Report Code: 065\_GBP\_IIT\_EQP\_DAT\_08\_Ver 1\_July 2014

# Assessment of Domestic Pollution Load from Urban Agglomeration in Ganga Basin: Yamuna Sub-Basin

# **GRBMP: Ganga River Basin Management Plan**

by

## **Indian Institutes of Technology**















IIT Bombay IIT Delhi IIT Guwahati

IIT Kanpur IIT Kharagpur

IIT Madras IIT Roorkee

#### **Preface**

In exercise of the powers conferred by sub-sections (1) and (3) of Section 3 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government has constituted National Ganga River Basin Authority (NGRBA) as a planning, financing, monitoring and coordinating authority for strengthening the collective efforts of the Central and State Government for effective abatement of pollution and conservation of the river Ganga. One of the important functions of the NGRBA is to prepare and implement a Ganga River Basin Management Plan (GRBMP).

A Consortium of 7 Indian Institute of Technology (IIT) has been given the responsibility of preparing Ganga River Basin Management Plan (GRBMP) by the Ministry of Environment and Forests (MoEF), GOI, New Delhi. Memorandum of Agreement (MoA) has been signed between 7 IITs (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and MoEF for this purpose on July 6, 2010.

This report is one of the many reports prepared by IITs to describe the strategy, information, methodology, analysis and suggestions and recommendations in developing Ganga River Basin Management Plan (GRBMP). The overall Frame Work for documentation of GRBMP and Indexing of Reports is presented on the inside cover page.

There are two aspects to the development of GRBMP. Dedicated people spent hours discussing concerns, issues and potential solutions to problems. This dedication leads to the preparation of reports that hope to articulate the outcome of the dialog in a way that is useful. Many people contributed to the preparation of this report directly or indirectly. This report is therefore truly a collective effort that reflects the cooperation of many, particularly those who are members of the IIT Team. A list of persons who have contributed directly and names of those who have taken lead in preparing this report is given on the reverse side.

Dr Vinod Tare Professor and Coordinator Development of GRBMP IIT Kanpur

#### The Team

1. A AKazmi, IIT Roorkee

2. A K Gupta, IIT Kharagpur

3. A K Mittal, IIT Delhi

4. A K Nema, IIT Delhi

5. Ajay Kalmhad, IIT Guwahati

6. Anirban Gupta, BESU Shibpur

7. Arun Kumar, IIT Delhi

8. G J Chakrapani, IIT Roorkkee

9. GazalaHabib, IIT Delhi

10. Himanshu Joshi, IIT Roorkee

11. InduMehrotra, IIT Roorkee

12. I M Mishra, IIT Roorkee

13. Ligy Philip, IIT Madras

14. M MGhangrekar, IIT Kharagpur

15. MukeshDoble, IIT Bombay mukeshd@iitm.ac.in

16. PK Singh, IT BHU

17. Purnendu Bose, IIT Kanpur

18. R Ravi Krishna, IIT Madras

19. Rakesh Kumar, NEERI Nagpur

20. S M Shivnagendra, IIT Madras

21. SaumyenGuha, IIT Kanpur

22. Shyam R Asolekar, IIT Bombay

23. SudhaGoel, IIT Kharagpur

24. Suparna Mukherjee, IIT Bombay

25. TR Sreekrishanan, IIT Delhi

26. Vinod Tare, IIT Kanpur

27. Vivek Kumar, IIT Roorkee

kazmifce@iitr.ernet.in

akgupta18@rediffmail.com,akgupta@iitkgp.ac.in

akmittal@civil.iitd.ernet.in

aknema@gmail.com

kajay@iitq.ernet.in

guptaanirban@hotmail.com

arunku@civil.iitd.ac.in

gjcurfes@iitr.ernet.in

gazalahabib@gmail.com

himanshujoshi58@gmail.com

indumfce@iitr.ernet.in

imishfch@iitr.ernet.in

ligy@iitm.ac.in

ghangrekar@civil.iitkgp.ernet.in

dr\_pksingh1@rediffmail.com

pbose@iitk.ac.in rrk@iitm.ac.in

r\_kumar@neeri.res.in

snagendra@iitm.ac.in

sguha@iitk.ac.in

asolekar@iitb.ac.in

sudhagoel@civil.iitkgp.ernet.in

mitras@iitb.ac.in

sree@dbeb.iitd.ac.in

vinod@iitk.ac.in

vivekfpt@iitr.ernet.in

# **Lead Persons**

- 1. Vinod Tare, IIT Kanpur
- 2. Purnendu Bose, IIT Kanpur
- 3. Vishal Kapoor, IIT Kanpur
- 4. Abhishek, IIT Kanpur

#### **Contents**

Page

- 1 Introduction
- 2 Major Obstruction and Abstraction Projects Executed in the Yamuna basin
- 3 Demographic Profile of Yamuna Basin
- 4 Religious Places and their Importance
- 5 Pollution Load
- 6 Conclusions

#### References

Appendix 1: Compilation of Fact Sheets of Water Balance & Pollution Load

(Domestic) of Major Class I Cities in Yamuna Basin

Appendix 2: Compilation of Fact Sheets of Water Balance & Pollution Load

(Domestic) of Major Class II Cities in Yamuna Basin

#### 1. Introduction

River Yamuna, the largest tributary (1,376 km) of river Ganga, originates from Yamunotri glacier at Bandar Punch in the region of Mussourie range at 6,387 m above mean sea-level (msl), in the lower Himalayas. After flowing through the Sivaliks, river Yamuna emerges on the plains near Tajewala at 370 m (msl). The river then flows south-west to southwards for 224 km to enter the National Capital Territory of Delhi at 215 m (msl). After meandering through Delhi for about 22 km to Okhla, the river continues southwards for 272 km to Agra (146 m msl) and then turns south-east until its confluence with the River Ganga at Allahabad (100 m msl). All along its 1,170 km flow through the Gangetic plain, the average slope of the river bed decreases from about 0.56 m/km between Tajewala and Delhi to less than 20 cm/km between Delhi and Agra before becoming less than 5 cm/km thereafter, merging with the Ganges at Allahabad (Gopal and Sah, 1993). It has a total catchment area of 366,223 km<sup>2</sup>. The total catchment basin of the river Yamuna is 42.5% of the Ganga basin and 11% of the total geographical landmass of the country (Gopal and Sah, 1993). Yamuna flows through the states of Delhi, Haryana and Uttar Pradesh. The total catchment area of the river Yamuna lies in the states of Uttarakhand, Uttar Pradesh, Himachal Pradesh, Haryana, Rajasthan, Madhya Pradesh and Delhi. The statewise percent categorization of the Yamuna basin area are represented in Table 1. Major sub-basins under Yamuna basin is illustrated in Figure 1 while state-wise contribution in the basin is presented in Figure 2.

Table 1: State-wise Distribution of the Yamuna River Basin Area

State/ Union Territory	Total Geographical Area (sq. km)	Yamuna Catchment Area in the State (sq. km)	Percentage of the Basin Area lying in the State*
Uttarakhand	53,483	3,771	1.1
Uttar Pradesh	243,286	70,437	20.4
Himachal Pradesh	55,673	5,799	1.7
Haryana	44,212	21,265	6.2
Rajasthan	342,239	102,883	29.7
Madhya Pradesh	308,245	140,208	40.5
Delhi	1,484	1,484	0.4
Total		345,847	100

<sup>\*</sup>Misra and Mishra, 2014

Based on the hydrological and geo-morphological information river Yamuna can be differentiated into 5 sub stretches (CPCB, 2006):

a)	Himalayan stretch	From origin to Tajewala barrage (172 kms.)	$(YR_1)$
b)	Upper stretch	Tajewala barrage to Wazirabad barrage (224 kms.)	$(YR_2)$
c)	Delhi stretch	Wazirabad barrage to Okhla barrage (22 kms.)	(YR <sub>3</sub> )
d)	Eutrophic stretch	Okhla barrage to Chambal confluence (490 kms.)	(YR <sub>4</sub> )
e)	Diluted stretch	Chambal confluence to Ganga confluence (468 kms.)	(YR <sub>5</sub> )

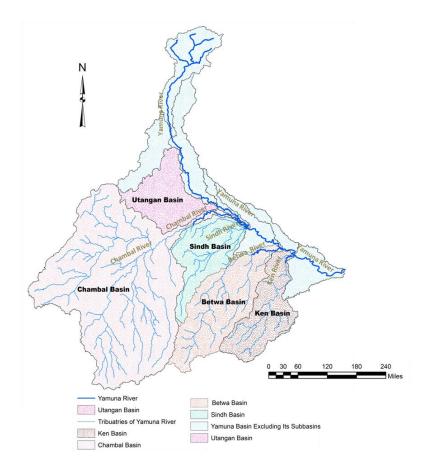


Figure 1: Major Sub-Basins under Yamuna River Basin

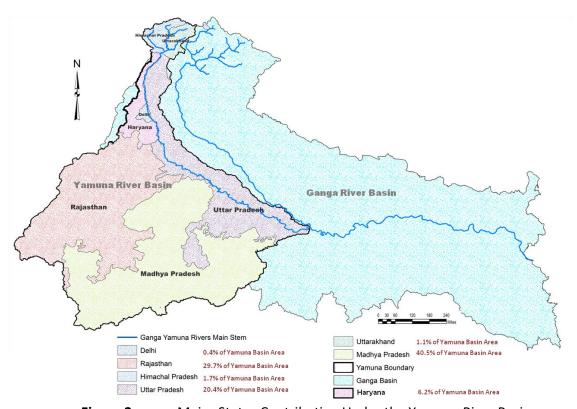


Figure 2: Major States Contributing Under the Yamuna River Basin

# 1.1. Salient features of river Yamuna and its tributaries and subtributaries

Several tributaries join it along its path, transforming it into a fourth-order river. Several major tributaries join river Yamuna in the Gangetic plain. Its major tributaries and subtributaries of the Himalayan region are Tons, Asan, Giri and Pabbar while at plains it receives waters from Hindon, Betwa, Chambal, Ken, Senger and Sind River. The tributaries cater to a major portion (70.9%) of the catchment area, the balance (i.e., 29.1%) area is directly drained into Yamuna or is drained by smaller streams. The salient features of all the major tributaries of river Yamuna are described in Table 2. River Chambal, well known for its deep ravines, is the largest of these tributaries, with a catchment area of 40% of the Yamuna river basin.

#### 1.2. Physical conditions of the river Yamuna

The Himalayan part of the basin experiences very low winter temperatures and high rainfall (1,200 to > 1,600 mm). In the plains, peak temperature rise above 45°C during summer (late May-June), but during winter the temperature (average 2-9°C December-January) rarely drops below the freezing-point (Gopal, 2003). The soils of the Yamuna basin vary considerably, as they have developed under different lithological, climatic, and pedogenetic, conditions (Raychaudhury et al., 1963). River bed of the upper Yamuna is primarily sandy in texture having sand in the range of 70.52-74.76%, silt in the range of 17.74-18.56% and clay in the range of 7.35-11.55%. Due to large variation in climate and soils, the natural vegetation is also highly variable in the Yamuna river basin (Mathur and Kapoor, 2013).

Table 2: Tributaries of river Yamuna

	Tributaries at the Mountainous stretches							
Characteristics	Tons	Asan	Giri	Pabbar	Paisuni			
Position	Right bank	Left bank	Right bank	Right bank	Right bank			
	tributary	tributary	tributary	tributary of Tons River	tributary			
Region of origin	Banderpunchh Mountain	Chandrabani Village at the base of Siwalik	Kharapathar, Jubbal Tehsil of District Shimla	Gangadari Dhar (Chander Nahan) ranges of Himalaya	Kaimur hills of Vindhyan range			
Mouth	Asan	Yamuna	Yamuna	Tons	Yamuna			
Total catchment area (sq km)	16,860	654.47	2,600	1,200	-			
Length (km)	150	42	155 <sup>*</sup>	87 <sup>*</sup>	100			
River bed	Stones, Sand	Gravels, Course fractions, Boulders, Sand	-	-	Stones, Sand, Mud			

	Tributaries at the Plains						
Characteristics	Hindon	Chambal	Sind	Betwa	Ken		
Position	Left bank	Right bank	Right bank	Right bank	Right bank		
	tributary	tributary	tributary	tributary	tributary		
Region of origin	Sivalik hills	North wards	North wards	North wards	North Western		
		slope of the	slope of the	slope of the	slope of the		
		Vindhyan	Vindhyan	Vindhyan	Vindhyan		
		mountains in	mountains	mountains	mountains in		
		native state of	originates at		native state of		
		Indore (M.P.)	Hatoli (District		Bhopal		
			Vidisha)				
Mouth	Yamuna	Yamuna	Yamuna	Yamuna	Yamuna		
Total catchment area	7,083	143,219	27,940	46,580	28,224		
(sq km)							
Length (km)	400	960	415	590	360		
River bed	Sand	Stony rapid,	-	Stones,	Rocks, Stones,		
		sand banks and		Sand, Riffle	Sand		
		gravel bars,		and Pools;			
		alkaline and		Pebbles and			
		saline soils		Cobble			

Gopal and Sah (1993); Dwivedi (2006); Chauhan et al. (2014): Garg et al. (2012): \* approx measured length of the river

# 2. Major Obstruction and Abstraction Projects Executed in the Yamuna basin

In the Himalayan segment from the source (Yamunotri Glacier) to Indo-Gangetic plains at Dak Patthar in Uttaranchal the river water quality is good and it meets most of the water quality standards. The major water quality problems arise afterwards due to the flow regulation of river through dams and barrages and the stretches downstream to the dams are devoid of water or having very less water. The water of river Yamuna is abstracted at different locations for multiple uses. The flows are dissected at 5 barrages during its course *i.e.*, at Dakpathar; Hathnikund; Wazirabad; Okhla; and at Mathura (Gokul barrage). The river water is regulated for irrigation and power generation within the segment in Hathnikund/Tajewala in Yamuna Nagar district of Haryana state, and almost all water is diverted into Eastern Yamuna Canal (EYC) and Western Yamuna Canal (WYC). The stretch is devoid of water during summer and winters downstream of Hathnikund barrage. The statistical interpretation revealed that decadal average flow in the river downstream of Hathnikund barrage at Yamuna Nagar reducing to around 3,000 cumecs in 2000-08 from over 15,000 cumecs in 1961-70 (Panwar, 2009).

Downstream of Hathnikund the river regains water from ground water accrual and contributions of feeding canals and small tributaries etc. From Hathnikund the river sluggishly meanders and reaches Delhi at Palla after travelling a distance of about 224 km. At Wazirabad the river is trapped again through a barrage for drinking water supply to urban agglomeration at Delhi. From Wazirabad barrage no river water is allowed to flow down particularly during summer, as the available water in the river is not adequate to

fulfill the water supply demand of Delhi. The water flowing in the Yamuna River downstream of Wazirabad is the treated, partially treated or untreated domestic & industrial wastewater contributed by various drains joining river Yamuna and canal water. After 22 km downstream from Wazirabad barrage the Yamuna water is again blocked and diverted into Agra Canal for irrigation through another barrage at Okhla. Similar to what happens downstream of Wazirabad, downstream of Okhla barrage the water flows in the river is the drain water of domestic & industrial origin contributed mainly by Shahdara drain. After travelling a distance of around 166 km, the river reaches Mathura from where again a major part of water is diverted for drinking water supply through Gokul barrage. The Yamuna from Gokul barrage, after receiving water through other important tributaries and city drains, joins river Ganga at Allahabad after traversing about 790 km via cities of Agra, Bateshwar, Etawah, Hamirpur and Pratapgarh (CPCB, 2006).

The points of abstraction and addition in water of Yamuna River are shown in Figure 3. A list of the dams and barrages construted under the Yamuna basin are presented in Table 3.

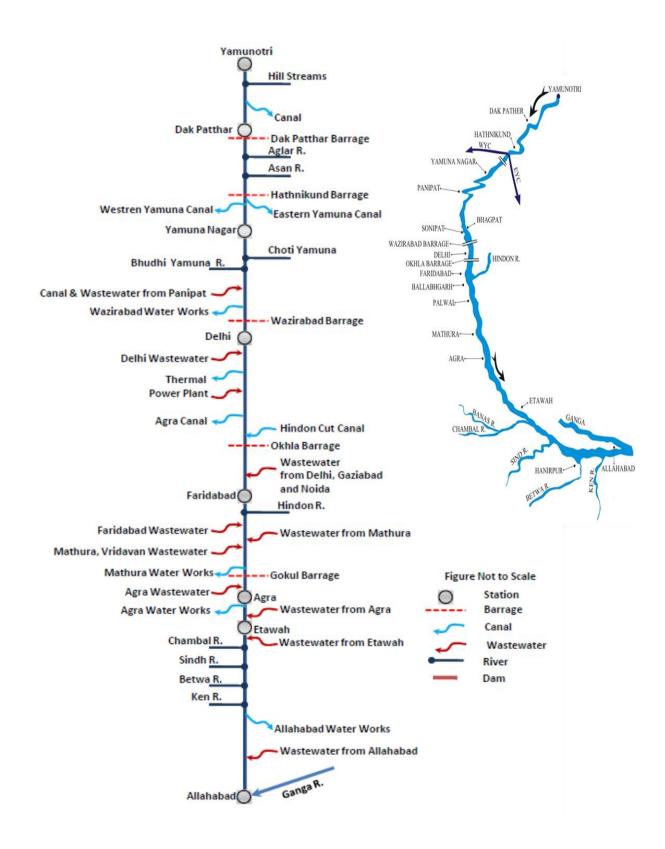


Figure 3: Line digram depicting points of water abstraction and additions in Yamuna river

Table 3: Details of the major dams/ barrages/ weirs on the river Yamuna and its tributaries

tribu		tributaries						
Projects River		State	Year of	Status	Remark			
	.,		Completion	/0				
Lakhwar Dam	Yamuna	Uttarakhand	-	U/C	Hydroelectric,			
					Irrigation			
Dakpathar	Yamuna	Uttarakhand	1965	On	Hydroelectric			
Barrage								
Tajewala	Yamuna	Haryana	1873	On	Irrigation			
barrage	_							
Asan Barrage	Asan	Uttarakhand-	1975	On	Hydroelectric			
		Himachal Pradesh						
		border region						
Khara Dam	Ahsan	Uttar Pradesh	1992	On	Hydroelectric			
Hathni Kund	Yamuna	Haryana	1999	On	Irrigation			
Barrage								
Gunta Dam	Gunta Nala	Uttar Pradesh	2003	On	Irrigation			
_	(Yamuna)							
Gandhi Sagar	Chambal	Madhya Pradesh	1960	On	Hydroelectric,			
Dam					Irrigation			
Rana Pratap	Chambal	Rajasthan	1970	On	Hydroelectric			
Sagar Dam								
Jawahar	Chambal	Rajasthan	1972	On	Hydroelectric			
Sagar Dam								
Kota Barrage	Chambal	Rajasthan	1960	On	Irrigation			
Gangau Weir	Ken	Madhya Pradesh	1915	On	Irrigation			
Rangwan	Ken	Madhya Pradesh	1957	On	Irrigation			
Dam								
Bariyarpur	Ken	Madhya Pradesh	1905	On	Irrigation			
Weir								
Kishau Dam	Tons	Uttarakhand-	-	U/C	Hydroelectric,			
		Himachal Pradesh			Irrigation			
		border region						
Ichari Dam	Tons	Uttarakhand	1972	On	Hydroelectric			
Rohini Dam	Rohini	Uttar Pradesh	1984	On	Irrigation			
Parichha Dam	Betwa	Uttar Pradesh	1885	On	Irrigation			
Dhukwan	Betwa	Uttar Pradesh	1909	On	Irrigation			
Dam								
Matatila Dam	Betwa	Uttar Pradesh	1964	On	Hydroelectric,			
					Irrigation			
Rajghat Dam	Betwa	Madhya Pradesh-	2006	On	Hydroelectric,			
<b>,</b> 0 - : =		Uttar Pradesh			Irrigation			
		border region			0			
Betwa	Betwa	Madhya Pradesh	-	On	Irrigation			
Barrage		, , , , , , , , , , , , , , , , , , , ,						
Jamini Dam	Jamini	Uttar Pradesh	1973	On	Irrigation			
- Jannin Dani	Janinin	J Cttal I I daesii	1373		Bation			

Bhaunrat Dam	Jamini	Uttar Pradesh	-	On	Irrigation
Giri Dam	Giri	Himachal Pradesh	-	On	Hydroelectric, Irrigation
Renuka Ji Dam	Giri	Himachal Pradesh	2014	On	Hydroelectric, Irrigation
Sawra Kuddu Dam	Pabbar	Himachal Pradesh	2010	-	Hydroelectric
Dhamwari Sunda Barrage	Pabbar	Himachal Pradesh	-	-	Hydroelectric
Sainj Barrage	Sainj	Himachal Pradesh	-	-	Hydroelectric
Madikheda Dam	Sind	Madhya Pradesh	2008	On	Hydroelectric, Irrigation

India-WRIS (2015); U/C: Under construction

### 3. Demographic Profile of Yamuna Basin

As per estimation based on Census 2011 the Yamuna basin accommodates 84 Class I cities, 69 Class II towns and 229 Class III towns. These cities/ towns belong to of the states of Uttaranchal, Uttar Pradesh, Himachal Pradesh, Haryana, Rajasthan, Madhya Pradesh and Delhi. The total population of the basin is estimated to be 127 million (according to Census 2001). Population-wise the major contributing state is Uttar Pradesh, which contributes 32.95% of the basin population followed by Madhya Pradesh, Rajasthan, Haryana, Delhi, Uttarakhand and Himachal Pradesh (Rai et al., 2012). The total population of the Class I cities, Class II towns and Class III towns in the basin according to the Census 2011 is 54.5 million. Among the Class I Cities DMC (Delhi Municipal Corporation), Faridabad, Agra, Allahabad, Ghaziabad, Bhopal, Gwalior, Indore, Kota and Jaipur are the most populated cities having more than 1 million people, according to the Population Census 2011.

In the basin, 39.24% and 2.95% of the population lying in the Class I cities and Class II towns are situated along the main stem of river Yamuna. The overall share of Class III population in the basin is 12.45%. The population residing under major sub-basins lying in the state has also been estimated for Class I and Class II cities/ towns. The largest population is harboured in Chambal Basin (Class I: 17.63%) and least in Ken Basin (Class I: 1.22%). The Betwa, Sindh and Utangan basins accommodate 5.26, 3.18 and 4.33% respectively, of the total Class I population of the Yamuna basin. The least population of Class II towns also belong to Sindh basin (0.22%) and maximum to Chambal basin (1.79%). The other sub-basins — Betwa (1.09), Ken (0.28%) and Utangan (0.51%) — contain the remaining Class II population of the Yamuna basin. The total population residing outside the selected sub-basins for Class I cities and Class II towns in the state is 9.84%. Figure 4 shows the population distribution of Class I cities and Class II and III towns in the major sub-basins of river Yamuna and along the main stem of the river Yamuna. Figures 5 and 6 show the distribution of Class I cities and Class II towns in the state under Yamuna River Basin.

The details of the area, population and the major river systems of all the Class I, II and III cities are presented in Tables 4-6, respectively. The average population of class I town in the state is 0.5 million approximately, which is seven times and seventeen times higher than the average population of class II and class III towns, respectively. DMC is the most populated class I city having the population of the order of 11 million while Nagda is the least populated (0.1 million) class I city. Sadat Pur Gujran and Hodal are the cities having maximum and minimum population under class II towns, containing 0.09 and 0.05 million, respectively. In class III towns where the population is less than 0.05 million, the maximum population is in the Kotputli town (0.049 million) while the minimum is in the Maksi (0.02 million).

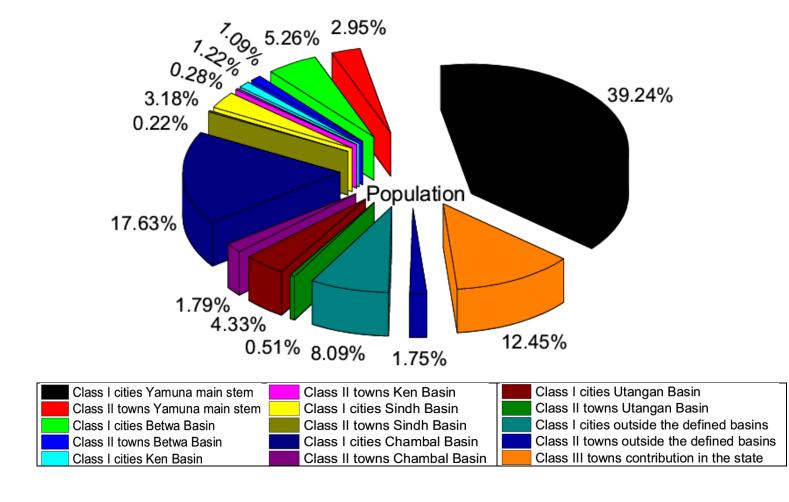


Figure 4: Population Distribution of Class I Cities and Class II, Class III Towns in the Major Basins Under the Yamuna Basin and Along the Main Stem of the River Yamuna

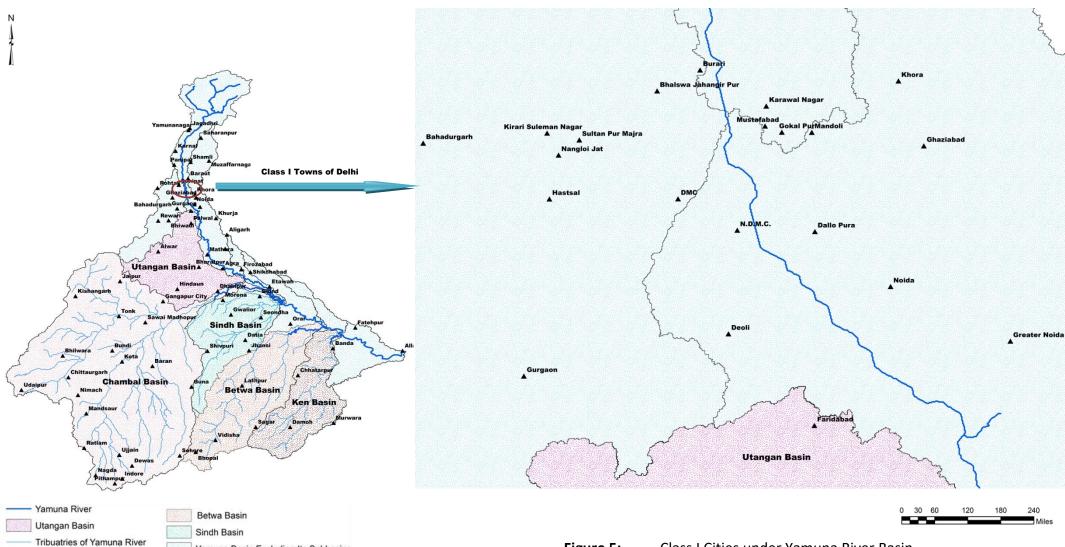


Figure 5: Class I Cities under Yamuna River Basin

Yamuna Basin Excluding Its Subbasins

Utangan Basin

▲ Class I Towns

Ken Basin

Chambal Basin

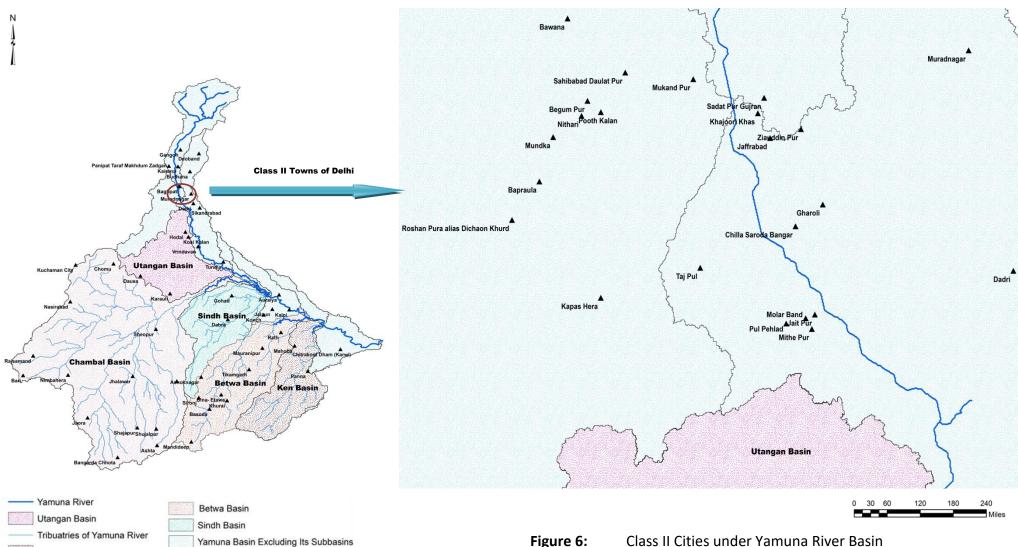


Figure 6: Class II Cities under Yamuna River Basin

Ken Basin

Chambal Basin

Utangan Basin

▲ Class II Towns

 Table 4:
 Demography of Major Class I Cities on River Yamuna

S. No.	City/ Town	State	River System	Area (Sq. Km.)	Population (Census 2011)
1	DMC		Yamuna, Hindan River	561.3	11,034,555
2	N.D.M.C.		Yamuna, Hindan River	42.7	257,803
3	Kirari Suleman Nagar		Yamuna, Hindan River	4.7	283,211
4	Sultan Pur Majra	1	Yamuna, Hindan River	2.8	181,554
5	Bhalswa Jahangir Pur		Yamuna, Hindan River	6.7	197,148
6	Burari	1	Yamuna, Hindan River	11.2	146,190
7	Karawal Nagar		Yamuna, Hindan River	4.8	224,281
8	Mustafabad	NCT OF DELHI	Yamuna, Hindan River	1.3	127,167
9	Gokal Pur		Yamuna, Hindan River	2.3	121,870
10	Mandoli	1	Yamuna, Hindan River	5.9	120,417
11	Dallo Pura		Yamuna, Hindan River	2.3	154,791
12	Hastsal	-	Yamuna, Hindan River	6.8	176,877
13	Nangloi Jat	1	Yamuna, Hindan River	6.7	205,596
14	Deoli	-	Yamuna, Hindan River	10.1	169,122
15	Bahadurgarh		Yamuna River	29.5	170,767
16	Faridabad	1	Yamuna, Hindan River	204	1,414,050
17	Gurgaon	1	Yamuna, Hindan River	184.59	886,519
18	- Jagadhri	1	Yamuna, Hindan River	24.8	124,894
19	Karnal	1	Yamuna, Hindan River	29.46	302,140
20	Palwal	Haryana	Yamuna, Hindan River	8.42	131,926
21	Panipat	1	Yamuna, Hindan River	21.86	295,970
22	Rohatak	1	Yamuna, Hindan River	72.18	374,292
23	Rewari		Yamuna River 79 km	22.5	143,021
24	Sonipat		Yamuna, Hindan River	42.61	289,333
25	Yamunanagar		Yamuna River	16.48	217,071
26	Morena		Asan River	12.00	200,482
27	Bhind		Kunwari River	17.18	197,585
28	Bhopal		Betwa River	285.88	1,798,218
29	Chhatarpur		Dhasan River	15.56	142,128
30	Damoh	Madhya	Ken River	33.23	139,561
31	Datia	Pradesh	Pahuj River	6.64	100,284
32	Dewas		Shipra River	100.22	289,550
33	Guna		Sindh River	45.75	180,935
34	Gwalior		Son Rekha River	173.68	1054,420
35	Murwara		Katni River	68.57	221,883
36	Sehore		Parbati River	15.11	109,118

37	Shivpuri		Sindh River	81.11	179,977
38	Ujjain		Kshipra River	92.68	515,215
39	Vidisha		Betwa River	5.83	155,951
40	Mandsaur		Shivna River	36.36	141,667
41	Nagda		Chambal River	23.83	100,039
42	Neemach	7	Ratem River	22.00	128,575
43	Pithampur		Narmada 47 km	89.90	126,099
44	Ratlam	7	Mahi River	39.19	273,892
45	Sagar		Dhasan River	33.75	370,296
46	Indore		Saraswati River	172.39	1,994,397
47	Bundi		Mez, Chambal River	27.79	104,919
48	Kishangarh		Luni River 46 Km	45.49	154,886
49	Alwar		Yamuna River 98 km	48.4	322,568
50	Bharatpur		Yamuna River	57.77	252,838
51	Bhilwara		Kothari, Banas River	118.49	359,483
52	Bhiwadi		Sahibi River	44.06	104,921
53	Chittaurgarh		Banas, Gambhiri River	41.76	116,406
54	Dhaulpur	Rajasthan	Chambal, Utangan River	32.03	133,075
55	Gangapur		Kothari, Banas River	52.31	119,090
56	Hindaun		Utangan River	48	105,452
57	Jaipur		Banas River 60 Km	484.64	3,046,163
58	Tonk		Banas River	60.5	165,294
59	Udaipur		Sabarmati, Ayad River	56.92	451,100
			Chambal, Kali Sindh,		
60	Kota		Parvan, Mez River	527.03	1,001,694
61	Sawai Madhopur		Parbati, Banas River	59	121,106
62	_		Parbati, Kali Sindh, Parvan	72.06	447.000
62	Baran		River	72.36	117,992
63	Agra	_	Yamuna, Chambal River	120.57	1,585,704
64	Aligarh	_	Yamuna River	40.43	874,408
65	Allahabad	_	Ganga, Yamuna River	70.05	1,168,385
66	Banda		Ken, Yamuna River	16.00	160,473
67	Baraut		Yamuna River	10.36	103,764
68	Etawah		Sengar, Chambal, Yamuna River	28.94	256,838
	Ltawaii	_	Ken, Ganga, Yamuna		230,838
69	Fatehpur		River	56.98	193,193
		Uttar Pradesh	Chambal, Utangan,		
70	Firozabad		Yamuna River	21.35	604,214
71	Ghaziabad		Hindon, Yamuna River	220.00	1,648,643
72	Constant Natio		Hindon, Yamuna River		
<i>′</i> –	Greater Noida				
73	Hathras		Yamuna River	6.76	143,020

75	Khora	Hindon	, Yamuna River 4.	.26	190,005
76	Khurja	Yamuna	a River 36 km 16	5.70	121,207
77	Lalitpur		Sajnam, Jamani, twa River	7.35	133,305
78	Mathura	Yam	nuna River 28	3.05	349,909
79	Muzaffarnagar	Kali nad	li, Ganga River 12	2.04	392,768
80	Orai	Yamuna,	, Betwa, Dhasan River	3.20	190,575
81	Saharanpur	Hindon,	Yamuna, River 46	5.74	705,478
82	Shamli	Yan	nuna River 26	5.23	107,266
83	Shikohabad		na, Chambal, ngan River	.48	107,404
84	Noida	Yamuna	, Hindon River 92	2.10	637,272

Table 5: Demography of Major Class II Cities on River Yamuna

S. No.	City/ Town	State	River System	Area (Sq. Km.)	Population (Census 2011)
1	Sahibabad Daulat Pur		Yamuna, Hindon River	5.7	54,773
2	Bawana	]	Yamuna, Hindon River	17.0	73,680
3	Nithari	]	Yamuna, Hindon River	2.3	50,464
4	Begum Pur	]	Yamuna, Hindon River	1.9	53,682
5	Pooth Kalan	1	Yamuna, Hindon River	7.0	96,002
6	Mukand Pur	1	Yamuna, Hindon River	2.5	57,135
7	Sadat Pur Gujran	1	Yamuna, HIndon River	1.1	97,641
8	Khajoori Khas	1	Yamuna, HIndon River	0.9	76,640
9	Ziauddin Pur	1	Yamuna, Hindon River	1.8	68,993
10	Jaffrabad	1	Yamuna, Hindon River	0.9	54,601
11	Gharoli	NCT of Delhi	Yamuna, Hindon River	3.6	92,540
12	Chilla Saroda Bangar	1	Yamuna, Hindon River	2.6	83,217
13	Bapraula	1	Yamuna River	5.6	52,744
14	Mundka	1	Yamuna River	11.9	54,541
15	Roshan Pura	1	Yamuna River	2.8	57,217
16	Kapas Hera	1	Yamuna River	3.4	74,073
17	Pul Pehlad	1	Yamuna, Hindon River	2.2	69,657
18	Taj Pul	1	Yamuna, Hindon River	1.2	68,796
19	Mithe Pur	1	Yamuna, Hindon River	1.8	69,837
20	Molar Band	1	Yamuna, Hindon River	4.1	91,402
21	Jait Pur	1	Yamuna, Hindon River	3.8	59,330
22	Hodal		Yamuna River	5.39	50,143
23	Panipat Taraf Makhdum Zadgan	Haryana	Yamuna River	6.54	67,998
24	Ashta		Prabati river	15.78	53,184
25	Bangarda Chhota	1	Betwa River	11.19	64,213
26	Basoda	1	Betwa River	16.55	78,289
27	Sheopur		Parbati River	6.29	71,951

28	Shujalpur		Newaj River	7.74	51,225
29	Ashoknagar		Aur River	4.43	81,828
30	Bina		Bina River	12.00	64,529
31	Gohad		Chambal River	14.91	58,939
32	Jaora		Maleni River	14.54	74,907
33	Khurai	Madhya	Bina River	11.03	51,108
34	Mandideep	Pradesh	Kaliasot River	12.78	59,654
35	Panna	]	Kilkila River	10.00	59,091
36	Raghogarh -Vijaypur	]	Parbati, Chopan, Sindh River	73.79	62,163
37	Sironj	]	Betwa River	9.99	52,460
38	Tikamgarh		Jamani River	6.22	79,106
39	Shajapur		Chiler River	17.19	69,263
40	Dabra		Sindh River	3.79	61,277
41	Dhar	1	Narmada River	30.00	95,000
42	Jhalawar		Kali Sindh, Ahu River	12.95	66,919
43	Nimbahera	1	Banas River	12.74	61,949
44	Bari	1	Sabarmati, Ayad River	22.27	62,721
45	Chomun	1	-	22.53	64,417
46	Dausa	Daiaethau	Utanganga, Banganga River	16	85,960
47	Karauli	Rajasthan	Chambal, Utanganga River	35	82,960
48	Kuchaman	1	Luni River	12.5	61,969
49	Nasirabad	1	Luni, Khari River	22.93	50,804
50	Rajsamand		Banas, Gomati, Rajpura River	55	67,798
51	Auraiya		Sengar, Yamuna, Sindh, Pahuj, Kunwari RIver	9.00	87,736
52	Baghpat		Yamuna, Hindon River	2.83	50,310
53	Budhana		Kali nadi, Yamuna River	7.61	53,722
54	Chitrakoot Dham (Karwi)	1	Paisuni, Yamuna River	7.77	57,402
55	Dadri		Yamuna, Hindon River	6.50	91,189
56	Deoband	1	Hindon River	7.90	97,037
57	Gangoh	1	Yamuna River	6.00	59,279
58	Jalaun	1	Yamuna, Betwa, Pahuj River	6.34	56,909
59	Kairana	Uttar	Yamuna River	7.11	89,000
60	Kalpi	Pradesh	Yamuna, Betwa, Virma River	9.73	51,670
61	Kosi	1	Yamuna River	4.50	60,074
62	Konch	1	Dhasan, Betwa, Pahuj River	2.95	53,412
63	Mahoba	1	Urmil, Kali River	12.15	95,216
64	Mauranipur		Sukhnai Nadi, Dhasan River	5.53	61,449
65	Muradnagar	1	Yamuna, HIndon River	12.00	95,208
66	Rath	1	Virna, Dhasan, Betwa River	8.12	65,056
67	Sikandarabad	1	Yamuna, Hindon River	1.14	81,028
68	Tundla	1	Yamuna, Utangan River	8.25	50,423
69	Vrindavan	1	Yamuna River	13.50	63,005

Table 6: Demography of Major Class III Cities on River Yamuna

S. No.	City/ Town	State	River System	Area (Sq. Km.)	Population (Census 2011)
1	Ali Pur		Yamuna, Hindon River	8.6	20,332
2	Libas Pur		Yamuna, Hindon River	2.3	44,,375
3	Siras Pur		Yamuna, Hindon River	4.3	30,445
4	Pehlad Pur Bangar		Yamuna, Hindon River	4.7	22,968
5	Karala		Yamuna, Hindon River	8.8	35,730
6	Kamal Pur Majra Burari		Yamuna, Hindon River	1.3	43,086
7	Jharoda Majra Burari		Yamuna, Hindon River	2.6	22,878
8	Dayal Pur		Yamuna, Hindon River	-	20,589
9	Jiwan Pur alias Johri Pur		Yamuna, Hindon River	1.0	43,054
10	Babar Pur		Yamuna, Hindon River	0.8	37,058
11	Gharonda Neemka Bangar alias Patpar Ganj		Yamuna, Hindon River	1.5	37,876
12	Kondli	NCT OF DELHI	Yamuna, Hindon River	1.9	38,207
13	Shafi Pur Ranhola		Yamuna River	4.3	31,944
14	Nilothi		Yamuna, Hindon River	3.9	43,371
15	Quammruddin Nagar		Yamuna, Hindon River	2.4	25,126
16	Dindar Pur		Yamuna River	3.9	35,856
17	Nangli Sakrawati		Yamuna River	3.1	37,706
18	Moradabad Pahari		Yamuna, Hindon River	1.2	21,502
19	Malik Pur Kohi Alias Rang Puri		-	7.5	23,726
20	Aya Nagar		Yamuna, Hindon River	8.2	33,123
21	Chattar Pur		Yamuna, Hindon River	7.4	46,776
22	Tigri		Yamuna, Hindon River	1.1	46,974
23	Aali		Yamuna, Hindon River	4.0	27,169
24	Dharuhera		Sahibi River	11.49	30,344
25	Firozpur Jhirka		Yamuna River	8.86	24,750
26	Ganaur		Yamuna River	9.06	35,603
27	Gharaunda		Yamuna River	12.98	37,816
28	Hailey Mandi		Yamuna River	16.27	20,906
29	Jhajjar		Yamuna River	36	48,424
30	Kharkhoda	Hamiana	Yamuna River	1.63	25,051
31	Kundli	Haryana	Yamuna, Hindon River	7.9	21,633
32	Manesar		Yamuna River	14.7	23,448
33	Palwal (Rural)		Yamuna River	20.1	23,072
34	Panipat Taraf Ansar		Yamuna River	7.88	42,877
35	Pataudi		Yamuna River	13.51	20,418
36	Punahana		Yamuna River	10.12	24,734
37	Samalkha		Yamuna River	4.66	39,710
38	Sampla		Yamuna River	17.83	20,563
39	Sasauli		Yamuna, Markanda River	2.88	22,479
40	Sohna		Yamuna River	9.7	36,552

		1	<u> </u>		
41	Taoru	Llam.a	Yamuna River	4.52	22,599
42	Tilpat	Haryana	Yamuna, Hindon River	9.92	20,514
43	Ugra Kheri		Yamuna River	4.6	24,440
44	Paonta Sahib	Himachal Pradesh	Yamuna, Giri, Tons River	6.2	25,183
45	Solan		Giri River	6.18	39,256
46	Mussoorie	Uttaranchal	Bhagirathi, Yamuna River	64.75	30,118
47	Agar		Kali Sindh River	3.52	37,917
48	Alot		Kshipra River	2.78	24,115
49	Amla		Bel Nadi	6.39	30,215
50	Aron		Sindh River	20.01	28,010
51	Banda		Dhasan River	10.02	30,923
52	Badnagar		Chamla River	7.02	36,438
53	Begamganj		Bina River	18.46	34,031
54	Berasia		Baanh River	13.99	30,951
55	Bhander		Pahuj River	1.68	25,204
56	Bhanpura		Ahu River	8.00	21,013
57	Biaora		Parbati River	6.96	49,093
58	Garhakota		Sunar River	2.98	32,726
59	Khachrod		Chambal River	10.40	34,191
60	Maksi		Choti Kali Sindh River	19.19	20,088
61	Manasa		Ratem River	3.61	26,551
62	Pachor		Lakhundar River	25.79	27,396
63	Rahatgarh		Bina River	6.54	31,537
64	Rajgarh		Parbati River	9.36	20,668
65	Rehli		Sunar River	27.86	30,329
66	Tarana		Choti Kali Sindh River	1.45	24,908
67	Ambah	Madhya Pradesh	Chambal River	3.85	47,177
68	Bijawar		Dhasan River	25.72	20,513
69	Chanderi		Betwa River	14.87	33,081
70	Karera		Mahuar River	12.00	28,705
71	Lahar		Kwari River	19.04	35,674
72	Maharajpur		Narmada River	14.50	23,328
73	Mungaoli		Betwa River	17.98	26,192
74	Sabalgarh	_	Chambel River	8.57	40,333
75	Seondha	_	Sindh River	2.93	23,140
76	Sarangpur	_	Kali Sindh River	5.68	37,435
77	Badnawar	_	Mahi River	3.01	20,917
78	Mau	_	Parbati River	58.69	20,147
79	Bamor Kalan		Betwa River	3.43	32,838
80	Chitrakoot		Yamuna River	83.00	23,316
81	Deori		Narmada River	5.00	25,632
82	Gormi		Kunwari, ChambalRiver	17.00	20,841
83	Indergarh		Pahuj, Sindh River	18.05	23,045
84	Jaura Khurd		Asan, Chambal River	10.42	32,087
85	Jirapur		Kali Sindh River	9.25	21,724

86	Joura		Maleni, Chambal River	4.00	42,153
87	Kailaras		Chambal River	1.72	25,920
88	Laundi		Urmil, Ken River	25.04	22,002
89	Maihar	1	Mahanadi River	10.36	40,192
90	Mauganj	1	Sone River	36.91	26,420
91		-	Sindh, Kunwari River	4.00	21,335
	Mehgaon	1	Narmada River	13.00	30,012
92	Mhowgaon	_	-	14.91	23,724
93	Niwari		Betwa River		
94	Nowgong		Dhasan River	20.86	40,580
95	Obedullaganj		Tawa,Narmada River	29.86	22,845
96	Porsa		Kwari, Chambal, Yamuna River	12.17	39,669
97	Prithvipur		Betwa Jamni River	0.55	26,883
98	Rajakhedi		Dhasan River	3.54	24,232
99	Rau		Narmada River	14.74	36,055
100	Shamgarh		Ahu, Chambal River	3.02	24,637
101	Pathari		Bina, Betwa River	19.24	21,026
102	Khajuraho		Khudar, Ken River	59.80	24,481
103	Hatta		Ken,Sunar River	6.29	32,465
104	Narsinghgarh		Parbati River	12.95	32,329
105	Raisen		Betwa River	19.08	44,162
106	Binaganj		Parbati River	11.65	21,860
107	Aklera		Choti Nadi,Chapi River	5.00	26,240
108	Bagru		-	10.00	26,091
109	Bhawani Mandi		Piplaad, Ahu River	40.00	42,283
110	Chaksu		Banas River	13.25	33,432
111	Chhabra		Parbati River	9.00	32,285
112	Deoli	Rajasthan	Banas, Khari River	3.75	22,065
113	Jahazpur		Banas, Khari River	5.00	20,586
114	Jhalrapatan		Kali Sindh, Ahu River	20.17	37,506
115	Kekri		Banas, Khari River	7.00	41,890
116	Keshoraipatan		Chambal, Mez River	25.9	24,627
117	Kotputli		-	36.00	49,202
118	Lakheri		Mez, Parbati, Chambal River	25.00	29,572
119	Lalsot		Banas River	9.42	34,363
120	Malpura		Banas River	45.35	36,028
121	Mangrol		Parbati, KaliSindh River	27.45	25,073
122	Nagar		Banganga River	3.61	25,572
123	Niwai		Banas River	48	37,765
124	Bandikui		Banganga River	5	44,664
125	Bassi		Banganga River	20.4	26,029
126	Behror		-	15.12	29,531

127	Porawar		Khari RIver	24	24.075
	Borawar				24,975
128	Fatehnagar	_	Banas River Chandrelohi, Chambal,	15	22,812
129	Kaithoon		Kali Sindh, Parvan River	17.23	24,260
130	Kaprain		Chambal, Mez, Kali Sindh River	64	20,748
131	Khairthal		-	21.09	38,298
132	Manoharpur		-	12.11	20,287
133	Nandri		Banganga, Utangan River	6.9	20,827
134	Nawa		-	24	22,088
135	Ramganj Mandi		Ahu, Kali Sindh River	10.82	41,328
136	Rawatbhata		Chambal River	21.53	37,699
137	Sarwar		Khari River	5	20,372
138	Suket		Ahu, Kali Sindh River	9.52	22,319
139	Todabhim	1	Banganga, Utangan River	5	22,977
140	Phulera	Rajasthan	-	10	26,091
141	Kishangarh Renwal		-	25.94	29,201
142	Reengus		-	30	26,139
		_	Sangod, Kali Sindh,		
143	Sangod		Parvan River	14.89	21,846
144	Shahpura (Bhilwara)		Banas, Khari, Maansi, Kothari River	56.52	30,320
145	Shahpura (Jaipur)		-	64	33,895
146	Todaraisingh		Banas, Khari River	54.14	23,559
147	Bayana		Utangan River	5.68	38,502
148	Deeg		Yamuna River	3.29	44,999
149	Kaman		Yamuna River	6	38,040
150	Kumher		Yamuna River	19.62	23,540
151	Nadbai		Utangan River	14.91	26,411
152	Rajakhera		Utangan, Chambal River	10	33,666
153	Ramgarh		-	2.57	33,024
154	Sambhar		-	12.5	22,327
155	Shri Madhopur		-	16	31,366
156	Tijara		-	21	24,747
157	Mahwa		Banganga, Utangan River	3.06	24,846
158	Gulabpura		Khari River	12	27,215
159	Nathdwara		Banas River	24	42,016
160	Antah	Rajasthan	Parvan, Kali Sindh, Parbati River	23.48	32,377
161	Begun		Brahmini River	6.62	20,705
162	Karanpur		Banas River	4.85	21,297
163	Rajgarh	1	Banganga Rivver	25	26,631
164	Kapasan	1	Banas, Berach River	26.75	20,869
165	Achhnera		Yamuna, Utangan River	8.0	22,781
166	Babarpur Ajitmal	1	Yamuna River	5.0	29,284
167	Banat		Eastern Yamuna	2.9	20,728
168	Banki	Uttar Pradesh	Betwa River	4.3	21,317
169	Bidhuna	1	Rind River	10.0	32,252

170	Dasna		Yamuna, Hindon River	3.3	34,914
171	Dibiyapur		Rind, Sengar, Yamuna RIver	10.0	27,237
			Ganga, Yamuna, Virma,		•
172	Fatehpur		Betwa River	8.0	35,582
	Hindalco Industries Ltd.				
173	(Renukoot)	-	Renu River	5.0	41,792
174	Jhinjhak		Rind, Sengar, Yamuna River	5.4	24,027
175	Kanth	-	Ramganga, Gangan River	0.8	26,381
176	Khekada	1	Yamuna, Hindon River	8.0	48,676
177	Kheragarh		Utangan, Yamuna River	3.0	21,470
178	Khurja Rural	Uttar Pradesh	Yamuna River	9.7	21,383
179	Kiraoali	-	Utangan, Yamuna River	5.0	23,788
		-	Rind, Yamuna, Betwa,	0.0	20,7.00
180	Kora Jahanabad		Ganga River	3.1	26,359
181	Kul Pahar		Dhasan, Urmil River	2.8	20,096
182	Nakur		Yamuna River	6.3	22,712
183	Nanauta		Yamuna, Hindon River	4.0	22,551
184	Pukhrayan		Yamuna, Sengar River	15.0	24,258
		1	Kali Nadi, Hindon,Ganga		
185	Purquazi	-	River	4.9	29,041
186	Rampur Maniharan	-	Hindon, Yamuna River	2.0	27,979
187	Carrupt		Kali Nadi, Ganga, Malini	6.0	24.946
188	Sarwat Sewalkhas	-	River Hindon,Yamuna River	6.9 4.0	24,846
189		1	Kali Nadi		24,882
190	Shahbudinpur	-	Kali Nadi	4.7	25,157
190	Shahpur	-	Utangan, Yamuna,	2.6	20,154
191	Shamsabad		Chambal River	6.0	33,144
192	Sumerpur		Ganga, Sai River	7.5	39,132
193	Villimar Kundi		-	30.7	21,082
194	Ghatampur		Yamuna, Betwa River	4.00	40,623
195	Etmadpur		Yamuna River	4.00	21,897
196	Jewar		Yamuna River	18.17	32,269
197	Kabrai		Ken River	4.00	28,564
198	Khaga		Ganga, Yamuna River	16.00	35,637
199	Raya		Yamuna River	7.00	21,344
200	Sirsaganj		Yamuna River	2.14	32,098
201	Atarra		Ken, Kali RIver	10.00	47,419
202	Barua Sagar		Betwa River	5.89	25,028
			Sengar, Rind, Yamuna,	6.00	
203	Bharthana	-	Kunwari, Chambal River	0.00	44,120
204	Bindki		Ganga, Yamuna, Ken River	3.90	36,926
205	Charkhari		Virna River	5.00	27,760
206	Charthawal	1	Kali Nadi, Hindon River	8.75	20,653
207	Chhata	Uttar Pradesh	Yamuna River	14.00	23,537
208	Fatehabad		Yamuna, Utangan, Chambal River	6.00	23,278

209	Fatehpur Sikri	Yamuna, Utangan River	8.00	32,905
210	Govardhan	Yamuna River	8.00	22,756
211	Gursarai	Dhasan, Betwa River	2.24	26,869
212	Hamirpur	Ganga, Sai River	3.94	35,475
213	Jalalabad	Ganga, Ramganga River	9.00	38,202
214	Jalalabad	Kali River	4.10	27,921
215	Jalesar	Yamuna River	3.67	38,130
216	Jaswantnagar	Sengar, Chambal, Yamuna River	5.76	28,164
217	Kandhla	Yamuna River	5.96	46,796
218	Karhal	Chambal, Yamuna River	9.58	27,701
219	Khair	Karban Nadi, Yamuna River	15.54	35,751
220	Maudaha	Ken, Betwa, Yamuna, Virna River	6.07	40,003
221	Sadabad	Karwan, Yamuna River	3.97	40,926
222	Samthar	Betwa, Pahuj River	4.00	22,455
223	Thana Bhawan	Hindon, Yamuna River	1.11	36,669
224	Behat	Yamuna River	4.00	20,474
225	Rasulabad	Rind River	8.00	22,196
226	Akbarpur	Sengar, Yamuna River	5.00	20,445
227	Jalalpur	Choti Saryu, Tons River	0.34	31,972
228	Bewar	Virna, Betwa River	9.00	23,729
229	Shamsabad	Ganga River	4.00	28,454

## 4. Religious Places and Their Importance

Yamuna basin is comprises of parts of six states (Uttarakhand, Himachal Pradesh, Haryana, Uttar Pradesh, Madhya Pradesh and Rajasthan) and one Union territory (National Capital Territory of Delhi). The basin has cultural, religious and traditional richness, marked with the presence of sages, seers, devotees and mystics. Allahabad, Mathura, Vrindavan, Ujjain, Orchha, Maihar, Chitrakoot, Jaipur, Udaipur, Bharatpur, Jhalawar and Karauli are major holy cities for Hindus. Hordes of pilgrims and devotees visit these places of pilgrimage every year and participate in festivals.

Allahabad/Prayaga is an ancient pilgrim site located at the confluence of River Ganga, Yamuna and the mythical Saraswati and plays a central role in Hindu scriptures. Sangam, rivers convergence point, is venue of many sacred fairs and rituals since ancient times which attracts thousands of pilgrims to take a holy dip throughout the year. Among the various festivals and fairs, the Kumbh Mela is one of the greatest Indian cultural and religious fair. Magh Mela is another fair that is held annually in the month of Magh (Mid January to Mid February).

Mathura and Vrindavan are the most important places of pilgrimage for devotees of Lord Krishna. These ancient towns witness numerous mesmerizing temples of various ages, and stretch of the sacred Yamuna River which flows past here is lined with 25 ghats. Govardhan,

Barsana, Gokul, Nandgaon, Mahavan, Baldeo and Chhatikara are some of the popular places. Mathura was earlier a Buddhist center before Hinduism rose to prominence.

Ujjain is an ideal destination for the spiritual souls, dedicated mostly to the Shaivite, Vaishnavite and followers of Shakta. It is one of the seven sacred cities (Sapta Puri) of the Hindus located on the eastern bank of the Kshipra River. The place has several old age temples of 10th and 11th centuries and ancient caves which are believed to be in existence since Mahabharata era. Ujjain is one out of four pilgrimage sites in India where the largest Hindu fair (Kumbh Mela) is celebrated in every 12 years. There are about 15 Ghats along river Kshipra.

Orchha is one of the ancient towns situated on the bank of river Betwa and famous for its architectural heritage and its pilgrimage stature. It has many temples but is most famous for the Ram Raja mandir where devotees visit regularly. Orchha receives a huge number of devotees on certain important Hindu festivals like the Ram navami, Makar Sankranti, Vivaha Panchami, Basant Panchami, Shivratri and Kartik Purnima.

Bhojpur is a small town near to Bhopal having historical and religious importance. The place is located on river Betwa, famous for an ancient incomplete Bhojeshwar Temple dedicated to Lord Shiva and an unfinished Jain temple. Bhojeshwar Temple is also known as Somnath of the east. During Maha Shivratri, a big fair is organized every year.

Maihar is one of the 52 Shakti Peethas (shrines) located in the district of Satna, associated with the Goddess Shakti, also known as Sharda Devi. Millions of pilgrims throng the temple all round the year.

Chitrakoot, 'the hill of many wonders', lies on the borders of Madhya Pradesh—Uttar Pradesh. The town has spiritual, cultural and historical significance, known for a number of ancient temples as well as bathing ghats along the Mandakini River. The place is renowned as Lord Rama Pilgrimage, and devotees believed that Lord Rama along with his brother Lakshman and goddess Sita spent 11 and half years of their 14 years exile in forests around Chitrakoot. This holy town is crowded with pilgrims visiting throughout the year. Some major religious events and their features have been illustrated in Table 7.

**Table 7:** Major Religious Events on River Banks in Yamuna and Its Major Tributaries in Yamuna Basin

S No	Religious Events	Place	River Bank	Duration	Period
1	Kumbha Mela	Allahabad	Ganga, Yamuna	January–February	Every twelfth year
2	Kumbha Mela	Ujjain	Kshipra	When Jupiter	Every twelfth year
	(Simhastha)			ascends into sun sign	
				Leo's quarter or the	
				Simha constellation	
				of zodiac	
3	Ardh Kumbha Mela	Allahabad	Ganga,	January–February	Every twelfth year
			Yamuna River		
4	Magh Mela	Allahabad	Ganga, Yamuna	January–February	Annual
5	Kartik Poornima	Orchha	Betwa	November	Annual
6	Ganga Dusshera	Allahabad,	Ganga	June	Annual
		Garhmukteshwar			
7	Garh Ganga Mela	Garhmuketeshwar	Ganga	November	Annual
8	Bateshwar Fair	Agra	Yamuna	October–November	Annual
9	Ramayan Mela	Chitrakoot	Mandakini	February, March	Annual
10	Ram Navmi	Orchha	Betwa River	April	Annual
11	Makar Sankranti	Orchha	Betwa River	January 14	Annual
12	Vivaha panchami	Orchha	Betwa River	November-	Annual
				December	
13	Basant Panchami	Orchha	Betwa River	February	Annual
14	Shivratri	Orchha	Betwa River	March	Annual
15	Banganag Fair	Jaipur	Banganga River	April–May	Annual
16	Brij Festival	Bharatpur	Banganga River	March	Annual
17	Chandrabahga Fair	Jhalawar	Chadrabhaga	November	Annual
			River		
18	Kaila Devi Fair	Karauli	Kalisil River	March–April	Annual

#### 5. Pollution Load

The major pollution load in the area of basin under the state is due to point and nonpoint sources. Discharges of untreated/partially treated sewage from urban centres, discharges from open drains carrying sewage, discharges from the tributaries and discharges of untreated/partially treated wastewater from industrial units are the major point sources that contribute to the pollution load in the state. The major nonpoint sources *i.e.*, agricultural activities, sediment remobilization or entrainment, groundwater intrusion or a combination of these sources are also significantly contributed in the pollution. The major towns along the river Yamuna are Kota, Gwalior, Indore, Nagda, Khetri, Yamuna Nagar,

Panipat, Sonepat, Delhi, Baghpat, Ghaziabad, Gautam Budha Nagar, Agra, Faridabad and Mathura.

According to Upadhyay and Rai (2013), 8,444 MLD of wastewater is generated in the basin, out of which about 4,458 MLD is discharged directly into the Yamuna river and about 1,200 MLD is discharged into its tributaries. The remaining 2,786 MLD is either disposed of on land or used for irrigation. The large number of pulp and paper, sugar, distillery, leather, textile, chemical, thermal power, and food processing industries situated in Class I and Class II cities (Kota, Gwalior, Indore, Yamuna Nagar, Panipat, Sonepat, Delhi, Baghpat, Ghaziabad, Gautam Buddha Nagar, Faridabad, Mathura, Vrindavan, Agra and others) on the banks of the river Yamuna and its tributaries, directly or indirectly influencing the water quality of river by discharging their treated and untreated effluents into the nearby riverine systems. The estimation of the amount of pollution load generated by the industries and its contribution in the river Yamuna is a strenuous task. According to Rai et al. (2012), the state-wise maximum industrial effluent generation in Yamuna basin is by Uttar Pradesh (55%), followed by Delhi (18%), Madhya Pradesh (14%), Haryana (7%), Rajasthan (4%) and Himachal Pradesh (2%).

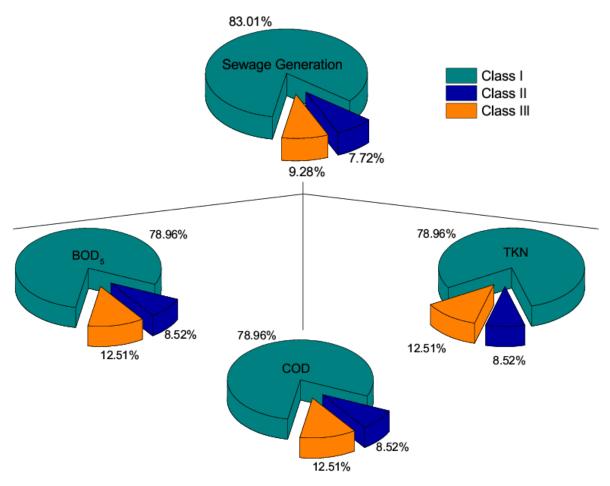


Figure 7: Distribution of Pollution Load of Class I Cities and Class II, Class III Towns in Yamuna Basin

The pollution load for Class I cities, Class II and III towns have been estimated by the data received through rigorous field survey of almost all the major cities and towns in the state (Figure 7). The maximum sewage generation is in the Class I cities (83.01%) followed by Class III (9.28%) and Class II towns (7.72%). The BOD, COD and TKN load for Class I cities, Class II and Class III towns are in the order of 78.96, 8.52 and 12.51%, respectively. The BOD, COD and TKN load of all the Class I cities, Class II and Class III towns are estimated on the per capita basis by using standard values. The domestic water demand is estimated from the population data. The standard water use of 135 lpcd in urban centres is considered for the domestic water requirement and also as per standard 80% of the water is generated as sewage water. The assessment of the total water supply and total sewage generation of class I cities in the state revealed that the maximum sewage generation is in DMC(U) which is 1191.73 MLD. In case of the class II towns the sewage generation in Sikandrabad is maximum at 48.79 MLD, approx 800% of its total water supply. The total BOD and COD loads in tons/day has been estimated for Class I towns and their averages are approximately 13.8 and 23.4 tons/day, respectively. The average BOD and COD loads from the Class II towns are 1.80 and 3.07 tons/day, respectively whereas Class III towns contribute approximately 0.8 tons/day and 1.36 tons/day of BOD and COD, respectively. The maximum BOD, COD and TKN contributing city in Class I towns are DMC(U) while minimum BOD, COD and TKN contribution are made by Nagda. In Class II and Class III towns, maximum BOD, COD and TKN load are from Sadat Pur Gujran and Kotputli, respectively, while minimum is contribution are from Hodal and Maksi, respectively.

The estimates of total water supply, total sewage generated, BOD, COD and TKN loads are summarized and illustrated in Figures 8a (Part i) to 10b (Part ii) for class I cities and class II towns. All the plots from Figures 8 to 10 are in two parts (Parts i and ii) for proper understanding of the observations. The comparative account of towns of all the classes (I, II and III) for their population, sewage generation, water supply and BOD, COD and TKN load are presented in Figure 11.

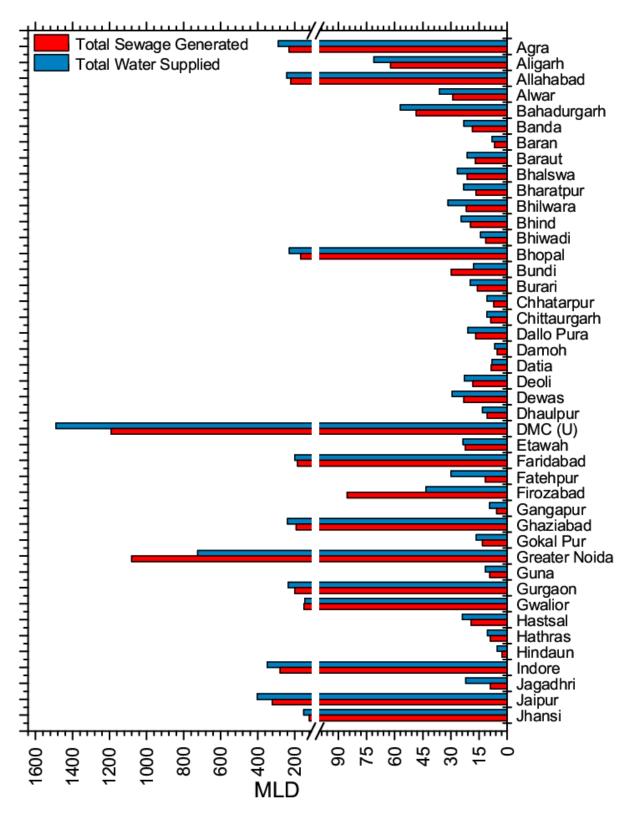


Figure 8a (Part i): Assessment of Water Supply and Sewage Generation (MLD) in Class I

Towns in the Yamuna River Basin

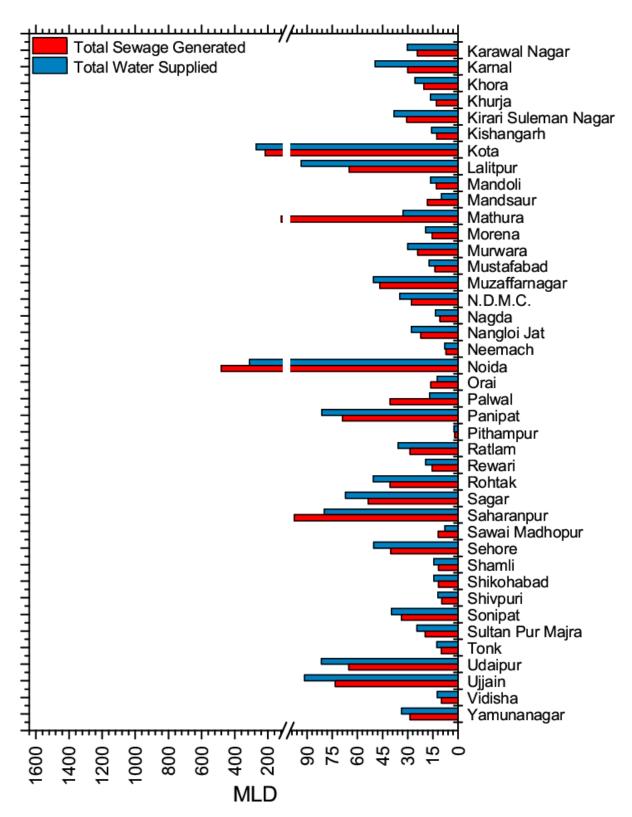


Figure 8a (Part ii): Assessment of Water Supply and Sewage Generation (MLD) in Class
I Towns in the Yamuna River Basin

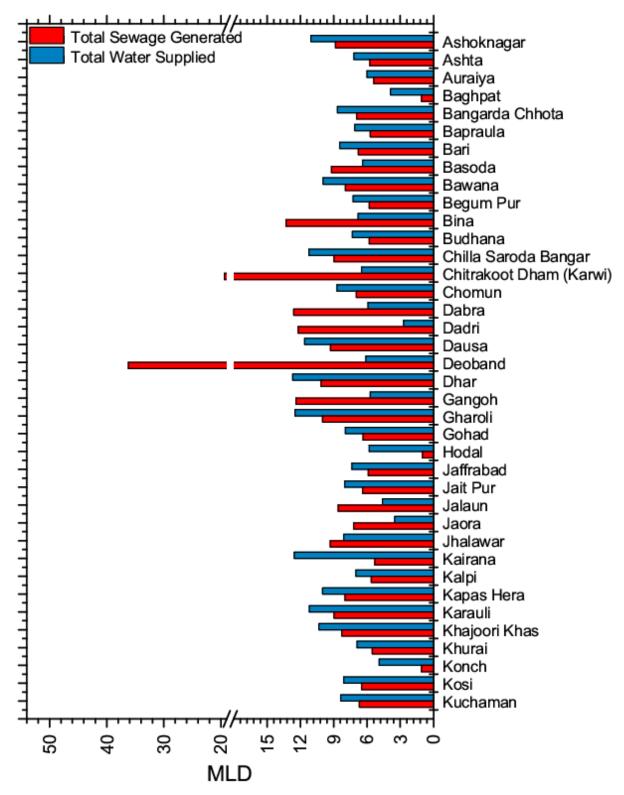


Figure 8b (Part i): Assessment of Water Supply and Sewage Generation (MLD) in Class
II Towns in the Yamuna River Basin

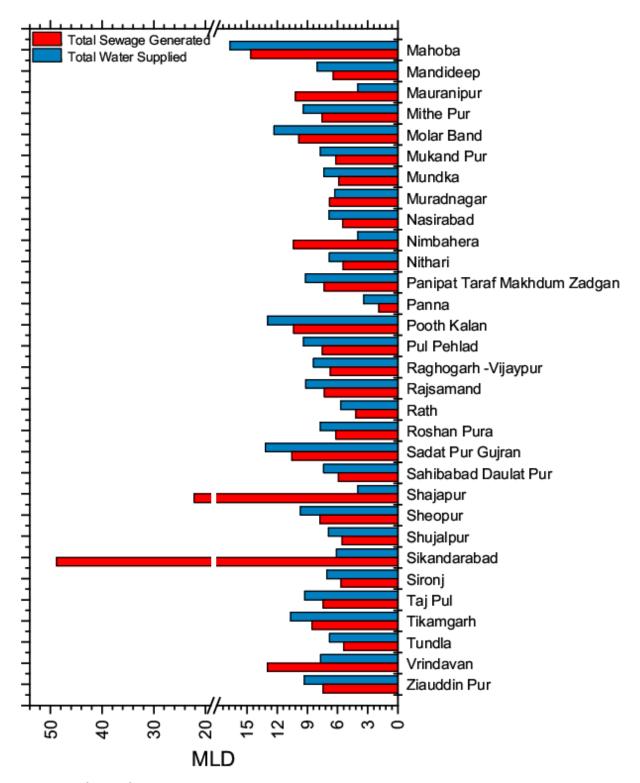


Figure 8b (Part ii): Assessment of Water Supply and Sewage Generation (MLD) in Class
II Towns in the Yamuna River Basin

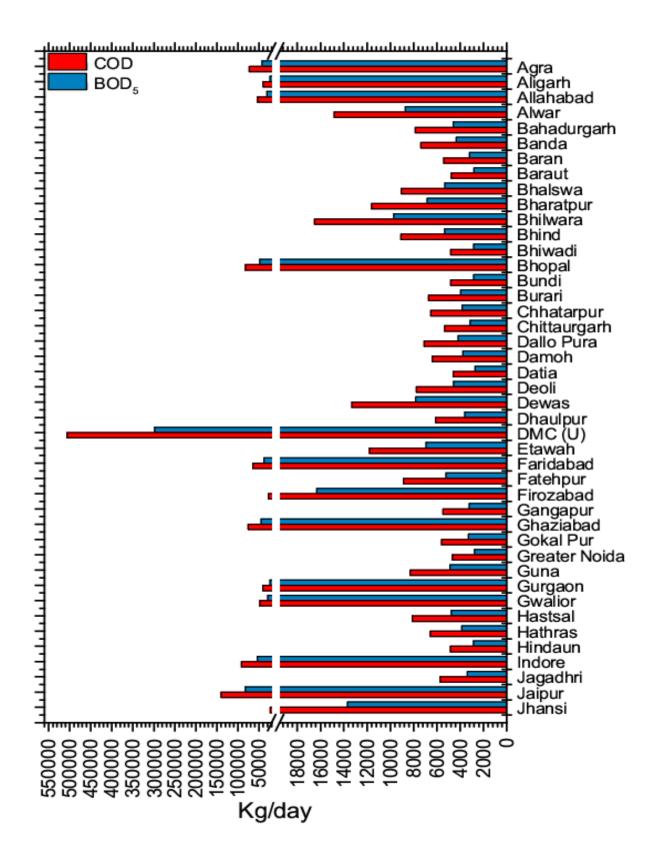


Figure 9a (Part i): Assessment of Water Organic Pollution Load (kg/day) from Class I
Towns in the Yamuna River Basin

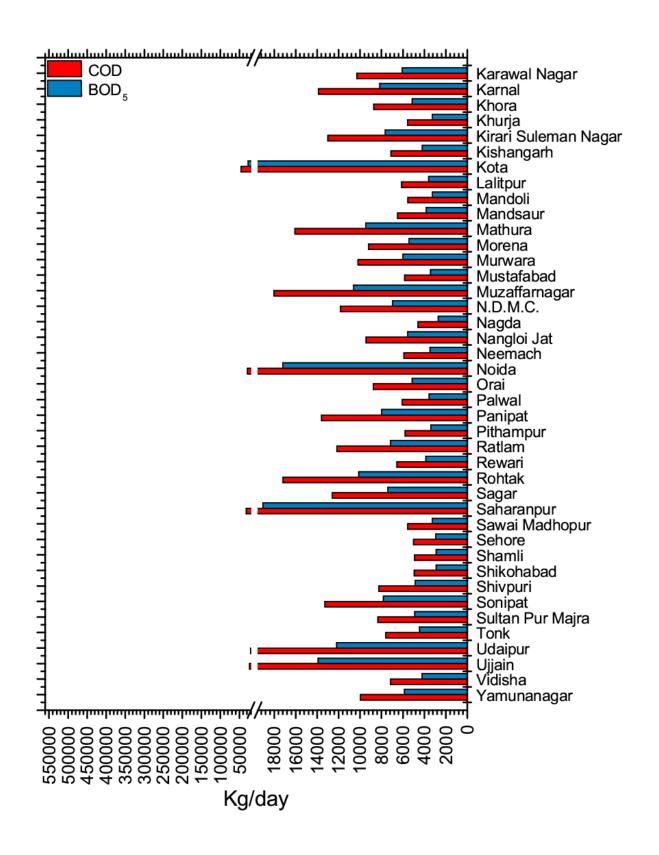
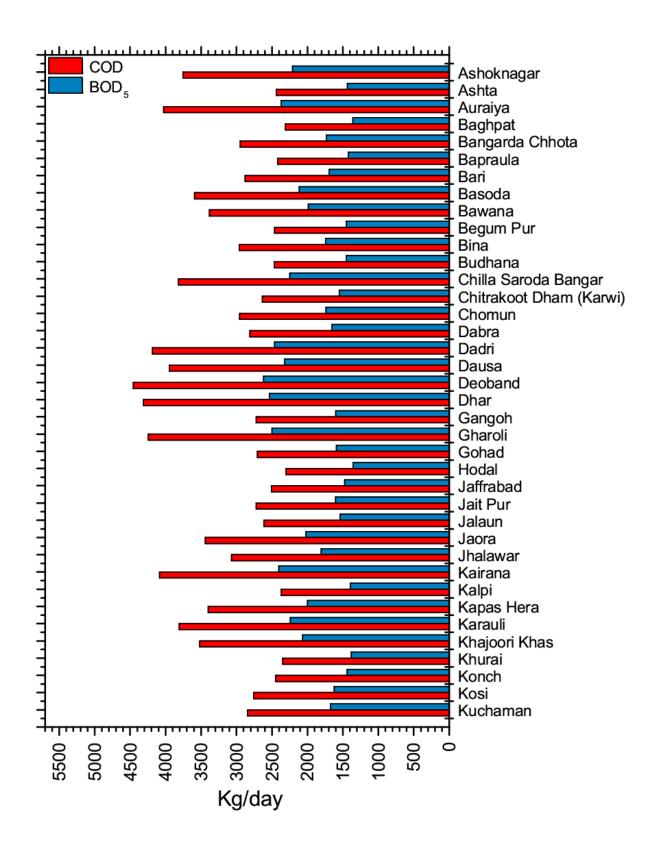


Figure 9a (Part ii): Assessment of Organic Pollution Load (kg/day) from Class I Towns in the Yamuna River Basin



**Figure 9b (Part i):** Assessment of Water Organic Pollution Load (kg/day) from Class II Towns in the Yamuna River Basin

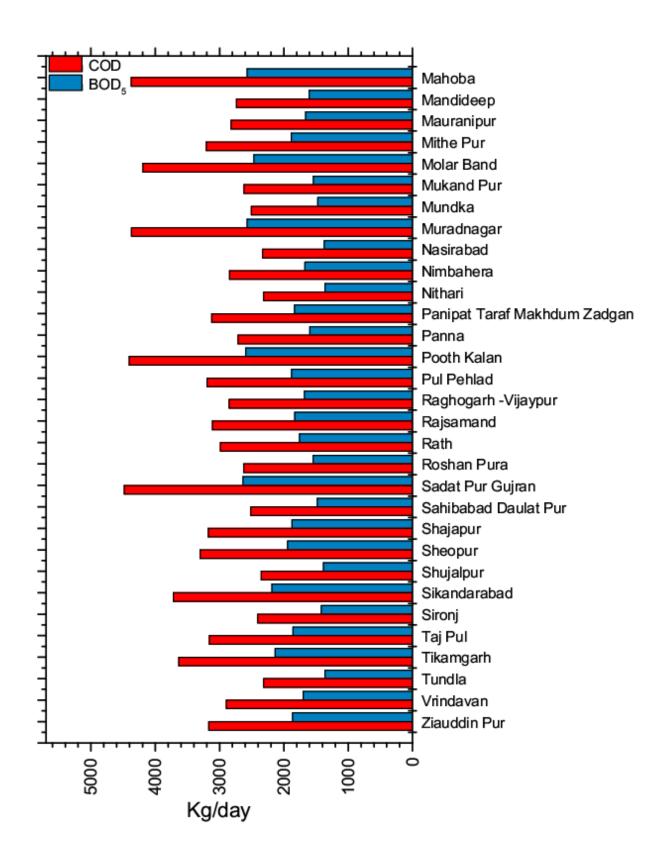


Figure 9b (Part ii): Assessment of Water Organic Pollution Load (kg/day) from Class II

Towns in the Yamuna River Basin

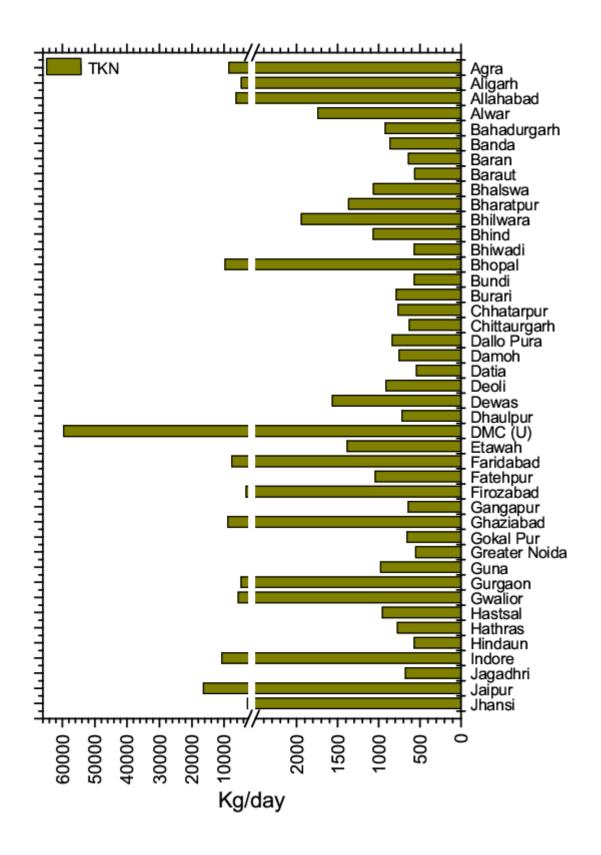


Figure 10a (Part i): Assessment of Water TKN Load (kg/day) from Class I Towns in the Yamuna River Basin

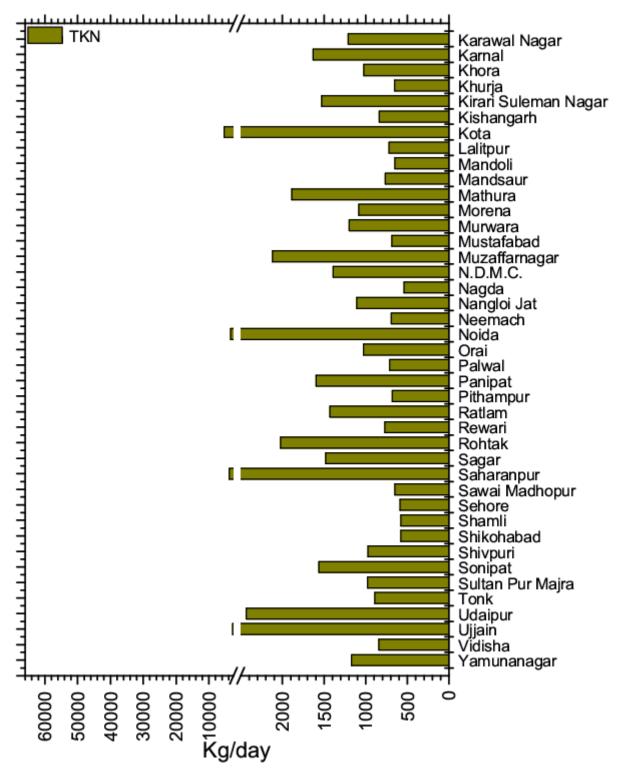


Figure 10a (Part ii): Assessment of Water TKN Load (kg/day) from Class I Towns in the Yamuna River Basin

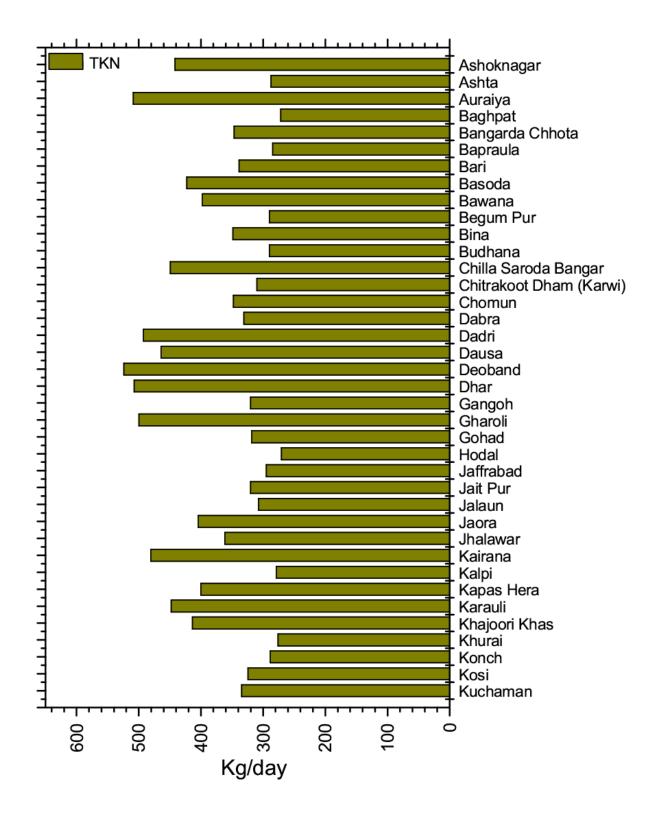


Figure 10b (Part i): Assessment of Water TKN Load (kg/day) from Class II Towns in the Yamuna River Basin

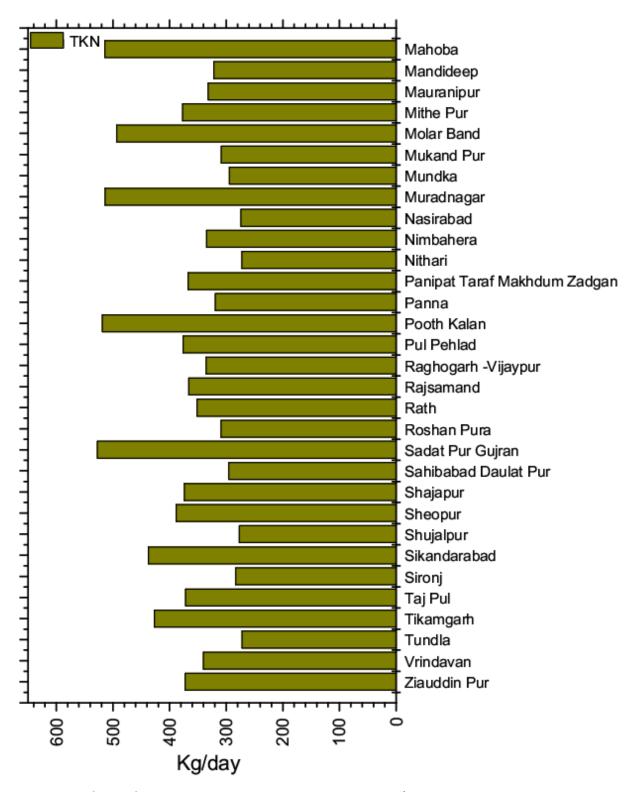


Figure 10b (Part ii): Assessment of Water TKN Load (kg/day) from Class II Towns in the Yamuna River Basin

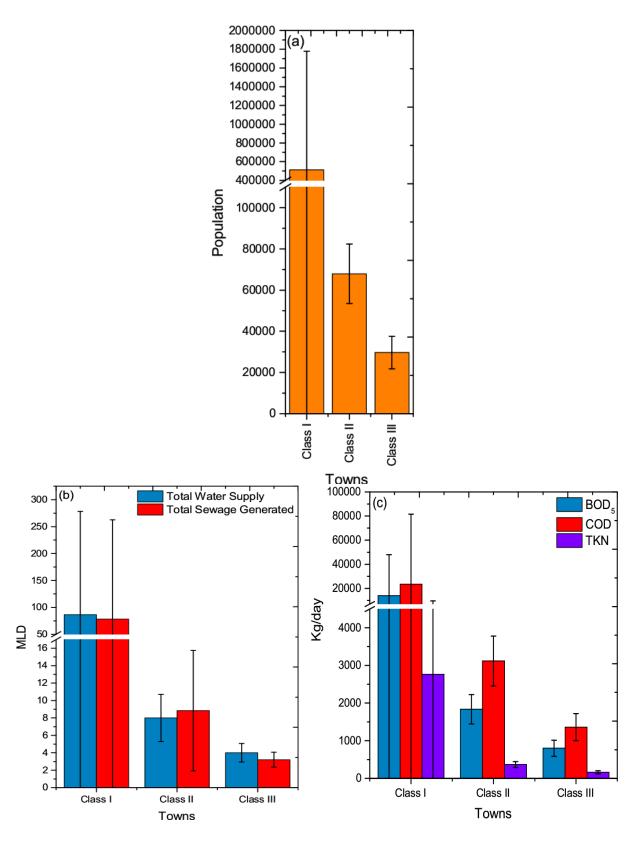


Figure 11: Comparative Analysis of Class I, Class II and Class III Cities/Towns Lying Under the Yamuna Basin: (a) Population (b) Total Water Supply and Sewage Generation (c) Pollution Load

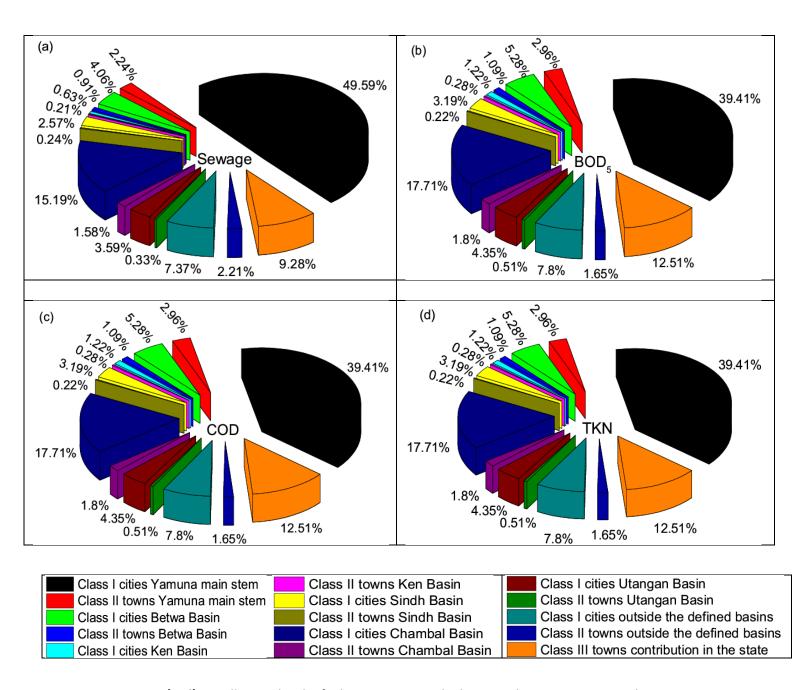


Figure 12 (a-d): Pollution load of Class I Cities and Class II, Class III Towns in the Major Basins Under the Yamuna Basin and Along the Main Stem of the River Yamuna: (a) Sewage Generation; (b) BOD<sub>5</sub>; (c) COD; (d) TKN

The pollution loads of Class I cities, Class II and Class III towns under the major sub-basins of river Yamuna in the Yamuna basin have been evaluated (Figure 12a) and the results revealed that the percentage of the total sewage generation is maximum in Class I cities situated along the main stem of Yamuna (49.59%) followed by Class I cities in the Chambal basin (15.19%). Apart from the Chambal basin, other basins generated relatively lesser amount of sewage for Class I cities (Betwa: 4.06%; Utangan: 3.59%; Sindh: 2.57%; Ken: 0.63%). Class I cities outside the selected basins generated 7.37% of the total sewage generated in the Yamuna Basin. The sewage generation for Class II towns in all the selected sub-basins under Yamuna basin is less than one percent of the total sewage generated in the yamuna basin by Class I, II and III cities/ towns except in Chambal sub-basin where the Class II towns sewage generation is more than one percent (1.58%). Class II towns outside the major defined sub-basins release 2.21% of sewage water. The Class II towns along the main stem of river Yamuna also contribute a significant 2.24% of the total sewage generation in the Yamuna basin. The percentage sewage generation by Class III towns of the entire Yamuna basin is 9.28%.

The BOD, COD and TKN load contributed by Class I cities of the main stem of Yamuna is 39.41%. The Class III towns of the basin impart around 12.51% of the total BOD, COD and TKN load. The sub-basin wise major contributors of Class I cities for BOD, COD and TKN load are Chambal (17.71%), Betwa (5.28%), Utangan (4.35%), Sindh (3.19%) and Ken (1.22%). But significant BOD, COD and TKN loads are also contributed by the Class I cities and Class II towns lying outside the selected basins (7.80 and 1.65%, respectively). The sub-basin wise contributors of Class II cities for BOD, COD and TKN load are Chambal (1.80%), Betwa (1.09%), Utangan (0.51%), Ken (0.28%) and Sindh (0.22%). The details of the BOD and COD load in the state are presented in Figure 12b and c. The TKN load is presented in Figure 12d.

### 6. Conclusions

Yamuna river basin is one of the major river basin in India. River Yamuna is a tributary of Ganga river system, originating from the Yamunotri glacier near Bundar Punch in the lower Himalayas at an elevation of about 6,320 m. It is being polluted by many point and nonpoint sources. The scenario of water quality in the system fluctuates from bad to worse based on the spatial and temporal alterations. Multitudinous problems also arise during lean season due to the continous discharge of untreated and/or partially treated sewage and industrial wastewater. The water quality of the river detoriates extensively in the middle stretch of the river between Delhi to Agra, where the river gets converted into an open drain due to unavilability of water and mergence of large number of cumulative discharges of domestic, industrial and agricultural waste waters. The catchment of the river bears the pollution load of 84 Class I cities, 69 Class II towns and 229 Class III towns, directly or indirectly. The main Class I cities of the state falling on at the bank of Yamuna river are Agra, Allahabad, Delhi, Yamuna Nagar, Etawah, Faridabad, Fatehpur, Greater Noida, Mathura and others.

The maximum sewage generation in the basin is from Class I cities (83.01%) followed by Class III (9.28%) and Class II towns (7.72%). Pollution load (BOD, COD and TKN load) also follows the same trend with maximum values for Class I cities. DMC(U) and Sikandrabad are the Class I and Class II towns, respectively that show maximum sewage generation in comparision to their water supply. The maximum BOD, COD and TKN contributing Class I cities, Class II and III towns are DMC(U), Sadat Pur Gujran and Kotputli while the minimum loads are from Nagda (Class I), Hodal (Class II) and Maksi (Class III) in the basin.

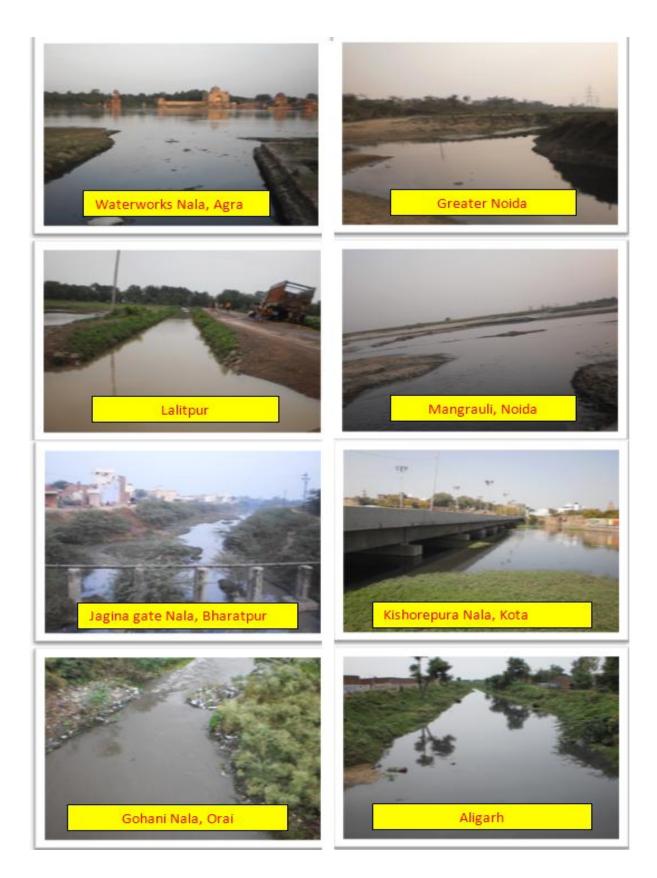


Plate 1: Major drains disposing sewage into River Yamuna

## References

Central Pollution Control Board (CPCB) (2006). Water quality status of Yamuna River (1999 – 2005). Assessment and Development of River Basin Series: ADSORBS/41/2006-07. Accessible at http://www.cpcb.nic.in/newitems/11.pdf. Accessed: 30<sup>th</sup> Nov 2012.

Chauhan, P.P., Nigam, A. and Santvan, V.K. (2014). Ethnobotanical survey of trees in Pabbar valley, Distt. Shimla, Himachal Pradesh. Life Sciences Leaflets. 52: 24-39.

Dwivedi, A.C. (2006). Age structure of some commercially exploited fish stocks of the Ganga river system Banda-Mirzapur section. D Phil Thesis, Allahabad University, Allahabad, India.

Garg, V., Khwanchanok, A., Gupta, P.K., Aggarwal, S.P., Kiriwongwattana, K., Thakur, P.K. and Nikam, B.R. (2012). Urbanisation Effect on Hydrological Response: A Case Study of Asan River Watershed, India. Journal of Environment and Earth Science. 2 (9): 39-50.

Gopal, B. and Sah, M. (1993). Conservation and management of rivers in India: Case study of the River Yamuna. Environmental Conservation. 20: 243–254.

Gopal, B. (2003). Enhancing water flow in River Yamuna at Delhi: Research and Action Plan. http://www.aquaticecosystems.org/wp-content/uploads/2015/06/Yamuna-Flow-Report2002.pdf. Accessed: 15th April, 2015.

India-WRIS (2015). http://india-wris.nrsc.gov.in/wrpinfo/index.php?title=Large\_Dams\_in\_India. Accessed: 22<sup>nd</sup> March, 2015.

Mathur, R.P. and Kapoor, V. (2013). Floral and Faunal Diversity in Yamuna River Yamnotri – Allahabad. http://52.7.188.233/sites/default/files/034\_ENB\_YAMUNA.pdf. Accessed: 20<sup>th</sup> May, 2013.

Misra, H.N. and Mishra, A. (2014). Perennials in Peril: A case of the Yamuna river basin. Mishra, H.N. (Eds.), PHI learning Private Ltd., Delhi, pp. 189-201.

Panwar, H.S. (2009). Reviving river Yamuna: An actionable blue print for a blue river. PEACE Institute Charitable Trust: Delhi, India.

Rai, R.K., Upadhyay, A., Ojha, C.S.P. and Singh, V.P. (2012). The Yamuna River Basin. Water Science and Technology Library, Vol. 66, DOI 10.1007/978-94-007-2001-5\_7, @Springer Science+Business Media B.V. 2012.

Raychaudhuri, S.P., Roy, B.B., Gupta, S.P. and Dewan, M.L. (1963). Slack soils of India. National Institute of Science of India, India, p 163.

# **Appendix-1**

Compilation of Fact Sheets of
Water Balance & Pollution Load
(Domestic) of Major Class I Cities in
Yamuna Basin

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: Uttar Pradesh City: Agra S. No. **Items** Value 1 Total Area (sq km) 120.57 1585704 2 Population as in 2011 Population Growth Rate as in 2011 (%) 24.36 3 4 **Total Number of Wards** 90 5 Population per Ward (Thousands) 17,619 Total Number of Household as in 2011 267945 6 7 Number of Household per Ward 2977 8 Surface Water Supply (MLD) 285 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells : NA Ground Water Extraction per Bore Well (MLD) 11 NA 7058 12 Number of Hand Pumps/ Tubewells : Ground Water Extraction per Hand Pump (lpd) 500 13 Number of Pumping Stations for Water Supply 2 14 285 15 **Total Pumping Capacity (MLD)** : 179.73 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 288.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 182.00 Total Sewage Generation (MLD)\* 154.40 19 : 20 Per Capita Sewage Generation (lpcd) 88.20 Sewage Collection (MLD) 106.50 21 68.98 Percentage of Sewage Collection (%) 22 23 Number of STPs : 5 24 Total Installed Capacity of STPs under GAP & YAP I & II (MLD) 116 25 Current Utilized Capacity of STPs (MLD) 106.50 Percentage Utilization of Installed Capacity (%) 91.80 26 100 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 : NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d)TKN NA 42814.00 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita 29 COD 72783.80 Contribution) (kg/d) TKN 8562.80 Wastewater Disposal Means River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal : Yamuna River Number of Drains/Nallah for Wastewater Disposal 11 32 **Number of Water Bodies** NA 33 NA 34 Gross Area of Water Bodies (Hectare) : Area of Water Bodies as % of Total Area 35 <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Aligarh State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 40.43 874408 2 Population as in 2011 Population Growth Rate as in 2011 (%) 30.69 3 : 4 **Total Number of Wards** 70 12,492 5 Population per Ward (Thousands) Total Number of Household as in 2011 147363 6 7 Number of Household per Ward 2105 8 Surface Water Supply (MLD) NA 69.10 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells : 72 Ground Water Extraction per Bore Well (MLD) 11 : 0.96 4100 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 : Number of Pumping Stations for Water Supply NA 14 NA 15 **Total Pumping Capacity (MLD)** : 79.02 16 Average Water Supply Rate from ULB Sources (Ipcd) 17 Total Water Supply from ULB and Non-ULB Sources (MLD) : 71.15 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 81.37 : 62.21 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) : 71.14 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 : 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) : NA 25 Current Utilized Capacity of STPs (MLD) : NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d)TKN NA BOD<sub>5</sub> 23609.00 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 40135.30 Contribution) (kg/d) TKN 4721.80 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal 1 32 : **Number of Water Bodies** 21 33 8.42 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet **State: Uttar Pradesh** City: Allahabad S. No. Value **Items** 1 Total Area (sq km) 70.05 1168385 2 Population as in 2011 : 14.76 Population Growth Rate as in 2011 (%) 3 4 **Total Number of Wards** 80 14605 5 Population per Ward (Thousands) Total Number of Household as in 2011 205529 6 7 Number of Household per Ward 2569 8 Surface Water Supply (MLD) 70 9 Ground Water (GW) Supply (MLD) 171.50 10 Number of Bore Wells 189 Ground Water Extraction per Bore Well (MLD) 11 1.12 2383 12 **Number of Hand Pumps** Ground Water Extraction per Hand Pump (lpd) 500 13 3 14 Number of Pumping Stations for Water Supply 70 15 **Total Pumping Capacity (MLD)** 172.50 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) : 242.70 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 207.70 221.40 19 Total Sewage Generation (MLD) 20 Per Capita Sewage Generation (lpcd) 189.50 Sewage Collection (MLD) 87.50 21 39.50 Percentage of Sewage Collection (%) 22 23 **Number of STPs** : 2 24 Total Installed Capacity of STPs under GAP I & II (MLD) : 89 25 Current Utilized Capacity of STPs (MLD) : 87.50 Percentage Utilization of Installed Capacity (%) 98.30 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 60 27 25203.60 BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD 67256.20 (kg/d)TKN 10230.20 : 31546.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita 29 COD 53628.90 Contribution) (kg/d) TKN : 6309.30 : River & Land Disposal Wastewater Disposal Means 30 31 Name of River/Streams for Wastewater Disposal Ganga, Yamuna River Number of Drains/Nallah for Wastewater Disposal 57 (Tapped: 15) 32 **Number of Water Bodies** 17 33 34 Gross Area of Water Bodies (Hectare) 8.44 Area of Water Bodies as % of Total Area 35 <<1.0

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Alwar State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 48.40 322568 2 Population as in 2011 Population Growth Rate as in 2011 (%) 21.17 3 4 **Total Number of Wards** 52 6203 5 Population per Ward (Thousands) Total Number of Household as in 2011 62776 6 1207 7 Number of Household per Ward Surface Water Supply (MLD) NA 8 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 350 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 36.20 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 112.20 Total Sewage Generation (MLD)\* 29.00 19 89.80 20 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 8709.30 Pollution Load (Domestic) (Method 2: Per Capita COD 14805.90 29 Contribution) (kg/d) TKN 1741.90 **Wastewater Disposal Means** Land Disposal 30 Land Disposal 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 2 32 **Number of Water Bodies** 33 0 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bahadurgarh State: Harvana S. No. **Items** Value 1 Total Area (sq km) 29.50 2 Population as in 2011 170767 Population Growth Rate as in 2011 (%) 3 29.44 **Total Number of Wards** 31 5 Population per Ward (Thousands) 5509 Total Number of Household as in 2011 34910 6 Number of Household per Ward 1126 7 Surface Water Supply (MLD) NA 8 9 Ground Water (GW) Supply (MLD) NA 10 **Number of Bore Wells** NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tube wells 12 NA Ground Water Extraction per Hand Pump (lpd) 13 500 Number of Pumping Stations for Water Supply 14 NA NA Total Pumping Capacity (MLD) 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 23.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 18.40 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs 3.00 24 Total Installed Capacity of STPs under GAP I & II (MLD) 18.00 Current Utilized Capacity of STPs (MLD) 25 NA Percentage Utilization of Installed Capacity (%) 26 NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 1.00 BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 4610.70 Pollution Load (Domestic) (Method 2: Per Capita COD 7838.20 29 Contribution) (kg/d) TKN 922.10 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal 2 33 **Number of Water Bodies** NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Banda **State: Uttar Pradesh** S. No. Value **Items** 1 Total Area (sq km) 16.00 2 Population as in 2011 160473 Population Growth Rate as in 2011 (%) : 15.09 3 4 **Total Number of Wards** 28 4980 5 Population per Ward (Thousands) Total Number of Household as in 2011 29162 6 7 Number of Household per Ward : 1042 Surface Water Supply (MLD) : 9.57 8 9 13.11 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 21 Ground Water Extraction per Bore Well (MLD) 11 0.62 834 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply 9.57 Total Pumping Capacity (MLD) 15 Average Water Supply Rate from ULB Sources (Ipcd) 141.14 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) : 23.10 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 143.90 Total Sewage Generation (MLD)\* 13.50 19 : : 84.30 20 Per Capita Sewage Generation (lpcd)\* Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs : NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 4 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d)TKN NA BOD<sub>5</sub> : 4332.80 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 7365.70 Contribution) (kg/d) TKN : 866.60 Wastewater Disposal Means Land & River Disposal 30 31 Name of River/Streams for Wastewater Disposal : Ken River Number of Drains/Nallah for Wastewater Disposal 2 32 33 **Number of Water Bodies** NA 34 Gross Area of Water Bodies (Hectare) : NA Area of Water Bodies as % of Total Area <<1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Baran State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 72.36 117992 2 Population as in 2011 Population Growth Rate as in 2011 (%) 49.99 3 4 **Total Number of Wards** 35 5 Population per Ward (Thousands) 3371 Total Number of Household as in 2011 23277 6 7 Number of Household per Ward 665 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 950 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 71.80 6.80 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 57.60 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3185.80 Pollution Load (Domestic) (Method 2: Per Capita COD 5415.80 29 Contribution) (kg/d) TKN 637.20 **Wastewater Disposal Means** River & Land Disposal 30 Parbati, Parvan, Kali Name of River/Streams for Wastewater Disposal Sindh River 31 32 Number of Drains/Nallah for Wastewater Disposal 3 3 **Number of Water Bodies** 33 Gross Area of Water Bodies (Hectare) NA 34 35 <<< 1 Area of Water Bodies as % of Total Area

#### Water Balance & Pollution Load (Domestic) Fact Sheet **City: Baraut State: Uttar Pradesh** S. No. Value **Items** 1 Total Area (sq km) : 10.36 : 103764 2 Population as in 2011 : 21.07 Population Growth Rate as in 2011 (%) 3 4 **Total Number of Wards** : 25 5 Population per Ward (Thousands) : 4,151 : 17924 Total Number of Household as in 2011 6 Number of Household per Ward 7 : 717 8 Surface Water Supply (MLD) NA : 21 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 18 Ground Water Extraction per Bore Well (MLD) 11 1.17 424 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) : 600 13 Number of Pumping Stations for Water Supply NA 14 NA **Total Pumping Capacity (MLD)** 15 202.40 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 21.30 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 204.80 Total Sewage Generation (MLD)\* 7.90 19 20 Per Capita Sewage Generation (Ipcd)\* : 76.40 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs : NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d) TKN NA BOD<sub>5</sub> 2801.60 Pollution Load (Domestic) (Method 2: Per Capita 4762.80 29 COD Contribution) (kg/d) TKN : | 560.30 Wastewater Disposal Means Land & River Disposal 30 Yamuna River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 3 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) : NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bhalswa Jahangir Pur State: NCT Delhi S. No. Value **Items** 1 Total Area (sq km) 6.70 197148 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 29.41 3 4 **Total Number of Wards** : 3 : 65716 5 Population per Ward (Thousands) : 38157 Total Number of Household as in 2011 6 Number of Household per Ward 7 : 12719 8 Surface Water Supply (MLD) NA : 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA Number of Hand Pumps/ Tubewells NA 12 Ground Water Extraction per Hand Pump (lpd) NA 13 Number of Pumping Stations for Water Supply NA 14 NA Total Pumping Capacity (MLD) 15 : NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 26.60 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 21.30 19 : 20 Per Capita Sewage Generation (Ipcd)\* 108.00 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs : NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d) TKN NA : | 5323.00 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita 29 COD 9049.10 Contribution) (kg/d) TKN : 1064.60 Wastewater Disposal Means River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** : 4 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area 35 <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bharatpur State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 57.77 2 Population as in 2011 252838 Population Growth Rate as in 2011 (%) 23.19 3 4 **Total Number of Wards** 53 4771 5 Population per Ward (Thousands) Total Number of Household as in 2011 45914 6 7 Number of Household per Ward 9866 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 131 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 23.30 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 92.00 Total Sewage Generation (MLD)\* 16.60 19 20 Per Capita Sewage Generation (lpcd) 65.70 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 6826.60 Pollution Load (Domestic) (Method 2: Per Capita COD 11605.30 29 Contribution) (kg/d) TKN 1365.30 **Wastewater Disposal Means** Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Land Disposal Number of Drains/Nallah for Wastewater Disposal 3 32 **Number of Water Bodies** 33 8 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bhilwara State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 118.49 2 Population as in 2011 359483 Population Growth Rate as in 2011 (%) 28.33 3 4 **Total Number of Wards** 50 5 Population per Ward (Thousands) 7,190 Total Number of Household as in 2011 74184 6 7 Number of Household per Ward 1484 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 1600 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 32.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 90.10 21.70 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 60.40 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 9706.00 Pollution Load (Domestic) (Method 2: Per Capita COD 16500.30 29 Contribution) (kg/d) TKN 1941.20 **Wastewater Disposal Means** River & Land Disposal 30 Kothari, Banas River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bhind State: Madhya Pradesh S. No. Value **Items** 1 Total Area (sq km) 17.18 2 Population as in 2011 197585 Population Growth Rate as in 2011 (%) 28.51 3 4 **Total Number of Wards** 39 5 Population per Ward (Thousands) 5,066 Total Number of Household as in 2011 33592 6 7 Number of Household per Ward 861 8 Surface Water Supply (MLD) NA 9 19.08 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 42 Ground Water Extraction per Bore Well (MLD) 11 0.45 12 Number of Hand Pumps/ Tubewells 5400 Ground Water Extraction per Hand Pump (Ipd) 1000 13 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 24.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 124.00 19 Total Sewage Generation (MLD)\* 19.60 20 Per Capita Sewage Generation (lpcd) 99.20 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 5334.80 Pollution Load (Domestic) (Method 2: Per Capita COD 9069.20 29 Contribution) (kg/d) TKN 1067.00 **Wastewater Disposal Means** River & Land Disposal 30 Kunwari River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 2 **Number of Water Bodies** 2 33 34 Gross Area of Water Bodies (Hectare) 27.00 Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bhiwadi State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 44.06 2 Population as in 2011 104921 Population Growth Rate as in 2011 (%) 209.71 3 4 **Total Number of Wards** 35 2998 5 Population per Ward (Thousands) Total Number of Household as in 2011 24449 6 7 Number of Household per Ward 699 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 14.20 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) NA 19 Total Sewage Generation (MLD)\* 11.30 20 Per Capita Sewage Generation (lpcd) 107.70 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2832.90 Pollution Load (Domestic) (Method 2: Per Capita COD 4815.90 29 Contribution) (kg/d) TKN 566.60 **Wastewater Disposal Means** Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Land Disposal Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** 33 1 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bhopal State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 285.88 2 Population as in 2011 1798218 Population Growth Rate as in 2011 (%) 23.30 3 4 **Total Number of Wards** 70 5 Population per Ward (Thousands) 25,689 Total Number of Household as in 2011 382690 6 7 Number of Household per Ward 5467 8 Surface Water Supply (MLD) 211.96 9 Ground Water (GW) Supply (MLD) 15.14 10 Number of Bore Wells 1675 Ground Water Extraction per Bore Well (MLD) 11 0.01 12 Number of Hand Pumps/ Tubewells 5275 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 211.96 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 229.70 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 127.70 19 Total Sewage Generation (MLD)\* 168.50 20 Per Capita Sewage Generation (lpcd) 93.70 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 48551.90 Pollution Load (Domestic) (Method 2: Per Capita COD 82538.20 29 Contribution) (kg/d) 9710.40 TKN **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Betwa River Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 29 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bundi State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 27.79 2 Population as in 2011 104919 Population Growth Rate as in 2011 (%) 18.06 3 4 **Total Number of Wards** 41 2559 5 Population per Ward (Thousands) Total Number of Household as in 2011 20555 6 7 Number of Household per Ward 501 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 372 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply 1 NA 15 **Total Pumping Capacity (MLD)** NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 18.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 171.60 29.80 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 284 Sewage Collection (MLD) NA 21 NA Percentage of Sewage Collection (%) 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2832.80 Pollution Load (Domestic) (Method 2: Per Capita COD 4815.80 29 Contribution) (kg/d) TKN 566.60 **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Mez River Number of Drains/Nallah for Wastewater Disposal 4 32 **Number of Water Bodies** 7 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Burari State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 11.20 146190 2 Population as in 2011 Population Growth Rate as in 2011 (%) 110.85 3 4 **Total Number of Wards** 48730 5 Population per Ward (Thousands) Total Number of Household as in 2011 28610 6 7 Number of Household per Ward 9537 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) NA 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 19.70 135.00 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 15.80 Sewage Collection (MLD) 108.00 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3947.10 Pollution Load (Domestic) (Method 2: Per Capita COD 6710.10 29 Contribution) (kg/d) TKN 789.40 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** 2 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Chhatarpur State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 15.56 142128 2 Population as in 2011 3 Population Growth Rate as in 2011 (%) 30.30 **Total Number of Wards** 4 40 5 Population per Ward (Thousands) 3,553 Total Number of Household as in 2011 26793 6 Number of Household per Ward 7 670 Surface Water Supply (MLD) 0.75 8 Ground Water (GW) Supply (MLD) 1.67 9 Number of Bore Wells 10 10 Ground Water Extraction per Bore Well (MLD) 0.17 11 12 Number of Hand Pumps/ Tubewells 16480 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** 0.75 Average Water Supply Rate from ULB Sources (Ipcd) 16 NA Total Water Supply from ULB and Non-ULB Sources (MLD) 17 10.70 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 75.30 18 Total Sewage Generation (MLD)\* 7.20 19 20 Per Capita Sewage Generation (lpcd) 50.70 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 Number of STPs NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 3837.50 Pollution Load (Domestic) (Method 2: Per Capita COD 6523.70 29 Contribution) (kg/d) 767.50 TKN Wastewater Disposal Means Land Disposal 30 Name of River/Streams for Wastewater Disposal Land Disposal 31 Number of Drains/Nallah for Wastewater Disposal 32 2 33 **Number of Water Bodies** : 7 Gross Area of Water Bodies (Hectare) 10.00 34

<<< 1

35

Area of Water Bodies as % of Total Area

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Chittaurgarh State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 41.76 Population as in $2011/\overline{2001}$ 2 116406 Population Growth Rate as in 2011 (%) : 20.98 3 4 **Total Number of Wards** 40 5 Population per Ward (Thousands) 2,910 Total Number of Household as in 2011 24739 6 7 Number of Household per Ward 618 8 Surface Water Supply (MLD) NA : 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 513 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 11.10 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 95.00 8.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 74.20 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3143.00 Pollution Load (Domestic) (Method 2: Per Capita COD 5343.00 29 Contribution) (kg/d) TKN 628.60 **Wastewater Disposal Means** River & Land Disposal 30 Gambhiri River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 33 18 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Dallo Pura S. No. **Items** Value 1 Total Area (sq km) 2.29 Population as in 2011/2001 154791 2 Population Growth Rate as in 2011 (%) : 16.72 3 4 **Total Number of Wards** 38697.75 5 Population per Ward (Thousands) Total Number of Household as in 2011 31009 6 7 Number of Household per Ward 7752 8 Surface Water Supply (MLD) NA : 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 20.90 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 16.70 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) : 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 4179.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 7104.90 29 Contribution) (kg/d) TKN : 835.90 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Damoh State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 33.23 Population as in 2011/2001 2 139561 Population Growth Rate as in 2011 (%) 9.06 3 4 **Total Number of Wards** 39 5 Population per Ward (Thousands) 3,578 Total Number of Household as in 2011 28274 6 7 Number of Household per Ward 725 8 Surface Water Supply (MLD) 6.30 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 12 Number of Hand Pumps/ Tubewells 550 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 6.30 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.60 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 47.30 19 Total Sewage Generation (MLD)\* 5.30 20 Per Capita Sewage Generation (lpcd) 37.80 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3768.10 Pollution Load (Domestic) (Method 2: Per Capita COD 6405.80 29 Contribution) (kg/d) TKN 753.60 **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Sunar River Number of Drains/Nallah for Wastewater Disposal 32 1 **Number of Water Bodies** 33 34 Gross Area of Water Bodies (Hectare) 119.44 Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Datia State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 6.64 Population as in $2011/\overline{2001}$ 2 100284 Population Growth Rate as in 2011 (%) 21.18 3 4 **Total Number of Wards** 36 5 Population per Ward (Thousands) 2,786 Total Number of Household as in 2011 19254 6 7 Number of Household per Ward 535 8 Surface Water Supply (MLD) 4 Ground Water (GW) Supply (MLD) 1 9 10 Number of Bore Wells 26 Ground Water Extraction per Bore Well (MLD) 11 0.04 12 Number of Hand Pumps/ Tubewells 3000 Ground Water Extraction per Hand Pump (Ipd) 1000 13 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** 4 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 79.80 19 Total Sewage Generation (MLD)\* 8.50 20 Per Capita Sewage Generation (lpcd) 84.80 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2707.70 Pollution Load (Domestic) (Method 2: Per Capita COD 4603.00 29 Contribution) (kg/d) TKN 541.50 **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Pahuj River Number of Drains/Nallah for Wastewater Disposal 4 32 **Number of Water Bodies** 33 10 34 Gross Area of Water Bodies (Hectare) 60.80 Area of Water Bodies as % of Total Area <<< 1 35

	Water Balance & Pollution Load (Domestic) Fact Sheet					
City: Deoli State: NCT De			elhi			
S. No.	Items			Value		
1	Total Area (sq km)		:	10.10		
2	Population as in 2011/2001		:	169122		
3	Population Growth Rate as in 2011 (%)		:	41.56		
4	Total Number of Wards		:	3		
5	Population per Ward (Thousands)		:	56374		
6	Total Number of Household as in 2011		:	32344		
7	Number of Household per Ward		:	10781		
8	Surface Water Supply (MLD)		:	NA		
9	Ground Water (GW) Supply (MLD)		:	NA		
10	Number of Bore Wells		• •	NA		
11	Ground Water Extraction per Bore Well (MLD)		:	NA		
12	Number of Hand Pumps/ Tubewells			NA		
13	Ground Water Extraction per Hand Pump (lpd)			NA		
14	Number of Pumping Stations for Water Supply		:	NA		
15	Total Pumping Capacity (MLD)			NA		
16	Average Water Supply Rate from ULB Sources (lpcd)		:	NA		
17	Total Water Supply from ULB and Non-ULB Sources (M	LD)		NA		
18	Average Water Supply Rate from ULB & Non-ULB Sour	ces (lpcd)	:	22.80		
19	Total Sewage Generation (MLD)*		:	135.00		
20	Per Capita Sewage Generation (lpcd)		:	18.30		
21	Sewage Collection (MLD)			108.00		
22	Percentage of Sewage Collection (%)		:	NA		
23	Number of STPs		:	NA		
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA		
25	Current Utilized Capacity of STPs (MLD)			NA		
26	Percentage Utilization of Installed Capacity (%)			NA		
27	Capacity of STPs Sanctioned under JNNURM & Others	(MLD)	:	NA		
	Dellution Lord (Domestic) (Mathed 4. Actual Flow)	BOD <sub>5</sub>	:	NA		
20	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	:	NA		
28	(kg/d)	TKN	:	NA		
	Dellution Load (Domostic) (Mathed 2: Don Conits	BOD <sub>5</sub>		4566.30		
20	Pollution Load (Domestic) (Method 2: Per Capita	COD		7762.70		
29	Contribution) (kg/d)	TKN		913.30		
30	Wastewater Disposal Means			River & Land Disposal		
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River		
32	Number of Drains/Nallah for Wastewater Disposal		:	NA		
33	Number of Water Bodies		:	1		
34	Gross Area of Water Bodies (Hectare)		:	NA		
35	Area of Water Bodies as % of Total Area		:	<<< 1		

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dewas State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 100.22 Population as in 2011/2001 2 289550 Population Growth Rate as in 2011 (%) 24.98 3 4 **Total Number of Wards** 45 5 Population per Ward (Thousands) 6,434 Total Number of Household as in 2011 57397 6 7 Number of Household per Ward 1275 8 Surface Water Supply (MLD) 6.35 9 Ground Water (GW) Supply (MLD) 4 10 Number of Bore Wells 507 Ground Water Extraction per Bore Well (MLD) 11 0.01 12 Number of Hand Pumps/ Tubewells 236 Ground Water Extraction per Hand Pump (Ipd) 4238 13 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** 6.35 Average Water Supply Rate from ULB Sources (Ipcd) 16 NA 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 29.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 101.50 19 Total Sewage Generation (MLD)\* 23.10 20 Per Capita Sewage Generation (lpcd) 79.80 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 7817.90 Pollution Load (Domestic) (Method 2: Per Capita COD 13290.30 29 Contribution) (kg/d) TKN 1563.60 **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Kshipra River Number of Drains/Nallah for Wastewater Disposal 3 32 **Number of Water Bodies** 2 33 34 Gross Area of Water Bodies (Hectare) 3.06 Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dhaulpur State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 32.03 133075 2 Population as in 2011 Population Growth Rate as in 2011 (%) 36.08 3 4 **Total Number of Wards** 42 3168 5 Population per Ward (Thousands) Total Number of Household as in 2011 22563 6 7 Number of Household per Ward 537 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 320 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 13.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 100.40 10.60 19 Total Sewage Generation (MLD)\* 79.40 20 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 3593.00 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 6108.10 29 Contribution) (kg/d) TKN 718.60 Wastewater Disposal Means River & Land Disposal 30 Chambal, Utangan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 1 32 **Number of Water Bodies** 5 33 NA 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: DMC (U) State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 561.27 Population as in $2011/\overline{2001}$ 11034555 2 Population Growth Rate as in 2011 (%) 11.70 3 4 **Total Number of Wards** 217 50850 5 Population per Ward (Thousands) Total Number of Household as in 2011 2306675 6 7 Number of Household per Ward 10630 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) NA 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 1489.70 135.00 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 1191.70 Sewage Collection (MLD) 108.00 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 297933.00 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 506486.10 29 Contribution) (kg/d) TKN 59586.60 **Wastewater Disposal Means** River & Land Disposal 30 Yamuna, Hindan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

C:4	Water Balance & Pollution Load (Domestic) Fact Sheet					
City: Etawah State: Uttar Pradesh						
S. No.	Items			Value		
1	Total Area (sq km)		:	28.94		
2	Population as in 2011		:	256838		
3	Population Growth Rate as in 2011 (%)		:	22.04		
4	Total Number of Wards		:	36		
5	Population per Ward (Thousands)		:	5,846		
6	Total Number of Household as in 2011		:	44659		
7	Number of Household per Ward		:	1241		
8	Surface Water Supply (MLD)		:	NA		
9	Ground Water (GW) Supply (MLD)		:	23.00		
10	Number of Bore Wells		:	43		
11	Ground Water Extraction per Bore Well (MLD)		:	0.47		
12	Number of Hand Pumps/ Tubewells		:	930		
13	Ground Water Extraction per Hand Pump (lpd)		:	500		
14	Number of Pumping Stations for Water Supply		:	NA		
15	Total Pumping Capacity (MLD)		:	NA		
16	Average Water Supply Rate from ULB Sources (Ipcd	•	:	89.55		
17	Total Water Supply from ULB and Non-ULB Sources	•	:	23.50		
18	Average Water Supply Rate from ULB & Non-ULB S	ources (lpcd)	:	91.40		
19	Total Sewage Generation (MLD)		:	22.40		
20	Per Capita Sewage Generation (lpcd)		:	87.30		
21	Sewage Collection (MLD)		:	10.45		
22	Percentage of Sewage Collection (%)		:	46.60		
23	Number of STPs		••	1		
24	Total Installed Capacity of STPs under GAP I & II (M	LD)		10.45		
25	Current Utilized Capacity of STPs (MLD)			10.45		
26	Percentage Utilization of Installed Capacity (%)		:	100		
27	Capacity of STPs Sanctioned under JNNURM & Other	ers (MLD)	:	NA		
	Dellution Load (Demostic) (Marth ed. 4. A.)	BOD <sub>5</sub>	:	NA		
28	Pollution Load (Domestic) (Method 1: Actual	COD	:	NA		
	Flow) (kg/d)	TKN	:	NA		
	Dellution Load (Demontic) (Mark 12, Dec. C. "	BOD <sub>5</sub>	:	6934.60		
29	Pollution Load (Domestic) (Method 2: Per Capita	COD		11788.90		
-	Contribution) (kg/d)	TKN	:	1386.90		
30	Wastewater Disposal Means		:	River Disposal		
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River		
32	Number of Drains/Nallah for Wastewater Disposal		:	2		
33	Number of Water Bodies		:	19		
34	Gross Area of Water Bodies (Hectare)		:	7.29		
35	Area of Water Bodies as % of Total Area		:	<<< 1		

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Faridabad State: Haryana S. No. Items Value 1 Total Area (sq km) : 204.00 2 Population as in 2011 1414050 Population Growth Rate as in 2011 (%) : 33.91 3 : 35 **Total Number of Wards** 4 5 Population per Ward (Thousands) : 40401 : 290675 Total Number of Household as in 2011 6 Number of Household per Ward : 8305 7 Surface Water Supply (MLD) : NA

8	Surface water Supply (IVILD)		:	I NA
9	Ground Water (GW) Supply (MLD)			NA
10	Number of Bore Wells			NA
11	Ground Water Extraction per Bore Well (MLD)			NA
12	Number of Hand Pumps/ Tubewells			NA
13	Ground Water Extraction per Hand Pump (lpd)			500
14	Number of Pumping Stations for Water Supply		:	NA
15	Total Pumping Capacity (MLD)		:	NA
16	Average Water Supply Rate from ULB Sources (lpcd)		:	NA
17	Total Water Supply from ULB and Non-ULB Sources	(MLD)	:	190.90
18	Average Water Supply Rate from ULB & Non-ULB So	urces (lpcd)	:	135.00
19	Total Sewage Generation (MLD)*		:	152.72
20	Per Capita Sewage Generation (Ipcd)		:	108.00
21	Sewage Collection (MLD)		:	142.30
22	Percentage of Sewage Collection (%)		:	NA
23	Number of STPs		:	4
24	Total Installed Capacity of STPs under GAP I & II (ML	D)	:	NA
25	Current Utilized Capacity of STPs (MLD)		:	NA
26	Percentage Utilization of Installed Capacity (%)		:	NA
27	Capacity of STPs Sanctioned under JNNURM & Othe	rs (MLD)	:	NA
	Dellution Lond (Demostic) (Mathed 1. Actual Flour)	BOD <sub>5</sub>	:	NA
28	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	••	NA
	(kg/d)	TKN	:	NA
	Dellution Load (Demostic) (Mothed 2: Dev Conite	BOD <sub>5</sub>	:	38179.40
29	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	COD	:	64904.90
	Contribution) (kg/u)	TKN	:	7635.90
30	Wastewater Disposal Means		••	River Disposal
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River
32	Number of Drains/Nallah for Wastewater Disposal		:	4
33	Number of Water Bodies		:	4
34	Gross Area of Water Bodies (Hectare)		:	NA
35	Area of Water Bodies as % of Total Area		:	<<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Fatehpur State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 56.98 193193 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 27.04 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 6,440 Total Number of Household as in 2011 34745 6 7 Number of Household per Ward 1158 8 Surface Water Supply (MLD) : NA 9 Ground Water (GW) Supply (MLD) 29.61 10 Number of Bore Wells 47 11 Ground Water Extraction per Bore Well (MLD) 0.63 786 12 **Number of Hand Pumps** Ground Water Extraction per Hand Pump (lpd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA Total Pumping Capacity (MLD) 15 153.27 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 30.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 155.30 11.80 19 Total Sewage Generation (MLD)\* 60.90 20 Per Capita Sewage Generation (lpcd) : Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual COD : NA 28 Flow) (kg/d) TKN NA BOD<sub>5</sub> 5216.20 Pollution Load (Domestic) (Method 2: Per Capita COD 29 8867.60 Contribution) (kg/d) TKN : 1043.20 Wastewater Disposal Means River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal 2 32 **Number of Water Bodies** 7 33 2.30 34 Gross Area of Water Bodies (sq km) 35 Area of Water Bodies as % of Total Area <<<1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Firozabad State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 21.35 604214 2 Population as in 2011 Population Growth Rate as in 2011 (%) 51.96 3 4 **Total Number of Wards** 42 5 Population per Ward (Thousands) 14,386 Total Number of Household as in 2011 99833 6 2377 7 Number of Household per Ward 8 Surface Water Supply (MLD) NA 9 42.65 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 194 Ground Water Extraction per Bore Well (MLD) 11 0.22 12 Number of Hand Pumps/ Tubewells 1415 Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** 70.59 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 43.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 71.80 85.30 19 Total Sewage Generation (MLD) 20 Per Capita Sewage Generation (lpcd) 141.20 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 16313.80 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 27733.40 Contribution) (kg/d) TKN 3262.80 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 33 16 5.35 34 Gross Area of Water Bodies (Hectare)

<<< 1

Area of Water Bodies as % of Total Area

35

#### Water Balance & Pollution Load (Domestic) Fact Sheet **City: Gangapur** State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 52.31 2 Population as in 2011 119090 Population Growth Rate as in 2011 (%) 22.97 3 4 **Total Number of Wards** 20 5955 5 Population per Ward (Thousands) Total Number of Household as in 2011 21068 6 7 Number of Household per Ward 1053 8 Surface Water Supply (MLD) NA Ground Water (GW) Supply (MLD) 9 NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 5242 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 100.90 5.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 47.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3215.40 Pollution Load (Domestic) (Method 2: Per Capita COD 5466.20 29 Contribution) (kg/d) TKN 643.10 **Wastewater Disposal Means** River & Land Disposal 30 Kothari, Banas River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 33 0 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Ghaziabad State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 220.00 2 Population as in 2011 1648643 Population Growth Rate as in 2011 (%) : 70.27 3 4 **Total Number of Wards** 80 20,608 5 Population per Ward (Thousands) Total Number of Household as in 2011 336069 6 7 Number of Household per Ward 4201 73 8 Surface Water Supply (MLD) Ground Water (GW) Supply (MLD) 320 9 10 Number of Bore Wells 334 Ground Water Extraction per Bore Well (MLD) 11 0.96 5353 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 NA 14 Number of Pumping Stations for Water Supply 73 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 395.70 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 240.00 163.80 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 99.40 Sewage Collection (MLD) 120.00 21 : 73.26 Percentage of Sewage Collection (%) 22 23 Number of STPs : 3 24 Total Installed Capacity of STPs under YAP I & II (MLD) : 126 25 Current Utilized Capacity of STPs (MLD) : 120 Percentage Utilization of Installed Capacity (%) 95.24 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 224 27 BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d)TKN NA : 44513.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 75672.70 29 Contribution) (kg/d) TKN : 8902.70 Wastewater Disposal Means River Disposal 30 Yamuna & Hindan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 121 33 : 50.00 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gokal Pur State: NCT Delhi S. No. Value **Items** 1 Total Area (sq km) 2.30 121870 2 Population as in 2011 Population Growth Rate as in 2011 (%) 33.69 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 24374 Total Number of Household as in 2011 22592 6 7 Number of Household per Ward 4518 8 Surface Water Supply (MLD) NA 9 NA Ground Water (GW) Supply (MLD) 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 16.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 13.20 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (Ipcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under YAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3290.50 Pollution Load (Domestic) (Method 2: Per Capita COD 5593.80 29 Contribution) (kg/d) 658.10 TKN Wastewater Disposal Means River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 NA 33 **Number of Water Bodies** 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet **City: Greater Noida** State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 20.00 102054 2 Population as in 2011 Population Growth Rate as in 2011 (%) NA 3 4 **Total Number of Wards** 58 5 Population per Ward (Thousands) 1,760 Total Number of Household as in 2011 20779 6 7 Number of Household per Ward 358 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) 74.00 10 Number of Bore Wells 108 Ground Water Extraction per Bore Well (MLD) 11 0.69 NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 1000 13 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 74.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 725.10 110.20 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 1080.30 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 47 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 2755.50 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 4684.30 29 Contribution) (kg/d) TKN 551.10 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Guna State: Madhya Pradesh S. No. **Items** Value Total Area (sq km) 45.75 2 Population as in 2011 180935 Population Growth Rate as in 2011 (%) 31.90 3 4 **Total Number of Wards** 37 5 Population per Ward (Thousands) 4,890 Total Number of Household as in 2011 34383 6 7 Number of Household per Ward 929 8 Surface Water Supply (MLD) 5 9 5.50 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 254 Ground Water Extraction per Bore Well (MLD) 11 0.02 12 Number of Hand Pumps/ Tubewells 284 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 5 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 11.60 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 64.10 19 Total Sewage Generation (MLD)\* 9.30 20 Per Capita Sewage Generation (lpcd) 51.30 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 4885.20 Pollution Load (Domestic) (Method 2: Per Capita COD 8304.90 29 Contribution) (kg/d) TKN 977.00 **Wastewater Disposal Means** Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Land Disposal Number of Drains/Nallah for Wastewater Disposal 32 1 **Number of Water Bodies** 3 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gurgaon State: Haryana S. No. **Items** Value 1 Total Area (sq km) 184.59 2 Population as in 2011 886519 3 Population Growth Rate as in 2011 (%) 340.30 4 **Total Number of Wards** 74 5 Population per Ward (Thousands) 11980 Total Number of Household as in 2011 208229 6 Number of Household per Ward 2814 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 119.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 95.70 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs 3 24 Total Installed Capacity of STPs under GAP I & II (MLD) 148.00 Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 23936.00 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 40691.20 29 Contribution) (kg/d) 4787.20 TKN 30 **Wastewater Disposal Means** River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal 4 33 **Number of Water Bodies** 7 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gwalior State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 173.68 2 1054420 Population as in 2011 3 Population Growth Rate as in 2011 (%) : 27.50 4 **Total Number of Wards** : 60 5 Population per Ward (Thousands) : 17,574 Total Number of Household as in 2011 199466 6 Number of Household per Ward : 3324 7 8 Surface Water Supply (MLD) : 135 9 Ground Water (GW) Supply (MLD) 10 10 Number of Bore Wells : 1485 11 Ground Water Extraction per Bore Well (MLD) : 0.01 12 Number of Hand Pumps/ Tubewells 1270 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 135 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 145.60 17 : 138.10 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 19 Total Sewage Generation (MLD)\* 150.30 20 142.50 Per Capita Sewage Generation (lpcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 28469.30 Pollution Load (Domestic) (Method 2: Per Capita COD 48397.90 29 Contribution) (kg/d) TKN : 5693.90 30 Wastewater Disposal Means Land Disposal Name of River/Streams for Wastewater Disposal : Land Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** : 14 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Hastsal State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 6.80 2 176877 Population as in 2011 104.35 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 3 5 Population per Ward (Thousands) 58959 Total Number of Household as in 2011 33977 6 Number of Household per Ward 7 11326 Surface Water Supply (MLD) 8 NA : 9 Ground Water (GW) Supply (MLD) NA : 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA NA 12 Number of Hand Pumps/ Tubewells 13 Ground Water Extraction per Hand Pump (Ipd) NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 23.90 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 19.10 Total Sewage Generation (MLD)\* 20 : 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)NA TKN 4775.70 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 8118.70 29 Contribution) (kg/d) : 955.10 TKN 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 : 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Hathras **State: Uttar Pradesh** S. No. Value **Items** 1 Total Area (sq km) 6.76 143020 2 Population as in 2001 Population Growth Rate as in 2001 (%) : 13.19 3 4 **Total Number of Wards** 27 5 Population per Ward (Thousands) : 4,680 Total Number of Household as in 2001 25402 6 7 Number of Household per Ward : 941 8 Surface Water Supply (MLD) : NA 9 Ground Water (GW) Supply (MLD) 10.23 10 Number of Bore Wells : 14 Ground Water Extraction per Bore Well (MLD) 11 : 0.73 530 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA **Total Pumping Capacity (MLD)** 15 80.96 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) : 10.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 83.10 Total Sewage Generation (MLD)\* 9.10 19 20 Per Capita Sewage Generation (Ipcd) 64.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA BOD<sub>5</sub> 3861.50 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 6564.60 Contribution) (kg/d) TKN : 772.30 **Wastewater Disposal Means** River Disposal 30 Karvan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 1 32 **Number of Water Bodies** : 33 1 1.30 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area 35 <<< 1

Water Balance & Pollution Load (Domestic) Fact Sheet					
City: Hi	ndaun	Rajasthan			
S. No.	Items			Value	
1	Total Area (sq km)		:	48.00	
2	Population as in 2011		:	105452	
3	Population Growth Rate as in 2011 (%)		:	24.26	
4	Total Number of Wards		:	40	
5	Population per Ward (Thousands)		:	2,636	
6	Total Number of Household as in 2011		:	18299	
7	Number of Household per Ward		:	457	
8	Surface Water Supply (MLD)		:	NA	
9	Ground Water (GW) Supply (MLD)		:	NA	
10	Number of Bore Wells		:	NA	
11	Ground Water Extraction per Bore Well (MLD)		:	NA	
12	Number of Hand Pumps/ Tubewells		:	150	
13	Ground Water Extraction per Hand Pump (lpd)		:	500	
14	Number of Pumping Stations for Water Supply		:	NA	
15	Total Pumping Capacity (MLD)		:	NA	
16	Average Water Supply Rate from ULB Sources (lpcd)		:	NA	
17	Total Water Supply from ULB and Non-ULB Sources (M	LD)	:	5.30	
18	Average Water Supply Rate from ULB & Non-ULB Source	ces (lpcd)	:	50.00	
19	Total Sewage Generation (MLD)*		:	2.70	
20	Per Capita Sewage Generation (lpcd)		:	25.60	
21	Sewage Collection (MLD)		:	NA	
22	Percentage of Sewage Collection (%)		:	NA	
23	Number of STPs		:	NA	
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA	
25	Current Utilized Capacity of STPs (MLD)		:	NA	
26	Percentage Utilization of Installed Capacity (%)		:	NA	
27	Capacity of STPs Sanctioned under JNNURM & Others	(MLD)	:	NA	
	Dellution Load (Demostic) (Mother 1. Actual Flour)	BOD <sub>5</sub>	:	NA	
28	Pollution Load (Domestic) (Method 1: Actual Flow) (kg/d)	COD	:	NA	
20	(kg/u)	TKN	:	NA	
	Dellustian Load (Demostic) (Mothed 2: Dev Conita	BOD <sub>5</sub>	:	2847.20	
29	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	COD	:	4840.20	
29		TKN	:	569.40	
30	Wastewater Disposal Means		:	River & Land Disposal	
31	Name of River/Streams for Wastewater Disposal		:	Utangan River	
32	Number of Drains/Nallah for Wastewater Disposal		:	3	
33	Number of Water Bodies		:	NA	
34	Gross Area of Water Bodies (Hectare)		:	NA	
35	35 Area of Water Bodies as % of Total Area		:	<<< 1	

#### Water Balance & Pollution Load (Domestic) Fact Sheet **City: Indore** State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 172.39 2 Population as in 2011 1994397 3 Population Growth Rate as in 2011 (%) 32.42 **Total Number of Wards** 4 96 5 Population per Ward (Thousands) 20,775 Total Number of Household as in 2011 405090 6 Number of Household per Ward 7 4220 Surface Water Supply (MLD) 221.50 8 Ground Water (GW) Supply (MLD) 27 9 Number of Bore Wells 4000 10 Ground Water Extraction per Bore Well (MLD) 0.01 11 12 Number of Hand Pumps/ Tubewells 50000 Ground Water Extraction per Hand Pump (Ipd) 2000 13 14 Number of Pumping Stations for Water Supply NA **Total Pumping Capacity (MLD)** 221.50 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17 348.50 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 174.70 18 Total Sewage Generation (MLD)\* 278.80 19 20 Per Capita Sewage Generation (Ipcd) 139.80 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 Number of STPs NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 53848.70 Pollution Load (Domestic) (Method 2: Per Capita COD 91542.80 29 Contribution) (kg/d) TKN 10769.70 Wastewater Disposal Means River & Land Disposal 30 Name of River/Streams for Wastewater Disposal Saraswati River 31 Number of Drains/Nallah for Wastewater Disposal 32 1 33 **Number of Water Bodies** 25 Gross Area of Water Bodies (Hectare) 34 NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jagadhari State: Harvana S. No. **Items** Value 1 Total Area (sq km) 24.80 : 124894 2 Population as in 2011 3 Population Growth Rate as in 2011 (%) 23.30 **Total Number of Wards** : 4 31 4029 5 Population per Ward (Thousands) Total Number of Household as in 2011 26716 6 Number of Household per Ward 862 7 Surface Water Supply (MLD) 8 NA Ground Water (GW) Supply (MLD) NA 9 Number of Bore Wells NA 10 Ground Water Extraction per Bore Well (MLD) NA 11 12 Number of Hand Pumps/ Tubewells NA Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA **Total Pumping Capacity (MLD)** NA 15 Average Water Supply Rate from ULB Sources (Ipcd) 16 NA Total Water Supply from ULB and Non-ULB Sources (MLD) 17 16.90 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 135.00 18 Total Sewage Generation (MLD)\* 13.49 19 20 Per Capita Sewage Generation (Ipcd) 108.00 Sewage Collection (MLD) 21 NA Percentage of Sewage Collection (%) NA 22 Number of STPs NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> : 3372.10 Pollution Load (Domestic) (Method 2: Per Capita COD 5732.60 29 Contribution) (kg/d) TKN 674.40 Wastewater Disposal Means River Disposal 30 Name of River/Streams for Wastewater Disposal Yamuna River 31 Number of Drains/Nallah for Wastewater Disposal 32 1 33 **Number of Water Bodies** : NA Gross Area of Water Bodies (Hectare) 34 NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jaipur State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 484.64 3046163 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 31.15 3 4 **Total Number of Wards** 77 5 Population per Ward (Thousands) 39,561 Total Number of Household as in 2011 599507 6 7 Number of Household per Ward 7786 8 Surface Water Supply (MLD) NA 9 NA Ground Water (GW) Supply (MLD) 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 1983 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 403.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 132.30 321.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 105.60 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 82246.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 139818.90 29 Contribution) (kg/d) TKN : 16449.30 **Wastewater Disposal Means** Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Land Disposal Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** 14 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jhansi State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 150.00 2 Population as in 2011 505693 Population Growth Rate as in 2011 (%) 18.65 3 4 **Total Number of Wards** 60 5 Population per Ward (Thousands) 8,428 Total Number of Household as in 2011 91150 6 7 Number of Household per Ward 1519 8 Surface Water Supply (MLD) 66 9 Ground Water (GW) Supply (MLD) 9.00 10 Number of Bore Wells 29 Ground Water Extraction per Bore Well (MLD) 11 0.31 12 Number of Hand Pumps/ Tubewells 2812 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 66 NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 76.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 151.10 19 Total Sewage Generation (MLD)\* 12.00 20 Per Capita Sewage Generation (lpcd) 23.70 Sewage Collection (MLD) 21 NA Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 NA Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 1365.40 Pollution Load (Domestic) (Method 2: Per Capita COD 23211.30 29 Contribution) (kg/d) 2730.70 TKN **Wastewater Disposal Means** Land & River Disposal 30 31 Name of River/Streams for Wastewater Disposal Betwa River Number of Drains/Nallah for Wastewater Disposal 4 32 **Number of Water Bodies** 3 33 34 Gross Area of Water Bodies (Hectare) 1.80 Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Karawal Nagar State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 4.80 224281 2 Population as in 2011 Population Growth Rate as in 2011 (%) 50.90 3 4 **Total Number of Wards** 56070.25 5 Population per Ward (Thousands) Total Number of Household as in 2011 41116 6 7 Number of Household per Ward 10279 8 Surface Water Supply (MLD) NA 9 NA Ground Water (GW) Supply (MLD) 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 30.30 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 24.20 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 6055.60 Pollution Load (Domestic) (Method 2: Per Capita COD 10294.50 29 Contribution) (kg/d) TKN 1211.10 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** 2 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Karnal State: Harvana S. No. **Items** Value 1 Total Area (sq km) 29.46 2 302140 Population as in 2011 3 Population Growth Rate as in 2011 (%) : 36.57 4 **Total Number of Wards** 20 5 Population per Ward (Thousands) : 15,107 Total Number of Household as in 2011 63280 6 Number of Household per Ward 11062 7 Surface Water Supply (MLD) 8 NA 9 Ground Water (GW) Supply (MLD) : NA 10 Number of Bore Wells : NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA : 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 40.79 17 : 135.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 19 Total Sewage Generation (MLD)\* 32.63 20 Per Capita Sewage Generation (Ipcd) : 108.00 : 21 Sewage Collection (MLD) 30.84 22 Percentage of Sewage Collection (%) : NA 23 **Number of STPs** 2.00 24 Total Installed Capacity of STPs under GAP I & II (MLD) : 48.00 Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d) TKN NA BOD<sub>5</sub> 8157.80 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 13868.20 Contribution) (kg/d) TKN : 1631.60 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal : Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : | 1 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) : NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Khora State: Uttar Pradesh S. No. Value **Items** 1 Total Area (sq km) 4.26 190005 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 6.68 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 7,600 : 37467 Total Number of Household as in 2011 6 : 1499 7 Number of Household per Ward 8 Surface Water Supply (MLD) NA : 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) NA 13 Number of Pumping Stations for Water Supply NA 14 NA 15 **Total Pumping Capacity (MLD)** : NA 16 Average Water Supply Rate from ULB Sources (Ipcd) 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 25.70 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 20.50 19 Total Sewage Generation (MLD)\* : 20 Per Capita Sewage Generation (lpcd) 108.00 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs : NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD : NA (kg/d)TKN NA BOD<sub>5</sub> : 5130.10 Pollution Load (Domestic) (Method 2: Per Capita : 8721.20 29 COD Contribution) (kg/d) TKN : 1026.00 **Wastewater Disposal Means** River & Land Disposal 30 Hindan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (sq km) : NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Khurja State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 16.70 121207 2 Population as in 2011 Population Growth Rate as in 2011 (%) 22.92 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 4,848 Total Number of Household as in 2011 21548 6 7 Number of Household per Ward 862 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) NA 13 Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 16.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 13.10 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 108.00 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA 3272.60 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 29 5563.40 Contribution) (kg/d) TKN 654.50 **Wastewater Disposal Means** River & Land Disposal 30 Hindan River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (sq km) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Kirari Suleman Nagar State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 4.70 283211 2 Population as in 2011 Population Growth Rate as in 2011 (%) 83.15 3 4 **Total Number of Wards** 94403.66 5 Population per Ward (Thousands) Total Number of Household as in 2011 53072 6 7 Number of Household per Ward 17691 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) NA 13 Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 38.20 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 30.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 108.00 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA BOD<sub>5</sub> 7646.70 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 12999.40 Contribution) (kg/d) TKN 1529.30 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** 5 33 34 Gross Area of Water Bodies (sq km) NA Area of Water Bodies as % of Total Area <<< 1 35

Water Balance & Pollution Load (Domestic) Fact Sheet					
City: Ki	City: Kishangarh State:		Rajasthan		
S. No.	Items			Value	
1	Total Area (sq km)		:	45.49	
2	Population as in 2011		:	154886	
3	Population Growth Rate as in 2011 (%)		:	33.27	
4	Total Number of Wards		:	45	
5	Population per Ward (Thousands)		:	3,442	
6	Total Number of Household as in 2011		••	28353	
7	Number of Household per Ward		••	630	
8	Surface Water Supply (MLD)		:	NA	
9	Ground Water (GW) Supply (MLD)		:	NA	
10	Number of Bore Wells		:	NA	
11	Ground Water Extraction per Bore Well (MLD)		:	NA	
12	Number of Hand Pumps/ Tubewells		:	720	
13	Ground Water Extraction per Hand Pump (Ipd)		:	500	
14	Number of Pumping Stations for Water Supply		:	NA	
15	Total Pumping Capacity (MLD)		:	NA	
16	Average Water Supply Rate from ULB Sources (lpcd)		:	NA	
17	Total Water Supply from ULB and Non-ULB Sources (M	ILD)	:	16.20	
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)			104.30	
19	Total Sewage Generation (MLD)*		:	12.60	
20	Per Capita Sewage Generation (lpcd)		:	81.60	
21	Sewage Collection (MLD)		:	NA	
22	Percentage of Sewage Collection (%)		:	NA	
23	Number of STPs		:	NA	
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA	
25	Current Utilized Capacity of STPs (MLD)		:	NA	
26	Percentage Utilization of Installed Capacity (%)		:	NA	
27	Capacity of STPs Sanctioned under JNNURM & Others (MLD)		:	NA	
	Dellution Load (Demostic) (Mathed 4. Actual Electric	BOD <sub>5</sub>	:	NA	
20	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	:	NA	
28	(kg/d)	TKN	:	NA	
		BOD <sub>5</sub>	:	4181.90	
29	Pollution Load (Domestic) (Method 2: Per Capita	COD	:	7109.30	
	Contribution) (kg/d)	TKN	:	836.40	
30	Wastewater Disposal Means		:	Land Disposal	
31	Name of River/Streams for Wastewater Disposal		:	Land Disposal	
32	Number of Drains/Nallah for Wastewater Disposal		:	2	
33	Number of Water Bodies		:	4	
34	Gross Area of Water Bodies (Hectare)		:	NA	
35	Area of Water Bodies as % of Total Area		:	<<< 1	

	Water Balance & Pollution Load (Domestic) Fact Sheet					
City: Ko	City: Kota State:			jasthan		
S. No.	Items			Value		
1	Total Area (sq km)		:	527.03		
2	Population as in 2011		:	1001694		
3	Population Growth Rate as in 2011 (%)		:	44.27		
4	Total Number of Wards		:	60		
5	Population per Ward (Thousands)		:	16,695		
6	Total Number of Household as in 2011		:	210135		
7	Number of Household per Ward		:	3502		
8	Surface Water Supply (MLD)		:	NA		
9	Ground Water (GW) Supply (MLD)		:	NA		
10	Number of Bore Wells		:	NA		
11	Ground Water Extraction per Bore Well (MLD)		:	NA		
12	Number of Hand Pumps/ Tubewells		:	3115		
13	Ground Water Extraction per Hand Pump (lpd)		:	500		
14	Number of Pumping Stations for Water Supply		:	NA		
15	Total Pumping Capacity (MLD)		:	NA		
16	Average Water Supply Rate from ULB Sources (lpcd)		:	NA		
17	Total Water Supply from ULB and Non-ULB Sources (M	LD)	:	271.80		
18	Average Water Supply Rate from ULB & Non-ULB Source	ces (lpcd)	:	271.30		
19	Total Sewage Generation (MLD)*		:	216.20		
20	Per Capita Sewage Generation (lpcd)		:	215.80		
21	Sewage Collection (MLD)		:	NA		
22	Percentage of Sewage Collection (%)		:	NA		
23	Number of STPs		:	NA		
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA		
25	Current Utilized Capacity of STPs (MLD)		:	NA		
26	Percentage Utilization of Installed Capacity (%)		:	NA		
27	Capacity of STPs Sanctioned under JNNURM & Others (MLD)		:	NA		
	Ball the Lead (Barrella) (Marked 4 Art of Flank	BOD <sub>5</sub>	:	NA		
20	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	:	NA		
28	(kg/d)	TKN	:	NA		
		BOD <sub>5</sub>	:	27045.70		
20	Pollution Load (Domestic) (Method 2: Per Capita	COD	:	45977.80		
29	Contribution) (kg/d)	TKN	:	5409.10		
30	Wastewater Disposal Means		:	River & Land Disposal		
31	Name of River/Streams for Wastewater Disposal		:	Chambal, Kali Sindh River		
32	Number of Drains/Nallah for Wastewater Disposal		:	5		
33	Number of Water Bodies		:	9		
34	Gross Area of Water Bodies (Hectare)		:	NA		
35	Area of Water Bodies as % of Total Area		:	<<< 1		

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Lalitpur State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) : 17.35 133305 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 9.36 3 4 **Total Number of Wards** 26 5 Population per Ward (Thousands) 5,127 Total Number of Household as in 2011 24424 6 7 Number of Household per Ward 939 12.10 8 Surface Water Supply (MLD) 9 Ground Water (GW) Supply (MLD) : NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 736 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 Number of Pumping Stations for Water Supply 14 1 12.10 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) 16 NA 17 Total Water Supply from ULB and Non-ULB Sources (MLD) : 12.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 93.50 8.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (Ipcd) 64.80 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA 3599.20 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 6118.70 29 Contribution) (kg/d) TKN : 719.80 Wastewater Disposal Means River Disposal 30 Betwa River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 1 32 **Number of Water Bodies** 33 1 20.23 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet

City: M	City: Mandoli Stat			ate: NCT Delhi		
S. No.	Items			Value		
1	Total Area (sq km)		:	5.87		
2	Population as in 2011		:	120417		
3	Population Growth Rate as in 2011 (%)		:	16.72		
4	Total Number of Wards		:	4		
5	Population per Ward (Thousands)		:	30104		
6	Total Number of Household as in 2011		:	21916		
7	Number of Household per Ward		:	5479		
8	Surface Water Supply (MLD)		:	NA		
9	Ground Water (GW) Supply (MLD)		:	NA		
10	Number of Bore Wells		:	NA		
11	Ground Water Extraction per Bore Well (MLD)		:	NA		
12	Number of Hand Pumps/ Tubewells		:	NA		
13	Ground Water Extraction per Hand Pump (lpd)		:	NA		
14	Number of Pumping Stations for Water Supply		:	NA		
15	Total Pumping Capacity (MLD)		:	NA		
16	Average Water Supply Rate from ULB Sources (Ipcd)		:	NA		
17	Total Water Supply from ULB and Non-ULB Sources	(MLD)	:	16.30		
18	Average Water Supply Rate from ULB & Non-ULB So	urces (lpcd)	:	135.00		
19	Total Sewage Generation (MLD)*		:	13.00		
20	Per Capita Sewage Generation (lpcd)		:	108.00		
21	Sewage Collection (MLD)		:	NA		
22	Percentage of Sewage Collection (%)		:	NA		
23	Number of STPs		:	NA		
24	Total Installed Capacity of STPs under GAP I & II (ML	.D)	:	NA		
25	Current Utilized Capacity of STPs (MLD)		:	NA		
26	Percentage Utilization of Installed Capacity (%)		:	NA		
27	Capacity of STPs Sanctioned under JNNURM & Othe	rs (MLD)	:	NA		
	Dellution Lond (Demonstra) (Adother d. 4. Advisal Floria)	BOD <sub>5</sub>	:	NA		
28	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	:	NA		
20	(kg/d)	TKN	:	NA		
	Dellution Lord (Domostic) (Mathed 2: Don Conita	BOD <sub>5</sub>	:	3251.30		
29	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	COD	:	5527.10		
29	Contribution) (kg/d)	TKN	:	650.30		
30	Wastewater Disposal Means		:	River Disposal		
31	Name of River/Streams for Wastewater Disposal		:	Yamuna, Hindon River		
32	Number of Drains/Nallah for Wastewater Disposal		:	NA		
33	Number of Water Bodies		:	NA		
34	Gross Area of Water Bodies (Hectare)		:	NA		
35	Area of Water Bodies as % of Total Area		:	<<< 1		

# Water Balance & Pollution Load (Domestic) Fact Sheet

City: M	ty: Mandsaur Stat			nte: Madhya Pradesh	
S. No.	Items			Value	
1	Total Area (sq km)		:	36.36	
2	Population as in 2011		:	141667	
3	Population Growth Rate as in 2011 (%)		:	20.51	
4	Total Number of Wards		:	40	
5	Population per Ward (Thousands)		:	3,542	
6	Total Number of Household as in 2011		:	28916	
7	Number of Household per Ward		:	723	
8	Surface Water Supply (MLD)		:	0.75	
9	Ground Water (GW) Supply (MLD)		:	9.09	
10	Number of Bore Wells		:	42	
11	Ground Water Extraction per Bore Well (MLD)		:	0.22	
12	Number of Hand Pumps/ Tubewells		:	350	
13	Ground Water Extraction per Hand Pump (lpd)		:	500	
14	Number of Pumping Stations for Water Supply		:	NA	
15	Total Pumping Capacity (MLD)		:	0.75	
16	Average Water Supply Rate from ULB Sources (Ipcd)		:	NA	
17	Total Water Supply from ULB and Non-ULB Sources	(MLD)	:	10.00	
18	Average Water Supply Rate from ULB & Non-ULB So	urces (lpcd)	:	70.60	
19	Total Sewage Generation (MLD)*		:	18.10	
20	Per Capita Sewage Generation (lpcd)			127.80	
21	Sewage Collection (MLD)		:	NA	
22	Percentage of Sewage Collection (%)		:	NA	
23	Number of STPs		:	NA	
24	Total Installed Capacity of STPs under GAP I & II (ML	D)	:	NA	
25	Current Utilized Capacity of STPs (MLD)		:	NA	
26	Percentage Utilization of Installed Capacity (%)		:	NA	
27	Capacity of STPs Sanctioned under JNNURM & Othe	rs (MLD)	:	NA	
	Dellution Lond (Demonstra) (Adother d. C. Actual Elevi)	BOD <sub>5</sub>	:	NA	
28	Pollution Load (Domestic) (Method 1: Actual Flow)	COD	:	NA	
20	(kg/d)	TKN	:	NA	
	Dellution Load (Demostic) (Mathed 2: Dev Conita	BOD <sub>5</sub>	:	3825.00	
20	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	COD	:	6502.50	
29		TKN	:	765.00	
30	Wastewater Disposal Means		:	River & Land Disposal	
31	Name of River/Streams for Wastewater Disposal		:	Shivna River	
32	Number of Drains/Nallah for Wastewater Disposal		:	5	
33	Number of Water Bodies		:	NA	
34	Gross Area of Water Bodies (Hectare)		•	NA	
35	Area of Water Bodies as % of Total Area		:	<<< 1	

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Mathura State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 28.05 2 Population as in 2011 349909 Population Growth Rate as in 2011 (%) : 15.57 3 4 **Total Number of Wards** 45 5 Population per Ward (Thousands) 7,776 : | 59781 Total Number of Household as in 2011 6 7 Number of Household per Ward 1328 8 Surface Water Supply (MLD) : 11 Ground Water (GW) Supply (MLD) 9 18.36 : 90 10 Number of Bore Wells Ground Water Extraction per Bore Well (MLD) 11 0.20 1447 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) 500 13 NA 14 Number of Pumping Stations for Water Supply 11 15 Total Pumping Capacity (MLD) 92 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 32.80 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 93.70 117.90 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (Ipcd) 337.10 21 Sewage Collection (MLD) 28.10 : 22.98 Percentage of Sewage Collection (%) 22 23 **Number of STPs** : | 2 24 Total Installed Capacity of STPs under GAP I & II (MLD) : 28.10 25 Current Utilized Capacity of STPs (MLD) : 28.10 Percentage Utilization of Installed Capacity (%) 100 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 9447.50 Pollution Load (Domestic) (Method 2: Per Capita COD 16060.80 29 Contribution) (kg/d) TKN : 1889.50 Wastewater Disposal Means River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal 3 32 **Number of Water Bodies** : 33 11 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: Madhya Pradesh City: Morena S. No. Value **Items** 1 Total Area (sq km) 12.00 2 Population as in 2011 200482 Population Growth Rate as in 2011 (%) 32.81 3 4 **Total Number of Wards** 39 5 Population per Ward (Thousands) 5,141 Total Number of Household as in 2011 33104 6 7 Number of Household per Ward 849 8 Surface Water Supply (MLD) NA Ground Water (GW) Supply (MLD) 9 18 10 Number of Bore Wells 85 Ground Water Extraction per Bore Well (MLD) 11 0.21 12 Number of Hand Pumps/ Tubewells 2600 Ground Water Extraction per Hand Pump (lpd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA Total Pumping Capacity (MLD) 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 19.30 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 96.30 19 Total Sewage Generation (MLD)\* 15.40 20 Per Capita Sewage Generation (Ipcd) 77.00 21 Sewage Collection (MLD) NA Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 5413.00 Pollution Load (Domestic) (Method 2: Per Capita COD 9202.10 29 Contribution) (kg/d) TKN 1082.60 Wastewater Disposal Means River & Land Disposal 30 Asan, Chambal River 31 Name of River/Streams for Wastewater Disposal 32 Number of Drains/Nallah for Wastewater Disposal 1 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

Area of Water Bodies as % of Total Area

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Murwara (Katni) **State: Madhya Pradesh** S.No. **Items** Value Total Area (sq km) 68.57 2 Population as in 2011 221883 : 18.64 Population Growth Rate as in 2011 (%) 3 **Total Number of Wards** 45 4 Population per Ward (Thousands) : 4,931 5 Total Number of Household as in 2011 : 46261 6 1028 Number of Household per Ward Surface Water Supply (MLD) : 7.50 8 Ground Water (GW) Supply (MLD) : 8 9 Number of Bore Wells 133 10 Ground Water Extraction per Bore Well (MLD) : 0.06 11 Number of Hand Pumps/ Tubewells 565 12 Ground Water Extraction per Hand Pump (lpd) : 500 13 Number of Pumping Stations for Water Supply : NA 14 **Total Pumping Capacity (MLD)** 7.50 15 Average Water Supply Rate from ULB Sources (Ipcd) : NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 30.00 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 18 Total Sewage Generation (MLD)\* 24.00 19 : 108.00 20 Per Capita Sewage Generation (lpcd) Sewage Collection (MLD) : NA 21 Percentage of Sewage Collection (%) : NA 22 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 Current Utilized Capacity of STPs (MLD) : NA 25 26 Percentage Utilization of Installed Capacity (%) : NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> : NA (kg/d)COD : NA 28 TKN NA Pollution Load (Domestic) (Method 2: Per Capita BOD<sub>5</sub> 5990.80 Contribution) (kg/d) : 10184.40 COD 29 TKN 1198.20 Wastewater Disposal Means River & Land Disposal 30 Name of River/Streams for Wastewater Disposal : Katni River 31 Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 59 33 Gross Area of Water Bodies (Hectare) : NA 34 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Mustafabad State: NCT Delhi S.No. **Items** Value 1.30 Total Area (sq km) 2 Population as in 2011 : 127167 : 41.03 Population Growth Rate as in 2011 (%) 3 **Total Number of Wards** : 4 Population per Ward (Thousands) 42389 5 Total Number of Household as in 2011 : 20348 6 Number of Household per Ward 6783 Surface Water Supply (MLD) NA 8 Ground Water (GW) Supply (MLD) : NA 9 Number of Bore Wells NA 10 Ground Water Extraction per Bore Well (MLD) : NA 11 Number of Hand Pumps/ Tubewells NA 12 Ground Water Extraction per Hand Pump (lpd) : NA 13 Number of Pumping Stations for Water Supply NA 14 **Total Pumping Capacity (MLD)** NA 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 17.20 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 18 Total Sewage Generation (MLD)\* 13.70 19 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 Current Utilized Capacity of STPs (MLD) : NA 25 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> : NA (kg/d)COD : NA 28 TKN NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita 3433.50 Contribution) (kg/d) : 5837.00 COD 29 TKN 686.70 River Disposal 30 Wastewater Disposal Means Name of River/Streams for Wastewater Disposal : Yamuna River 31 Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** : 1 33 Gross Area of Water Bodies (Hectare) : NA 34 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Muzaffarnagar State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 12.04 2 Population as in 2011 392768 Population Growth Rate as in 2011 (%) 18.42 3 4 **Total Number of Wards** 45 5 Population per Ward (Thousands) 8,728 Total Number of Household as in 2011 68975 6 7 Number of Household per Ward 1533 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) 50.00 40 10 Number of Bore Wells Ground Water Extraction per Bore Well (MLD) 11 0.43 858 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA **Total Pumping Capacity (MLD)** 15 127.30 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 50.40 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 128.40 46.70 19 Total Sewage Generation (MLD) 20 Per Capita Sewage Generation (Ipcd) 118.80 Sewage Collection (MLD) 22.00 21 47.13 Percentage of Sewage Collection (%) 22 23 Number of STPs 1 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) 35.00 Percentage Utilization of Installed Capacity (%) 62.86 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 12 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA BOD<sub>5</sub> 10604.70 Pollution Load (Domestic) (Method 2: Per Capita COD 29 18028.10 Contribution) (kg/d) TKN 2120.90 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Kali River Number of Drains/Nallah for Wastewater Disposal 2 32 **Number of Water Bodies** 2 33 12.50 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area <<< 1 35

# Water Balance & Pollution Load (Domestic) Fact Sheet City: NDMC State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 42.74 257803 2 Population as in 2011 Population Growth Rate as in 2011 (%) -14.74 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 28645 Total Number of Household as in 2011 59500 6 7 Number of Household per Ward 6611 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA **Total Pumping Capacity (MLD)** 15 NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 34.80 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 27.80 19 Total Sewage Generation (MLD) 20 Per Capita Sewage Generation (Ipcd) 108.00 NA 21 Sewage Collection (MLD) Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA BOD<sub>5</sub> 6960.70 Pollution Load (Domestic) (Method 2: Per Capita COD 29 11833.20 Contribution) (kg/d) TKN 1392.10 **Wastewater Disposal Means** River Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Nagda State: Madhya Pradesh S.No. **Items** Value Total Area (sq km) 3.58 2 Population as in 2011 100039 : 23.83 Population Growth Rate as in 2011 (%) 3 **Total Number of Wards** 4 36 Population per Ward (Thousands) 2779 5 Total Number of Household as in 2011 20177 6 Number of Household per Ward 560 Surface Water Supply (MLD) 8 NA Ground Water (GW) Supply (MLD) : NA 9 **Number of Bore Wells** 10 NA Ground Water Extraction per Bore Well (MLD) : NA 11 Number of Hand Pumps/ Tubewells 12 NA Ground Water Extraction per Hand Pump (lpd) : NA 13 Number of Pumping Stations for Water Supply 14 NA **Total Pumping Capacity (MLD)** 15 NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 13.50 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 134.90 18 Total Sewage Generation (MLD)\* 10.80 19 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) : NA 21 Percentage of Sewage Collection (%) 22 NA 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) : NA 24 Current Utilized Capacity of STPs (MLD) : 25 NA 26 Percentage Utilization of Installed Capacity (%) : NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA BOD<sub>5</sub> : NA Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2701.10 Pollution Load (Domestic) (Method 2: Per Capita COD : 4591.80 29 Contribution) (kg/d) TKN 540.20 Wastewater Disposal Means 30 River & Land Disposal Name of River/Streams for Wastewater Disposal 31 Chambal, Kshipra River Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** : 1 33 Gross Area of Water Bodies (Hectare) 34 NA Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Nangloi Jat State: NCT Delhi S.No. **Items** Value 6.70 Total Area (sq km) 2 Population as in 2011 205596 : 36.20 Population Growth Rate as in 2011 (%) 3 **Total Number of Wards** 4 Population per Ward (Thousands) 51399 5 Total Number of Household as in 2011 : 39410 6 Number of Household per Ward 9853 Surface Water Supply (MLD) NA 8 Ground Water (GW) Supply (MLD) : NA 9 Number of Bore Wells NA 10 Ground Water Extraction per Bore Well (MLD) : NA 11 Number of Hand Pumps/ Tubewells NA 12 Ground Water Extraction per Hand Pump (lpd) : NA 13 Number of Pumping Stations for Water Supply NA 14 **Total Pumping Capacity (MLD)** NA 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 27.80 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 18 Total Sewage Generation (MLD)\* 22.20 19 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 Current Utilized Capacity of STPs (MLD) : NA 25 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA BOD<sub>5</sub> : NA Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d) TKN NA 5551.10 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD : 9436.90 29 Contribution) (kg/d) TKN 1110.20 Wastewater Disposal Means River Disposal 30 Name of River/Streams for Wastewater Disposal : Yamuna River 31 Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** : 33 Gross Area of Water Bodies (Hectare) : NA 34 Area of Water Bodies as % of Total Area <<< 1

Water Balance & Pollution Load (Domestic) Fact Sheet						
City: N	eemach	Madhya Pr	ya Pradesh			
S.No.	Items			Value		
1	Total Area (sq km)		:	22.04		
2	Population as in 2011		:	128561		
3	Population Growth Rate as in 2011 (%)		:	13.92		
4	Total Number of Wards		:	40		
5	Population per Ward (Thousands)		:	3,214		
6	Total Number of Household as in 2011		:	25549		
7	Number of Household per Ward		:	639		
8	Surface Water Supply (MLD)		:	6.82		
9	Ground Water (GW) Supply (MLD)		:	1		
10	Number of Bore Wells		:	40		
11	Ground Water Extraction per Bore Well (MLD)		:	0.03		
12	Number of Hand Pumps/ Tubewells		:	193		
13	Ground Water Extraction per Hand Pump (lpd)		:	500		
14	Number of Pumping Stations for Water Supply		:	NA		
15	Total Pumping Capacity (MLD)		:	6.82		
16	Average Water Supply Rate from ULB Sources (Ipcd)		:	NA		
17	Total Water Supply from ULB and Non-ULB Sources (MLD)		:	7.90		
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)		:	96.50		
19	Total Sewage Generation (MLD)*		:	7.30		
20	Per Capita Sewage Generation (Ipcd)		:	45.90		
21	Sewage Collection (MLD)		:	NA		
22	Percentage of Sewage Collection (%)		:	NA		
23	Number of STPs		:	NA		
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA		
25	Current Utilized Capacity of STPs (MLD)		:	NA		
26	Percentage Utilization of Installed Capacity (%)		:	NA		
27	Capacity of STPs Sanctioned under JNNURM & Others (MLD)		:	NA		
	Pollution Load (Domestic) (Method 1: Actual Flow)	BOD <sub>5</sub>	:	NA		
20	(kg/d)	COD	:	NA		
28		TKN	:	NA		
	Pollution Load (Domestic) (Method 2: Per Capita	BOD <sub>5</sub>	:	3471.10		
20	Contribution) (kg/d)	COD	:	5900.90		
29		TKN	:	694.20		
30	Wastewater Disposal Means		:	Land Disposal		
31	Name of River/Streams for Wastewater Disposal		:	Land Disposal		
32	Number of Drains/Nallah for Wastewater Disposal		:	5		
33	Number of Water Bodies		:	3		
34	Gross Area of Water Bodies (Hectare)		:	NA		
35	Area of Water Bodies as % of Total Area		:	<<< 1		

	Water Balance & Pollution Load	(Domestic)	Fact	Sheet	
City: 1	City: Noida Stat			te: Uttar Pradesh	
S.	Items			Value	
1	Total Area (sq km)		:	92.10	
2	Population as in 2011		:	637272	
3	Population Growth Rate as in 2011 (%)		:	108.90	
4	Total Number of Wards		:	198	
5	Population per Ward (Thousands)		:	3,219	
6	Total Number of Household as in 2011		:	153474	
7	Number of Household per Ward		:	775	
8	Surface Water Supply (MLD)		:	48	
9	Ground Water (GW) Supply (MLD)		:	264.82	
10	Number of Bore Wells		:	249	
11	Ground Water Extraction per Bore Well (MLD)		:	1.06	
12	Number of Hand Pumps/ Tubewells		:	NA	
13	Ground Water Extraction per Hand Pump (lpd)		:	1000	
14	Number of Pumping Stations for Water Supply		:	1	
15	Total Pumping Capacity (MLD)		:	48	
16	Average Water Supply Rate from ULB Sources (Ipcd)		:	521.33	
17	Total Water Supply from ULB and Non-ULB Sources (MLD)		:	312.80	
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)		:	521.30	
19	Total Sewage Generation (MLD)*		:	481.80	
20	Per Capita Sewage Generation (Ipcd)		:	756.00	
21	Sewage Collection (MLD)			NA	
22	Percentage of Sewage Collection (%)		:	NA	
23	Number of STPs		:	NA	
24	Total Installed Capacity of STPs under GAP I & II (ML	D)	:	NA	
25	Current Utilized Capacity of STPs (MLD)		:	NA	
26	Percentage Utilization of Installed Capacity (%)		:	NA	
27	Capacity of STPs Sanctioned under JNNURM & Other	rs (MLD)	:	NA	
28	Pollution Load (Domestic) (Method 1: Actual Flow) (kg/d)	BOD <sub>5</sub>	:	NA	
		COD	:	NA	
		TKN	:	NA	
	B.H	BOD <sub>5</sub>	1:	17206.30	
29	Pollution Load (Domestic) (Method 2: Per Capita	COD	:	29250.80	
	Contribution) (kg/d)	TKN	1:	3441.30	
30	Wastewater Disposal Means		1:	River Disposal	
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River	
32	Number of Drains/Nallah for Wastewater Disposal		<u>:</u>	3	
33	Number of Water Bodies		1:	NA	
34	Gross Area of Water Bodies (Hectare)		1:	NA	
35	Area of Water Bodies as % of Total Area			<<< 1	

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Orai State: Uttar Pradesh S. Value **Items** 1 Total Area (sq km) 23.20 2 190575 Population as in 2011 Population Growth Rate as in 2001 (%) 36.79 3 4 **Total Number of Wards** 28 5 Population per Ward (Thousands) 4,976 Total Number of Household as in 2001 33919 6 7 Number of Household per Ward 1211 Surface Water Supply (MLD) NA 8 Ground Water (GW) Supply (MLD) 12 9 10 Number of Bore Wells 27 Ground Water Extraction per Bore Well (MLD) 11 0.37 523 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA Total Pumping Capacity (MLD) 15 86.13 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.30 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 88.00 16.20 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (Ipcd) 85.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 27 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d) TKN NA 437.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 29 743.60 Contribution) (kg/d) 1029.10 TKN Wastewater Disposal Means River Disposal 30 Betwa River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 1 32 **Number of Water Bodies** 4 33 3.20 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Palwal State: Harvana S. **Items** Value 1 Total Area (sq km) 8.42 2 131926 Population as in 2011 Population Growth Rate as in 2011 (%) 3 30.98 4 **Total Number of Wards** 32 5 Population per Ward (Thousands) 4,123 6 Total Number of Household as in 2011 23742 Number of Household per Ward 742 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tube wells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 Number of Pumping Stations for Water Supply 14 NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17.81 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 135.00 Total Sewage Generation (MLD)\* 19 14.25 108.00 20 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs 1 24 Total Installed Capacity of STPs under GAP I & II (MLD) 9 Current Utilized Capacity of STPs (MLD) 9 25 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d) TKN NA BOD<sub>5</sub> 3562.00 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 6055.40 Contribution) (kg/d) 712.40 TKN : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Panipat State: Harvana S. **Items** Value 1 Total Area (sq km) 21.86 2 295970 Population as in 2011 Population Growth Rate as in 2011 (%) 3 10.07 4 **Total Number of Wards** 24 5 Population per Ward (Thousands) 12,332 6 Total Number of Household as in 2011 60905 Number of Household per Ward 2538 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tube wells 12 NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 Number of Pumping Stations for Water Supply 14 2 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 40.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 135.00 Total Sewage Generation (MLD)\* 19 154.40 88.20 20 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs 2 24 Total Installed Capacity of STPs under GAP & YAP I & II (MLD) 45 Current Utilized Capacity of STPs (MLD) 45 25 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d) TKN NA BOD<sub>5</sub> 7991.20 Pollution Load (Domestic) (Method 2: Per Capita COD 29 13585.00 Contribution) (kg/d) TKN 1598.20 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal 2 33 **Number of Water Bodies** : 3 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Pithampur State: Madhya Pradesh S.No. **Items** Value Total Area (sq km) 75.51 2 Population as in 2011 126200 Population Growth Rate as in 2011 (%) : 85.37 3 **Total Number of Wards** 4 31 Population per Ward (Thousands) : 4,071 5 Total Number of Household as in 2011 : 31136 6 Number of Household per Ward 1004 Surface Water Supply (MLD) : 1 8 Ground Water (GW) Supply (MLD) : 1.20 9 Number of Bore Wells 10 30 Ground Water Extraction per Bore Well (MLD) : 0.04 11 Number of Hand Pumps/ Tubewells : 225 12 Ground Water Extraction per Hand Pump (lpd) : 900 13 Number of Pumping Stations for Water Supply 14 NA **Total Pumping Capacity (MLD)** 15 1 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 2.40 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 19.00 18 Total Sewage Generation (MLD)\* 1.90 19 20 Per Capita Sewage Generation (lpcd) : 15.20 Sewage Collection (MLD) : NA 21 Percentage of Sewage Collection (%) 22 NA 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 Current Utilized Capacity of STPs (MLD) : 25 NA 26 Percentage Utilization of Installed Capacity (%) : NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> : NA (kg/d)COD : NA 28 TKN NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita 3407.40 Contribution) (kg/d) COD : 5792.60 29 TKN 681.50 30 Wastewater Disposal Means Land Disposal Name of River/Streams for Wastewater Disposal : Land Disposal 31 Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** : 1 33 Gross Area of Water Bodies (Hectare) : NA 34 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Ratlam State: Madhya Pradesh S.No. **Items** Value Total Area (sq km) 39.19 2 Population as in 2011 264914 Population Growth Rate as in 2011 (%) : 19.22 3 **Total Number of Wards** 49 4 Population per Ward (Thousands) 5,406 5 Total Number of Household as in 2011 53133 6 Number of Household per Ward 1084 Surface Water Supply (MLD) NA 8 Ground Water (GW) Supply (MLD) : NA 9 Number of Bore Wells 10 96 Ground Water Extraction per Bore Well (MLD) : NA 11 Number of Hand Pumps/ Tubewells 12 961 Ground Water Extraction per Hand Pump (lpd) : 500 13 Number of Pumping Stations for Water Supply 14 NA **Total Pumping Capacity (MLD)** 15 NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) : 35.80 17 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 133.60 18 Total Sewage Generation (MLD)\* 28.60 19 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) : NA 21 Percentage of Sewage Collection (%) 22 NA 23 Number of STPs NA Total Installed Capacity of STPs under GAP I & II (MLD) : NA 24 Current Utilized Capacity of STPs (MLD) : 25 NA 26 Percentage Utilization of Installed Capacity (%) : NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) : NA Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> : NA (kg/d)COD : NA 28 TKN NA Pollution Load (Domestic) (Method 2: Per Capita BOD<sub>5</sub> 7152.70 Contribution) (kg/d) COD : 12159.60 29 TKN 1430.50 30 Wastewater Disposal Means Land Disposal Name of River/Streams for Wastewater Disposal : Land Disposal 31 Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** : 2 33 Gross Area of Water Bodies (Hectare) : NA 34 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Rewari State: Harvana S. **Items** Value 1 Total Area (sq km) 22.50 2 Population as in 2011 143021 Population Growth Rate as in 2011 (%) 42.05 3 4 **Total Number of Wards** 31 5 Population per Ward (Thousands) 4614 6 Total Number of Household as in 2011 28702 Number of Household per Ward 926 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 Number of Pumping Stations for Water Supply 14 NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 19.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 135.00 Total Sewage Generation (MLD)\* 19 15.40 20 108.00 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 3861.60 Pollution Load (Domestic) (Method 2: Per Capita COD 6564.70 29 Contribution) (kg/d) TKN 772.30 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Rohtak State: Haryana S. **Items** Value 1 Total Area (sq km) 72.18 2 374292 Population as in 2011 3 Population Growth Rate as in 2011 (%) 27.06 4 **Total Number of Wards** 31 5 Population per Ward (Thousands) 12074 Total Number of Household as in 2011 75528 6 Number of Household per Ward 2436 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 50.50 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 40.40 Total Sewage Generation (MLD)\* 108.00 20 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 **Number of STPs** 3 24 Total Installed Capacity of STPs under GAP & YAP I & II (MLD) 20 Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 16.0 NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d) TKN NA BOD<sub>5</sub> 10105.90 Pollution Load (Domestic) (Method 2: Per Capita COD 29 17180.00 Contribution) (kg/d) TKN 2021.20 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal 2 33 **Number of Water Bodies** 4 34 Gross Area of Water Bodies (Hectare) 6.88 35 Area of Water Bodies as % of Total Area <<< 1

Water Balance & Pollution Load (Domestic) Fact Sheet  City: Sagar State: Madhya Pradesh					
	•				iaunya Pradesh
S.	Items				Value
1	Total Area (sq km)				72.18
2	Population as in 2011			:	374292
3	Population Growth Rate as in 2011 (%)			:	27.06
4	Total Number of Wards			:	31
5	Population per Ward (Thousands)			:	12074
6	Total Number of Household as in 2011			:	75528
7	Number of Household per Ward			:	2436
8	Surface Water Supply (MLD)			:	NA
9	Ground Water (GW) Supply (MLD)			:	NA
10	Number of Bore Wells			:	NA
11	Ground Water Extraction per Bore Well (MLD)			:	NA
12	Number of Hand Pumps/ Tubewells		:	NA	
13	Ground Water Extraction per Hand Pump (lpd)		:	500	
14	Number of Pumping Stations for Water Supply		:	NA	
15	Total Pumping Capacity (MLD)			:	NA
16	Average Water Supply Rate from ULB Sources (lpcd)			:	NA
17	Total Water Supply from ULB and Non-ULB Sources (MLD)			:	50.50
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)		)	:	135.00
19	Total Sewage Generation (MLD)*			:	40.40
20	Per Capita Sewage Generation (Ipcd)			:	108.00
21	Sewage Collection (MLD)		:	NA	
22	Percentage of Sewage Collection (%)		:	NA	
23	Number of STPs		:	3	
24	Total Installed Capacity of STPs under GAP & YAP I & II (MLD)		:	20	
25	Current Utilized Capacity of STPs (MLD)		:	NA	
26	Percentage Utilization of Installed Capacity (%)			:	NA
27	Capacity of STPs Sanctioned under JNNURM & Other	s (MLD)		:	16.0
	Pollution Load (Domestic) (Method 1: Actual Flow) (kg/d)	BOD <sub>5</sub>		:	NA
28		COD		:	NA
		TKN		:	NA
		BOD <sub>5</sub>		:	10105.90
29	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	COD		:	17180.00
		TKN		:	2021.20
30	Wastewater Disposal Means	1		:	River Disposal
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River	
32	Number of Drains/Nallah for Wastewater Disposal		:	2	
33	Number of Water Bodies		:	4	
34	Gross Area of Water Bodies (Hectare)		:	6.88	
35	Area of Water Bodies as % of Total Area			:	<<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet State: Uttar Pradesh City: Saharanpur S. No. **Items** Value 1 Total Area (sq km) 46.74 705478 2 Population as in 2011 Population Growth Rate as in 2011 (%) 14.05 3 4 **Total Number of Wards** 60 5 Population per Ward (Thousands) 7,596 Total Number of Household as in 2011 129856 6 7 Number of Household per Ward 2164 8 Surface Water Supply (MLD) NA 79.00 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 60 Ground Water Extraction per Bore Well (MLD) 11 0.76 1511 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 Number of Pumping Stations for Water Supply NA 14 NA **Total Pumping Capacity (MLD)** 15 173.34 Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 79.80 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 175.00 97.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 138.30 Sewage Collection (MLD) 35.00 21 57.66 Percentage of Sewage Collection (%) 22 23 Number of STPs 1 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) 35 Percentage Utilization of Installed Capacity (%) 92 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 12 27 10038.80 BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) 28 COD NA (kg/d)TKN NA BOD<sub>5</sub> 19047.90 Pollution Load (Domestic) (Method 2: Per Capita COD 29 32381.40 Contribution) (kg/d) TKN 3809.60 **Wastewater Disposal Means** River Disposal 30 Dhamola River 31 Name of River/Streams for Wastewater Disposal Number of Drains/Nallah for Wastewater Disposal 32 **Number of Water Bodies** 33 365 122.34 34 Gross Area of Water Bodies (Hectare) Area of Water Bodies as % of Total Area 35 1.65

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sawai Madhopur State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 59.00 2 Population as in 2011 121106 Population Growth Rate as in 2011 (%) 18.73 3 4 **Total Number of Wards** 40 5 Population per Ward (Thousands) 3,028 Total Number of Household as in 2011 22841 6 7 Number of Household per Ward 571 8 Surface Water Supply (MLD) NA Ground Water (GW) Supply (MLD) 9 NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA 469 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 66.30 11.80 19 Total Sewage Generation (MLD)\* 97.40 20 Per Capita Sewage Generation (lpcd) Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 3269.90 Pollution Load (Domestic) (Method 2: Per Capita COD 5558.80 29 Contribution) (kg/d) 654.00 TKN **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal **Banas River** Number of Drains/Nallah for Wastewater Disposal 1 32 **Number of Water Bodies** 33 15 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

# Water Balance & Pollution Load (Domestic) Fact Sheet State: Madhya Pradesh City: Sehore S. No. **Items** Value 1 Total Area (sq km) 15.11 2 Population as in 2011 109118 Population Growth Rate as in 2011 (%) 17.94 3 4 **Total Number of Wards** 35 5 Population per Ward (Thousands) 3,118 Total Number of Household as in 2011 20314 6 7 Number of Household per Ward 580 8 Surface Water Supply (MLD) 40 9 10 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 55 Ground Water Extraction per Bore Well (MLD) 11 0.18 12 Number of Hand Pumps/ Tubewells 440 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** 40 NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 50.20 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 460.10 19 Total Sewage Generation (MLD)\* 40.20 20 Per Capita Sewage Generation (lpcd) 368.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 **Number of STPs** NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2946.20 Pollution Load (Domestic) (Method 2: Per Capita COD 5008.50 29 Contribution) (kg/d) 589.20 TKN **Wastewater Disposal Means** River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Karbala River Number of Drains/Nallah for Wastewater Disposal 32 1 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Shamli **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 26.23 2 Population as in 2011 107266 Population Growth Rate as in 2011 (%) : 19.11 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) : 4,291 Total Number of Household as in 2011 18622 6 7 Number of Household per Ward 745 8 Surface Water Supply (MLD) NA : 9 NA Ground Water (GW) Supply (MLD) 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 14.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 11.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (lpcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs : NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2896.20 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 4923.50 Contribution) (kg/d) TKN : 579.20 Wastewater Disposal Means River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** : NA 33 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Shikohabad **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 8.48 2 107404 Population as in 2011 Population Growth Rate as in 2011 (%) 21.83 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 4,296 Total Number of Household as in 2011 18622 6 7 Number of Household per Ward 745 8 Surface Water Supply (MLD) NA Ground Water (GW) Supply (MLD) 9 NA 10 Number of Bore Wells NA Ground Water Extraction per Bore Well (MLD) 11 NA NA 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (lpd) NA 13 NA 14 Number of Pumping Stations for Water Supply NA 15 **Total Pumping Capacity (MLD)** NA Average Water Supply Rate from ULB Sources (Ipcd) 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 14.50 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 11.60 19 Total Sewage Generation (MLD)\* 20 Per Capita Sewage Generation (Ipcd) 108.00 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 2899.90 Pollution Load (Domestic) (Method 2: Per Capita 29 COD 4929.80 Contribution) (kg/d) TKN 580.00 Wastewater Disposal Means River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal Yamuna River Number of Drains/Nallah for Wastewater Disposal NA 32 **Number of Water Bodies** NA 33 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Shivpuri State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 81.11 179977 2 Population as in 2011 Population Growth Rate as in 2011 (%) 22.52 **Total Number of Wards** 4 39 5 Population per Ward (Thousands) 4,615 Total Number of Household as in 2011 33803 6 Number of Household per Ward 867 7 Surface Water Supply (MLD) 8 5 Ground Water (GW) Supply (MLD) 9 Number of Bore Wells 430 10 Ground Water Extraction per Bore Well (MLD) 0.02 11 12 Number of Hand Pumps/ Tubewells 80 Ground Water Extraction per Hand Pump (Ipd) 500 13 14 Number of Pumping Stations for Water Supply NA 5 15 **Total Pumping Capacity (MLD)** Average Water Supply Rate from ULB Sources (Ipcd) 16 NA Total Water Supply from ULB and Non-ULB Sources (MLD) 17 12.00 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 66.70 18 Total Sewage Generation (MLD)\* 9.60 19 20 Per Capita Sewage Generation (lpcd) 53.30 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 Number of STPs NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) NA COD 28 (kg/d) NA TKN 4859.40 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD 8260.90 29 Contribution) (kg/d) : 971.90 TKN Wastewater Disposal Means Land Disposal 30 Name of River/Streams for Wastewater Disposal Land Disposal 31 Number of Drains/Nallah for Wastewater Disposal 32 1 : 33 **Number of Water Bodies** 7 Gross Area of Water Bodies (Hectare) NA 34 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet State: Haryana **City: Sonipat** S. No. Items Value 1 Total Area (sq km) : 42.61

2	Population as in 2011		:	289333
3	Population Growth Rate as in 2011 (%)		:	28.55
4	Total Number of Wards		:	31
5	Population per Ward (Thousands)		:	9,333
6	Total Number of Household as in 2011		:	57740
7	Number of Household per Ward		:	1863
8	Surface Water Supply (MLD)		:	NA
9	Ground Water (GW) Supply (MLD)		:	NA
10	Number of Bore Wells		:	NA
11	Ground Water Extraction per Bore Well (MLD)		:	NA
12	Number of Hand Pumps/ Tubewells		:	NA
13	Ground Water Extraction per Hand Pump (lpd)		:	500
14	Number of Pumping Stations for Water Supply		:	NA
15	Total Pumping Capacity (MLD)		:	NA
16	Average Water Supply Rate from ULB Sources (Ipcd)		:	NA
17	Total Water Supply from ULB and Non-ULB Sources (MLD)		:	39.06
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)		:	135.00
19	Total Sewage Generation (MLD)*		:	31.25
20	Per Capita Sewage Generation (Ipcd)		:	108.00
21	Sewage Collection (MLD)		:	NA
22	Percentage of Sewage Collection (%)		:	NA
23	Number of STPs		:	1
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	30
25	Current Utilized Capacity of STPs (MLD)		:	30
26	Percentage Utilization of Installed Capacity (%)		:	NA
27	Capacity of STPs Sanctioned under JNNURM & Others (MLD)		:	NA
	Pollution Load (Domestic) (Method 1: Actual Flow) (kg/d)	BOD <sub>5</sub>	:	NA
28		COD	:	NA
-		TKN	:	NA
	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	BOD <sub>5</sub>	:	7812.00
29		COD	:	13280.40
-	, , ,	TKN	:	1562.40
30	Wastewater Disposal Means		:	River Disposal
31	Name of River/Streams for Wastewater Disposal		:	Yamuna River
32	Number of Drains/Nallah for Wastewater Disposal		:	1
33	Number of Water Bodies		:	NA
34	Gross Area of Water Bodies (Hectare)  Area of Water Bodies as % of Total Area		:	NA
35			-	<<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sultan Pur Majra State: NCT Delhi S. No. **Items** Value 1 2.80 Total Area (sq km) 2 Population as in 2011 181554 Population Growth Rate as in 2011 (%) 10.42 4 **Total Number of Wards** 5 5 Population per Ward (Thousands) 36311 Total Number of Household as in 2011 33029 Number of Household per Ward 6606 : 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 **Number of Bore Wells** NA Ground Water Extraction per Bore Well (MLD) 11 NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) NA 14 Number of Pumping Stations for Water Supply NA 15 NA **Total Pumping Capacity (MLD)** 16 Average Water Supply Rate from ULB Sources (Ipcd) NA 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 24.50 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 18 19 Total Sewage Generation (MLD)\* 19.60 20 Per Capita Sewage Generation (lpcd) 108.00 21 Sewage Collection (MLD) : NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP & YAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 28 Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> NA (kg/d)COD NA TKN NA 29 Pollution Load (Domestic) (Method 2: Per Capita BOD<sub>5</sub> 4902.00 Contribution) (kg/d) COD 8333.30 TKN 980.40 30 **Wastewater Disposal Means** River Disposal 31 Name of River/Streams for Wastewater Disposal Yamuna River 32 Number of Drains/Nallah for Wastewater Disposal NA 33 **Number of Water Bodies** NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet City: Tonk State: Rajasthan S. No. **Items** Value 1 60.50 Total Area (sq km) 2 Population as in 2011 165294 Population Growth Rate as in 2011 (%) 21.82 4 **Total Number of Wards** 45 5 Population per Ward (Thousands) 3,673 Total Number of Household as in 2011 29098 6 Number of Household per Ward 647 : 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 **Number of Bore Wells** NA Ground Water Extraction per Bore Well (MLD) NA 11 12 Number of Hand Pumps/ Tubewells 546 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA 15 NA **Total Pumping Capacity (MLD)** 16 Average Water Supply Rate from ULB Sources (Ipcd) 12.90 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 77.90 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 18 10.10 19 Total Sewage Generation (MLD)\* 61.00 20 Per Capita Sewage Generation (lpcd) NA : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP & YAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA 28 Pollution Load (Domestic) (Method 1: Actual Flow) BOD<sub>5</sub> NA (kg/d)COD NA TKN NA 29 Pollution Load (Domestic) (Method 2: Per Capita BOD<sub>5</sub> 4462.90 Contribution) (kg/d) 7587.00 COD TKN 892.60 30 **Wastewater Disposal Means** River & Land Disposal 31 Name of River/Streams for Wastewater Disposal **Banas River** 32 Number of Drains/Nallah for Wastewater Disposal 33 **Number of Water Bodies** 14 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Udaipur State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 56.92 2 Population as in 2011 451100 Population Growth Rate as in 2011 (%) 15.83 3 4 **Total Number of Wards** 55 5 Population per Ward (Thousands) 8,202 Total Number of Household as in 2011 94704 6 7 Number of Household per Ward 1722 Surface Water Supply (MLD) NA 8 9 NA Ground Water (GW) Supply (MLD) 10 **Number of Bore Wells** NA Ground Water Extraction per Bore Well (MLD) 11 NA 2380 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) 500 13 NA 14 Number of Pumping Stations for Water Supply NA Total Pumping Capacity (MLD) 15 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 17 Total Water Supply from ULB and Non-ULB Sources (MLD) 82.60 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 183.10 19 Total Sewage Generation (MLD)\* 65.10 20 Per Capita Sewage Generation (Ipcd) 144.40 21 Sewage Collection (MLD) NA NA Percentage of Sewage Collection (%) 22 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) NA 26 Capacity of STPs Sanctioned under JNNURM & Others (MLD) 27 NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d)TKN NA BOD<sub>5</sub> 12179.70 Pollution Load (Domestic) (Method 2: Per Capita COD 20705.50 29 Contribution) (kg/d) 2435.90 TKN Wastewater Disposal Means River & Land Disposal 30 31 Name of River/Streams for Wastewater Disposal **Ayad River** Number of Drains/Nallah for Wastewater Disposal 3 32 33 **Number of Water Bodies** 34 Gross Area of Water Bodies (Hectare) 17254.00 Area of Water Bodies as % of Total Area <<< 1 35

# Water Balance & Pollution Load (Domestic) Fact Sheet State: Madhya Pradesh City: Ujjain S. No. **Items** Value 1 Total Area (sq km) 92.68 : 515215 2 Population as in 2011 Population Growth Rate as in 2011 (%) : 19.49 **Total Number of Wards** 4 54 5 Population per Ward (Thousands) 9,541 Total Number of Household as in 2011 102401 6 Number of Household per Ward 7 1896 Surface Water Supply (MLD) 87.06 8 Ground Water (GW) Supply (MLD) 3.79 9 Number of Bore Wells 85 10 Ground Water Extraction per Bore Well (MLD) 0.04 11 1282 12 Number of Hand Pumps/ Tubewells Ground Water Extraction per Hand Pump (Ipd) : 500 13 14 Number of Pumping Stations for Water Supply NA 87.06 **Total Pumping Capacity (MLD)** 15 Average Water Supply Rate from ULB Sources (Ipcd) 16 NA Total Water Supply from ULB and Non-ULB Sources (MLD) 17 : 91.50 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 177.60 18 Total Sewage Generation (MLD)\* 73.20 19 20 Per Capita Sewage Generation (lpcd) 142.10 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 Number of STPs : NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) : NA COD 28 (kg/d) : NA TKN : 13910.80 BOD<sub>5</sub> Pollution Load (Domestic) (Method 2: Per Capita COD : 23648.40 29 Contribution) (kg/d) TKN : 2782.20 Wastewater Disposal Means River & Land Disposal 30 Name of River/Streams for Wastewater Disposal Kshipra River 31 Number of Drains/Nallah for Wastewater Disposal 32 : 9 33 **Number of Water Bodies** : 23 Gross Area of Water Bodies (Hectare) 34 NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Vidisha State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 5.83 : 155951 2 Population as in 2011 3 Population Growth Rate as in 2011 (%) 24.31 **Total Number of Wards** : | 4 36 5 Population per Ward (Thousands) 4,332 Total Number of Household as in 2011 31627 6 Number of Household per Ward 879 7 Surface Water Supply (MLD) 9 8 : Ground Water (GW) Supply (MLD) 9 Number of Bore Wells 12 10 Ground Water Extraction per Bore Well (MLD) 0.08 11 12 Number of Hand Pumps/ Tubewells 4830 Ground Water Extraction per Hand Pump (Ipd) : 500 13 14 Number of Pumping Stations for Water Supply NA **Total Pumping Capacity (MLD)** 9 15 Average Water Supply Rate from ULB Sources (Ipcd) 16 NA Total Water Supply from ULB and Non-ULB Sources (MLD) 17 : 12.40 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 79.50 18 Total Sewage Generation (MLD)\* 9.92 19 20 Per Capita Sewage Generation (lpcd) 63.60 Sewage Collection (MLD) NA 21 Percentage of Sewage Collection (%) NA 22 Number of STPs : NA 23 Total Installed Capacity of STPs under GAP I & II (MLD) NA 24 NA 25 Current Utilized Capacity of STPs (MLD) NA Percentage Utilization of Installed Capacity (%) 26 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) : NA COD 28 (kg/d) : NA TKN BOD<sub>5</sub> : 4210.70 Pollution Load (Domestic) (Method 2: Per Capita COD : 7158.20 29 Contribution) (kg/d) TKN 842.10 Wastewater Disposal Means River & Land Disposal 30 Name of River/Streams for Wastewater Disposal Betwa River 31 Number of Drains/Nallah for Wastewater Disposal : 1 32 33 **Number of Water Bodies** : 1 Gross Area of Water Bodies (Hectare) NA 34 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet **City: Yamunanagar** State: Harvana S. No. **Items** Value 1 Total Area (sq km) 16.48 2 Population as in 2011 217071 Population Growth Rate as in 2011 (%) 3 : 14.43 **Total Number of Wards** : 31 5 Population per Ward (Thousands) : 7002 Total Number of Household as in 2011 45351 6 Number of Household per Ward 1463 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) : NA 10 Number of Bore Wells : NA 11 Ground Water Extraction per Bore Well (MLD) : NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (Ipd) 500 Number of Pumping Stations for Water Supply : 14 NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA : 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 29.30 17 : 135.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) Total Sewage Generation (MLD)\* 19 23.40 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs 2 24 Total Installed Capacity of STPs under GAP I & II (MLD) : 35 Current Utilized Capacity of STPs (MLD) 35 25 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d) TKN NA BOD<sub>5</sub> 5860.90 Pollution Load (Domestic) (Method 2: Per Capita COD 9963.60 29 Contribution) (kg/d) TKN : 1172.20 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal : Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 4 33 **Number of Water Bodies** : 2 : 3.70 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

# **Appendix-2**

Compilation of Fact Sheets of
Water Balance & Pollution Load
(Domestic) of Major Class II Towns in
Yamuna Basin

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: Madhya Pradesh City: Askok Nagar S. No. Value **Items** 1 Total Area (sq km) 4.43 2 Population as in 2011 81828 Population Growth Rate as in 2011 (%) 41.80 3 4 **Total Number of Wards** 22 5 Population per Ward (Thousands) 3,719 Total Number of Household as in 2011 15806 6 718 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA Ground Water Extraction per Hand Pump (Ipd) 13 NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17 11.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 134.40 Total Sewage Generation (MLD)\* 19 8.80 20 107.50 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA Percentage Utilization of Installed Capacity (%) 26 NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2209.40 Pollution Load (Domestic) (Method 2: Per Capita COD 3755.90 29 Contribution) (kg/d) TKN 441.90 : 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal **Aur River** 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Ashta State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 15.78 2 Population as in 2011 53184 30.90 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 19 5 Population per Ward (Thousands) 2,799 Total Number of Household as in 2011 10006 6 Number of Household per Ward 527 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA 13 Ground Water Extraction per Hand Pump (lpd) NA Number of Pumping Stations for Water Supply 14 NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.20 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.40 19 5.70 Total Sewage Generation (MLD)\* 20 107.20 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1436.00 Pollution Load (Domestic) (Method 2: Per Capita COD 2441.10 29 Contribution) (kg/d) TKN 287.20 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Parbati River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

Area of Water Bodies as % of Total Area

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: Uttar Pradesh City: Auraiya S. No. **Items** Value 1 Total Area (sq km) 9.00 2 87736 Population as in 2011 Population Growth Rate as in 2011 (%) 35.52 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.590 Total Number of Household as in 2011 15898 6 Number of Household per Ward 7 636 8 Surface Water Supply (MLD) NA 5.53 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 14 11 Ground Water Extraction per Bore Well (MLD) 0.22 Number of Hand Pumps/ Tubewells 440 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 66.11 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 68.60 19 5.40 Total Sewage Generation (MLD)\* 20 61.50 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2368.90 Pollution Load (Domestic) (Method 2: Per Capita COD 4027.10 29 Contribution) (kg/d) TKN 508.90 : 30 Land & River Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** 5 11.15 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet **State: Uttar Pradesh** City: Baghpat S. No. **Items** Value 1 Total Area (sq km) 2.83 2 Population as in 2011 50310 Population Growth Rate as in 2011 (%) 38.28 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.012 6 Total Number of Household as in 2011 7880 Number of Household per Ward 7 315 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) 3.71 10 Number of Bore Wells 7 11 Ground Water Extraction per Bore Well (MLD) 0.53 Number of Hand Pumps/ Tubewells 457 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 73.74 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 3.90 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 78.30 19 Total Sewage Generation (MLD)\* 1.10 21.80 20 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1358.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2309.20 29 Contribution) (kg/d) TKN 271.70 : 30 **River Disposal** Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Yamuna River 31

: 3

: NA

NA

<<< 1

Number of Drains/Nallah for Wastewater Disposal

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

32

33

34

35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Bangarda Chhota **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 11.19 2 Population as in 2011 64213 Population Growth Rate as in 2011 (%) 18.94 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 64,213 Total Number of Household as in 2011 13345 6 Number of Household per Ward 13345 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.50 19 6.90 Total Sewage Generation (MLD)\* 20 107.50 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1733.80 Pollution Load (Domestic) (Method 2: Per Capita COD 2947.40 29 Contribution) (kg/d) TKN 346.80 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Kherkhali River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Bapraula S. No. **Items** Value 1 Total Area (sq km) 5.62 2 Population as in 2011 52744 Population Growth Rate as in 2011 (%) **291.51** 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 52744 6 Total Number of Household as in 2011 10069 Number of Household per Ward 10069 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 5.70 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1424.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2420.90 29 Contribution) (kg/d) TKN 284.80 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 2 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City:Bari State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 22.27 2 Population as in 2011 62721 Population Growth Rate as in 2011 (%) 24.26 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2091 Total Number of Household as in 2011 10456 6 Number of Household per Ward 349 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 143.10 19 Total Sewage Generation (MLD)\* 6.80 20 108.40 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1693.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2878.90 29 Contribution) (kg/d) TKN 338.70 : 30 River & Land Disposal Wastewater Disposal Means **Ayad River** Name of River/Streams for Wastewater Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 3 33 **Number of Water Bodies** : 0 NA 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Basoda State: Madhya Pradesh S. No. **Items** Value 1 Total Area (sq km) 16.55 2 Population as in 2011 78289 20.56 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 24 3,262 5 Population per Ward (Thousands) Total Number of Household as in 2011 14219 6 Number of Household per Ward 592 7 8 Surface Water Supply (MLD) 2.27 9 Ground Water (GW) Supply (MLD) 2.33 10 Number of Bore Wells 29 11 Ground Water Extraction per Bore Well (MLD) 0.08 Number of Hand Pumps/ Tubewells 3520 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 2.27 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17 10.60 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 18 158.40 19 8.50 Total Sewage Generation (MLD)\* 20 75.40 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2113.80 Pollution Load (Domestic) (Method 2: Per Capita COD 3593.50 29 Contribution) (kg/d) TKN 422.80 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal : Betwa River 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

Area of Water Bodies as % of Total Area

#### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Bawana S. No. **Items** Value 1 Total Area (sq km) 17.00 2 Population as in 2011 73680 Population Growth Rate as in 2011 (%) **219.04** 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 73680 Total Number of Household as in 2011 12961 6 Number of Household per Ward 12961 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.90 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 8.00 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1989.40 Pollution Load (Domestic) (Method 2: Per Capita COD 3381.90 29 Contribution) (kg/d) TKN 397.90 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 : 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Begum Pur S. No. **Items** Value 1 Total Area (sq km) 1.90 2 Population as in 2011 53682 Population Growth Rate as in 2011 (%) **135.05** 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 53682 6 Total Number of Household as in 2011 10446 Number of Household per Ward 10446 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.20 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.80 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1449.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2464.00 29 Contribution) (kg/d) TKN 289.90 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Bina **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 12.00 2 Population as in 2011 64529 Population Growth Rate as in 2011 (%) 26.08 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.581 Total Number of Household as in 2011 12356 6 Number of Household per Ward 494 7 8 Surface Water Supply (MLD) 4 2 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 32 11 Ground Water Extraction per Bore Well (MLD) 0.06 Number of Hand Pumps/ Tubewells 1520 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 4 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 7.00 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1742.30 Pollution Load (Domestic) (Method 2: Per Capita COD 2961.90 29 Contribution) (kg/d) TKN 348.50 : 30 River & Land Disposal Wastewater Disposal Means Motichur, Bina, Name of River/Streams for Wastewater Disposal **Betwa River** 31 32 Number of Drains/Nallah for Wastewater Disposal **Number of Water Bodies** NA 33 NA 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Budhana State: Uttar Pradesh S. No. Value **Items** 1 Total Area (sq km) 7.61 2 Population as in 2011 53722 : 63.04 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** : 17 5 Population per Ward (Thousands) : 3,160 Total Number of Household as in 2011 8252 6 Number of Household per Ward 485 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) : NA 10 Number of Bore Wells : NA 11 Ground Water Extraction per Bore Well (MLD) : NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA : 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.30 17 : 135.00 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 19 5.80 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD : NA 28 (kg/d) NA TKN BOD<sub>5</sub> : 1450.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2465.80 29 Contribution) (kg/d) : 290.10 TKN 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal Kali River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA : 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Chilla Saroda Bangar S. No. **Items** Value 1 Total Area (sq km) 2.58 2 Population as in 2011 83217 Population Growth Rate as in 2011 (%) 24.76 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 27739 Total Number of Household as in 2011 18124 6 Number of Household per Ward 6041 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 11.20 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 9.00 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2246.90 Pollution Load (Domestic) (Method 2: Per Capita COD 3819.70 29 Contribution) (kg/d) TKN 449.40 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Chitrakoot Dham (Karwi) State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 7.77 2 Population as in 2011 57402 Population Growth Rate as in 2011 (%) 17.41 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.296 Total Number of Household as in 2011 10250 6 Number of Household per Ward 410 7 8 Surface Water Supply (MLD) 5.12 9 Ground Water (GW) Supply (MLD) 1.21 10 Number of Bore Wells 4 11 Ground Water Extraction per Bore Well (MLD) 0.30 Number of Hand Pumps/ Tubewells 298 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) 5.12 Average Water Supply Rate from ULB Sources (Ipcd) 110.17 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.50 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 113.10 Total Sewage Generation (MLD)\* 19 19.40 337.40 20 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1549.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2634.80 29 Contribution) (kg/d) TKN 310.00 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Mandakini River 31 32 Number of Drains/Nallah for Wastewater Disposal : 6 33 Number of Water Bodies : 1 1.00 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Chomu State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 22.53 2 Population as in 2011 64417 Population Growth Rate as in 2011 (%) 27.04 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2147 6 Total Number of Household as in 2011 9921 Number of Household per Ward 7 331 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.20 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 142.40 19 7.00 Total Sewage Generation (MLD)\* 20 108.70 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1739.30 Pollution Load (Domestic) (Method 2: Per Capita COD 2956.70 29 Contribution) (kg/d) TKN 347.90 : 30 Wastewater Disposal Means **Land Disposal** Name of River/Streams for Wastewater Disposal : Land Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 3 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dabra **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 3.79 2 Population as in 2011 61277 8.13 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 24 5 Population per Ward (Thousands) 2.553 Total Number of Household as in 2011 11085 6 Number of Household per Ward 462 7 8 Surface Water Supply (MLD) 1.50 : 9 Ground Water (GW) Supply (MLD) 4 10 Number of Bore Wells 107 11 Ground Water Extraction per Bore Well (MLD) 0.04 Number of Hand Pumps/ Tubewells 130 12 13 Ground Water Extraction per Hand Pump (lpd) 3000 14 Number of Pumping Stations for Water Supply NA 1.50 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 6.60 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1654.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2812.60 29 Contribution) (kg/d) TKN 330.90 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Sindh River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dadri **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 6.50 2 Population as in 2011 91189 Population Growth Rate as in 2011 (%) 58.82 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 3,648 6 Total Number of Household as in 2011 16215 Number of Household per Ward 649 7 8 Surface Water Supply (MLD) NA 2.10 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells : 2 11 Ground Water Extraction per Bore Well (MLD) 1.05 12 Number of Hand Pumps/ Tubewells 1200 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 23.00 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 2.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 29.60 19 Total Sewage Generation (MLD)\* 12.20 20 134.20 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2462.10 Pollution Load (Domestic) (Method 2: Per Capita COD 4185.60 29 Contribution) (kg/d) TKN : 492.40 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : NA

NA

<<< 1

34

35

Gross Area of Water Bodies (Hectare)

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dausa State: Rajasthan S. No. Value **Items** 1 Total Area (sq km) 16.00 2 Population as in 2011 85960 Population Growth Rate as in 2011 (%) 39.54 3 4 **Total Number of Wards** 35 5 2456 Population per Ward (Thousands) Total Number of Household as in 2011 15465 6 Number of Household per Ward 442 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 140.50 19 9.30 Total Sewage Generation (MLD)\* 20 108.20 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2320.90 Pollution Load (Domestic) (Method 2: Per Capita COD 3945.60 29 Contribution) (kg/d) TKN 464.20 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Banganga River 31 32 Number of Drains/Nallah for Wastewater Disposal : 33 **Number of Water Bodies** : 2 NA 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Deoband **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 7.90 2 Population as in 2011 97037 Population Growth Rate as in 2011 (%) 18.86 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 3.881 6 Total Number of Household as in 2011 15630 Number of Household per Ward 625 7 8 Surface Water Supply (MLD) NA 6.00 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 11 11 Ground Water Extraction per Bore Well (MLD) 0.55 12 Number of Hand Pumps/ Tubewells 175 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) 61.81 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 62.70 19 Total Sewage Generation (MLD)\* 36.20 372.70 20 : Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 976.50 Pollution Load (Domestic) (Method 2: Per Capita COD 1660.10 29 Contribution) (kg/d) TKN 524.00 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal 31

: 2

: NA

NA

<<< 1

Number of Drains/Nallah for Wastewater Disposal

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

32

33

34

35

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Dhar **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 36.00 2 Population as in 2011 93917 Population Growth Rate as in 2011 (%) 24.60 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 3,131 6 Total Number of Household as in 2011 18531 Number of Household per Ward 618 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 263 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.20 19 10.10 Total Sewage Generation (MLD)\* 20 107.50 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2535.80 Pollution Load (Domestic) (Method 2: Per Capita COD 4310.80 29 Contribution) (kg/d) TKN 507.20 : 30 Wastewater Disposal Means **Land Disposal** Name of River/Streams for Wastewater Disposal : Land Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : 4 NA 34 Gross Area of Water Bodies (Hectare)

<<< 1

35

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gangoh State: Uttar Pradesh S. No. Value **Items** 1 Total Area (sq km) 6.00 2 Population as in 2011 59279 Population Growth Rate as in 2011 (%) 9.95 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.371 Total Number of Household as in 2011 9657 6 Number of Household per Ward 386 7 8 Surface Water Supply (MLD) NA 5.50 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 13 11 Ground Water Extraction per Bore Well (MLD) 0.42 Number of Hand Pumps/ Tubewells 315 12 Ground Water Extraction per Hand Pump (Ipd) 13 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 92.46 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 5.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 95.10 Total Sewage Generation (MLD)\* 19 12.40 209.30 20 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA Percentage Utilization of Installed Capacity (%) 26 NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1600.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2720.90 29 Contribution) (kg/d) TKN : 320.10 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal Buriyamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gharoli State: NCT Delhi S. No. Value **Items** 1 Total Area (sq km) 3.56 2 Population as in 2011 92540 33.26 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 5 Population per Ward (Thousands) 30847 Total Number of Household as in 2011 19819 6 Number of Household per Ward 6606 7 Surface Water Supply (MLD) 8 NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.50 17 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 18 135.00 19 10.00 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : Sewage Collection (MLD) 21 NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2498.60 Pollution Load (Domestic) (Method 2: Per Capita COD 4247.60 29 Contribution) (kg/d) TKN : 499.70 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna, Hindan River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Gohad **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 14.91 2 Population as in 2011 58939 Population Growth Rate as in 2011 (%) 3 30.30 4 **Total Number of Wards** 18 5 Population per Ward (Thousands) 3,274 Total Number of Household as in 2011 10161 6 Number of Household per Ward 565 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.70 19 Total Sewage Generation (MLD)\* 6.40 20 108.60 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1591.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2705.30 29 Contribution) (kg/d) TKN : 318.30 30 Wastewater Disposal Means Land Disposal Name of River/Streams for Wastewater Disposal Land Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Hodal State: Haryana S. No. **Items** Value 1 Total Area (sq km) 5.39 2 Population as in 2011 50143 30.89 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 17 5 Population per Ward (Thousands) 2,950 6 Total Number of Household as in 2011 8579 Number of Household per Ward 505 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.77 17 : 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135 19 5.42 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1353.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2301.60 29 Contribution) (kg/d) TKN 270.80 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Jaffrabad S. No. **Items** Value 1 Total Area (sq km) 0.90 2 Population as in 2011 54601 Population Growth Rate as in 2011 (%) <del>-4.96</del> 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 18200 6 Total Number of Household as in 2011 8815 Number of Household per Ward 2938 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.90 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1474.20 Pollution Load (Domestic) (Method 2: Per Capita COD 2506.20 29 Contribution) (kg/d) TKN 294.80 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Jait Pur S. No. **Items** Value 1 Total Area (sq km) 3.60 2 Population as in 2011 59330 Population Growth Rate as in 2011 (%) 140.10 3 4 **Total Number of Wards** 5 59330 Population per Ward (Thousands) 6 Total Number of Household as in 2011 11070 Number of Household per Ward 11070 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 6.40 19 Total Sewage Generation (MLD)\* 20 : 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1601.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2723.20 29 Contribution) (kg/d) TKN : 320.40 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jalaun State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 6.34 2 Population as in 2011 56909 Population Growth Rate as in 2011 (%) 13.69 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.276 6 Total Number of Household as in 2011 9560 Number of Household per Ward 382 7 8 Surface Water Supply (MLD) NA 4.32 9 Ground Water (GW) Supply (MLD) 10 : Number of Bore Wells 6 11 Ground Water Extraction per Bore Well (MLD) 0.72 12 Number of Hand Pumps/ Tubewells 484 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 75.96 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 4.60 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 80.90 19 Total Sewage Generation (MLD)\* 8.60 20 151.80 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1536.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2612.10 29 Contribution) (kg/d) TKN : 307.30 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : 9 4.15 34 Gross Area of Water Bodies (Hectare)

<<< 1

35

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jaora **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 14.54 2 Population as in 2011 74907 15.05 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2.497 Total Number of Household as in 2011 13102 6 Number of Household per Ward 437 7 8 Surface Water Supply (MLD) 3.25 9 Ground Water (GW) Supply (MLD) 0.15 10 Number of Bore Wells 61 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 159 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 3.25 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17 10.10 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 8.10 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2022.50 Pollution Load (Domestic) (Method 2: Per Capita COD 3438.20 29 Contribution) (kg/d) TKN 404.50 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Maleni River 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** : 2 NA 34 Gross Area of Water Bodies (Hectare)

<<< 1

35

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Jhalawar State: Rajasthan S. No. Value **Items** 1 Total Area (sq km) 12.95 2 Population as in 2011 66919 Population Growth Rate as in 2011 (%) 39.26 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2231 Total Number of Household as in 2011 13595 6 453 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (Ipd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.60 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 128.10 19 9.30 Total Sewage Generation (MLD)\* 20 139.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1806.80 Pollution Load (Domestic) (Method 2: Per Capita COD 3071.60 29 Contribution) (kg/d) TKN : 361.40 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Kali Sindh, Ahu River 31 32 Number of Drains/Nallah for Wastewater Disposal : 33 **Number of Water Bodies** : 10 NA 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet City: Kairana **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 7.11 2 Population as in 2011 89000 Population Growth Rate as in 2011 (%) 21.90 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 3,560 6 Total Number of Household as in 2011 13951 558 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 12.43 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 23 11 Ground Water Extraction per Bore Well (MLD) 0.54 Number of Hand Pumps/ Tubewells 235 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 130.72 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.55 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 131.95 19 Total Sewage Generation (MLD)\* 5.31 59.70 20 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2403.00 Pollution Load (Domestic) (Method 2: Per Capita COD 4085.10 29 Contribution) (kg/d) TKN : 480.60 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : NA

NA

<<< 1

34

35

Gross Area of Water Bodies (Hectare)

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Kalpi State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 9.73 2 Population as in 2011 51670 Population Growth Rate as in 2011 (%) 20.46 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.067 Total Number of Household as in 2011 8408 6 Number of Household per Ward 336 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 Ground Water Extraction per Hand Pump (Ipd) 13 NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 19 5.60 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1395.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2371.70 29 Contribution) (kg/d) TKN 279.00 : 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Kapas Hera S. No. **Items** Value 1 Total Area (sq km) 3.40 2 Population as in 2011 74073 Population Growth Rate as in 2011 (%) 242.66 3 4 **Total Number of Wards** 5 74073 Population per Ward (Thousands) Total Number of Household as in 2011 21370 6 Number of Household per Ward 21370 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 10.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 8.00 Total Sewage Generation (MLD)\* 20 : 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2000.00 Pollution Load (Domestic) (Method 2: Per Capita COD 3400.00 29 Contribution) (kg/d) TKN 400.00 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Karauli State: Rajasthan S. No. Value **Items** 1 Total Area (sq km) 35.00 2 Population as in 2011 82960 25.24 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 35 2370 5 Population per Ward (Thousands) Total Number of Household as in 2011 14578 6 417 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 11.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 140.70 19 9.00 Total Sewage Generation (MLD)\* 20 108.50 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2239.90 Pollution Load (Domestic) (Method 2: Per Capita COD 3807.90 29 Contribution) (kg/d) TKN : 448.00 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal Utangan River 31 32 Number of Drains/Nallah for Wastewater Disposal : 3 33 **Number of Water Bodies** : 0 NA 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Khanjoori Khas S. No. **Items** Value 1 Total Area (sq km) 0.90 2 Population as in 2011 76640 Population Growth Rate as in 2011 (%) 69.98 3 4 **Total Number of Wards** 5 76640 Population per Ward (Thousands) 6 Total Number of Household as in 2011 13186 Number of Household per Ward 13186 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 10.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 19 8.30 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2069.30 Pollution Load (Domestic) (Method 2: Per Capita COD 3517.80 29 Contribution) (kg/d) TKN 413.90 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Khurai State: Madhya Pradesh S. No. Value **Items** 1 Total Area (sq km) 11.03 2 Population as in 2011 51108 Population Growth Rate as in 2011 (%) 3 23.12 4 **Total Number of Wards** 27 5 Population per Ward (Thousands) 1,893 Total Number of Household as in 2011 9798 6 Number of Household per Ward 363 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 17 6.90 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 19 5.50 20 : 107.60 Per Capita Sewage Generation (lpcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1379.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2345.90 29 Contribution) (kg/d) TKN 276.00 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Bina River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : 2 : 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Konch **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 2.95 2 Population as in 2011 53412 Population Growth Rate as in 2011 (%) 5.05 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.136 6 Total Number of Household as in 2011 8655 Number of Household per Ward 346 7 8 Surface Water Supply (MLD) NA 4.70 9 Ground Water (GW) Supply (MLD) 10 : Number of Bore Wells 9 11 Ground Water Extraction per Bore Well (MLD) 0.52 12 Number of Hand Pumps/ Tubewells 462 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 87.97 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 4.90 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 92.30 19 Total Sewage Generation (MLD)\* 1.10 20.50 20 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1442.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2451.60 29 Contribution) (kg/d) TKN : 288.40 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Betwa River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : 3 24.62 34 Gross Area of Water Bodies (Hectare)

<<< 1

35

### Water Balance & Pollution Load (Domestic) Fact Sheet City: Koshi Kalan State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 4.50 2 Population as in 2011 60074 Population Growth Rate as in 2011 (%) 31.39 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.403 Total Number of Household as in 2011 9879 6 Number of Household per Ward 395 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 Ground Water Extraction per Hand Pump (Ipd) 13 NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 19 6.50 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1622.00 Pollution Load (Domestic) (Method 2: Per Capita COD 2757.40 29 Contribution) (kg/d) TKN 324.40 : 30 Wastewater Disposal Means River & Land Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Kuchaman State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 12.50 2 Population as in 2011 61969 Population Growth Rate as in 2011 (%) 22.50 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2066 6 Total Number of Household as in 2011 9643 Number of Household per Ward 7 321 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.90 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 143.20 Total Sewage Generation (MLD)\* 19 6.70 20 : 108.10 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1673.20 Pollution Load (Domestic) (Method 2: Per Capita COD 2844.40 29 Contribution) (kg/d) TKN 334.60 :

Land Disposal

Land Disposal

:

: 3

: NA

NA

<<< 1

30

31 32

33

34

35

Wastewater Disposal Means

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

Name of River/Streams for Wastewater Disposal

Number of Drains/Nallah for Wastewater Disposal

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Mahoba **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 12.15 2 Population as in 2011 95216 Population Growth Rate as in 2011 (%) 20.86 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 3.809 6 Total Number of Household as in 2011 17283 Number of Household per Ward 691 7 8 Surface Water Supply (MLD) 11.86 9 Ground Water (GW) Supply (MLD) 4.25 10 Number of Bore Wells 20 11 Ground Water Extraction per Bore Well (MLD) 0.21 Number of Hand Pumps/ Tubewells 1090 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 11.86 Average Water Supply Rate from ULB Sources (Ipcd) 168.77 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 16.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 174.48 19 Total Sewage Generation (MLD)\* 14.66 20 153.91 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2570.80 Pollution Load (Domestic) (Method 2: Per Capita COD 4370.40 29 Contribution) (kg/d) TKN : 514.20 30 Wastewater Disposal Means **Land Disposal**

:

: 4 : 4

Ken River

194.70

<<< 1

Name of River/Streams for Wastewater Disposal

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

Number of Drains/Nallah for Wastewater Disposal

31 32

33

34

35

#### Water Balance & Pollution Load (Domestic) Fact Sheet City: Mandideep **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 12.78 2 Population as in 2011 59654 49.66 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 18 5 Population per Ward (Thousands) 3,314 Total Number of Household as in 2011 14330 6 Number of Household per Ward 796 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NIL NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.80 6.40 19 Total Sewage Generation (MLD)\* 20 107.30 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1610.70 Pollution Load (Domestic) (Method 2: Per Capita COD 2738.10 29 Contribution) (kg/d) TKN 322.10 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal **Kaliasot River** 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Mauranipur **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 5.53 2 Population as in 2011 61449 Population Growth Rate as in 2011 (%) 20.77 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.458 6 Total Number of Household as in 2011 10879 Number of Household per Ward 435 7 8 Surface Water Supply (MLD) 2.84 : 9 Ground Water (GW) Supply (MLD) 0.90 10 Number of Bore Wells 4 11 Ground Water Extraction per Bore Well (MLD) 0.23 12 Number of Hand Pumps/ Tubewells 453 Ground Water Extraction per Hand Pump (Ipd) 13 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 2.84 Average Water Supply Rate from ULB Sources (Ipcd) 63.98 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 4.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 67.90 19 Total Sewage Generation (MLD)\* 10.20 166.00 20 : Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA Percentage Utilization of Installed Capacity (%) 26 NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1659.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2820.50 29 Contribution) (kg/d) TKN : 331.80 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Suknai River 31

: 6

: NA

NA

<<< 1

Number of Drains/Nallah for Wastewater Disposal

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

32

33

34

35

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Mithe Pur S. No. **Items** Value 1 Total Area (sq km) 1.80 2 Population as in 2011 69837 Population Growth Rate as in 2011 (%) 71.83 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 69837 6 Total Number of Household as in 2011 14160 Number of Household per Ward 14160 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 7.50 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1885.60 Pollution Load (Domestic) (Method 2: Per Capita COD 3205.50 29 Contribution) (kg/d) TKN : 377.10 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Molar Band S. No. **Items** Value 1 Total Area (sq km) 4.10 2 Population as in 2011 91402 Population Growth Rate as in 2011 (%) 125.55 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 30467 6 Total Number of Household as in 2011 18159 Number of Household per Ward 6053 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 12.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 9.90 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 2467.90 Pollution Load (Domestic) (Method 2: Per Capita COD 4195.40 29 Contribution) (kg/d) TKN : 493.60 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

### Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Mukand Pur S. No. **Items** Value 1 Total Area (sq km) 2.50 2 Population as in 2011 57135 Population Growth Rate as in 2011 (%) 167.62 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 57135 Total Number of Household as in 2011 10975 6 Number of Household per Ward 10975 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 6.20 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1542.60 Pollution Load (Domestic) (Method 2: Per Capita COD 2622.50 29 Contribution) (kg/d) TKN : 308.50 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Mundka S. No. **Items** Value 1 Total Area (sq km) 11.90 2 Population as in 2011 54541 Population Growth Rate as in 2011 (%) 24.32 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 18180 6 Total Number of Household as in 2011 10615 Number of Household per Ward 3538 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA 12 Number of Hand Pumps/ Tubewells NA 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.90 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1472.60 Pollution Load (Domestic) (Method 2: Per Capita COD 2503.40 29 Contribution) (kg/d) TKN 294.50 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 2 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet State: Uttar Pradesh City: Muradnagar S. No. Items Value Total Area (sq km) : 12.00 1 2 Population as in 2011 : 95208

2	Population as in 2011		:	95208
3	Population Growth Rate as in 2011 (%)		:	28.40
4	Total Number of Wards		:	25
5	Population per Ward (Thousands)		:	3,808
6	Total Number of Household as in 2011		:	15241
7	Number of Household per Ward		:	610
8	Surface Water Supply (MLD)			NA
9	Ground Water (GW) Supply (MLD)		:	6.16
10	Number of Bore Wells			5
11	Ground Water Extraction per Bore Well (MLD)			1.23
12	Number of Hand Pumps/ Tubewells			294
13	Ground Water Extraction per Hand Pump (lpd)		:	500
14	Number of Pumping Stations for Water Supply		:	NA
15	Total Pumping Capacity (MLD)			NA
16	Average Water Supply Rate from ULB Sources (Ipcd)			61.60
17	Total Water Supply from ULB and Non-ULB Sources (MLD)		:	6.30
18	Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd)		:	63.10
19	Total Sewage Generation (MLD)*		:	6.80
20	Per Capita Sewage Generation (Ipcd)		:	71.60
21	Sewage Collection (MLD)		:	NA
22	Percentage of Sewage Collection (%)		:	NA
23	Number of STPs		:	NA
24	Total Installed Capacity of STPs under GAP I & II (MLD)		:	NA
25	Current Utilized Capacity of STPs (MLD)		:	NA
26	Percentage Utilization of Installed Capacity (%)			NA
27	Capacity of STPs Sanctioned under JNNURM & Others (MLD)			NA
28	Pollution Load (Domestic) (Method 1: Actual Flow) (kg/d)	BOD <sub>5</sub>	:	NA
		COD	:	NA
		TKN	:	NA
29	Pollution Load (Domestic) (Method 2: Per Capita Contribution) (kg/d)	BOD <sub>5</sub>	:	2570.60
		COD	:	4370.00
		TKN		514.10
30	Wastewater Disposal Means			River Disposal
31	Name of River/Streams for Wastewater Disposal		:	Hindon River
32	Number of Drains/Nallah for Wastewater Disposal		:	1
33	Number of Water Bodies		:	2
34	Gross Area of Water Bodies (Hectare)		:	1.57
35	Area of Water Bodies as % of Total Area		:	<<< 1
				<u> </u>

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Nasirabad State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 22.93 2 Population as in 2011 50804 Population Growth Rate as in 2011 (%) 3.41 3 7 4 **Total Number of Wards** 5 Population per Ward (Thousands) 7258 6 Total Number of Household as in 2011 9078 Number of Household per Ward 1297 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 145.20 19 Total Sewage Generation (MLD)\* 5.50 20 108.30 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1371.70 Pollution Load (Domestic) (Method 2: Per Capita COD 2331.90 29 Contribution) (kg/d) TKN 274.30 : 30 Wastewater Disposal Means **Land Disposal** Name of River/Streams for Wastewater Disposal : Land Disposal 31 32 Number of Drains/Nallah for Wastewater Disposal : 3 33 **Number of Water Bodies** : 2

34

35

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

NA

<<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Nimbahera State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 12.74 2 Population as in 2011 61949 Population Growth Rate as in 2011 (%) 16.17 3 4 **Total Number of Wards** 30 5 Population per Ward (Thousands) 2065 6 Total Number of Household as in 2011 12776 426 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (Ipd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 4.50 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 72.20 19 10.40 Total Sewage Generation (MLD)\* 167.90 20 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1672.60 Pollution Load (Domestic) (Method 2: Per Capita COD 2843.50 29 Contribution) (kg/d) TKN 334.50 :

**Land Disposal** 

Land Disposal

:

: 3

: NA

NA

<<< 1

30

31 32

33

34

35

Wastewater Disposal Means

**Number of Water Bodies** 

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

Name of River/Streams for Wastewater Disposal

Number of Drains/Nallah for Wastewater Disposal

## Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Nithari S. No. **Items** Value 1 Total Area (sq km) 2.29 50464 2 Population as in 2011 Population Growth Rate as in 2011 (%) 44.08 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 50464 Total Number of Household as in 2011 9460 6 Number of Household per Ward 9460 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.80 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.50 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1362.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2316.30 29 Contribution) (kg/d) TKN 272.50 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 : 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Panipat Taraf Makhdum Zadgan State: Harvana S. No. Value 1 Total Area (sq km) 6.54 2 Population as in 2011 67998 Population Growth Rate as in 2011 (%) 3 93.42 4 **Total Number of Wards** 5 Population per Ward (Thousands) 67,998 Total Number of Household as in 2011 14066 6 Number of Household per Ward 14066 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 12 NA 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.18 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 135.00 Total Sewage Generation (MLD)\* 19 7.34 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1835.90 Pollution Load (Domestic) (Method 2: Per Capita COD 3121.10 29 Contribution) (kg/d) TKN 367.20 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Panna **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 10.00 2 Population as in 2011 59091 Population Growth Rate as in 2011 (%) 13.51 3 4 **Total Number of Wards** 22 5 Population per Ward (Thousands) 2.686 Total Number of Household as in 2011 10019 6 Number of Household per Ward 455 7 8 Surface Water Supply (MLD) 2.34 9 Ground Water (GW) Supply (MLD) 1.06 10 Number of Bore Wells 65 11 Ground Water Extraction per Bore Well (MLD) 0.02 Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) 2.34 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 6.40 19 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1595.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2712.30 29 Contribution) (kg/d) TKN 319.10 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Kilkila, Ken River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** 12 54.47 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Pooth Kalan S. No. **Items** Value 1 Total Area (sq km) 7.00 2 Population as in 2011 96002 Population Growth Rate as in 2011 (%) 89.74 3 4 **Total Number of Wards** 5 96002 Population per Ward (Thousands) Total Number of Household as in 2011 19516 6 Number of Household per Ward 19516 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 13.00 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 10.40 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2592.10 Pollution Load (Domestic) (Method 2: Per Capita COD 4406.50 29 Contribution) (kg/d) TKN 518.40 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Pul Pehlad State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 2.20 2 Population as in 2011 69657 Population Growth Rate as in 2011 (%) 31.79 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 69657 6 Total Number of Household as in 2011 14734 Number of Household per Ward 14734 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 7.50 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1880.70 Pollution Load (Domestic) (Method 2: Per Capita COD 3197.30 29 Contribution) (kg/d) TKN 376.10 : 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Raghogarh -Vijaypur **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 73.79 2 Population as in 2011 62163 Population Growth Rate as in 2011 (%) 26.42 3 **Total Number of Wards** 24 5 Population per Ward (Thousands) 2.590 Total Number of Household as in 2011 12409 6 517 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (Ipd) NA Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 8.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.10 19 6.70 Total Sewage Generation (MLD)\* 20 107.80 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1678.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2853.30 29 Contribution) (kg/d) TKN : 335.70 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Parbati, Chopan River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 7 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Raisamand State: Rajasthan S. No. **Items** Value 1 Total Area (sq km) 55.00 2 Population as in 2011 67798 Population Growth Rate as in 2011 (%) 21.75 3 4 **Total Number of Wards** 30 5 2260 Population per Ward (Thousands) Total Number of Household as in 2011 13765 6 Number of Household per Ward 459 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 950 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 142.70 Total Sewage Generation (MLD)\* 19 7.30 20 107.70 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1830.50 Pollution Load (Domestic) (Method 2: Per Capita COD 3111.90 29 Contribution) (kg/d) TKN 366.10 : 30 Wastewater Disposal Means Land Disposal Name of River/Streams for Wastewater Disposal : Banas, Gomati River 31 32 Number of Drains/Nallah for Wastewater Disposal : 3 33 **Number of Water Bodies** : 1

34

35

Gross Area of Water Bodies (Hectare)

Area of Water Bodies as % of Total Area

NA

<<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet City: Rath **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 8.12 2 Population as in 2011 65056 Population Growth Rate as in 2011 (%) 16.28 3 4 **Total Number of Wards** 25 5 2.238 Population per Ward (Thousands) 6 Total Number of Household as in 2011 11274 451 Number of Household per Ward 7 8 Surface Water Supply (MLD) NA 5.50 9 Ground Water (GW) Supply (MLD) 10 Number of Bore Wells 11 11 Ground Water Extraction per Bore Well (MLD) 0.50 Number of Hand Pumps/ Tubewells 348 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) 84.49 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 5.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 87.20 19 Total Sewage Generation (MLD)\* 4.20 65.20 20 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1756.50 Pollution Load (Domestic) (Method 2: Per Capita COD 2986.10 29 Contribution) (kg/d) TKN 351.30 : 30 **River Disposal** Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Betwa/ Dhasan River 31 32 Number of Drains/Nallah for Wastewater Disposal : 1 33 **Number of Water Bodies** : 9 19.90 34 Gross Area of Water Bodies (Hectare)

<<< 1

35

# Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Roshan Pura alias Dichaon Khurd S. No. Items Value 1 Total Area (sq km) 2.80 2 Population as in 2011 57217 Population Growth Rate as in 2011 (%) 48.30 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 57217 Total Number of Household as in 2011 10956 6 Number of Household per Ward 10956 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (Ipd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 6.20 20 : 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1544.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2626.30 29 Contribution) (kg/d) TKN : 309.00 30 Wastewater Disposal Means River Disposal Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Sadat Pur Gujran S. No. **Items** Value 1 Total Area (sq km) 1.10 2 Population as in 2011 97641 Population Growth Rate as in 2011 (%) 125.91 3 4 **Total Number of Wards** 5 97641 Population per Ward (Thousands) Total Number of Household as in 2011 18679 6 Number of Household per Ward 18679 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 13.20 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 10.50 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2636.30 Pollution Load (Domestic) (Method 2: Per Capita COD 4481.70 29 Contribution) (kg/d) TKN 527.30 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : 1 : 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

35

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sahibabad Daulat Pur State: NCT Delhi S. No. **Items** Value 1 Total Area (sq km) 5.70 2 Population as in 2011 54773 Population Growth Rate as in 2011 (%) 52.23 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 54773 Total Number of Household as in 2011 11720 6 Number of Household per Ward 11720 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.40 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 Total Sewage Generation (MLD)\* 19 5.90 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1478.90 Pollution Load (Domestic) (Method 2: Per Capita COD 2514.10 29 Contribution) (kg/d) TKN 295.80 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna, Hindan River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Shajapur **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 17.19 2 Population as in 2011 69263 19.79 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 29 5 Population per Ward (Thousands) 2.388 Total Number of Household as in 2011 13066 6 451 Number of Household per Ward 7 8 Surface Water Supply (MLD) 4 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells 60 12 13 Ground Water Extraction per Hand Pump (lpd) 500 Number of Pumping Stations for Water Supply NA 14 15 Total Pumping Capacity (MLD) 4 Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.40 17 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 18 135.00 19 7.50 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NIL NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1870.10 Pollution Load (Domestic) (Method 2: Per Capita 3179.20 COD 29 Contribution) (kg/d) TKN 374.00 : 30 River & Land Disposal Wastewater Disposal Means Chiler, Name of River/Streams for Wastewater Disposal Lakhunder River 31 32 Number of Drains/Nallah for Wastewater Disposal 9 2 33 **Number of Water Bodies** 3.04 34 Gross Area of Water Bodies (Hectare) 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sheopur **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 6.29 2 Population as in 2011 71951 Population Growth Rate as in 2011 (%) 23.33 3 4 **Total Number of Wards** 23 5 Population per Ward (Thousands) 3,128 Total Number of Household as in 2011 13724 6 Number of Household per Ward 597 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 7.80 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1942.70 Pollution Load (Domestic) (Method 2: Per Capita COD 3302.60 29 Contribution) (kg/d) TKN 388.50 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Parbati River 31 : 5 32 Number of Drains/Nallah for Wastewater Disposal 33 Number of Water Bodies NA 34 Gross Area of Water Bodies (Hectare) NA Area of Water Bodies as % of Total Area <<< 1 35

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Shujalpur **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 7.74 2 Population as in 2011 51225 20.63 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 21 5 Population per Ward (Thousands) 2.439 Total Number of Household as in 2011 9833 6 Number of Household per Ward 468 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.90 17 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 18 135.00 19 5.50 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1383.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2351.20 29 Contribution) (kg/d) TKN 276.60 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Newaj River 31 : 32 Number of Drains/Nallah for Wastewater Disposal NA 33 **Number of Water Bodies** NA Gross Area of Water Bodies (Hectare) NA 34 Area of Water Bodies as % of Total Area <<< 1 35

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sikandrabad **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 1.14 2 Population as in 2011 81028 Population Growth Rate as in 2011 (%) 15.97 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 3,241 6 Total Number of Household as in 2011 13231 Number of Household per Ward 529 7 8 Surface Water Supply (MLD) NA 6.00 9 Ground Water (GW) Supply (MLD) 10 : Number of Bore Wells 5 11 Ground Water Extraction per Bore Well (MLD) 1.20 Number of Hand Pumps/ Tubewells 235 12 13 Ground Water Extraction per Hand Pump (lpd) 500 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA 75 Average Water Supply Rate from ULB Sources (Ipcd) 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 76.47 48.79 19 Total Sewage Generation (MLD)\* 20 : 602.18 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2187.80 Pollution Load (Domestic) (Method 2: Per Capita COD 3719.20 29 Contribution) (kg/d) TKN 437.60 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 2 33 **Number of Water Bodies** : NA

NA

<<< 1

34

35

Gross Area of Water Bodies (Hectare)

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Sironj **State: Madhya Pradesh** S. No. **Items** Value 1 Total Area (sq km) 9.99 2 Population as in 2011 52460 24.37 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 21 5 Population per Ward (Thousands) 2.498 Total Number of Household as in 2011 9928 6 Number of Household per Ward 473 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA NA 12 Number of Hand Pumps/ Tubewells 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA 15 Total Pumping Capacity (MLD) NA Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.10 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.70 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1416.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2407.90 29 Contribution) (kg/d) TKN : 283.30 30 Wastewater Disposal Means **Land Disposal** Name of River/Streams for Wastewater Disposal Land Disposal 31 : 2 32 Number of Drains/Nallah for Wastewater Disposal 33 **Number of Water Bodies** 1 34 Gross Area of Water Bodies (Hectare) NA

<<< 1

Area of Water Bodies as % of Total Area

35

# Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Taj Pul S. No. **Items** Value 1 Total Area (sq km) 1.20 2 Population as in 2011 68796 Population Growth Rate as in 2011 (%) 15.35 3 4 **Total Number of Wards** 5 34398 Population per Ward (Thousands) Total Number of Household as in 2011 13825 6 Number of Household per Ward 6913 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA NA 12 Number of Hand Pumps/ Tubewells 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 7.40 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1857.50 Pollution Load (Domestic) (Method 2: Per Capita COD 3157.70 29 Contribution) (kg/d) TKN 371.50 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Tikamgarh **State: Madhya Pradesh** S. No. Value **Items** 1 Total Area (sq km) 6.22 2 Population as in 2011 79106 15.61 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 27 5 Population per Ward (Thousands) 2.930 Total Number of Household as in 2011 14587 6 Number of Household per Ward 540 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 10.70 17 Average Water Supply Rate from ULB & Non-ULB Sources (lpcd) 18 135.00 19 8.50 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA NA BOD<sub>5</sub> Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 2135.90 Pollution Load (Domestic) (Method 2: Per Capita COD 3631.00 29 Contribution) (kg/d) TKN 427.20 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Jamani River 31 : 7 32 Number of Drains/Nallah for Wastewater Disposal 33 Number of Water Bodies 6 Gross Area of Water Bodies (Hectare) 125.28 34 Area of Water Bodies as % of Total Area 35 <<< 1

## Water Balance & Pollution Load (Domestic) Fact Sheet City: Tundla State: Uttar Pradesh S. No. **Items** Value 1 Total Area (sq km) 8.25 2 50423 Population as in 2011 24.63 3 Population Growth Rate as in 2011 (%) 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.017 Total Number of Household as in 2011 8744 6 Number of Household per Ward 7 350 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA Number of Pumping Stations for Water Supply NA 14 NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 6.80 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 5.40 Total Sewage Generation (MLD)\* 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1361.40 Pollution Load (Domestic) (Method 2: Per Capita COD 2314.40 29 Contribution) (kg/d) TKN 272.30 : 30 River & Land Disposal Wastewater Disposal Means Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1

# Water Balance & Pollution Load (Domestic) Fact Sheet City: Vrinadavan **State: Uttar Pradesh** S. No. **Items** Value 1 Total Area (sq km) 13.49 2 Population as in 2011 63005 Population Growth Rate as in 2011 (%) 11.14 3 4 **Total Number of Wards** 25 5 Population per Ward (Thousands) 2.520 6 Total Number of Household as in 2011 11637 Number of Household per Ward 465 7 8 Surface Water Supply (MLD) 1.50 : 9 Ground Water (GW) Supply (MLD) 6 10 Number of Bore Wells 28 11 Ground Water Extraction per Bore Well (MLD) 0.21 Number of Hand Pumps/ Tubewells 400 12 13 Ground Water Extraction per Hand Pump (lpd) 600 14 Number of Pumping Stations for Water Supply NA 1.50 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) 119.04 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 7.70 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 122.80 Total Sewage Generation (MLD)\* 19 13.00 206.90 20 Per Capita Sewage Generation (Ipcd) : : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) NA TKN BOD<sub>5</sub> 1701.10 Pollution Load (Domestic) (Method 2: Per Capita COD 2891.90 29 Contribution) (kg/d) TKN : 340.20 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : 6 7 33 **Number of Water Bodies** : 2.00

<<< 1

34

35

Gross Area of Water Bodies (Hectare)

# Water Balance & Pollution Load (Domestic) Fact Sheet State: NCT Delhi City: Ziauddin Pur S. No. **Items** Value 1 Total Area (sq km) 1.80 2 Population as in 2011 68993 Population Growth Rate as in 2011 (%) 43.61 3 4 **Total Number of Wards** 5 Population per Ward (Thousands) 22998 Total Number of Household as in 2011 12057 6 Number of Household per Ward 4019 7 8 Surface Water Supply (MLD) NA 9 Ground Water (GW) Supply (MLD) NA 10 Number of Bore Wells NA 11 Ground Water Extraction per Bore Well (MLD) NA Number of Hand Pumps/ Tubewells NA 12 13 Ground Water Extraction per Hand Pump (lpd) NA 14 Number of Pumping Stations for Water Supply NA NA 15 Total Pumping Capacity (MLD) Average Water Supply Rate from ULB Sources (Ipcd) NA 16 Total Water Supply from ULB and Non-ULB Sources (MLD) 9.30 17 18 Average Water Supply Rate from ULB & Non-ULB Sources (Ipcd) 135.00 19 Total Sewage Generation (MLD)\* 7.50 20 108.00 Per Capita Sewage Generation (Ipcd) : 21 Sewage Collection (MLD) NA 22 Percentage of Sewage Collection (%) NA 23 Number of STPs NA 24 Total Installed Capacity of STPs under GAP I & II (MLD) NA Current Utilized Capacity of STPs (MLD) 25 NA 26 Percentage Utilization of Installed Capacity (%) NA 27 Capacity of STPs Sanctioned under JNNURM & Others (MLD) NA BOD<sub>5</sub> NA Pollution Load (Domestic) (Method 1: Actual Flow) COD NA 28 (kg/d) TKN NA BOD<sub>5</sub> 1862.80 Pollution Load (Domestic) (Method 2: Per Capita COD 3166.80 29 Contribution) (kg/d) TKN 372.60 : 30 Wastewater Disposal Means **River Disposal** Name of River/Streams for Wastewater Disposal Yamuna River 31 32 Number of Drains/Nallah for Wastewater Disposal : NA 33 **Number of Water Bodies** : NA 34 Gross Area of Water Bodies (Hectare) NA 35 Area of Water Bodies as % of Total Area <<< 1