters. The right bank holds BKC CST link road which has some construction activity, an outlet can be observed. The left bank holds a huge residential ZONE. Solid waste disposal can be observed.



Figure 3.22: Structures through the bank
 $(19^{\circ} 6'19.29''N)$ $(72^{\circ}53'2.73''E)$
 Area : Near Mittal Industrial Estate



Figure 3.23: Bridge
 $(19^{\circ} 5'59.71''N)$ $(72^{\circ}52'44.33''E)$
 Area : Safed Pul



Figure 3.24: River near Airport
($19^{\circ} 5'53.61"N$) ($72^{\circ}52'50.60"E$)
Area : Safed Pul



Figure 3.25: Outlet near Airport
($19^{\circ} 5'53.61"N$) ($72^{\circ}52'50.60"E$)
Area : Safed Pul



Figure 3.26: Koliverry Village Nallah
($19^{\circ} 4'35.50"N$) ($72^{\circ}52'19.07"E$)
Area : Korve Nagar (Kurla)



Figure 3.27: Shastri Nagar Scrap Industries
($19^{\circ} 4'35.50"N$) ($72^{\circ}52'19.07"E$)
Area : Shastri Nagar (Kurla)



Figure 3.28: Wide stretch of river near Mumbai
Pune Highway
($19^{\circ} 4'28.68"N$) ($72^{\circ}52'17.80"E$)
Area : Kurla



Figure 3.29: Wide stretch of river
($19^{\circ} 4'23.54"N$) ($72^{\circ}52'17.84"E$)
Area : Bandra Kurla Complex

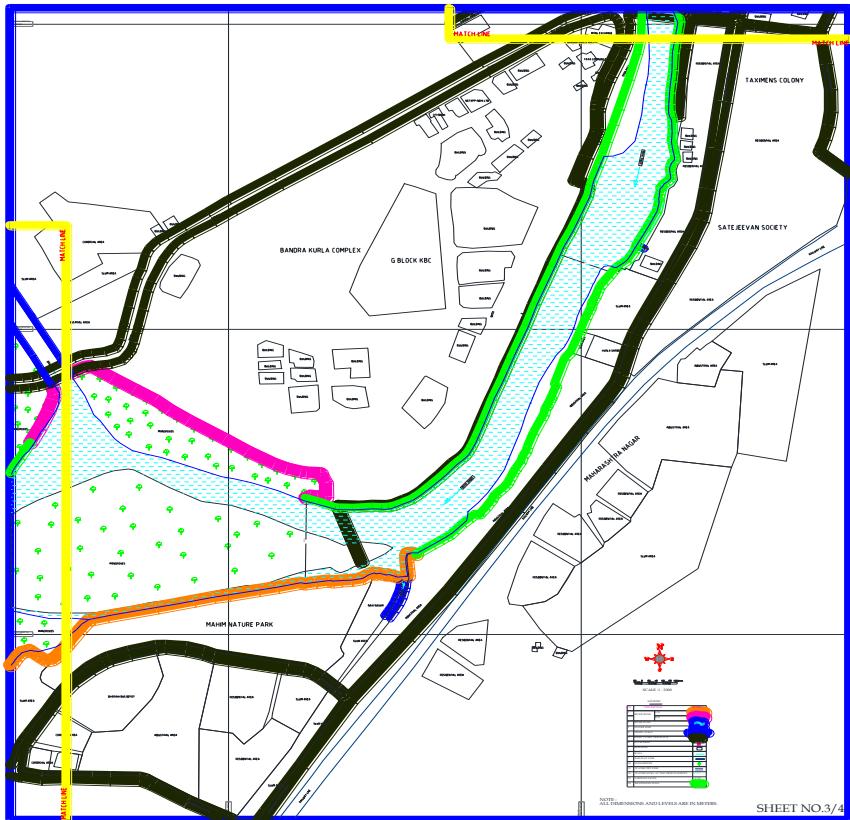


Figure 3.30: Outlet near CST Road
($19^{\circ} 4'18.99''N$) ($72^{\circ}52'19.35''E$)
Area : Kurla



Figure 3.31: Solid waste disposal
Area : Kurla

Mithi River – Part 3 – BKC-CST Link Road to BKC Road



LEGEND		
NO	DESCRIPTION	SYMBOL
1	River Bank	L/S
		R/S
2	Water Flow	
3	Water Line	
4	Drain/Nala	
5	Road/Cart track (CT)	
6	Slum Area	
7	Building	
8	Wall	
9	Railway Line	
10	Mangrove	
11	Water pipe line	
12	Water level at the time of survey	
13	Ground level	2.121
14	Retention wall	9.930

Figure 3.32: Topography Map of Mithi River (Part 3)

1. The right bank of the river has structures as MTNL office and some other commercial areas. Whereas the left bank has a residential area. However the area is free from slum in the initial part.
2. However the some mud/silt can be observed between the right retention wall and the river.
3. Moving further downwards the river widens and has a width of 163.50 meters.
4. Maharashtra Nagar slum can be observed which a major slum area in this region is. Direct disposal of solid waste can be observed at the location which include cloths, papers waste and scrap waste.
5. The right bank of the river has BKC area.
6. Further down the left bank holds Mahim Nature Park which is a green zone, and the right bank has mangroves present. The width of the river gets 280.42 meter which also includes mangrove area in between.
7. The slum area near Mahim Nature Park (Naik Nagar) also has a drain running through it connecting to Mithi.



Figure 3.33: Retention wall, left bank near
Taximan Colony
(19° 4'4.16"N) (72°52'25.42"E)
Area: Taximan Colony (Kurla)

Image 3.34: Outlet/Solid Waste disposal
(19° 3'50.01"N) (72°52'22.75"E)
Area: Kurla



Figure 3.35: Solid waste disposal in Mithi
($19^{\circ} 3'30.48"N$) ($72^{\circ}52'12.68"E$)
Area : Chunabhatti



Figure 3.36: Outlet in Maharashtra Nagar Slum
($19^{\circ} 3'32.85"N$) ($72^{\circ}52'17.67"E$)
Area : Chunabhatti



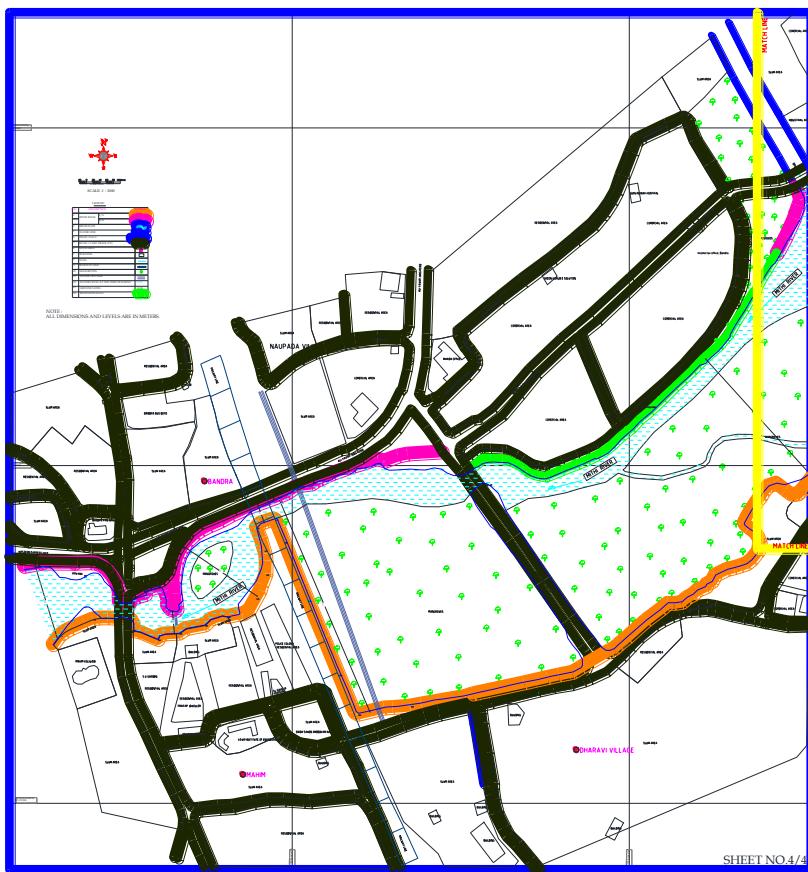
Figure 3.37: Low retention wall
($19^{\circ} 3'21.44"N$) ($72^{\circ}52'6.17"E$)
Area : Chunabhatti



Figure 3.38: Outlet/Solid Waste disposal along
drain
($19^{\circ} 3'18.51"N$) ($72^{\circ}52'6.87"E$)
Area : Chunabhatti

	
<p>Figure 3.39: Naik Nagar Nallah $(19^{\circ} 3'10.30"N)$ $(72^{\circ}51'58.74"E)$ Area ; Naik Nagar</p>	<p>Figure 3.40: Naik nagar Nallah $(19^{\circ} 3'10.30"N)$ $(72^{\circ}51'58.74"E)$ Area : Naik Nagar</p>

Mithi River – Part 4 – BKC Road to Mahim Bay



LEGEND		
NO	DESCRIPTION	SYMBOL
1	River Bank	L/S
		R/S
2	Water Flow	
3	Water Line	
4	Drain/Nala	
5	Road/ Cart track (CT)	
6	Slum Area	
7	Building	
8	Wall	
9	Railway Line	
10	Mangrove	
11	Water pipe line	
12	Water level at the time of survey	+ 9.930
13	Ground level	
14	Retention wall	

Figure 3.41 : Topography Map of Mithi River (Part 4)

1. This part of the map begins with Vakolla Nallah (right abnk), being a major contributor to the Mithi River. The area is surrounded by numerous mangroves which add to the green cover of the area.
2. The initial part of the area, on the right bank, hosts a huge commercial complex which is the BKC whereas the left bank hosts a huge slum population – DHARAVI. Along with the slum area, there also are some residential & commercial areas present.
3. At the start of the area, the width of the river is 474.67 meters which is a mixed area comprising of Mangroves, Silt. Further down the river widens to 692.37 meters, just before the railway line post which the river suddenly narrows down to 56.41 meters. The river again widens to 260.89 meters near fisherman colony. This area again holds mangroves in the center region. Further down there lies a pipeline where the width of river becomes 70.39 meters, finally near Mahim Koliwada Region, the Mithi River widens for 231.26 meters and is released in the Mahim Bay.
4. On the left bank, the slums are spread upto the main road. However on the left bank, solid waste dumping is observed. A drain is observed just at the end of Dharavi Slums which is led into the Mithi River directly. Scrap market is set on the bank which also disposes materials into the river directly.
5. The area hosts buildings in midst of slums. Further a railway line passes (Western railway) which divides the area.
6. The left bank again hosts slums and some residential complexes which includes Mahim Police quarters and SL Raheja Hospital. The left bank concludes with Mahim Koliwada slum area. The river at this stretch has a bridge (Koliwada Slum bridge) which is a continuation of S V Road.

The right bank of the river hosts many slums. The left bank concludes with Mahim Koliwada slum Area ([19.047571, 72.836905](#)). This area has slums which practice dumping of soild waste towards the river.



Figure 3.42: Vakola Nallah entrance
(19° 3'36.08"N) (72°51'26.51"E)
Area : Bandra Kurla Complex Road



Figure 3.43: Near BKC Bank
(19° 3'23.31"N) (72°51'20.25"E)
Area : Bandra Kurla Complex

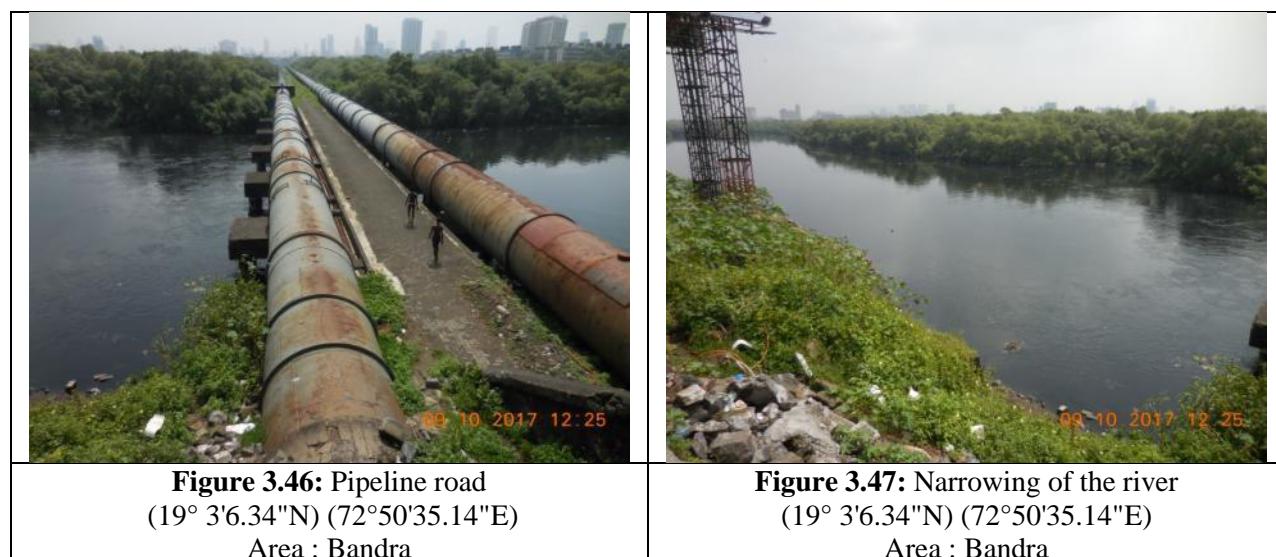


Figure 3.48: Mangrove zone near widened stretch
($19^{\circ} 2'55.49''N$) ($72^{\circ}51'17.22''E$)
Area : Dharavi Village



Figure 3.49: Dharavi Nallah
($19^{\circ} 2'44.97''N$) ($72^{\circ}50'53.26''E$)
Area : Dharavi



Figure 3.50: Scrap Area – Dharavi
($19^{\circ} 2'44.04''N$) ($72^{\circ}50'49.30''E$)
Area : Dharavi

Figure 3.51: Dharavi Mangroves and solid waste disposal
($19^{\circ} 2'44.35''N$) ($72^{\circ}50'49.69''E$)
Area : Dharavi



Figure 3.52: Mahim Police Quarters
($19^{\circ} 2'53.43''N$) ($72^{\circ}50'29.40''E$)
Area : Mahim



Figure 3.53: Toilet near Mahim Koliwada
($19^{\circ} 2'52.74''N$) ($72^{\circ}50'26.67''E$)
Area : Mahim



Figure 3.54: Outlet near Mahim Koilwada
 $(19^{\circ} 2'52.45"N)$ $(72^{\circ}50'26.06"E)$
 Area : Mahim



Figure 3.55: Retention wall absent near Mahim Koliwada
 $(19^{\circ} 2'52.15"N)$ $(72^{\circ}50'25.09"E)$
 Area : Mahim



Figure 3.56: Outlet near Mahim Koilwada
 $(19^{\circ} 2'52.15"N)$ $(72^{\circ}50'25.09"E)$
 Area : Mahim



Figure 3.57: Slums at Mahim Koliwada
 $(19^{\circ} 2'52.12"N)$ $(72^{\circ}50'18.30"E)$
 Area : Mahim



Figure 3.58: Mangrove zone
(19° 3'3.06"N) (72°50'27.59"E)
Area : Bandra

CHAPTER 4: NALLAHS

Nallahs joining Mithi River were studied by carrying out photographic survey. These nallahs were studied to find out the source of pollution for Mithi River. Industrial and Domestic outlets were identified. The Map of Nallahs joining Mithi River is shown in below **Figure 4.1**



Figure 4.1: Flow map of Mithi River and Nallah

Figure 4.2 – Figure 4.14 shows images of nallahs joining Mithi River and their GPS coordinates. Vakola Nallah is the major nallah joining Mithi River. Kherwadi and Chamdawadi nallah, both of these are clogged by solid waste.



Figure 4.2: Vakola Nallah entrance
($19^{\circ} 5'4.61''N$) ($72^{\circ}50'52.85''E$)
Area : Near Anand Nagar

Figure 4.3: Vakola Nallah
($19^{\circ} 5'4.61''N$) ($72^{\circ}50'52.85''E$)
Area : Anand Nagar



Figure 4.4: Nallah near Nehru Road
($19^{\circ} 4'48.40''N$) ($72^{\circ}50'58.60''E$)
Area : Vakola

Figure 4.5: Nallah near Nehru Road
($19^{\circ} 4'48.40''N$) ($72^{\circ}50'58.60''E$)
Area : Vakola



Figure 4.6: Santacruz Chembur Link Road
($19^{\circ} 4'27.33''N$) ($72^{\circ}50'53.33''E$)
Area : Near Shivaji Nagar (Vakola)



Figure 4.7: Kherwadi Nallah – Solid waste clogged
($19^{\circ} 3'39.44''N$) ($72^{\circ}50'39.97''E$)
Area : Kherwadi



Figure 4.8: Kherwadi Nallah
($19^{\circ} 3'39.44''N$) ($72^{\circ}50'39.97''E$)
Area : Kherwadi



Figure 4.9: Chamdawadi Nallah
($19^{\circ} 3'39.44''N$) ($72^{\circ}50'39.97''E$)
Area : Near Kherwadi



Figure 4.10: Behrampada nallah
($19^{\circ} 3'22.52"N$) ($72^{\circ}50'29.37"E$)
Area : Near Garib Nagar

Figure 4.11: Behrampada nallah
($19^{\circ} 3'22.52"N$) ($72^{\circ}50'29.37"E$)
Area : Near Garib Nagar



Figure 4.12: Safed Pul nallah (Outlet Point)
($19^{\circ} 5'47.46"N$) ($72^{\circ}53'0.87"E$)
Area : Safed Pul



Figure 4.13: Safed Pul Nallah
($19^{\circ} 5'47.46"N$) ($72^{\circ}53'0.87"E$)
Area : Safed Pul

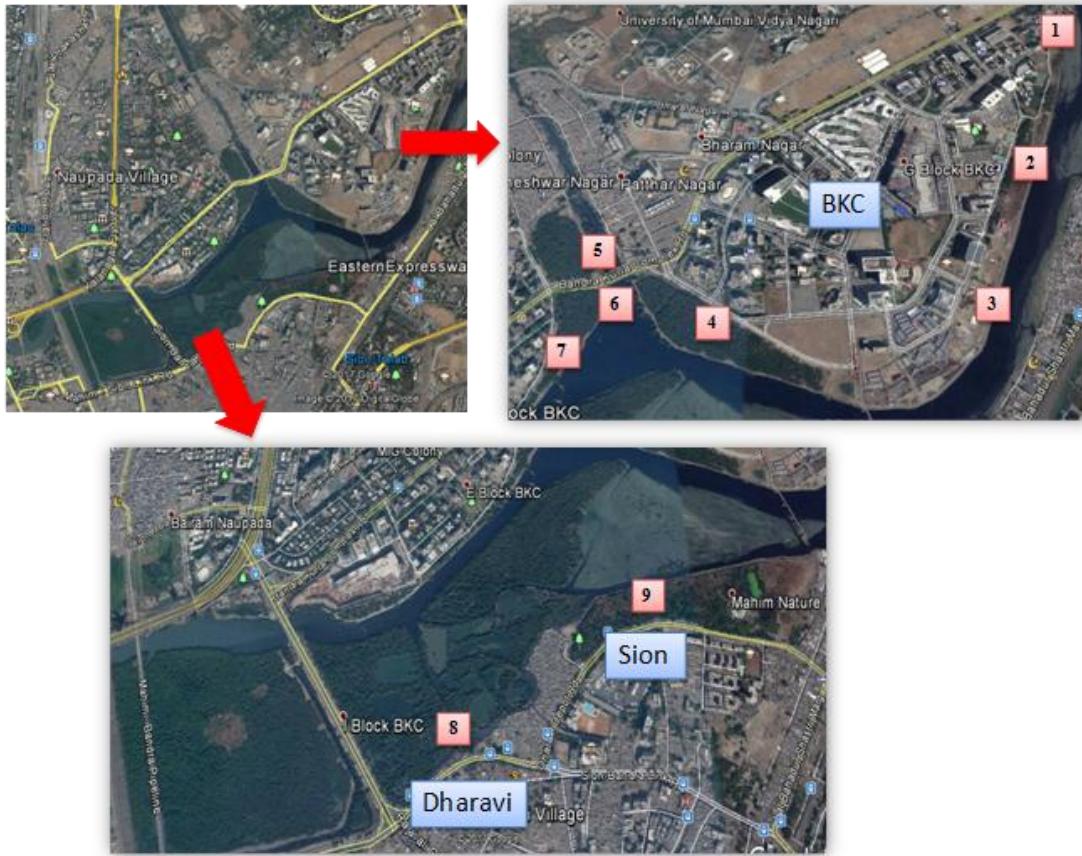


Image 4.14: Safed Pul Nallah
($19^{\circ} 5'46.99''N$) ($72^{\circ}52'52.62''E$)
Area : Safed Pul

CHAPTER 5: BIODIVERSITY

Mithi river has extensive biodiversity along its bank. To study the biodiversity along lower stretch of Mithi, photographic and line transect method was used.

Biodiversity survey within 200 meters on either side of Mithi river at Bandra Kurla complex, Dharavi and Sion was carried and the location of the same is shown in the figure below.



Legend

1	BKC Road	4	BKC	7	BKC (near Income tax office)
2	BKC	5	BKC Road	8	Dharavi Village
3	BKC	6	BKC Road	9	Maharashtra Nature Park

Figure 5.1: - Locations for biodiversity survey

Figure 5.2 to figure 5.16 shows images of biodiversity within 200 meters of Mithi River and their GPS coordinates respective to locations shown in Figure 5.1.

	
Figure 5.2:- Trees along Mithi river GPS:- 19° 4'12.87"N, 72°52'21.60"E Area : Bandra Kurla Complex Road	Figure 5.3:- Trees along Mithi river GPS:- 19° 4'12.87"N, 72°52'21.60"E Area : Bandra Kurla Complex Road

	
Figure 5.4 :- Mangrove :- <i>Avicennia. marina</i> GPS :- 19° 3'47.55"N 72°52'14.20"E Area : Bandra Kurla Complex	Figure 5.5 :- Trees near Mithi river GPS :- 19° 3'47.55"N 72°52'14.20"E Area : Bandra Kurla Complex Road



Figure 5.6:- Trees near Mithi river

GPS:- 19° 3'47.55"N 72°52'14.20"E

Area : Bandra Kurla Complex



Figure 5.7:- Mangrove:- *Avicennia. marina*

GPS:- 19° 3'32.32"N 72°52'7.57"E

Area : Bandra Kurla Complex



Figure 5.8 :- Mangrove patch:- *Avicennia marina*

GPS:- 19° 3'29.29"N 72°51'37.11"E

Area : Bandra Kurla Complex

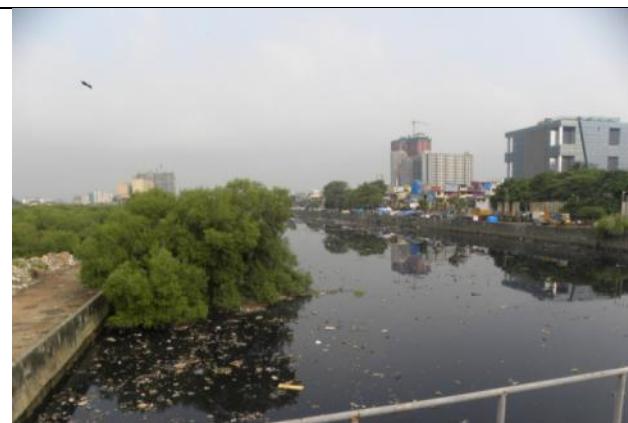


Figure 5.9:- Mangrove patch:- *Avicennia marina*

GPS:- 9° 3'36.82"N 72°51'22.42"E

Area : Bandra Kurla Complex Road



Figure 5.10:- Mangrove patch:- *Avicennia marina*
GPS:- 19° 3'32.76"N 72°51'22.69"E
Area : Bandra Kurla Complex Road



Figure 5.11 :- Mangrove patch:- *Avicennia marina*
GPS:- 19° 3'32.76"N 72°51'22.69"E
Area : Bandra Kurla Complex Road



Figure 5.12 :- Mangrove :- *Avicennia marina*
GPS:- 19° 3'28.08"N 72°51'22.06"E
Area : Bandra Kurla Complex (Near Income tax Office)



Figure 5.13:- Mangrove :- *Avicennia marina*
GPS:- 19° 3'28.08"N 72°51'22.06"E
Area : Bandra Kurla Complex (Near Income tax Office)



Figure 5.14:- Mangrove patch:- *Avicennia. marina*

GPS:- 19° 2'54.72"N 72°51'8.60"E

Area : Dharavi village



Figure 5.15:- Mangrove patch - *Avicennia. marina*

GPS:- 19° 3'11.50"N 72°51'38.19"E

Area : Maharashtra Nature Park



Figure 5.16:- Mangrove patch - *Avicennia. marina*

GPS:- 19° 3'11.50"N 72°51'38.19"E

Area : Maharashtra Nature Park



Figure 5.17:- Common Stone chat

Area : Along Bank of Mithi River at Bandra Kurla Complex

Figure 5.18:- Danaid Eggfly butterfly

Area : Along Bank of Mithi River at Bandra Kurla Complex



Figure 5.19:- Black kite

Area : Along Bank of Mithi River at Bandra Kurla Complex

Figure 5.20:- Bengal Velvet Bean

Area : Along Bank of Mithi River at Bandra Kurla Complex

BIODIVERSITY CHECKLIST (MITHI)

List of species observed during biodiversity survey within 200 meters on either side of Mithi river in the areas of BKC, Dharavi and Sion was compared with the list of species observed in 2015 (NEERI report).

In 2015 report, total of 48 tree species, 42 shrubs and climber species, 31 herb species, 28 bird species and 12 fish species were reported.

According to 2017 study, 9 tree species, 9 shrubs and climber species, 3 herb species, 11 bird species and 11 butterfly species are reported. No fish species were observed during 2017 study.

Checklist of Mangrove species 2015

Sr No	Scientific name	Common name	Current Status (2017)
1	<i>Avicennia marina</i>	Grey mangrove	Present

Checklist of Tree Species 2015

Sr No	Scientific name	Common name	Current Status (2017)
1	<i>Bombax ceiba</i>	Cotton tree	-
2	<i>Borassus flabellifer</i>	Palmira, Palm	-
3	<i>Cassia siamea</i>	Cassia tree, kassod tree	-
4	<i>Peltophorum pterocarpum</i>	Yellow flame tree, copperpod, peela gulmohar	Present
5	<i>Trema orientalis</i>	India charcoal tree, pigeon wood	-
6	<i>Pithecellobium dulce</i>	Manilla tamarind	-
7	<i>Sterculia urens</i>	Ghost tree	-
8	<i>Delonix regia</i>	Gulmohar	Present
9	<i>Ficus religiosa</i>	Peepal	Present
10	<i>Bridelia retusa</i>	Asana tree	-
11	<i>Cordia dichotoma</i>	Anonang, Bhokar	-
12	<i>Grewia sp</i>	Phalsa, dhamani	-
13	<i>Butea monosperma</i>	Flame of the forest, parrot tree	-
14	<i>Tectona grandis</i>	Teak	-

15	<i>Macaranga peltata</i>	Chandada, chandava	-
16	<i>Costos isigne</i>		-
17	<i>Mangifera indica</i>	Mango	-
18	<i>Leucaena leucocephala</i>	Subabul, river tamarind	Present
19	<i>Polyalthia longifolia</i>	Asoka	-
20	<i>Streblus asper</i>	Sand paper tree, Dahia, Sahor	-
21	<i>Ficus racemosa</i>	Indian fig tree, umar	-
22	<i>Alstonia scholaris</i>	Satvin, devil tree	-
23	<i>Cocos nucifera</i>	Coconut	Present
24	<i>Ficus hispida</i>	Opposite leaved fig tree, kala umbar	Present
25	<i>Acacia siamea</i>		-
26	<i>Pongamia pinnata</i>	Karanj	-
27	<i>Ficus benghalensis</i>	Barghad	Present
28	<i>Neolamarckia cadamba</i>	Kadamba	-
29	<i>Roystonea regia</i>	Royal palm	-
30	<i>Azadirachta indica</i>	Neem	Present
31	<i>Spathodea campanulata</i>	African tulip tree, rugtoora	-
32	<i>Terminalia catappa</i>	Indian almond	Present
33	<i>Artocarpus heterophyllus</i>	Jackfruit	-
34	<i>Syzygium cumini</i>	Jamun	-
35	<i>Plumeria obtuse</i>	Champa	-
36	<i>Areca catechu</i>	Supari	-
37	<i>Thespesia populnea</i>	Indian tulip	-
38	<i>Citrus medica</i>	Galgal, mahalunga	-
39	<i>Araucaria cookie</i>	Christmas tree, cook pine	-
40	<i>Acacia auriculiformis</i>	Ear leaf acacia	-

41	<i>Muntingia calabura</i>	Jamiaca cheery, paanchara	-
42	<i>Ficus elastic</i>	Rubber tree	-
43	<i>Acacia Arabica</i>	Indian gum, black babul	-
44	<i>Eucalyptus globules</i>	Blue gum	-
45	<i>Carica papaya</i>	Papaya	-
46	<i>Sterculia foetida</i>	Jungle badam, java olive	-
47	<i>Cyathea dealbata</i>	Silver tree	-
48	<i>Albizia saman</i>	Shirish, Rain tree	-

Checklist of Shrubs and Climber species 2015

Sr No	Scientific name	Common name	Current Status (2017)
1	<i>Ricinus communis</i>	Castor oil plant, castorbean	Present
2	<i>Mukia maderaspatana</i>	Aganaki	-
3	<i>Ipomea hederifolia</i>	Lal pungi, morning glory	-
4	<i>Ipomea palmate</i>	Railroad creeper, palmate morning glory	Present
5	<i>Ipomea aquatic</i>	Swamp morning glory, water spinach	Present
6	<i>Cocculus villosus</i>	Patalgarudi, Broom creeper	-
7	<i>Hyptis suaveolens</i>	Darp tulasi, vilaiti tulsi	Present
8	<i>Urena lobata</i>	Common purle mallow, Venbhedi	-
9	<i>Helicteres isora</i>	Jonkphal, Kewad	-
10	<i>Acacia angustissima</i>	Whiteball acacia	-
11	<i>Datura inoxia</i>	Datura	-
12	<i>Solanum xanthocarpum</i>	Kateli, thorny nightshade	-
13	<i>Tecoma stans</i>	Yellow trumpet bush, yellow bells	-

14	<i>Tabernaemontana coronaria</i>	Crape jasmine, pinwheel flower	-
15	<i>Mussaenda erythrophylla</i>	Red mussaenda, virgin tree	-
16	<i>Hibiscus rosa sinensis</i>	China rose	-
17	<i>Dracena fragrans</i>	Corn plant, Chinese money plant	Present
18	<i>Dracaena reflexa</i>	Song of India, dracaena	-
19	<i>Nyctanthes arbor-tristis</i>	Parijat, night flowering jasmine	-
20	<i>Lycopersicon esculentum</i>	Tomato	-
21	<i>Mucuna pruriens</i>	Bengal velvet bean	Present
22	<i>Operculina turpethum</i>	Indian jalap	-
23	<i>Coccinia grandis</i>	Ivy Gourd, scarlet gourd	-
24	<i>Calycopteris floribunda</i>	Ukshi, Paper flower	-
25	<i>Canavalia gladiate</i>	Sword bean	-
26	<i>Abutilon indicum</i>	Indian mallow	-
27	<i>Piper nigrum</i>	Black pepper	-
28	<i>Nerium oleander</i>	Oleander	-
29	<i>Lantana camara</i>	Wild sage	Present
30	<i>Quisqualis indica</i>	Madhumalti, Chinese honeysucker	-
31	<i>Jasminum grandiflorum</i>	Jasmine, chameli	-
32	<i>Jasminum malabaricum</i>	Ran mogra, Malabar jasmine	-
33	<i>Allamanda nerifolia</i>	Bush allamanda	-
34	<i>Rosa centifolia</i>	Patti gulab, cabbage rose	-
35	<i>Cestrum nocturnum</i>	Night blooming jasmine	-
36	<i>Duranta plumier</i>	Duranta, golden ear drops	-
37	<i>Justicia sp</i>	Plume flower	-
38	<i>Momordica dioica</i>	Spiny gourd	-

39	<i>Alocasia esculenta</i>	Giant taro	-
40	<i>Acalypha wilkesiana</i>	Beefstalk plant	Present
41	<i>Calotropis gigantean</i>	Safed aak, crown flower	-
42	<i>Ixora coccinea</i>	Jungle geranium	Present

Checklist of Herb Species 2015

Sr No	Scientific name	Common name	Current Status (2017)
1	<i>Ageratum conyzoides</i>	Chick weed	-
2	<i>Haplanthodes verticillatus</i>	Kastura, spiny bottle brush	-
3	<i>Scoparia dulcis</i>	Licorice weed	Present
4	<i>Cleome burmannii</i>		-
5	<i>Cleome viscosa</i>	Asian spiderflower	-
6	<i>Achyranthes aspera</i>	Chaff flower, prckly chaff flower	-
7	<i>Asclepias</i>	Silk weed	-
8	<i>Abelmoschus moschatus</i>	Musk seeds, musk okra	-
9	<i>Commelina benghalensis</i>	Bengal dayflower, kana	-
10	<i>Mukia maderaspatana</i>	Aganaki	-
11	<i>Lygodium</i>	Climbing fern	-
12	<i>Portulaca oleracea</i>	Indian parselane, duckweed	-
13	<i>Xanthium strumarium</i>	Chota dhatura	-
14	<i>Polygonum glabrum</i>	Sheral, denseflower knotweed	-
15	<i>Cassia tora</i>	Sicke senna	Present
16	<i>Ruellia sp</i>		-
17	<i>Plumbago zeylanica</i>	Chitrak	-

18	<i>Heliotropium indicum</i>	Hatajori, Indian turnsole	-
19	<i>Oxalis corniculata</i>	Creeping wood sorrel	-
20	<i>Amaranthus spinosus</i>	Spiny amaranth	-
21	<i>Lindernia sps</i>	Yellowseed false pimpernel	-
22	<i>Acmella oleracea</i>	Electric daisy, akarkar, Pipulka	-
23	<i>Cyperus rotundus</i>	Nut grass	-
24	<i>Solanum nigrum</i>	Black nightshade	-
25	<i>Malachra capitata</i>	Van bhindi, yellow leafbrackt	-
26	<i>Cannabis sps</i>		-
27	<i>Boerhavia diffusa</i>	Punarnava, spreading hogweed	-
28	<i>Sida acutifolia</i>	Wireweed	-
29	<i>Wedelia trilobata</i>	Yellow creeping daisy	-
30	<i>Hymenocallis caroliniana</i>	Carolina spiderlily	-
31	<i>Alternanthera sessilis</i>	Kanchari, garundi, dwarf copperleaf	Present

Checklist of Birds

Sr No	Scientific name	Common name	2015	Current Status (2017)
1		Swallow	Present	-
2		Swift	Present	Present
3	<i>Lanius vittatus</i>	Bay-backed Shrike	Present	-
4	<i>Pycnonotus cafer</i>	Red vented bulbul	Present	-
5	<i>Orthotomus sutorius</i>	Common Tailor bird	Present	-
6	<i>Microcarbo niger</i>	Little Cormorant	Present	-
7	<i>Prinia socialis</i>	Ashy Prinia	Present	-

8	<i>Leptocoma zeylonica</i>	Purple rumped sunbird	Present	-
9	<i>Halcyon smyrnensis</i>	White breasted Kingfisher	Present	-
10	<i>Bubulcus ibis</i>	Cattle egret	Present	Present
11	<i>Copsychus saularis</i>	Oriental magpie robin	Present	-
12	<i>Nycticorax nycticorax</i>	Black-crowned night heron	Present	-
13	<i>Ardeola grayii</i>	Indian pond heron	Present	-
14	<i>Milvus migrans</i>	Black Kite	Present	Present
15	<i>Actitis hypoleucos</i>	Common sand piper	Present	Present
16	<i>Circus aeruginosus</i>	Eurasian Marsh Harrier	Present	-
17	<i>Egretta garzetta</i>	Little egret	Present	-
18		Sea gull	Present	Present
19	<i>Dendrocygna javanica</i>	Lesser whistling duck	Present	-
20	<i>Mesophoyx intermedia</i>	Median egret	Present	-
21	<i>Psittacula krameri</i>	Rose ringed parakeet	Present	-
22	<i>Passer domesticus</i>	House sparrow	Present	-
23	<i>Corvus splendens</i>	House crow	Present	Present
24	<i>Acridotheres tristis</i>	Common myna	Present	Present
25	<i>Columba livia</i>	Columba Rock pigeon	Present	Present
26	<i>Centropus sinensis</i>	Southern Coucal	-	Present
27	<i>Saxicola rubicola</i>	Common Stone chat	-	Present
28	<i>Megaliama haemacephala</i>	Coppersmith Barrette	-	Present

Checklist of fish 2015

Sr	Scientific name	Common name	Current Status (2017)

No			
1	<i>Scomberomorus guttatus</i>	Surmai, Seer fish <i>Halwa,</i>	Not Found
2	<i>Parastromateus niger</i>	Black Pomphret	Not Found
3	<i>Pampus argentus</i>	Paplet, Silver Pomphret	Not Found
4	<i>Harpodon nehereus</i>	Bombil, Bombay Duck	Not Found
5	<i>Mugil cephalus</i>	Boir, Mullet	Not Found
6	<i>Shingala</i>	Prawn	Not Found
7	<i>Arius thalassinus</i>	Giant Marine Catfish	Not Found
8	<i>Scoliodon laticaudus</i>	Mushi, Indian dog shark fish/Vela fish	Not Found
9		Dataal	Not Found
10	<i>Lates Calcarifer</i>	Jitada,, Sea Bass	Not Found
11	<i>Tilapia nilotica</i>	Black Tilapia	Not Found
12	<i>Clarias batrachus</i>	Magur, Catfish	Not Found

Checklist of Butterflies 2017

Sr No	Scientific Name	Common Name	2017
1	<i>Eurema hecabe</i>	Common grass yellow	Present
2	<i>Neptis hylas</i>	Common sailor	Present
3	<i>Hypolimnas misippus</i>	Danaid eggfly	Present
4	<i>Hypolimnas bolina</i>	Great eggfly	Present
5	<i>Papilio polytes</i>	Common mormon	Present
6	<i>Euploea core</i>	Common crow	Present
7	<i>Danaus genutia</i>	Striped tiger	Present

8	<i>Graphium agamemnon</i>	Tailed Jay	Present
9	<i>Pareronia valeria</i>	Common wanderer	Present
10	<i>Colotis amata</i>	Salmon Arab	Present
11	<i>Castalius rosimon</i>	Common pierrot	Present

CHAPTER 6: INDUSTRIAL SURVEY

Industrial survey along Mithi River was carried and the list of industries was verified from the IIT industrial survey report (2005).

A total of 440 industries from the IIT report (2005) were surveyed and 33 industries were verified from it. (7.5%)

159 new industries were identified during the survey dated on 25th October, 2017.

The list of same is shown below;

Table 6.1:- List of verified industries from IIT report (2005)

Sr no.	Name of industry	Address	Remark
1	Natural Timbers	Kismat Nagar, CST Road, Kurla	Verified
2	Shafique traders	Kismat Nagar, CST Road, Kurla	Verified
3	Naz Traders	Kismat Nagar, CST Road, Kurla	Verified
4	A to Z plywood	Kismat Nagar, CST Road, Kurla	Verified
5	M.K. Traders	Kismat Nagar, CST Road, Kurla	Verified
6	Good luck timber traders	Kismat Nagar, CST Road, Kurla	Verified
7	S.M.T	Kismat Nagar, CST Road, Kurla	Verified
8	Shalimar timber Traders	Kismat Nagar, CST Road, Kurla	Verified
9	Silver wood corner	Kismat Nagar, CST Road, Kurla	Verified
10	M.M Woodland	Kismat Nagar, CST Road, Kurla	Verified
11	Maharashtra Plywood Center	Kismat Nagar, CST Road, Kurla	Verified
12	Bombay enterprises	Kismat Nagar, CST Road, Kurla	Verified
13	New Maharashtra Plywood	Kismat Nagar, CST Road, Kurla	Verified
14	Aqsa Traders	Kismat Nagar, CST Road, Kurla	Verified
15	Maharashtra Scrap traders	Kismat Nagar, CST Road, Kurla	Verified
16	Kurla Auto clutch	Kismat Nagar, CST Road, Kurla	Verified
17	Hanif Garage	Kismat Nagar, CST Road, Kurla	Verified

18	A.S.N Fabrication	Kismat Nagar, CST Road, Kurla	Verified
19	Raza Battery service	Kismat Nagar, CST Road, Kurla	Verified
20	Lucky auto parts	Kismat Nagar, CST Road, Kurla	Verified
21	Brigtht automobiles	Kismat Nagar, CST Road, Kurla	Verified
22	Goodluck Automobiles	Kismat Nagar, CST Road, Kurla	Verified
23	New star Automobile	Kismat Nagar, CST Road, Kurla	Verified
24	K A Jadhav Autoglass	Kismat Nagar, CST Road, Kurla	Verified
25	Citizen metal works	Kismat Nagar, CST Road, Kurla	Verified
26	Kurla Aluminium	Kismat Nagar, CST Road, Kurla	Verified
27	Faujdar Plastic scraps	Kismat Nagar, CST Road, Kurla	Verified
28	Lala general stores	Kismat Nagar, CST Road, Kurla	Verified
29	Naimaya Oil co	Kismat Nagar, CST Road, Kurla	Verified
30	Liyakat Ali wooden scrap	Kapadia Nagar, Kurla	Verified
31	Insaf Timber	Kapadia Nagar, Kurla	Verified
32	Abdul Khan Wooden furniture	Kapadia Nagar, Kurla	Verified
33	Naushad Ahmed Wooden furniture	Kapadia Nagar, Kurla	Verified

Table 6.2:- List of new industries dated on 25.10.2017

Sr no.	Name of industry	Address	Remark
1	Famous Timbers	Kismat Nagar, Kurla	Found by us
2	Kj enterprise	Kismat Nagar, Kurla	Found by us
3	Sonu body parts	Kismat Nagar, Kurla	Found by us
4	Golden timber	Kismat Nagar, Kurla	Found by us
5	Rk3 car accessories	Kismat Nagar, Kurla	Found by us

6	Star traders	Kismat Nagar, Kurla	Found by us
7	Smb motors	Kismat Nagar, Kurla	Found by us
8	Chotu electronics	Kismat Nagar, Kurla	Found by us
9	Kohinoor timber	Kismat Nagar, Kurla	Found by us
10	MS Malik	Kismat Nagar, Kurla	Found by us
11	Laxmi laminates	Kismat Nagar, Kurla	Found by us
12	Roshan timbers	Kismat Nagar, Kurla	Found by us
13	Royal traders	Kismat Nagar, Kurla	Found by us
14	Khwaja garib nawaj automobiles	Kismat Nagar, Kurla	Found by us
15	Lucky plywood	Kismat Nagar, Kurla	Found by us
16	Meraj automobiles	Kismat Nagar, Kurla	Found by us
17	Super auto body parts	Kismat Nagar, Kurla	Found by us
18	Nawaj automobiles	Kismat Nagar, Kurla	Found by us
19	Chandan plywood	Kismat Nagar, Kurla	Found by us
20	Attari plywood	Kismat Nagar, Kurla	Found by us
21	Eram automobiles	Kismat Nagar, Kurla	Found by us
22	Akram body parts	Kismat Nagar, Kurla	Found by us
23	Aleeza automobiles	Kismat Nagar, Kurla	Found by us
24	KGN seat wala	Kismat Nagar, Kurla	Found by us
25	J. Khan automobiles	Kismat Nagar, Kurla	Found by us
26	Aman automobiles	Kismat Nagar, Kurla	Found by us
27	Ansar auto body parts	Kismat Nagar, Kurla	Found by us
28	AA manusri automobiles	Kismat Nagar, Kurla	Found by us
29	Valid Mohan & Sons body	Kismat Nagar, Kurla	Found by us

	parts		
30	Modern automobiles	Kismat Nagar, Kurla	Found by us
31	National auto body parts	Kismat Nagar, Kurla	Found by us
32	Azim automobiles	Kismat Nagar, Kurla	Found by us
33	RK accessories	Kismat Nagar, Kurla	Found by us
34	Madan tyres	Kismat Nagar, Kurla	Found by us
35	Sohail automobiles	Kismat Nagar, Kurla	Found by us
36	Rehan motors	Kismat Nagar, Kurla	Found by us
37	New fit excel automobiles	Kismat Nagar, Kurla	Found by us
38	Taiba automobiles	Kismat Nagar, Kurla	Found by us
39	Mass traders	Kismat Nagar, Kurla	Found by us
40	Alankar welding centre	Kismat Nagar, Kurla	Found by us
41	Baba trading company	Kismat Nagar, Kurla	Found by us
42	Pandit auto body engine parts	Kismat Nagar, Kurla	Found by us
43	Himalaya trading corporation	Kismat Nagar, Kurla	Found by us
44	Modern seats and tyres	Kismat Nagar, Kurla	Found by us
45	Royal seat wala	Kismat Nagar, Kurla	Found by us
46	Shams auto glass	Kismat Nagar, Kurla	Found by us
47	Lucky star garage	Kismat Nagar, Kurla	Found by us
48	Jazz audio	Kismat Nagar, Kurla	Found by us
49	Metro electronics	Kismat Nagar, Kurla	Found by us
50	Ramesh auto parts	Kismat Nagar, Kurla	Found by us
51	GR trading amarron battery	Kismat Nagar, Kurla	Found by us
52	Rehman automobiles	Kismat Nagar, Kurla	Found by us
53	Shah auto parts	CST Road, Kurla	Found by us

54	Shahnawaz car engine	CST Road, Kurla	Found by us
55	Simran autoparts	CST Road, Kurla	Found by us
56	Arkam automobile	CST Road, Kurla	Found by us
57	GK TRD auto scarps	CST Road, Kurla	Found by us
58	Savitri Vishwakarma garage	CST Road, Kurla	Found by us
59	Bolo metal furniture	CST Road, Kurla	Found by us
60	Bikai Enterprise	CST Road, Kurla	Found by us
61	RS motors	CST Road, Kurla	Found by us
62	Star aluminium welding	CST Road, Kurla	Found by us
63	Unique Enterprise	CST Road, Kurla	Found by us
64	Ajim automobiles	CST Road, Kurla	Found by us
65	Delhi auto workshop	CST Road, Kurla	Found by us
66	Raju autogarage	CST Road, Kurla	Found by us
67	D lux auto parts	CST Road, Kurla	Found by us
68	Hayat automobiles	CST Road, Kurla	Found by us
69	Pappu and bros automobiles	CST Road, Kurla	Found by us
70	Rk auto electronics	CST Road, Kurla	Found by us
71	Ibrahim automobile	CST Road, Kurla	Found by us
72	Pakeezah automobiles	CST Road, Kurla	Found by us
73	Kurla motor accessories	CST Road, Kurla	Found by us
74	Kurla auto parts	CST Road, Kurla	Found by us
75	Afzal automobiles	CST Road, Kurla	Found by us
76	Soyab car	CST Road, Kurla	Found by us
77	Abdul Sattar old motors	CST Road, Kurla	Found by us
78	MMk tyres	CST Road, Kurla	Found by us

79	Choice ply agency	CST Road, Kurla	Found by us
80	A1 super tyres	CST Road, Kurla	Found by us
81	National automobiles	CST Road, Kurla	Found by us
82	Bharat automobiles	CST Road, Kurla	Found by us
83	Sameer automobiles	CST Road, Kurla	Found by us
84	Star tyre	CST Road, Kurla	Found by us
85	Sagar tyres	CST Road, Kurla	Found by us
86	Tipu automobiles	CST Road, Kurla	Found by us
87	New Prince tyres	CST Road, Kurla	Found by us
88	New taj tyres	CST Road, Kurla	Found by us
89	Raman motors	CST Road, Kurla	Found by us
90	Seraj automobiles	CST Road, Kurla	Found by us
91	Axis tools garage	CST Road, Kurla	Found by us
92	SS Foam centre	CST Road, Kurla	Found by us
93	LL traders	CST Road, Kurla	Found by us
94	NB motors	CST Road, Kurla	Found by us
95	IK Enterpose	CST Road, Kurla	Found by us
96	L Akbar	CST Road, Kurla	Found by us
97	Shalimar recon centre	CST Road, Kurla	Found by us
98	Rahmulla brother seat cover	CST Road, Kurla	Found by us
99	Siddiqui company scaffolding material	CST Road, Kurla	Found by us
100	Subhan enterprise	CST Road, Kurla	Found by us
101	Wafa steel traders	CST Road, Kurla	Found by us
102	Universal India corporation	CST Road, Kurla	Found by us

103	Asif steel corporation	CST Road, Kurla	Found by us
104	Moral furniture	Kurla Kalina road, Kurla	Found by us
105	Aayan pipe fitting	Kurla Kalina road, Kurla	Found by us
106	Aman trading	Kurla Kalina road, Kurla	Found by us
107	Iqra enterprise	Kurla Kalina road, Kurla	Found by us
108	Sameer scrap	Kurla Kalina road, Kurla	Found by us
109	Barkat plastic scraps	Kurla Kalina road, Kurla	Found by us
110	Aries enterprise	Kurla Kalina road, Kurla	Found by us
111	Azim traders	LBS Marg, Kurla	Found by us
112	Rana automobiles	LBS Marg, Kurla	Found by us
113	Star motors	LBS Marg, Kurla	Found by us
114	JK ceiling systems	LBS Marg, Kurla	Found by us
115	Mina Traders	LBS Marg, Kurla	Found by us
116	SK enterprises	LBS Marg, Kurla	Found by us
117	Raza steel	LBS Marg, Kurla	Found by us
118	Welcome traders	LBS Marg, Kurla	Found by us
119	Sahil enterprise	LBS Marg, Kurla	Found by us
120	Shalimar welding parts	Mohammed Estate, Kurla	Found by us
121	Azad Battery	Mohammed Estate, Kurla	Found by us
122	Sigma Battery	Mohammed Estate, Kurla	Found by us
123	Ak Automobiles	Mohammed Estate, Kurla	Found by us
124	Devu tools mould makers	Safeed pool, Sakinaka	Found by us
125	Ishpal interior works	Safeed pool, Sakinaka	Found by us
126	Prabhat enterprises	Safeed pool, Sakinaka	Found by us
127	Prompt data products	Safeed pool, Sakinaka	Found by us

128	Poly flouoro products	Safeed pool, Sakinaka	Found by us
129	Royal enterprise	Safeed pool, Sakinaka	Found by us
130	Protect engineering	Safeed pool, Sakinaka	Found by us
131	Inmco industrial metals n minerals co.	Safeed pool, Sakinaka	Found by us
132	Jk industries powder coating	Safeed pool, Sakinaka	Found by us
133	Protect engineering control	Safeed pool, Sakinaka	Found by us
134	Unicorn polyprints	Safeed pool, Sakinaka	Found by us
135	Vijayakumar refractories n chemicals	Safeed pool, Sakinaka	Found by us
136	Om sai agarbatti works	Near safeed pool, Sakinaka	Found by us
137	K.M.enterprises	Near safeed pool, Sakinaka	Found by us
138	Hasmukh creations	Near safeed pool, Sakinaka	Found by us
139	Picanova fabrics	Near safeed pool, Sakinaka	Found by us
140	Jay pee synthetics	Near safeed pool, Sakinaka	Found by us
141	Kaysons	Near safeed pool, Sakinaka	Found by us
142	M.K. Enterprises	Near safeed pool, Sakinaka	Found by us
143	Durgesh silk mills	Near safeed pool, Sakinaka	Found by us
144	om Sai exports	Near safeed pool, Sakinaka	Found by us
145	Mulbery clothing	Near safeed pool, Sakinaka	Found by us
146	Anil industries	Near safeed pool, Sakinaka	Found by us
147	Techno investment india	Near safeed pool, Sakinaka	Found by us
148	Z square automobiles	Near safeed pool, Sakinaka	Found by us
149	Anil cloth mills	Near safeed pool, Sakinaka	Found by us
150	Damini enterprise	Paiera compound, safeed pool, sakinaka	Found by us

151	Afzal mohan sheikh	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
152	Sai auto workds	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
153	Ambika marble and granite	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
154	Star auto works	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
155	Dr Garage	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
156	Rainbow international	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
157	Priyanka seat works	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
158	Dr electrical works	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us
159	Specialized fabrication	Near Ashok Nagar, KBM compound,Military road, Marol	Found by us