

NAME OF ULB – SHIKOHABAD

Water Supply

1. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Water Supply (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. AMRUT is focused on improvement in service levels. The zone wise data shall be used in identifying the gaps. These zone-wise gaps will be added to arrive at city level service gaps. While assessing service level gap reply following questions not more than word indicated against each question.

Question: What kind of baseline information is available for water supply system of the city? Detail out the data, information, plans, reports etc related to sector. Is zone wise information available? (75 words)

Water supply status report with regulatory authority is available with U.P.JalNigam, Shikohabad. The status report consists of existing water supply system with reference to water supply production, and distribution of water supply lines. Zoning has not been done yet in NPP

Question: Have you collected census 2011 data? Are you aware of baseline survey data of MoUD? Have you correlated data from these and other sources? (75 words)

Yes. Data of census 2011 is available with agar Palika Parishad Shikohabad and the source is NIC. Nagar Palika Parishad Shikohabad is aware of MOUD survey data. The data available is being used as reference to develop the slip.

	Location of source of drinking water Population	Total Number of Households	Tapwater from treated source
Total Population (Census, 2011)	Population-107300		
	Total	18207	5381
	Within the premises	14205	4724
	Near the premises	2992	479
	Away	1010	178
Departmental Data (2015)	Population 107300	22075	5992 *

*As per the existing data of ULB

What are existing service levels for water supply in the city? What is the coverage of water supply Connections? What is per capita supply of water? How much is the extent of metering? How much is non-revenue water? Provide information in table

Table: Status of Water Supply service levels

Sr. No.	Indicators	Present Status	MOUD Benchmark	Reliability
1	Coverage of water supply connections (5952/22075)	26.96 %	100%	D
2	Per capita supply of water (13.46 MLD/0.107)	125 LPCD	135 LPCD	D
3	Extent of metering of water connections	0.00	100%	A
4	Extent of non-revenue water	26.20	20%	D
5	Quality of water supplied	90%	100%	D
6	Cost recovery in water supply services	43.90	100%	D
7	Efficiency in collection of water supply related charges	65%	90%	D

Question: What is the gap in these service levels with regard to benchmarks prescribed by MoUD? (75 words)

1. Coverage of water supply connections gap is 73.04%
2. Per capita supply of water gap is 10 LPCD
3. Extent of metering of water connections gap is 100 %
4. Extent of non-revenue water gap is 6.20%
5. Quality of water supplied gap 10%
6. Cost recovery in water supply services gap is 56.10 %
7. Efficiency in collection of water supply related charges gap is 25%

SOURCE OF WATER AND WATER TREATMENT SYSTEM.

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the existing source of water? Is it surface water source or under ground water source? What is the capacity of these sources?

Existing source of water is underground water, total no of tub well is 15 and capacity of the tub well is 9350 LPM X 60 X 24 / 1000000 = 13.46 MLD

Question: Is there any treatment provided to water from these sources? How much water is required to be treated daily? What is the treatment capacity installed in the city?

Underground water chlorination is being done. Treatment capacity of ground water is 13.46 MLD.

Question: What per capita water supply in LPCD (liter per capita per day) comes out, if you divide total water supply by the total population?

Source of water Capacity 13.46 MLD and Per Capita of Water Supply is $=13.46 \text{ MLD}/0.107=125.79 \text{ LPCD}$ With NRW

DISTRIBUTION ZONES

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: City is divided in how many zones for water supply ?

There are 10 zones for water supply in Nagar Palika Parishad Shikohabad.

Table: Zone Wise Coverage of Households

Question: Provide details of total no of Households (HH) in each zone, no of HH with and without water tap connections in the Table

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
1	776 HH	90HH	686HH
2	2803HH	737HH	2066HH
3	2754HH	717HH	2037HH
4	3298HH	992HH	2306HH
5	2340HH	1013HH	1327HH
6	4108HH	1153HH	2955HH
7	954HH	305HH	649HH
8	2421HH	490HH	1931HH
9	1208HH	225HH	983HH
10	1413HH	230HH	1183HH
Total	22075HH	5952HH	16123HH

As per the departmental data total number of household is 22075 and as per the census total

Zone No.	Total No. of Households	Households with Water tap Connection	Households without Water tap Connection
household is 18207 in this above statement as per departmental data 16123 HH without tap connection.			

STORAGE OF WATER

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total water storage capacity in the city? What is capacity of elevated and ground water reservoirs?

In Nagar Palika Parishad Shikohabad present total water supply is 13.46 MLD in which 6elevated storage capacities is 4.7 ML

Question: In case of surface water, does city need to have ground level reservoirs to store raw treated water?

Not apply in Nagar Palika Parishad Shikohabad.

Question: Is water being supplied to consumers through direct pumping or through elevated reservoirs?

In Nagar Palika Parishad Shikohabad water is being supplied to consumers through direct pumping as well as elevated reservoirs.

Question: Is storage capacity sufficient to meet the cities demand?

In Nagar Palika Parishad Shikohabadhas 13.46 MLD and storage capacity is 4.7 ML. Total city demand is 13.46 MLD and storage demand is $13.46 \text{ MLD} / 3 = 4.48 \text{ ML}$ but curenly we have 4.7 ML thus there is no gap.

DISTRIBUTION NETWORK

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total length of water supply distribution pipe line laid in the city?

The total length of water supply distribution pipe line is 54.972 KM.

Question: What is the total road length in the city? Is the pipe lines are laid in all streets? Is the objective of universal coverage of water supply pipe line is achieved?

The total road length is 168.018 KM. Pipe lines are not laid in 113.046KM and universal coverage of water supply is not achieved.

Question: What are the kind of pipe materials used in distribution lines?

PVC,DI, CI and GI pipe materials used in distribution lines.

Question: Provide zone wise details of street length with and without water distribution lines in the Table?

Table: Zone Wise length of distribution network

Zone No.	Total Street Length	Street length with water distribution pipe line	Street length without water distribution pipe line
1	10.287 KM	2.857 KM	7.43 KM
2	12.384 KM	1.854 KM	10.530 KM
3	20.162 KM	8.927 KM	11.235KM
4	20.162 KM	14.516 KM	5.646 KM
5	15.631 KM	10.827 KM	4.805 KM
6	19.459 KM	15.081 KM	4.378 KM
7	10.449 KM	0 KM	10.449 KM
8	23.243 KM	.911 KM	22.332 KM
9	12.736 KM	0 KM	12.736KM
10	23.505 KM	0 KM	23.505KM
Total	168.018 KM	54.972 KM	113.046KM

INSTITUTIONAL FRAMEWORK

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table

Table: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
UP JAL NIGAM SHIKOHABAD	JAL NIGAM SHIKOHABAD	N.P.P. SHIKOHABAD ON CONTRACT BASE

Question: How city is planning to execute projects ?

The execution of the projects will be done as per instructions given by the state government as well as MOUD & smaller projects like branch lines, gaps in pipe lines will be done by Nagar Palika Parishad Shikohabad and nodal agency Jal Nigam Shikohabad.

Question: Shall the implementation of project be done by Municipal Corporation or any parastatal body? Please refer para 8.1 of AMRUT guidelines.

Implementation of the project shall be done by Nagar Palika Parishad Shikohabad as well as State Level Parastatal Agency U.P. Jal Nigam. Nagar Palika Parishad Shikohabad will follow the para 8.1 of the AMRUT Guidelines while execution of the project.

2. Bridge the Gap

Once the gap between the existing Service Levels is computed, based on initiatives undertaken in different ongoing programs and projects, objectives will be developed to bridge the gaps to achieve universal coverage. (AMRUT Guidelines; para 6.2 & 6.3, Annexure-2; Table 2.1). Each of the identified objectives will be evolved from the outcome of assessment and meeting the opportunity to bridge the gap.

Question: List out initiatives undertaken in different ongoing programs and projects to address these gaps. For this provide details of ongoing projects being carried out for sector under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table

Table: Status of Ongoing/ Sanctioned

S. No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
1	Reorganization of Water Supply Scheme 1. proposed tubewell & pump house 37 no. 2. Chlorinator plant 37 no. 3. O.H.T. 6 no. 4. C.W.R. 9 no. 5. Distribution system 113.046 Km 6. Rising main 11.37 Km 7. Boundary wall, Approach road, gate etc. 2.92 Km 8. Residential building 10 no. 9. Specials T&P one set 10. Leak detection one set 11. house connection	Chief Minister Announcement	100.59	Dec 2018	20%

S. No.	Name of Project	Scheme Name	Cost	Month of Compilation	Status (as on dd mm 2015)
	&domestic meter 12920 no. 12. Ground water recharge unit 10 no.				

Question: How much the existing system will able to address the existing gap in water supply system? Will completion of above will improve the coverage of network and collection efficiency? If yes, how much. (100 words)

City demand for water supply demand is being fulfilled by the above project.

Question: Does the city require additional infrastructure to improve the services? What kind of services will be required to fulfill the gap?

Yes.City required additional work liketub wellautomation, metering and improve efficiency of collection and operation.

Question: How does the city visualize taking the challenge to rejuvenate the projects by changing their orientation, away from expensive asset replacement programs, to focusing on optimum use of existing assets?

Nagar Palika Parishad Shikohabad will make its people aware of the importance of drinking water. Nagar Palika Parishad Shikohabad will make efforts by meetings & registering water connections by advertisements.

Question: Has city conducted assessment of Non Revenue Water? If yes, what is the NRW level? Is city planning to reduce NRW?

City has not conducted any assessment related to NRW Nagar Palika Parishad Shikohabad have approximate NRW level is 26 %

Question: Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for water supply pipe network, number of household to be provided with tap connections, and required enhancement in capacity of water source/ treatment plant (MLD). Gaps in water supply service levels be provided as per Table

Component	2015	2021

	Present	Ongoing	Total	Demand	Gap
Source	13.46 MLD	53.28 MLD	66.74 MLD	16.65 MLD	Surplus
Treatment capacity	13.46 MLD	53.28 MLD	66.74 MLD	16.65 MLD	Surplus
Elevated Storage capacity	4.7 ML	10.9 ML	15.6 ML	5.55 ML	Surplus
Distribution network coverage	54.972 KM	113 .046KM	168.018 KM	168.018 KM	0

OBJECTIVES

PBased on above, objectives will be developed to bridge the gaps to achieve universal coverage. While developing objectives following question shall be responded so as to arrive at appropriate objective.

Please provide List out objectives to meet the gap in not more than 100 words.

Question: Does each identified objectives will be evolved from the outcome of assessment?

- **Automation of 52 Tube well and metering for 9155 HH**
- **Improve the quality of Water through establishment of Lab and implementation of online water testing and Monitoring System**
- **Efficiency of charges collection-. Metering system in water supply system and online billing, tracking system & spot billing machine.**

Question: Does each objective meet the opportunity to bridge the gap?

YES,

3. Examine Alternatives and Estimate Cost

The objective will lead to explore and examine viable alternatives options available to address these gaps.. These will include out of box approaches. (AMRUT Guidelines; Para 6.4 & 6.8 & 6.9). This will also include review of smart solutions. The cost estimate with broad source of funding will be explored for each. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please provide information on the above responding to (however not limited to) following questions.

Question: What are the possible activities and source of funding for meeting out the objectives? (75 words)

The funding for meeting out the each objective will 50% from AMRUT and remaining 50% from state and Nagar Palika Parishad Shikohabad.

Question: How can the activities be converged with other programme like JICA/ ADB funded projects in the city etc? (100 words)

There are no ongoing project under JICA/ADB

Question: What are the options of completing the ongoing activities? (75 words)

NA

Question: How to address the bottlenecks in the existing project and lessons learnt during implementation of these projects? (75 words)

In Nagar Palika Parishad Shikohabad there is a staff shortage for running the project and focusing toward enhancement of coverage. During the implementation of water supply scheme awareness among public was most challenging activities.

Question: What measures may be adopted to recover the O&M costs? (100 words)

Nagar Palika Parishad Shikohabad will minimize non-revenue water by regularizing unregistered water connections & make more efforts from collection staff & introducing metering system & automation of tube wells.

Question: Will metering system for billing introduced?

Yes. Nagar Palika Parishad Shikohabad will introduce metering system for billing under AMRUT scheme.

Question: Whether reduction in O&M cost by addressing NRW levels be applied? (75 words)

By regularizing of water connection through IEC activities, Introduce metering of water connections, improve the collection efficiency.

Question: Does each objective meet the opportunity to bridge the gap?

YES.

THE ALTERNATIVE ACTIVITIES TO MEET THESE ACTIVITIES BE DEFINED AS PER TABLE

Table: Alternative Activities To Meet Objectives

Sr. No.	Objective	Activities	Cost (Cr)	Financing Source
1	To achieve the universal coverage	80 HH Connection x 5000 Rs	0.04 Cr	AMRUT/State and ULBs

2	To make the system efficient by reduction of NRW water	SCADA System 52 x 0.04 Cr	2.08 Cr	AMRUT/State and ULBs
		Metering 9155 HH X1500	1.37 Cr	AMRUT/State and ULBs
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	0.50 Cr	AMRUT/State and ULBs
4	Efficiency of charges collection	Metering system in water supply system, and online billing, tracking system & spot billing machine	0.40 Cr	AMRUT/State and ULBs
	Total		4.39 Cr	

4. Citizen Engagement

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. Each alternative will be discussed with citizens and activities to be taken up will be prioritized to meet the service level gaps. ULB will prioritize these activities and their scaling up based on the available resources. (AMRUT Guidelines; Para 6.6, 6.7 & 7.2). Please explain following questions in not more than 200 words detailing out the needs, aspirations and wishes of the local people.

Question: Has all stakeholders involved in the consultation?

Nagar Palika Parishad Shikohabad passes the proposals which are put up by ward members. Thus all stakeholders involve in the consultations on 28-08 -2015

Question: Has ward/ zone level consultations held in the city?

In Nagar Palika Parishad Shikohabad ward/zone level consultations has held under the chairmanship of ward members on the Date

7 September ward no -09, 11, and 19

10 September ward no -20, 23 and 15

15 September ward no-22, 14 and 13

23 September ward no -4, 16, and 21

Question: Has alternative proposed above are crowd sourced?

No

Question: What is feedback on the suggested alternatives and innovations?

90% of the people are agreed to regularization of connection and improvement of quality of water supply, metering of water connections & automation of tube wells.

Question: Has alternative taken up for discussions are prioritized on the basis of consultations?

Yes.

Question: What methodology adopted for prioritizing the alternatives?

After the consultation made in Nagar Palika Parishad Shikohabad board meetings as the discussion regularization of water connections, automation of tube wells, metering of water connections, establishment of Lab.

5. Prioritize Projects

Based on the citizen engagement, ULB will prioritize these activities and their scaling up based on the available resources to meet the respective objectives. While prioritizing projects, please reply following questions in not more than 200 words.

Question: What are sources of funds?

The source of funding of activities shall be: 1. AMRUT, 2. 14th Finance Commission 3. State Government Funds.

Question: Has projects been converged with other program and schemes?

Yes programme is converged with reorganization state water supply scheme.

Question: Has projects been prioritized based on “more with less” approach?

Yes the projects are being prioritized based on “more with less” approach universal coverage through IEC activities.

Question: Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?

YES

6. Conditionalities

Describe in not more than 300 words the Conditionalities of each project in terms of availability of land, environmental obligation and clearances, required NOC, financial commitment, approval and permission needed to implement the project.

Public awareness to increase the coverage of water supply, SCADA, Augmentation of water supply system No need of Land, environment clearance and NOC for meet the GAP for universal coverage.

7. Resilience

Required approvals will be sought from ULBs and competent authority and resilience factor would be built in to ensure environmentally sustainable water supply scheme. Describe in not more than 300 words regarding resilience built in the proposals.

Disaster and environmental related factor will be considered while preparation of DPRs

8. Financial Plan

Once the activities are finalized and prioritized after consultations, investments both in terms of capital cost and O&M cost has to be estimated. (AMRUT Guidelines; para 6.5) Based on the investment requirements, different sources of finance have to be identified. Financial Plan for the complete life cycle of the prioritized development will be prepared. (AMRUT Guidelines; para 4, 6.6, 6.12, 6.13 & 6.14). The financial plan will include percentage share of different stakeholders (Centre, State and City) including financial convergence with various ongoing projects. While preparing finance plan please reply following questions in not more than 250 words

Question: How the proposed finance plan is structured for transforming and creating infrastructure projects?

As per the guidelines of the AMRUT, the structured plan of the project will be developed. The share of State and ULB will be decided in High power committee.

Question: list of individual projects which is being financed by various stakeholders?

There is no such individual project.

Question: Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?

Yes, financial plan prepared for identified projects are based on financial convergence and consultation with funding partners. GOI, State and ULB

Question: Is the proposed financial structure is sustainable? If so then whether project has been categorized based on financial considerations ?

Yes, the proposed financial structure is sustainable and project has been categorized based on financial considerations.

Question: Have the financial assumptions been listed out ?

Yes, financial assumptions have been listed out

Question: Does financial plan for the complete life cycle of the prioritized development?

Yes, financial plan has been done for the complete life cycle of the prioritized development

Question: does financial plan include percentage share of different stakeholders (Centre, State, ULBs)

Yes, financial plan include percentage share of different stakeholders (Centre, State and ULB)

Question: Does it include financial convergence with various ongoing projects.

Yes, it includes financial convergence with various ongoing projects

Question: Does it provide year-wise milestones and outcomes ?

Yes, year-wise milestones and outcomes have been provided.

DETAILS IN FINANCIAL PLAN SHALL BE PROVIDED AS PER TABLE 8.1, 8.2, 8.3, 8.4 AND 8.5. THESE TABLES ARE BASED ON AMRUT GUIDELINES TABLES 2.1, 2.2, 2.3.1, 2.3.2, AND 2.5.

Table 8.1 Master Plan of Water Supply Projects for Mission period
(As per Table 2.1 of AMRUT guidelines)

(Amount in Rs. Cr)

S.No.	Objective	Project Name	Priority number	Year in which to be implemented	Year in which to be completed	Estimated Cost Cr
1	To achieve the universal coverage	80 HH Connection x 5000 Rs	1	2016	2018	0.04 Cr
2	To make the system efficient by reduction of NRW water	SCADA System 52 x 0.04 Cr	2	2017	2018	2.08 Cr
		Metering 9155 HH X1500				1.37 Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	3	2018	2019	0.50 Cr
4	Efficiency of charges collection	Metering system in water supply system, and online billing, tracking system & spot billing machine	4	2018	2019	0.40 Cr
Total						4.39 Cr

MASTER SERVICE LEVELS IMPROVEMENTS DURING MISSION PERIOD

(As per Table 2.2 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Objective	Project Name	Physical Components	Change in Service Levels			Estimated Cost
				Indicator	Existing (As-Is)	After (To-be)	
1	To achieve the universal coverage	80 HH Connection x 5000 Rs	Survey and IEC 8213 HH X 50 Rs	100	26.96%	100%	0.04 Cr
2	To make the system efficient by reduction of NRW water	SCADA System 52 x 0.04 Cr	52 Tube well X 0.04 Cr	20%	26%	20%	2.08 Cr
		Metering 9155 HH X1500	9155 X 1500 Rs				1.37 Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	water testing lab and implementation of online water testing & monitoring systems and water testing van	100%	90%	100%	0.50 Cr
4	Efficiency of charges collection	Metering system in water supply system, and online billing, tracking system & spot billing machine	Metering system in water supply system, and online billing, tracking system & spot billing machine	90%	65%	90%	0.40 Cr
Total							4.39 Cr

ANNUAL FUND SHARING PATTERN FOR WATER SUPPLY PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Objective	NAME OF PROJECT	Total Project Cost	Share				
				GOI	State	U L B	Ot her s	Total
1	To achieve the universal coverage	80 HH Connection x 5000 Rs	0.04 Cr	0.02 Cr	0.02 Cr			0.04 Cr
2	To make the system efficient by reduction of NRW water	SCADA System 52 x 0.04 Cr	2.08 Cr	1.04 Cr	1.04 Cr			2.08 Cr
		Metering 9155 HH X1500	1.37 Cr	0.685 Cr	0.685 Cr			1.37 Cr
3	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	0.50 Cr	0.25Cr	0.25Cr			0.50 Cr
4	Efficiency of charges collection	Metering system in water supply system, and online billing, tracking system & spot billing machine	0.40 Cr	0.20 Cr	0.20 Cr			0.40 Cr
		TOTAL	4.39 Cr	2.195 Cr	2.195 Cr			4.39 Cr

ANNUAL FUND SHARING BREAK-UP FOR WATER SUPPLY PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

Sr. No.	Objective	Project	GOI	State			ULB			C o n v e r g e n c e	o t h e r s	Total
				1 4 t h F C	Oth ers	Total	14 t h F C	Othe rs	T o t a l			
1	To achieve the universal coverage	80 HH Connection x 5000 Rs	50%		50%	50%						100%
2	To make the system efficient by reduction of NRW water	SCADA System 52 x 0.04 Cr, Metering 9155 HH X1500	50%		50%	50%						100%
4	To improve the quality of water	Establishment/rehab of water testing lab and implementation of online water testing & monitoring systems and water testing van	50%		50%	50%						100%
5	Efficiency of charges collection	Metering system in water supply system, and online billing, tracking system & spot billing machine	50%		50%	50%						100%

