KATHMANDU UPATYAKA KHANEPANI LIMITED

Annual Report Seventeenth Anniversary Kathmandu 2081 Falgun आजकल पानीहरु कविता लेख्दैनन्

कूलो धाउँदै गरेका कुल्यासाहरु

नाच्दैनन भुराभुरी छाता ओडेर घाम पानी घाम पानी भाकामा

नसुसाएपछी सल्लेरीको सुसाई

उरात पतझडको क्यानभासमा

नउम्रेपछी कन्नेच्याउ

एक आङ्कोरा

भावुक भएर होला

झरीमा बगाउन नसकेपछी

पानी

नभएपछी स्यालको बिहे

आजकल पानीहरु कविता लेख्दैनन्।

नदेखेपछि पाखो ओर्लिदै गरेको इन्द्रेणी

आजकल पानीहरु कविता लेख्दैनन्।

कसैले पोतेको हुनुपर्छ मरभुमिको रंग

नदेखेपछी मुहानमा एक बुंद आशा

जब मेट्छ प्यास जीवन जगतको सम्झिएर धर्म बग्नु र पखाल्नुको

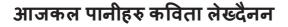
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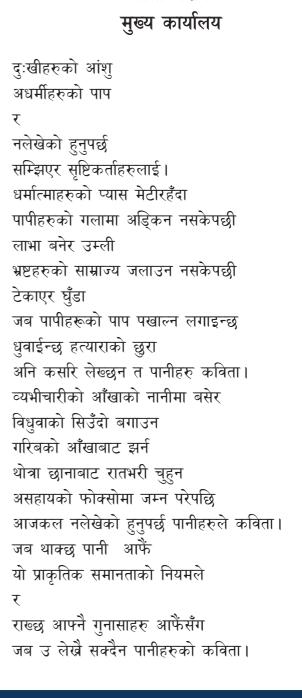
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र त आजकल पानीहरु कविता लेख्दैनन्।

कोदालो बोकी

नदेखेपछी हतर बोकेर झदें गरेका पंधेरीहरु





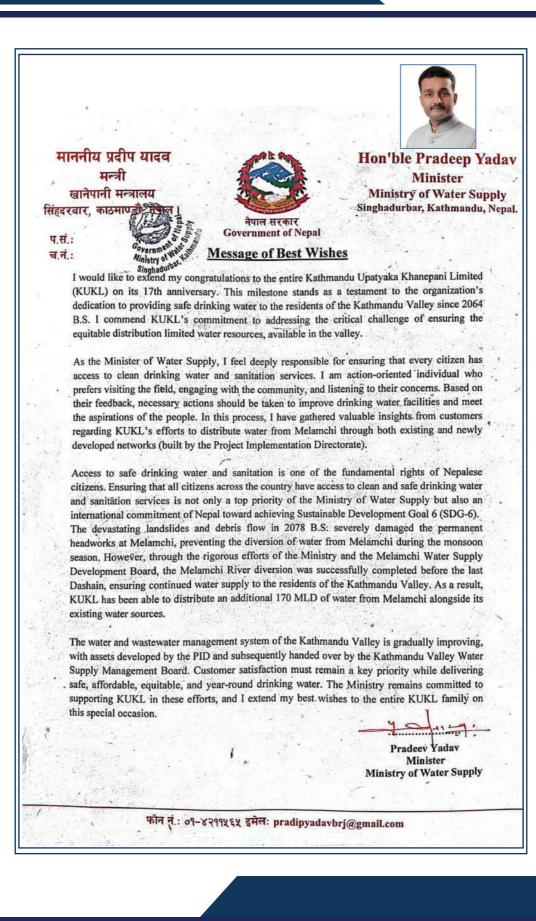
RUCE

नीमा बराल



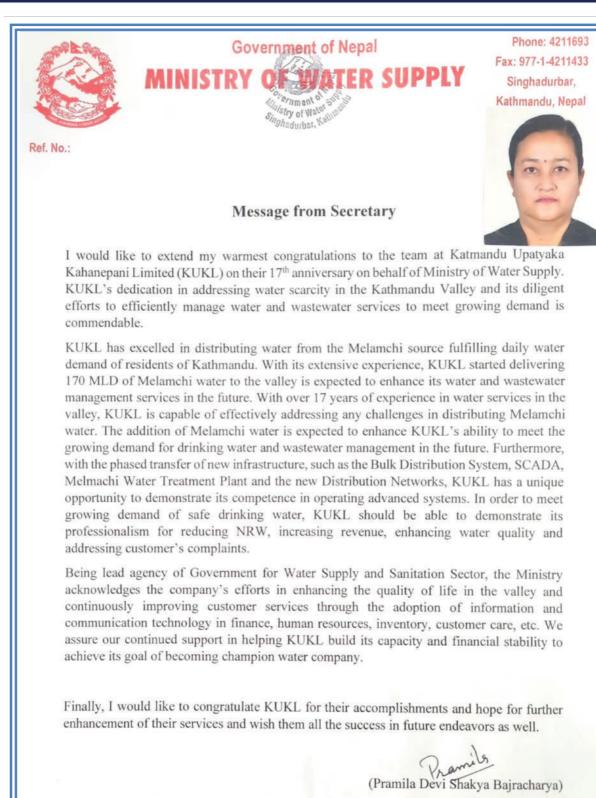








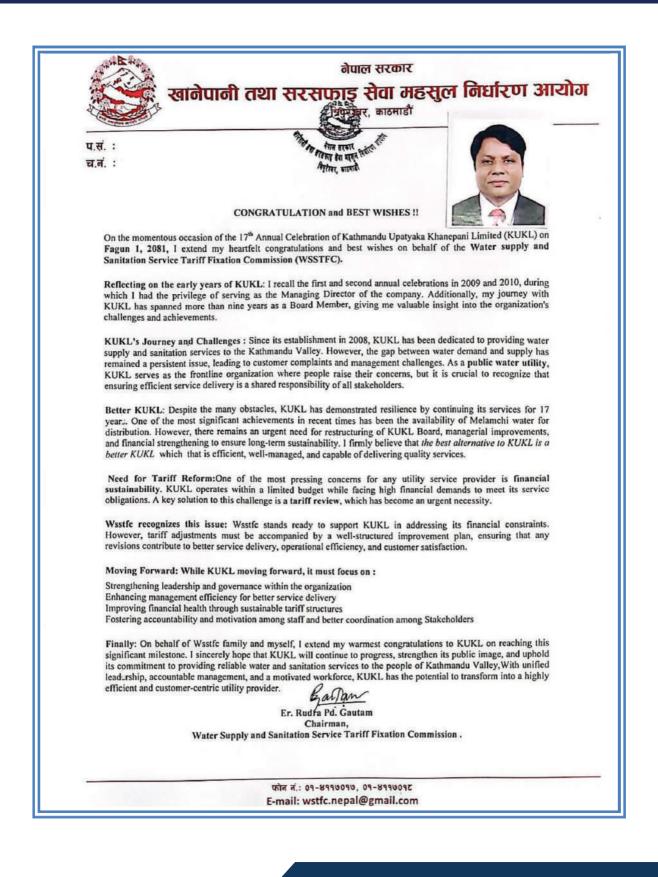




Secretary

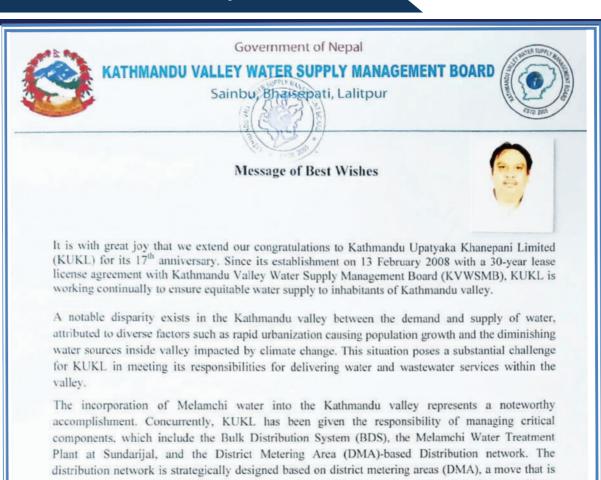












expected to enhance KUKL's efficiency in water distribution and reducing Non-Revenue Water (NRW). While the gradual handover of infrastructure to KUKL presents new opportunities, it also poses challenges, necessitating careful management of the increased water supply and the accompanying new facilities. Additionally, KUKL has effectively handled excess water from the Bagmati River during the rainy season and also distributed water from Dhap Dam during periods of low water volume in the Bagmati River. This underscores KUKL's commitment to reduce the impact of poor water supply when Melamchi water is not available. Moreover, we hold a positive outlook that KUKL will systematically address the challenges it faces in its endeavor to provide fair and efficient water and sanitation services. Our expectation is that in the days to come, KUKL will consistently foster trust among consumers through the delivery of dependable and exceptional services.

Finally, I would like to express my sincerest greetings, for the progression and success of KUKL on this occasion of the fifteenth anniversary, with heartfelt trust that KUKL will be able to deliver its service with meaningfully improved efficiency in upcoming days as awaited by valley denizens through the establishment of a cordial relation with all stakeholders.

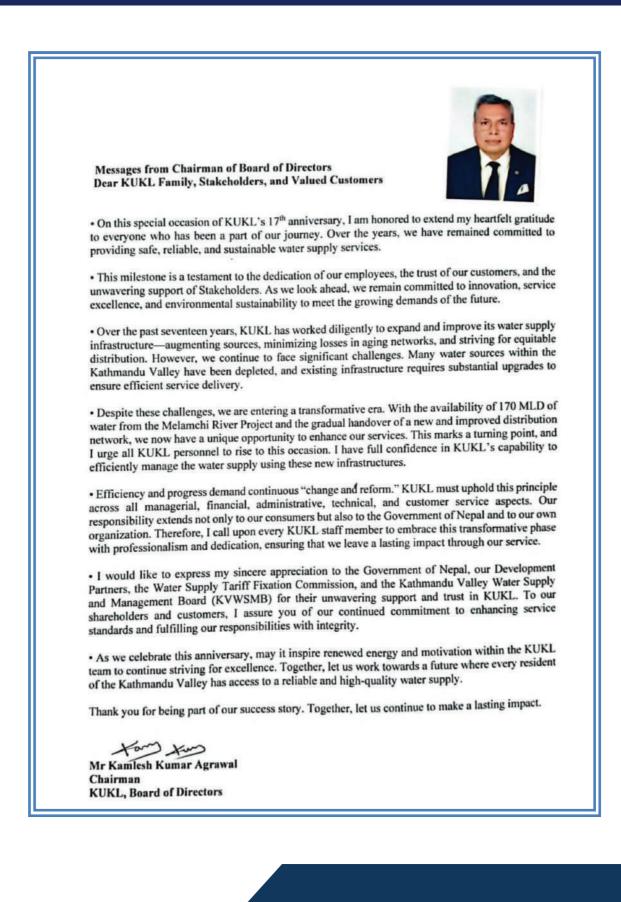
Date : 2081.11.01

(Dr. Sanjeev Bickram Rana) Executive Director

Lalitpur Metropolitian City, Ward No.-18, Sainbu, Bhaisepati, Laitpur Phone: 01-5591737, 5591937, Fax: 01-5591571 E-mail: info@kvwsmb.org.np, Website: www.kvwsmb.org.np













Ref. No. 503/081/082



Message from KUKL-PID

On behalf of our entire organization, project Implemental Implementation Directorate (PTD), we extend our hearttest Congratulations to Kathmandu upatyaka Khanepani Limited for completing 17th glorious years of success.

Being a single water supply utility operator of Kathmandu valley, Kathmandu Upatyaka Khanepani Limited has tremendous prospect of growth and garnering eminent goodwill in the community.

We express our best wishes for Kathmandu upatyaka Khanepani Limited to reach a new height of success by delivering quality water supply service keeping Consumer satisfaction to its utmost priority,

In this occasion I would also like to assure our unwavering support to Kathmandu upatyaka Khanepani Limited in the operation of water Supply and sanitation facilities.

Er. Tika Bahadur Chaudhari Project Director KUKL-PID

> Er. Tika Bahadur Chaudhari Project Director

Anamnagar, Kathmandu Tel.: 977-1-5705916 / 5705771, 5705148 www.kuklpid.org.np Fax: 977-1-5705057, Email: pidmail@kuklpid.org.np







Message from the CEO on the 17th Anniversary of Kathmandu Upatyaka Khanepani Limited (KUKL)

On the momentous occasion of the 17th anniversary of Kathmandu Upatyaka Khanepani Limited (KUKL), I extend my sincere appreciation to all stakeholders who have contributed to our journey of progress and service excellence. Over the past 17 years, KUKL has evolved into a cornerstone of the Kathmandu valley's water supply system, and this achievement is a testament to the collective efforts of our employees, the trust of our customers, and the unwavering support of our stakeholders.

At KUKL, we remain steadfast in our commitment to maintaining a robust organizational structure and leveraging advanced technologies to transform into a highly effective organization. This year, we have taken significant strides in strengthening our workforce and enhancing operational efficiency. The continuation of the recruitment process, which was paused due to challenges in the previous financial year, has now been resumed. Promotions based on performance appraisals have been completed, and the written examinations for open competitions have been concluded. These initiatives underscore our dedication to fostering a culture of meritocracy and ensuring that KUKL is equipped with the talent needed to meet future challenges gradually.

Capacity building remains one of the top priorities for KUKL management. In coordination with the Local Development Training Academy (LDTA), we have initiated in-service training programs for non-officer staff, and similar training for officers will commence shortly. Recognizing the importance of skill development, we have also facilitated national and international training opportunities for our staff, with several employees having already completed such programs this fiscal year. These efforts are aimed at equipping our workforce with the skills and knowledge necessary to excel in their roles and contribute to KUKL's mission.

We have successfully distributed 170 million liters per day (MLD) of water from the Melamchi River, marking a significant milestone in our efforts to address the Valley's water needs. However, our vision extends far beyond this achievement. We are eagerly awaiting the additional 170 MLD from Yangri and 170 MLD from Larke, which will bring us closer to our ultimate goal of providing 24/7 water supply to the Valley, replacing the current intermittent supply system.

Our efforts to enhance water production and distribution remain one of the top priorities. Additionally, we are committed to increasing water production by augmenting the water volume from the Bagmati River during non-Melamchi periods. The Environmental Impact Assessment (EIA) for this project is currently underway, marking a critical step toward achieving this goal. To address the challenge of Non-Revenue Water (NRW), we have commissioned the NRW section at both the head office and branch offices. We are also piloting portable meter reading devices to automate and streamline the meter reading process, ensuring greater accuracy and efficiency. This initiative reflects our commitment to reducing water losses and improving the efficiency of our distribution system as well as the revenue maximization process.

Water quality remains at the core of our service commitment. We have increased the number of water quality tests conducted, ensuring compliance with the National Drinking Water Quality Standards, 2079. Our laboratory not only serves KUKL but also provides water quality testing facilities to other institutions and the general public at nominal rates, demonstrating our commitment to transparency and accountability in water quality assurance. Additionally we



have installed digital water quality monitoring systems in some of our treatment plants and plan to expand this initiative to remaining areas, further enhancing our ability to deliver safe and clean water.

Technological innovation remains at the core of our strategy. The full operation of the DMAbased network, the Bulk Distribution System (BDS), and the Sundarijal Treatment Plant, supported by the SCADA system, have significantly enhanced our ability to manage water distribution efficiently.

As we celebrate this anniversary, I would like to extend my heartfelt gratitude to the Ministry of Water Supply, the Water Supply Tariff Fixation Commission, the Kathmandu Valley Water Supply Management Board, the Shareholders and Directors of the KUKL Board, the Asian Development Bank, the Japan International Cooperation Agency (JICA), all our partners, our employees, trade unions, and most importantly, our valued customers for their continued support and cooperation.

Together, let us strive towards a future where every resident of Kathmandu Valley has access to safe, reliable, and sustainable water supply. Thank you for your dedication and contributions to our shared vision. Here's to another year of progress and excellence.

Warm regards,

Mr. Ashok Kumar Paudel

Chief Executive Officer

Kathmandu Upatyaka Khanepani Limited (KUKL)

holloand



TOP MANAGEMENT TEAM



Mr. Ashok Kumar Paudel Chief Executive Officer



Mr. Prakash Kumar Rai Manager Administration & Finance Department



Er. Ramesh K.C. Manager Support Division



Er. Umesh Babu Marahatta Manager Water Operation Division



Er. Dr. Dol Prasad Chapagai Manager Production Division



Er. Ujjwal Shrestha Manager Waste Water Operation Division



Er.Manish Dhungana Deputy Manager Planning and Monitoring Divison



Mr. Yogendra Bahadur Bam Deputy Manager Admin. & H.R. Division



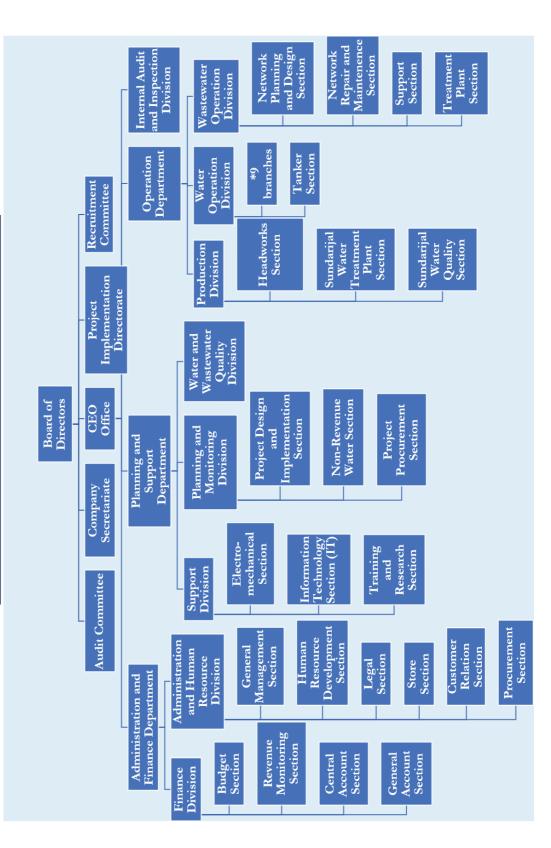
Mr. Chet Raj Bajgai Deputy Manager Finance Division



Mrs. Shailaja Adhikari Assistant Manager Water & Wastewater Quality Assurance Division

Seventeenth Anniversary

ORGANIZATION STRUCTURE OF KUKL







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INTRODUCTION

Kathmandu Upatyaka Khanepani Limited (KUKL) operates as the primary water utility provider for the Kathmandu Valley, functioning as an autonomous water company established through the Public Private Partnership (PPP) model registered under and the Nepal Government's Company Act 2063. As the exclusive water company, KUKL is responsible for delivering comprehensive drinking water and wastewater services across the Kathmandu Valley. Its origins can be traced back to institutional reforms initiated after the establishment of the government-owned public water system in 1893.

Since officially launching its services in February 2008, KUKL has remained dedicated to supplying drinking water and managing wastewater services in the Kathmandu Valley. Mirroring the growth of the Kathmandu Valley, KUKL has

experienced significant expansion over the years and consistently explores innovative solutions to address water stress in the region. Operating as an efficiently organized entity, KUKL is committed to fostering the welfare of its employees. Additionally, the company shoulders the responsibility of operating and managing the Melamchi Drinking Water Project, making a substantial contribution to the availability of drinking water in the Kathmandu Valley. From its inception, KUKL has placed a consistent emphasis on delivering highquality service within its designated service area, actively tackling the water crisis in the Kathmandu Valley. The company proactively extends its service areas and invests in water resilience capabilities to ensure a sustainable water future for the Kathmandu Valley.



Sundarijal Water Treatment Plant



STRUCTURAL TRANSFORMATION FOR PROVIDING WATER SUPPLY AND SANITATION SERVICES IN KATHMANDU VALLEY

Since the commencement of Kathmandu Upatyaka Khanepani Limited (KUKL), it is subjected to changes and developments in the organizational structures and mechanisms responsible for managing and delivering these essential water supply and sanitation services. This transition typically involves shifts in governance, management models, and publicprivate partnerships to enhance efficiency, sustainability, and overall service quality. Key aspects of this transformation may include governance models, legal frameworks, Public-Private Partnerships (PPP), Infrastructure development, capacity building, community engagement, financial sustainability, innovation and technology adaption and environmental considerations.

Reflecting on history, the public water supply system in the Kathmandu Valley originated in 1893 AD. Before February 2008, the oversight of water supply and wastewater management in the valley was under the purview of various institutions established by the Government of Nepal (GoN) at different points in time. Entities like Pani Adda, Pani Goswara, Water Supply and Sewerage Management Board, and Nepal Water Supply Corporation functioned as the water utility operators for the Kathmandu Valley up until that period.

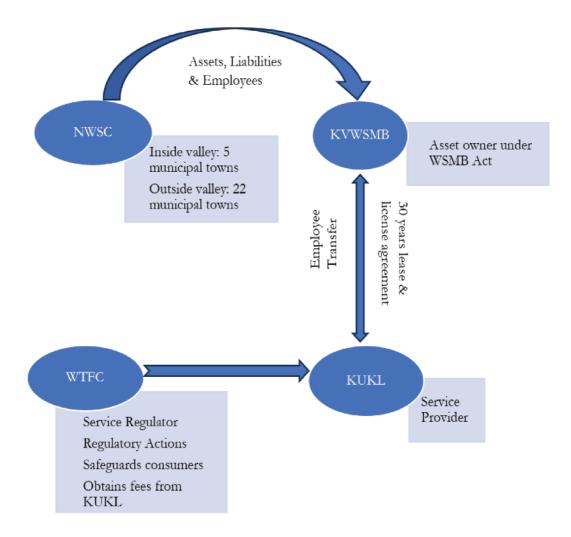
The need for institutional change in the water supply and management agency of the Kathmandu Valley was conceived and proposed during the Ninth and Tenth Fiveyear Plans (1997) of the GoN. These plans advocated for a policy involving local governments and private sectors in the management of water supply and wastewater systems. In 2000, the GoN envisioned the

supply services through a corporate/private setup. Subsequently, the GoN created three key entities to implement institutional reforms in the water sector of the Kathmandu Valley. This institutional reform aimed to incorporate representation the of municipalities and private sectors at a policy level, with the intention of shielding the operating company from bureaucratic and political interference in management and operational decisions. The reform also sought to implement cost recovery-based tariff structures, commercialize the operation of the and introduce company, capacity development and technology transfer in the water sector. This new institutional framework for water supply and sanitation facilities in the Kathmandu Valley thus divided into three fundamental functions: ownership (planning and investment). operation (day-to-day activities). and regulation (setting tariffs).

KVWSMB (Kathmandu Valley Water Supply Management Board) functions as the custodian of water and wastewater infrastructure in the Kathmandu Valley. Its role involves formulating and overseeing policies concerning the development and operation of water and wastewater systems. Established under the Water Supply Management Board Act, 2063, KVWSMB is accountable for holistic planning, maintenance, service improvement, and additional investments. It's crucial to highlight that the board does not directly participate in aspects, operational service project implementation, or the setting of water tariffs.



KUKL (Kathmandu Upatyaka Khanepani Limited) serves as the utility operator responsible for the operation and maintenance of the drinking water supply and sewerage system in the Kathmandu Valley functioning under a license issued by KVWSMB (Kathmandu Valley Water Supply Management Board), valid for a period of 30 years operating since February 2008.



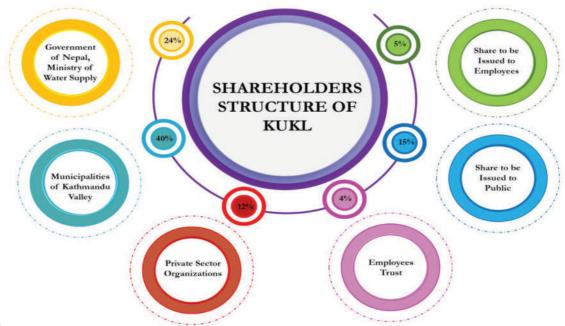
Institutional Reformation of Water Utility Operator of Kathmandu Valley



PRESENT SHAREHOLDERS STRUCTURE OF KUKL

S.N.	SHAREHOLDER	SHARE AMOUNT (NRs)	SHARE (%)
1	Government of Nepal, Ministry of Water Supply	24 Crore	24
2	Municipalities of Kathmandu Valley	40 Crore	40
	Kathmandu Metropolitan city	24 Crore	24
	Lalitpur Metropolitan city	8 Crore	8
	Other 16 Municipalities of Kathmandu Valley	8 Crore	8
З	Private Sector Organizations	12 Crore	12
	Nepal Chamber of Commerce	7.2 Crore	7.2
	Federation of Nepal Chamber of Commerce & Industry	2.4 Crore	2.4
	Lalitpur Chamber of Commerce	1.2 Crore	1.2
	Bhaktapur Chamber of Commerce	1.2 Crore	1.2

4	Employees Trust	4 Crore	4
5	Share to be issued to Public	15 Crore	15
6	Share to be issued to Employees	5 Crore	5
	Total	1 Arab	100





CHAIRMAN OF BOARD OF DIRECTORS IN KUKL TILL DATE

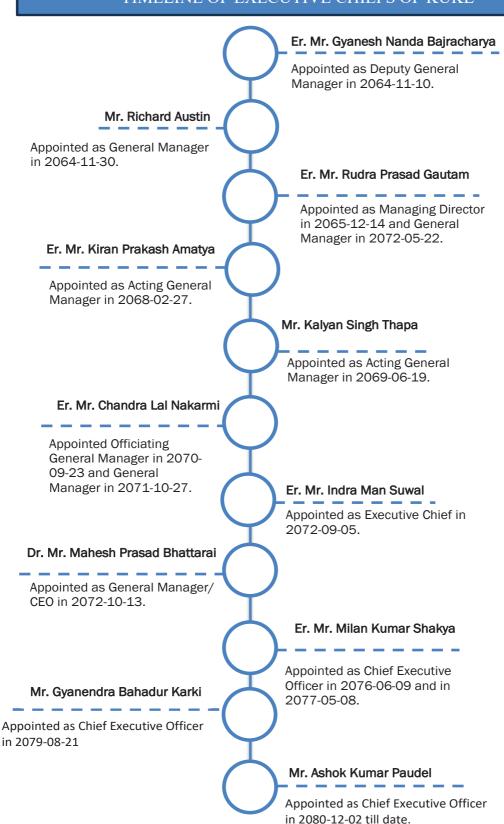
Name of Board member & Chairman	Name of Nominees Organization	Board Member	Date of Chairman Nominees	Last Date
Mr Birendra Man Shakya	Government of Nepal	2063/11/29	2063/11/29	2064/4/26
Mr. Suresh Kumar Basnet	Nepal Chamber of Commerce	2063/11/20	2064/4/27	2064/8/23
Dr. Mr Janak Raj Shah	Government of Nepal	2064/05/27	2064/8/24	2065/10/19
Mr. Dhruba Bahadur Shrestha	Independent Member	2064/1/5	2065/10/20	2064/10/21
Mrs Timila Thapa Yami	Government of Nepal	2064/09/27	2064/10/22	2068/10/7
Mr. Prayag Lal Joshi	Independent Member	2068/02/25	2068/10/8	2069/8/21
Mrs Timila Thapa Yami	GoN,	2064/09/27	2069/8/22	2069/12/10
Mr. Sanjaya Raj Upadhyaya	Kathmandu Metropolitan City	2070/06/01	2069/12/11	2071/3/2
Mr. Suresh Kumar Basnet	Nepal Chamber of Commerce	2063/11/20	2071/3/3	2073/12/2
Mr. Ghana Shyam Bhattarai	Government of Nepal	2072/10/5	2073/12/3	2074/9/6
Mr. Dhaniram Sharma	Kathmandu Metropolitan City	2074/05/16	2074/9/7	2075/3/3
Mr. Surya Raj Kandel	GoN, Ministry of Water	2075/01/26	2075/3/4	2076/8/3
Mt. Ramakanta Duwadi	GoN, Ministry of Water	2076/07/17	2076/8/4	2077/10/26
Mr. Tiresh Prasad Khatri	GoN, Ministry of Water	2077/10/11	2077/10/27	2080/12/22
Mr. Kamlesh kumar Agarwal	Nepal Chamber of Commerce	2078/01/13	2080/12/23	Till now



BOARD OF DIRECTORS IN KUKL

S.N.	Name	Position	Representation from
1.	Mr. Kamalesh Kumar Agrawal	Chairperson	Nepal Chamber of Commerce
2.	Er. Rama Kanta Dawadi	Director	GoN, Ministry of Water Supply
3.	Mr. Rajaram Dahal	Director	GoN, Ministry of Water Supply
4.	Ar. Suraj Shakya	Director	Kathmandu Metropolitan City
5.	Mr. Bashant Aacharya	Director	Kathmandu Metropolitan City
6.	Er. Pradip Paudel	Director	Lalitpur Metropolitan City
7.	Er. Manish Subedi	Director	Mahalaxmi Municipality





TIMELINE OF EXECUTIVE CHIEFS OF KUKL



FINANCIAL STATUS

Unaudited Annual Operating Expenditure and Income of KUKL (F.Y 2080/81) (In '000)

S.N.	Branches	Operating Branches Expenditure (Rs.)			
1	Maharajgunj	114401	197414		
2	Tripureshwor	57731	88771		
3	Chhetrapati	32755	41929		
4	Mahankalchaur	103863	244167		
5	Baneshwor	57575	166508		
6	Lalitpur	94839	193491		
7	Kirtipur	46294	42965		
8	Bhaktapur	35918	45333		
9	Madhyapur Timi	65752	77758		
10	Sewarage	30428	0		
11	Head Office	133237	0		
12	Tanker	57769	67328		
13	Sundarijal	36522	0		
14	Electro-mechanical	72187	0		
15	Quality Assurance	15341	3598		
	Total	954612	1169262		



HUMAN RESOURCE STATUS

	tion		d s	ffilled Staff 2081)	Π	Mandato	ry Retire	ment Sta	tus
1	Level/ Position	Service	Approved Positions	Presently fulfilled Permanent Staff (as of Magh2081)		F/Y 2080/20 81	F/Y 2081/20 82	F/Y 2082/20 83	F/Y 2083/20 84
1	СЕО		1	1					
2	11	Technical	2	0					
2	Deputy CEO	Non-Technical	1	0					
2	10	Technical	7	5					2
3	Manager	Non-Technical	3	1					
	9	Technical	13	4					1
4	Deputy Manager	Non-Technical	6	4					1
E	8	Technical	15	12					
5	Asst. Manager	Non-Technical	7	2					
6	7	Technical	45	22					
U	Officer	Non-Technical	20	14			1	3	3
7	6	Technical	29	16			1	5	
	Asst. Officer	Non-Technical	55	30			1	1	1
8	5	Technical	92	59			1	2	1
0	Senior Assistant	Non-Technical	117	81			6	6	10
9	4	Technical	89	30			1	2	
9	Assistant	Non-Technical	131	117			9	6	1
10	3	Technical	207	54			4	12	12
10	Junior Assistant	Non-Technical	130	0					
11	2	Technical	21	1					
11	Helper	Non-Technical		0					
12	1	Technical	239	62				2	4
12	1	Non-Technical	154	56			3	5	4
		Total	1384	571			22	44	40



SERVICE AREA OF KUKL

1. KUKL Service Area for Water Supply

KUKL manages 9 branch offices dedicated to the production and operation of water supply components. Following the restructuring of local bodies within the Kathmandu Valley, the updated service areas of KUKL are detailed in the table below.

Chhetrapati Branch	Kathmandu Metropolitan City	Ward No. 15, 17, 18, 19, 24, 25, 26, 27, 28
Office	Nagarjun Municipality	Ward No. 2,3,4,5
Tripureshwor Branch Office	Kathmandu Metropolitan City	Ward No. 11,12,13,14,20,21,22,23
Office	Nagarjun Municipality	Ward No. 9, 10
	Kathmandu Metropolitan City	Ward No. 1,2, 3, 16, 26, 27, 28
Maharajgunj Branch Office	Tokha Municipality	Ward No. 1 -11
	Tarkeshwor Municipality	Ward No. 1 -11
	Kathmandu Metropolitan City	Ward No. 4, 5, 6, 7, 8
	Gokarneshwor Municipality	Ward No. 1 – 9
Mahankalchour Branch Office	Budhanilkantha Municipality	Ward No. 1- 12,
	Kageshwori – Manohara Municipaliity	Ward No. 6, 7
	Shankarapur Municipality	Ward No: 4,6,7



Kirtipur Branch Office	Kirtipur Municipality	Ward No. 1 -10
	Dakshinkaaii Municipality	Ward No. 2,3,5,6,7
	Lalitpur Metropolitan City	Ward No. 1 - 27
Lalitpur Branch Office	Mahalaxmi Municipality	Ward No. 4
	Godawari Municipality	Ward No. 6,10, 11, 12, 13
	Bhaktapur Municipality	Ward No. 1-10
Bhaktapur Branch Office	Suryabinayak Municipality	Ward No. 4,5, 6,8
	ChaunguNarayan Municipality	Ward No. 1,2,5,6,7
Madhyapur Thimi Branch Office	Madhyapur Thimi Municipality	Ward No. 1-9
Thinh Branch Office	Changunarayan Municipality	Ward No. 1
Baneshwor Branch Office	Kathmandu Metropolitan City	Ward No. 9,10,29,30,31,32

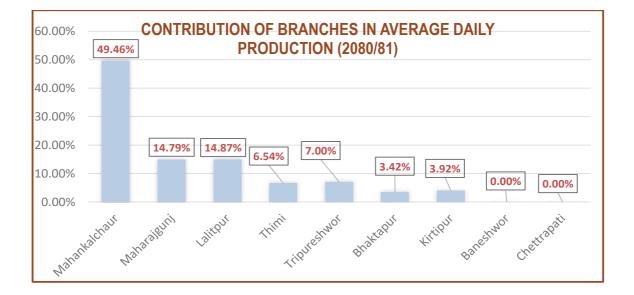
2 KUKL Service Area for Wastewater Services

KUKL provides waste water services to whole area covered by all water supply branch offices of KUKL.



WATER PRODUCTION AND DISTRIBUTION STATUS

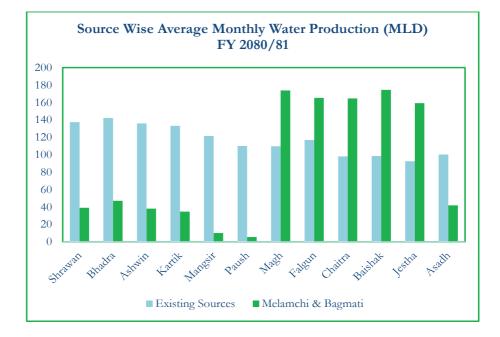
S.N.	DESCRIPTION	QUANTITY (Million Litres Per Day)					
1	Demand	506					
2	Production of water from existing sources						
Α.	Minimum Production	92.47					
В.	Maximum Production	142.12					
C.	Average Production	116.31					
3	Production of water from existing sources and Melan	nchi & Bagmati water					
Α.	Minimum Production	114.26					
В.	Maximum Production	244.06					
C.	Average Production	179.16					
3	Supply of water including existing sources and Melamchi water (considering 20% real losses)						
Α.	During month of Minimum Production 91.41						
В.	During month of Maximum Production	195.25					
C.	Average Supply	143.33					





Month-wise Average Daily Water Production (Source Based) for F.Y. 2080/81 (Million Liters per Day)

	Source inside Kathmandu Melamchi & Bagmati Valley					Melamchi & Bagmati				
Month	Surface	Ground	Total	Available to KUKL (from Melamchi)	Available to KUKL (from Bagmati)	Available to KUKL (from both sources)	Testing and Commissioning Works By PID	Total	Total Water available to KUKL	
Shrawan	107.1	30.35	137.45		30.09		8.99	39.08	167.54	
Bhadra	113.1	29.02	142.12		36.31		10.84	47.15	178.43	
Ashwin	108.07	27.85	135.92		29.38		8.77	38.15	165.30	
Kartik	104.74	28.45	133.19		26.72		7.98	34.70	159.91	
Mangsir	93.09	28.44	121.53		7.75		2.31	10.06	129.28	
Paush	81.62	28.43	110.05		4.21		1.26	5.47	114.26	
Magh	80.11	29.63	109.74	133.75			39.95	173.70	243.49	
Falgun	89.99	26.89	116.88	127.18			37.99	165.17	244.06	
Chaitra	71.26	26.74	98	126.73			37.86	164.59	224.73	
Baishak	72.28	26.3	98.58	134.31		40.12		174.44	232.89	
Jestha	77.76	14.71	92.47	122.58			36.62	159.20	215.05	
Asadh	84.63	15.56	100.19			32.24	9.63	41.87	132.43	
Average Production	90.36	25.95	116.31	128.83	22.65	32.24	20.22	178.85	300.02	





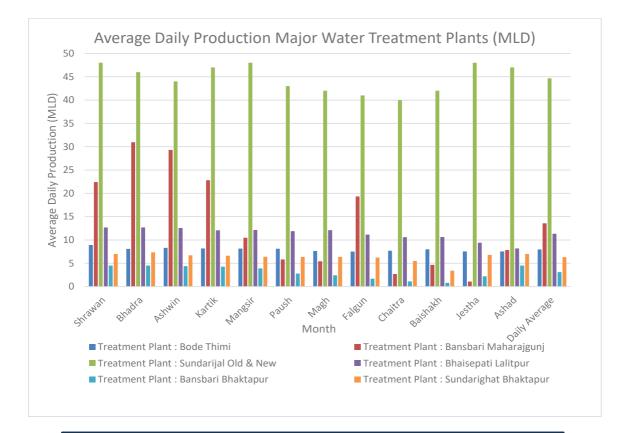
Branchwise Surface Source Water Production (MLD) from F.Y. 2080/81

				Bı	anch Na	ne				Total
Months	Bhaktapur	Thimi	Baneshwor	Chettrapati	Kirtipur	Lalitpur	Tripureshwor	Mahankal chaur	Maharajgunj	
Shrawan	4.50	6.71	0.00	0.00	3.68	15.50	7.00	48.00	21.71	107.10
Bhadra	4.50	5.89	0.00	0.00	3.90	15.50	7.35	46.00	29.96	113.10
Ashoj	4.40	6.12	0.00	0.00	3.97	14.50	6.70	44.00	28.38	108.07
Kartik	4.28	6.05	0.00	0.00	3.97	14.00	6.61	47.00	22.83	104.74
Mangsir	3.90	6.07	0.00	0.00	3.87	14.00	6.42	48.00	10.83	93.09
Poush	2.80	6.05	0.00	0.00	3.76	13.80	6.38	43.00	5.83	81.62
Magh	2.42	5.82	0.00	0.00	3.76	14.10	6.39	42.00	5.62	80.11
Falgun	1.70	5.65	0.00	0.00	3.07	13.00	6.23	41.00	19.34	89.99
Chaitra	1.12	5.85	0.00	0.00	3.59	12.50	5.50	40.00	2.70	71.26
Baishak	0.80	5.95	0.00	0.00	3.21	12.40	3.40	42.00	4.52	72.28
Jestha	2.20	5.40	0.00	0.00	2.83	11.50	6.80	48.00	1.03	77.76
Ashad	4.50	5.40	0.00	0.00	2.83	10.30	7.00	47.00	7.60	84.63
Average Production	3.09	5.91	0.00	0.00	3.54	13.43	6.32	44.67	13.36	90.31

Average Daily Production from Water Treatment Plants (Million Liters per Day) for FY 2080/81

Month	Name of Treatment Plant									
	Bode Thimi	Bansbari Maharajgunj	Sundarijal Old & New	Bhaisepati Lalitpur	Bansbari Bhaktapur	Sundarighat				
Shrawan	8.91	22.43	48.00	12.70	4.50	7.00				
Bhadra	8.08	30.96	46.00	12.70	4.50	7.35				
Ashwin	8.32	29.32	44.00	12.57	4.40	6.70				
Kartik	8.19	22.83	47.00	12.07	4.28	6.61				
Mangsir	8.15	10.47	48.00	12.14	3.90	6.42				
Paush	8.13	5.83	43.00	11.90	2.80	6.38				
Magh	7.64	5.43	42.00	12.11	2.42	6.39				
Falgun	7.50	19.34	41.00	11.15	1.70	6.23				
Chaitra	7.70	2.7	40.00	10.60	1.12	5.50				
Baishakh	8.00	4.67	42.00	10.62	0.80	3.40				
Jestha	7.55	1.09	48.00	9.41	2.20	6.80				
Ashad	7.55	7.85	47.00	8.17	4.50	7.00				
Daily Average	7.98	13.58	44.67	11.35	3.09	6.32				





Distribution of Water by Tanker (F.Y. 2080/81)

Month	C	apacity (5000 Litre	ର		Capacity (6000 Litres)		
	Private trips	Public Trips			Private trips	Public Trips	
	rivate trips	Fully Subsidized	40% Subsidized		rivate trips	Fully Subsidized	40% Subsidized
Sharwan	402	23	37		728	83	65
Bhadra	207	10	22		580	71	67
Ashoj	266	26	31		444	50	54
Kartik	351	28	25		525	53	59
Mangsir	471	53	26		702	81	91
Poush	422	60	28		728	120	95
Magh	298	43	23		531	49	60
Falgun	334	34	22		558	59	83
Chaitra	379	40	22		511	55	52
Baisakh	444	71	25		594	144	56
Jestha	284	79	29		552	206	49
Ashad	362	196	23		547	430	59
Total	4220	663	313		7000	1401	79 0



	C	apacity (9000 Litre	ත්	Total	Total of	
Month		Public	: Trips			Private and
	Private trips	Fully Subsidized	40% Subsidized	Private trips	Public Trips	Public Trips
Sharwan	388	17	7	1518	232	1750
Bhadra	319	15	5	1106	190	1296
Ashoj	462	14	6	1172	181	1353
Kartik	309	5	6	1185	176	1361
Mangsir	439	15	12	1612	278	1890
Poush	464	16	12	1614	331	1945
Magh	275	14	5	1104	194	1298
Falgun	286	5	3	1178	206	1384
Chaitra	306	8	8	1196	185	1381
Baisakh	336	35	4	1374	335	1709
Jestha	331	53	5	1167	421	1588
Ashad	278	84	7	1187	799	1986
Total	4193	281	80	15413	3528	18941

Pipeline Extension Works By Branches (F.Y. 2080/81)

Pipe Material	Pipeline Dia		
(Ductile Iron)	150	400	Total
Branch	Tripureshwor	Maharajgunj	Total
Length (M)	366	50	416
Benefitted Households (Nos)	750	500	1250
Benefitted Population (Nos)	3750	3500	7250

IF.



Pipe Material		Pipeline Diameter (mm)											
HDPE	40	40 50 63 80						80	Total				
Branch	Kirtipur	Kirtipur	Tripureshwor	Lalitpur	Mahankalchaur	Kirtipur	Banshwor	Chhetrapati	Maharajgunj	Bhaktpur	Madhyapur Thimi	Maharajgunj	Total
Length (Meter)	140	50	120	1000	1040	748	485	150	1542	2174	2050	145	9644
Benefitted Households (Nos)	60	25	50	150	450	75	85	30	300	305	280	1200	2860
Benefitted Population (Nos)	300	125	300	432	2250	375	430	350	1500	1525	2755	8400	18310

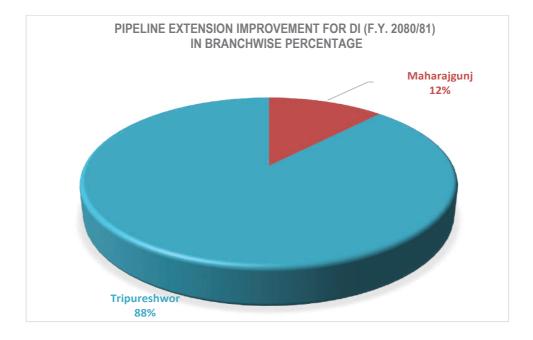
Pipe Material		Pipeline Diameter (mm)								
HDPE		90								
Branch	Bhaktapur	Madhyapur Thimi	Baneshwor	Kirtipur	Chhetrapati	Tripureswor	Mahankalchour	Lalitpur	Maharajgunj	Total
Length (Meter)	857	1650	2114	511	2250	2150	725	950	4225	15432
Benefitted Households (Nos)	90	330	650	100	320	1200	180	200	1200	4070
Benefitted Population (Nos)	450	3214	650	500	3400	7500	900	585	8400	25014

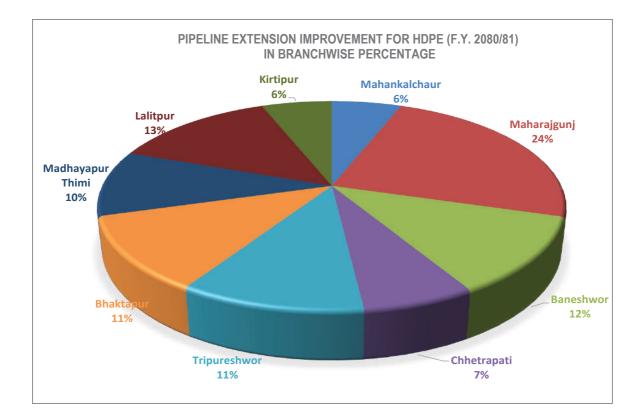


		Pipeline Diameter (mm)							
Pipe Material HDPE		110							
Branch	Maharajgunj	Baneshwor	Tripureshwor	Bhaktpur	Madhyapur Thimi	Lalitpur	Kirtipur	Mahankalchaur	Total
Length (Meter)	2075	1235	400	701	240	990	524	340	4430
Benefitted Population (Nos)	300	415	200	130	30	300	200	95	1070
Benefitted Population (Nos)	1500	1562	1200	650	240	1500	1000	475	5127

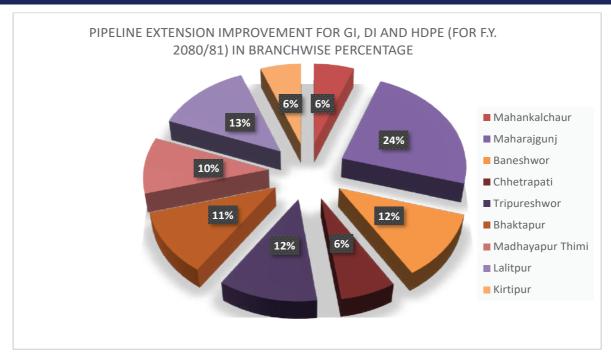
Pipe Material		Pipeline Diameter (mm)									
HDPE	160 200 250								250		
Branch	Kirtipur	Maharajgunj	Baneshwor	Lalitpur	Tripureshwor	Madhyapur Thimi	Bhaktapur	Maharajgunj	Bhaktapur	Maharajgunj	Total
Length (Meter)	120	20	493	2000	1268	210	368	20	60	315	4754
Benefitted Population (Nos)	600	50	55	500	600	60	47	50	47	150	1059
Benefitted Population (Nos)	3000	350	350	1600	3700	672	235	350	235	850	6742







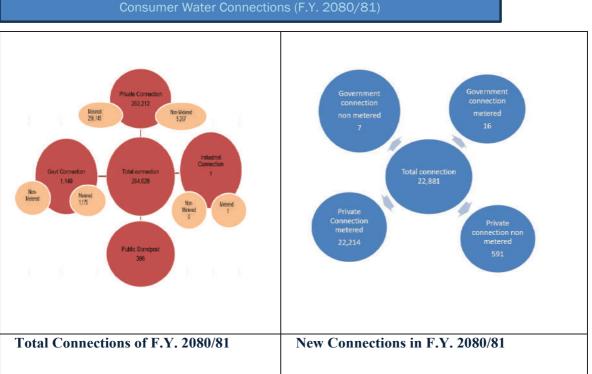




Activities of Service Improvements By Branches (F.Y. 2080/81)

S.N	Branch Name	Injection Points	Installation of Polythene Tanks	Leak Identified	Leak Repaired	Installation of New Water Meters	Meter Repaired
				N	los		
1	Baneshwor	0	0	900	847	1270	552
2	Bhaktapur	0	0	605	581	234	833
3	Madhyapur Thimi	0	0	1477	1419	303	760
4	Mahangkalchaur	0	0	1488	1452	1714	1539
5	Maharajgunj	0	5	1836	1802	0	0
6	Lalitpur	0	1	928	769	758	215
7	Chhetrapati	0	0	1136	1111	2	57
8	Tripureshwor	0	0	1070	812	1741	440
9	Kritipur	0	0	616	536	334	222
	Total	0	6	10056	9329	6356	4618







HIGHLIGHTS OF ACTIVITIES OF KUKL IN FISCAL YEAR 2080/81

1. Customer Relation Section

The Customer Relations Section, as part of its responsibilities, maintains a record of customer complaints related to various aspects of water distribution. These complaints encompass issues such as non-scheduled water distribution, incidents of meter theft, untimely meter readings, instances of excessive billing, and unavailability of meters. The section ensures diligent tracking and updates on each customer's concerns to address and resolve these issues promptly and efficiently. List of complains received in Head Office of each branches of KUKL summarized in table below:

S.N	BRANCH	NO. OF COMPLAINS	UNSOLVED	SOLVED
1	BHAKTAPUR	11	10	1
2	LALITPUR	24	13	11
3	MADHYAPUR THIMI	8	4	4
4	MAHANKALCHAUR	22	8	14
5	KIRTIPUR	4	2	2
6	MAHARAJGUNJ	36	28	8
7	BANESHWOR	22	11	11
8	CHHETRAPATI	5	4	1
9	TRIPURESHWOR	11	9	2
10	OTHERS	8	2	6
	TOTAL	151	91	60

2. Revenue Monitoring Section

We spent a few years travelling after Melamchi, and we have over twenty years of corporate culture experience. We are having trouble keeping up with our fixed and ongoing costs, lease and licence fees, and retirement fund provisions.. To improve meter readings, metering, and collecting arrears and chronic issues, the revenue monitoring uynit is on a door-to-door mission with the full cooperation of the Management Team, Branches, and relevant stakeholders.





2. Bhaktapur Branch

Regular cleaning and maintenance of intakes and canals of water supply systems are vital to ensure the uninterrupted flow of clean water, prevent blockages, and enhance the overall efficiency of the water supply process. Over time, sediments, debris, aquatic plants, algae, and other materials can accumulate at the intake and along the canals. If left unchecked, this accumulation can restrict the flow of water, clog intake structures.



Herein attached some of photos of routine cleaning and protection of water intake system that helps to maintain smooth water flow.





However, this branch also played a critical role in managing the delivery and consumption of water to consumers, ensuring both an efficient supply, effective revenue collection and Arrears collection Ensuring the sustainability of water supply systems, and maintaining the financial health of the organization. Door-to-door visit of customer house and collection of arrears were some of the activities performed.

3. Baneshwor Branch

This branch lies in the heart and core area within Kathmandu City with highly dense water tap households. This branch has been supplying water to its customers based on the schedule while have to rely on other branches for water source.





Leakages in water supply system are the major challenges our organization faces on water supply system. This is also an unintended loss of water that may be either in the pipes, joints, or infrastructure that carry water from the source to the end consumers taps. These leaks represent a significant issue for water utilities like ours.



4. Chhetrapati Branch

This branch also lies in the core areas within the city with no any surface water source and only few **deep wells**. This branch has also been supplying water to its customers based on water quantity availability. However for more water availability, have to rely on other branches. Photos attached below shows some of the pipeline extension, improvement along with protection works.



This branch has also carried out some enhancement works within the water treatment plant. To 25



improve the quality of the delivery water to the cusomers. These treatment plant were not in operation for a longer period. In order to recover the supply system, enhnancement works were performed.



5. Lalitpur Branch

This branch lies in south east region of within Kathmandu Valley with highly populated and dense water tap households. This branch almost covers about 1/4 of the service area by services. This branch has been supplying water to its customers based on the schedule while have to rely on other branches for water source.



350 mm dia DI Pipeline extension work at LMC-22, Pharsidol to Bungmati.



For increment of water production construction of a check dam at Kutule source Pharping. This Kutule was a new source which was added to existing water supply system in the same FY 2080-081. This will bring to ease for almost 1000 households which was an appreciated work carried out by this branch.



During the FY 2080-081, two extension service counters were establish in order for ease and facilitation of customers at Chapagoan, Old panipokhari and Bhaisepati WTP. After the expansion of the service counters this had facilitate customers and with ease all are ready to pay on time.



For increment of water production construction of check dam at Kutule source, Pharping, new source as kutule has been added to existing water supply system. Frequent visits from a team of



delegates during the construction were made.



6. Kirtipur Branch

This branch lies in southern part of Kathmandu Valley with densly water tap households. This branch has its own surface water with civil infrastructures. This branch has undergone many improvement works where photos attached below intends to show improvement progress on the existing water supply systems. This include replacement of existing 110mm dia. transmission mains via 160mm dia. HDPE at Chovar and Chiyan, townplanning.





After the leakage improvement activities along the road alignment, reinstatement of roads through RCC was done at Ajima Park.

To maintain flow records of the supplied water to household customers, this branch was able to install two nos. 50mm dia. flowmeter at Dudhpokhari source.



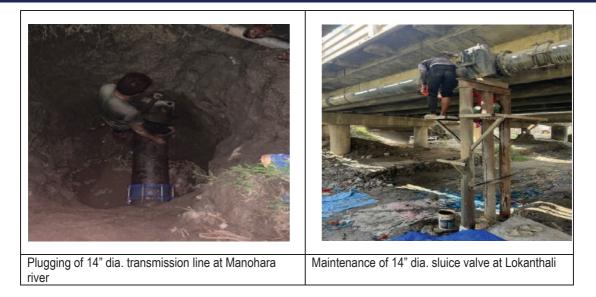
Installation of 50mm dia. Bulkmeter at Dudhpokhari

Restatement of road through RCC after leak maintenance work @ Ajima Park.

7. Madhyapur Thimi Branch

This branch lies in eastern part of Kathmandu Valley with almost newly water tap households. Majority of the sources lies within this branch. This branch a handful support to others branches also. Attached photos attached below intends to show improvement progress on the existing water supply systems. These were also the major activities carried out in FY 2080-081 so as to enhance for better and efficient water supply to our consumers. This branch have approx.16481 nos. of water tap households and is supplying water in a regular basis after successful operation of the Melamchi Project.





Pipeline extension and improvement works within the branch in the FY 2080-081.



8. Mahankalchaur Branch

This branch lies in eastern part within Kathmandu Valley with almost 45537 nos. of water tap households. This branch has its own both ground water and surface water sources. Majority of the surface water is from the Old Sundarijal Treatment Plant. This branch almost covers about ¹/₄ of the service area by services.





Improvements works were carried out in major places of the service area for ease and effective water supply to the system.





9. Maharajgunj Branch

This branch lies in eastern part of Kathmandu Valley with almost 45300 nos. of water tap households. This branch has its own both ground water and surface water sources. Majority of the water depends on ground water and alos has a surface water source of Panchmane and Bhandare source. This branch also covers about ¹/₄ of the service area by services.



Some major activities which has led to ease operation of the water supply to the customers.





10. Water/Waste Water Quality Assurance Division

The Water/Waste Water Quality Assurance Division within KUKL plays a pivotal role in overseeing and managing the quality of water produced and distributed by the company. Collaborating closely with various branches of KUKL, the division ensures that the water supplied meets the required standards. To achieve this, water samples are systematically collected from multiple points spanning from the reservoir to taps, providing a representative overview of the entire distribution network. KUKL operates four laboratories dedicated to water quality assessment which are Central Laboratory at Mahankalchaur, New Sundarijal WTP Laboratory, Bode WTP Laboratory, Bansbari WTP Laboratory.

All of these laboratories conduct routine monitoring of water quality, scrutinizing various physicochemical and microbiological parameters. Regular analysis of these parameters is crucial for ensuring that the water supplied by KUKL meets the necessary standards for consumption and public health. The systematic approach, involving multiple sampling points and dedicated laboratories, reflects KUKL's commitment to delivering high-quality water to its consumers.

Various physico-chemical and microbiological parameters are analyzed on routine basis and water quality reports are uploaded in KUKL's website on monthly basis.

Additionally, the central laboratory assesses the quality of chemicals used in Water Treatment Plants, the quality of water, waste/water on request of general public, and also provides platform for learning the water treatment process and water analysis methods by means of field visit in water treatment plant and laboratory. Students from various faculties that have incorporated water treatment facility and water quality testing in their course works come to visit treatment plant and laboratory facilities. A nominal cost of Rs. 200 per student is collected from the institute as a consultant fee. During fiscal year 2080/81, a total number of **3447** students and in this fiscal year (up to end of Poush), **1369** students have visited Central Laboratory as well as Water Treatment Plant at Mahankalchaur. In addition, this division also provide laboratory support to students from different institutes for their thesis works and internship.

The total number of water samples tested at three laboratories is as follows:

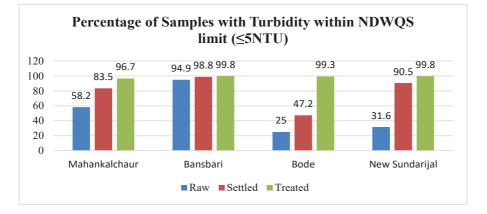
Year	Total nos. of client's sample tested at Mahankalchaur	Mahankalchaur	Bansbari	Bode	New Sundarijal
FY 2080/81	Physiochemical: 3504 Microbiological: 1074 Arsenic: 175	7553	3174	2625	4346
FY 2081/82 (Up to of Poush)	Physiochemical: 1598 Microbiological: 479 Arsenic: 62	3640	2135	1385	4732

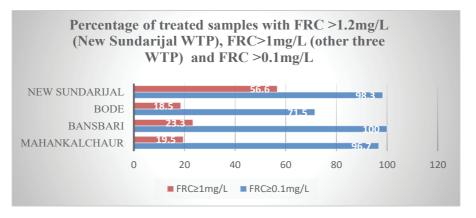
Table : Total Number of Water samples tested at three laboratories



Treatment efficacy of four large treatments:

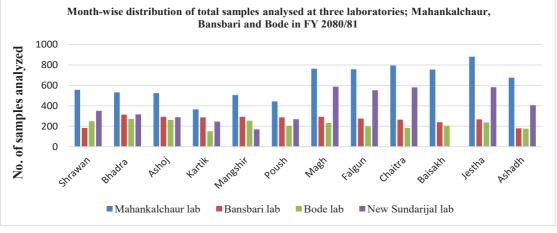
The following two graphs show the turbidity removal efficacy and chlorination condition of Mahankalchaur, Bode, Bansbari and New Sundarijal WTP in Fiscal Year 2081-82 (Up to Poush).



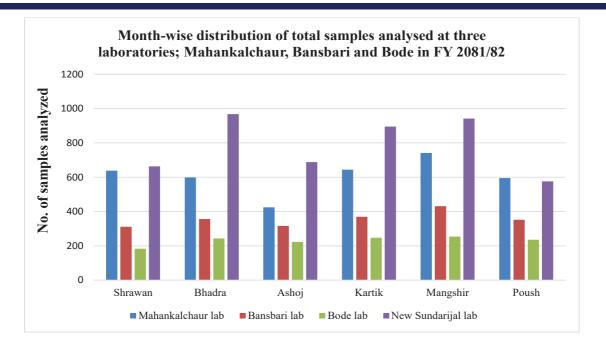


Water samples tested at four laboratories:

The following figures display the month-wise distribution of total number of water samples analyzed at four laboratories, Mahankalchaur, Bansbari, Bode and New Sundarijal lab.







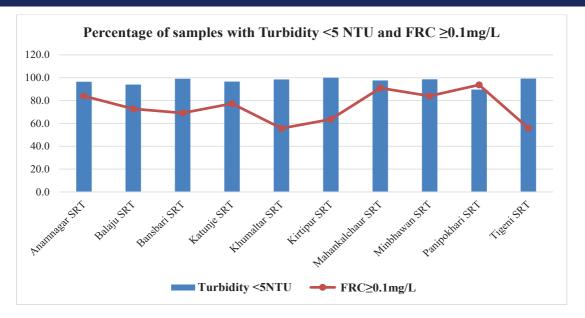
Melamchi supply

During FY 2080/81, Melamchi water was supplied in Kathmandu valley for five months (2nd Magh to 9th Asadh). During that period, a total of 1975 samples were collected from 10 different service reservoirs for analyzing their physiochemical and microbial parameters.

Table : SRT-wise distribution of Melamchi water samples tested

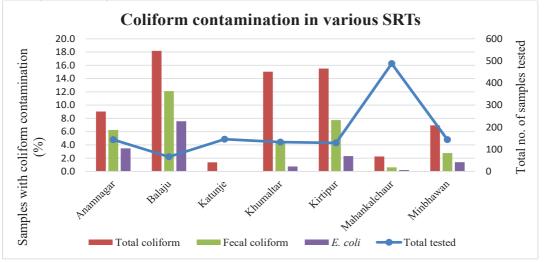
SN	SRT	Total tested	Within NDWQS limit (No.)	Within NDWQS (%)
1	Anamnagar	144	118	81.9
2	Balaju	66	45	68.2
3	Bansbari	548	376	68.6
4	Katunje	146	108	74.0
5	Khumaltar	133	73	54.9
6	Kirtipur	129	81	62.8
7	Mahankalchaur	488	435	89.1
8	Minbhawan	144	119	82.6
9	Panipokhari	48	43	89.6
10	Tigeni	129	71	55.0
	Total	1975	1469	74.4





Graph showing percentage of samples with Turbidity and FRC within NDWQS limit

The following graph displays the prevalence of coliform contamination in water samples from various SRTs (FY 2080/81).



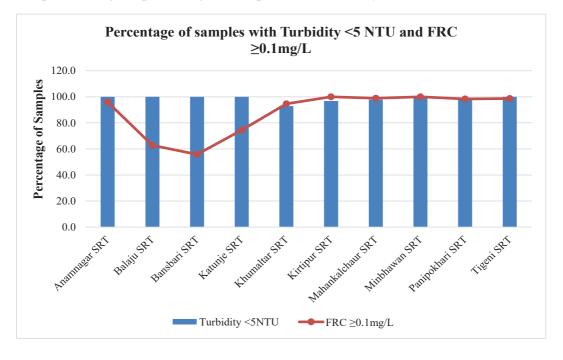
During FY 2080/81, Melamchi water is being supplied from 2080/06/22 continuously. Until the end of Poush, 1785 samples were collected from 10 different service reservoirs for their physiochemical and microbial analysis.



Table : SRT-wise distribution of Melamchi water samples tested	Table :	SRT-wise	distribution	of Melamchi	water s	samples tested
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SN	SRT/WTP	Total tested	Within limit	Within
1011	5K1/ W 11	I otal testeu	vv itilli illilit	limit (%)
1	Anamnagar SRT	73	70	95.9
2	Balaju SRT	43	27	62.8
3	Bansbari SRT	95	53	55.8
4	Katunje SRT	47	35	74.5
5	Khumaltar SRT	56	49	87.5
6	Kirtipur SRT	62	59	95.2
7	Mahankalchaur SRT	269	258	95.9
8	Minbhawan SRT	68	68	100.0
9	Panipokhari SRT	124	119	96.0
10	Tigeni SRT	74	73	98.6
	Total	911	811	89

Graph showing the percentage of samples with Turbidity and FRC within NDWQS limit





Central Laboratory at Mahankalchaur



New Sundarijal Lab









Some photographs showing water sample collection at WTP and water quality testing at central lab.







Students visiting Water treatment plant and Central lab





Photograph 1: Monitoring of Turbidimeter and Chlorometer by Lab chief along with JICA experts at branch offices.

Photograph 2: Monthly meeting on Review of WTP operation

Photograph 3: Monthly meeting on Water Quality Monitoring



11. Electromechanical Section

Electromechanical Branch located at Sundarighat, Kirtipur deals with all types of electrical and mechanical works under the service area of KUKL. It is operated under the Support division performing the jobs like **Drilling of new deep tube well, Ground water Potential surveys, Rehabilitation and operation of old deep tube wells, Repair and maintenance of all pumping stations (Boosting, transmission as well distribution), including repair and maintenance of Water treatment Plants and dosing stations**. Besides, these regular works, **Bulk meter and water testing stations (Meter test bench), Pump test bench, 680.4 KW Solar plant** (situated at Dhobighat, Lalitpur) are also being operated by the Electromechanical Branch.

Heavy equipment supports for water supply distribution branches, technical assistance for design, construction and operation of Deep tube well for different governmental and non-governmental organizations, Video surveillance camera for deep tube well of capacity up to 300 m depth, commercially water meter test and other technical support for different organizational request has been performing by this branch.

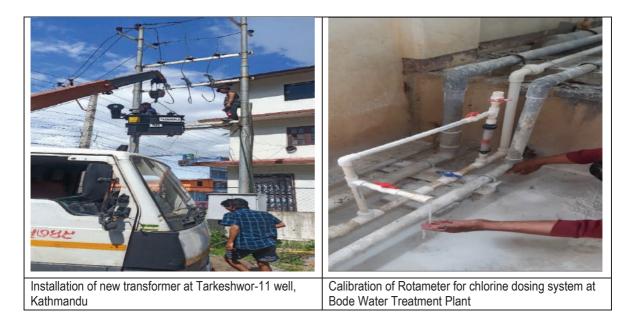
Major Activities in F.Y 2080/081

- 1. Drilling of new deep tube well at Kamaretar, Madhyapur -Thimi with water acquisition capacity of 600 lpm.
- 2. Well development/ Rehabilitation of different 14 Old deep tube wells at Kathmandu Valley which results increment of 2MLD of water to the total production.
- 3. Construction of the Sump wells (Back-wash system) with installation of pump and accessories at Bhaktapur Basbari WTP to enhance Water treatment system.
- 4. Operation of new deep tube well (Pasikot deep tube well & Tarkeshwor-10 deep tube well) with installation of submersible pump-motor, column pipe and other accessories with 1MLD production of water.
- 5. Installation of New Transformer at different wells for electrical system operation.
- 6. Rehabilitation of HV control panel system including VCB and OC/EF relay system of Solar Plant 680.4 KW at Dhobighat which has been drowned by the flood.
- 7. Installation and development of the Chlorine dosing system at different treatment Plants.
- 8. System enhancement of Balaju SRT with installation of Pump, panel board and electrical LT line extension work.
- 9. System rehabilitation at Mahankalchaour pumping system and bode dug well system which has been drowned by flood.
- 10. Performance of Ground Water Potential Survey at different site of Kathmandu Valley.
- 11. Installation and testing of instrumental control spare part at power conditioner of Solar Plant.





This branch has always been working as a quick response team on repair and maintenance works of each electro-mechanical components located within the distribution branches under KUKL.



This branch has always been performing its works under a risky circumstances but with safety. The service area it covers is all over the valley. Attached photos as attached above intends to show electrification works under different branches and imporvement of chloring dosing system.



12. Information Technology (IT) section

The IT section is responsible for managing Information Technology (IT) and digitization related activities of the KUKL. Various IT related system are being implemented by KUKL which are managing by IT section.

Currently Implemented IT Systems					
IT Systems	Task				
Customer Billing System	KUKL's customer-related data, including ledger, billing, payments, and service records, are securely stored in this system. This system digitally manages customer information for various KUKL services such as tap water, tanker water, sanitation services, water quality testing, and water meter test records, ensuring efficient and streamlined service management.				
New Connection	NCMS integrates the entire process from customer registration to				
Management System (NCMS)	billing. It is used to record all customer information, including personal details, demographic data, and required documents, ensuring efficient and systematic management of new service connections.				
Customer Grievance Handling System	From this system customer can register their grievance related to KUKL service through KUKL website and track the status of grievance using registered mobile number or grievance number.				
Queue Management System	Customers can generate the queue number and wait for their turn in waiting areas and proceed to counter when the system calls for their queue number.				
Human Resource	This system manages all employee records from recruitment (after selection) to retirement.				
Management System	/				
Financial Account Management System	Manage all financial transaction, process and reports as per financial standard				
Inventory and Asset Management System	Keep all record and transaction of inventory and assets.				
E-attendance System	KUKL have now replaced its paper based manual attendance process to digital e-attendance system				
CCTV Surveillance System	CCTV systems management				
IT Infrastructure management	Manages the IT infrastructure of KUKL like Server, Network, Firewall, Switch, Router, Computing Devices				
Sys	stem under developing for implementation				
Handheld Meter Reading Device and System	Spot billing system and take payment from card.				
Customer Portal	Customer take all services from single portal and view their transactions				
Mobile App	Mobile app for employee and customer for services				



13. Training Section

During the fiscal year 2080/081, the Training and Research Section made significant efforts to enhance the skills and knowledge of our internal staff through various training programs. These initiatives were aimed at strengthening their capabilities and fostering professional growth. The trainings offered encompassed a wide range of subjects, including on-the-job training, Training of Trainers (TOT), Basic computer training, and skills development. List of indoor trainings were provided and benefited nos. of employees are listed herein the table:

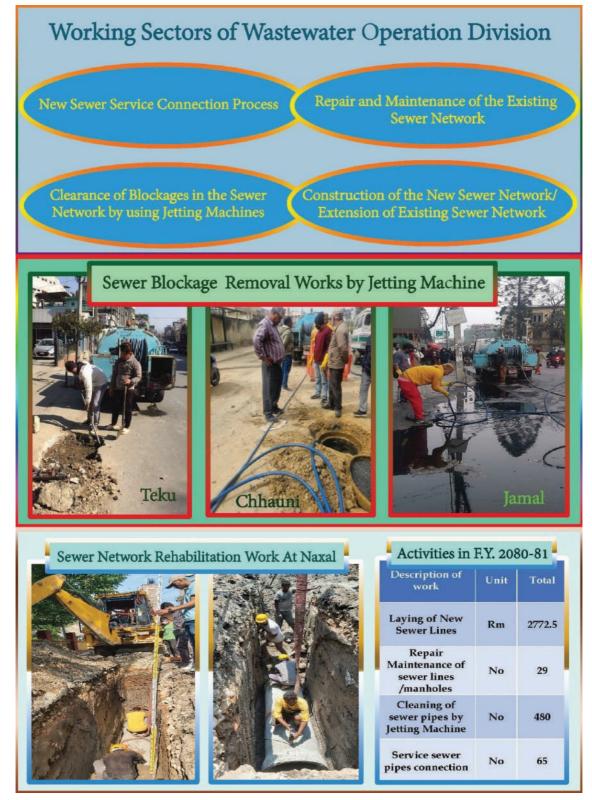
S.N	TRAININGS	FACILIATED	NO. OF DAYS	BENEFICIARY
				NOS.
1	Water Distribution Management	JICA	9	9
2	NRW	JICA	1	26
3	Meter Accuracy	KUKL	4	29
4	Water Quality Management Test	ЛСА	4	37
5	Meter Reading Skill	KUKL	1	20
6	Electronic G-Procurement	РРМО	4	2
7	Public Procurement Management	ICTC	4	33
8	Team Building Workshop	NEA	4	48
	TOTAL	151	91	60

The topics covered in these trainings were diverse and catered to the needs of our organization. They included technical aspects related to water supply systems, Geographic Information Systems (GIS), financial management, non-revenue water management, water quality, gender equality, and finance.





14. Waste Water Operation Division





15. Activities of Project Implementation Directorate (PID)

Kathmandu Valley Water Supply Management Board (KVWSMB), an autonomous body established under WSMB Act (2006), is responsible for the development and provision of water supply and wastewater services to inhabitants of Kathmandu Valley. As per the Act, KVWSMB owns the assets of water supply and sewerage infrastructure and delivers the services through the service operator in Kathmandu Valley. Project Implementation Directorate (PID) is a project office for the management of ADB funded projects in Kathmandu Valley.

PID is working round the clock with its mission of providing safe drinking water to the residents of the Kathmandu valley. Safe drinking water is a basic need and people's right and PID is now working on multiple aspects of translating people's right to safe drinking water.

PID scope covers development of infrastructures for supply and distribution of clean and safe drinking water and wastewater management in the Kathmandu valley. Kathmandu Valley Water Supply Improvement Projects (KVWSIP) include construction of essential infrastructure for efficient water supply.

A. Water Supply Infrastructure Component

PID scope under Kathmandu Valley Water Supply Improvement Project (KVWSIP) covers development of infrastructure, that includes laying pipelines for bulk water transmission to household connection and meter installation (free of cost to the public). The contracts under ADB funding for bulk distribution system (BDS0, BDS 1, BDS 2, BDS 3 and BDS 4) are completed including final commissioning and handed over to KUKL for the operation.

Similarly, pipe laying works for distribution network within the Ring Road under the first phase have been completed including testing and commissioning and ready to handover to KUKL for operation . PID have handed over completed BDS packages to KVWMB for the operation as 170 MLD water is diverted from Melamchi. PID completed testing and commissioning of all 32 DMAs with 1020km pipe network and DMA-TU and all 33 DMAs are in operation these days.

The Government of Nepal (GON) has provided financing for the remaining pipe laying works of distribution network improvement within the Ring Road as well as for second transmission bulk line from Sundarijal to Chabhil. The major infrastructure works under GoN financing included construction of (i) additional 10.84 km BDS pipeline from Sundarijal to Chabhil (BDS-05) to augment the present transmission line capacity from 222.5 MLD to 510 MLD, (ii) four SRTs (with 6,000 m3 capacity at Kirtipur, 8,500 cubic meter capacity at Mahankalchaur and 12000 m3 & 5,000 m3 capacity at old Balaju Reservoir, and (iii) approximately 800 km of distribution network improvement. The works for 2 SRTs at Kirtipur and Mahankal are just completed, BDS and DNIs are progressing well whereas construction of 5000 m3 SRT at old Balaju Reservoir is near to complete.

Supervisory Control and Data Acquisition (SCADA) system with centralized monitoring and control system has been adopted for efficient management of the water supply distribution in the Kathmandu Valley. This is a fully automatic system where water supply networks can be seen, monitored, and controlled by the SCADA system installed in the central control room located in KUKL office, Panipokhari and satellite station at KUKL head office, Tripureswor. This system further collects and shares important data and information related to the water supply network in real time. Now design built part of the SCADA is completed and Operation phase just started.



Major Works performed and their status under the PID are summarized here in the tables: Major Works Under Water Supply Infrastructure Component

S.N.	Description	Activities
1	Bulk Distribution System Network (BDS)	Includes construction of total 76.00 kilometers of D.I. Pipeline aiming to convey water from Sundarijal WTP to 10 newly constructed Service reservoirs located at different places and 5 existing reservoirs in Kathmandu Valley.
2	Service Reservoirs	New 10 Service Reservoirs with total capacity of 74500 cubic meters is constructed at 9 locations of Kathmandu Valley to facilitate the supply of water to distribution network. Now 2 more reservoirs (6000 & 8500) m3 capacity are also ready to use; Kirtipur and New Mahankal.
3	Distribution Network Improvement (DNI)	About 1020 Kilometers of Distribution network within Ring Road is constructed based on district metering area (DMA) in the first phase with ADB loan to facilitate the water distribution and reduce the NRW. Contract of Distribution network Improvement for remaining part of Ring Road including Mandikhatar and Kapan area using the government fund for 800km is under construction and 80% pipe laying work is completed.
4	Consumer connections	About 145000 consumer connections (1 st Phase ADB 85000 & GoN Pkg around 60000) will be installed at the end of construction period for supplying water to the households.
5	Automation System (SCADA)	Automation System (SCADA) installation work is under construction for controlling remotely the major valves in service reservoirs-RMUs (15) and distribution network-OMUs (46 installed & 32+1 are in operation). Smart meter installed in 467 nos. at 4.1.2 Anamnagar area and 370 nos. at (10.1 Chamati area for piloting household level meter monitoring.

Progress of Water Supply Infrastructure Component

Distribution Network Improvement Packages under ADB Loan

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Length of Pipeline (KM)	Progress %	Included Works
DNI Package 1	Hangzhou- Kalika JV	12 Jul, 2013	31 Dec 2024	302.1	100	Primary Pipelines from
DNI Package 2	Hangzhou- Sharma JV	6 Nov, 2013	31 Dec 2024	304.37	100	Service Reservoir, Distribution
DNI Package 3	Sumec- Lama JV	9 Apr, 2013	31 Dec 2024	173.514	100	Pipelines and Reticulation Pipelines,
DNI Package 4	GIETC- Sharma- Raman JV	10 Jul, 2017	31 Dec 2024	228.06	100	Pipelines, and Consumer Connections



Distribution Network Improvement Packages with Government Fund

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Length of Pipeline completed (KM)	Progress %	Included Works
KUKL/DNI/ 7B: DNI 5	Sharma- Raman JV	4-Oct-20	30 Jan 2025	126.12	55.84	Primary Pipelines from
KUKL/DNI/ 7C: DNI 6	TEAMS- KUMAR-CAB JV	4-Oct-20	28 Feb 2025	156.211	69.94	Service Reservoir, Distribution Pipelines
KUKL/DNI/ 9a: DNI 7	Tundi Construction Pvt. Ltd	4-Oct-20	13 June 2025	75.284	46.84	and Reticulation Pipelines,
KUKL/DNI/ 9a-1: DNI KAPAN	CIPEL- Shailung JV	27-Mar-19	16-Jul-23	70.183	24.26	and Consumer Connections

Bulk Distribution System Construction Packages under ADB Loan

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Length of Pipeline (KM)	Progress %	Included Works
BDS Package 0	CTCE- Kalika JV	23-Dec-11	15-Jul-16	9.579	100	Service
BDS Package 1	JITF	11 Mar, 2014	31 Dec, 2021	11.269	100	Reservoirs and Bulk Water
BDS Package 2	JWIL-SCPL JV	06 Aug, 2014	31 Oct, 2021	25.373	100	Conveyance pipelines
BDS Package 3	Tianjin- Raman JV	05 Jun, 2014	31 Dec, 2021	15.062	100	from Sundarijal WTP to the
BDS Package 4	Hangzhau- Ashish JV	23 Dec, 2015	30-Jun-22	14.553	100	Service Reservoirs
SCADA	VCGP- WMI- KALIKA JV	Jan 2021	21 Dec 2024	15 RMU, and 46 OMU	100	Installation of RMUs, OMUs, AMUs and AMR and operation for 2 years



Bulk Distribution System Construction Packages under Government Fund

	Package	Contractor	Contract		Length of Pipeline (KM)TotalCompleted				Included Works
	Name/ Number		Commencement Date	Completion Date			%		
ĺ	BDS	Huashui -	4 Oct 2020	28 July	10.84	5.362	30	Under	
	Package	Kankai		2025				Construction	
	5	JV							

Construction Packages of Service Reservoir Tanks

Package Number	Contractor	Contract Commencement Date	Contract Completion Date	Progress %	Included Works
SRT 06A	Sharma and Co. pvt Ltd	6 Mar 2022	31 Dec 2024	100	Construction of Service Reservoirs Tanks at Mahankal and Kirtipur
SRT 06B	C.A.B. Costruction	14 Mar 2023	12 May 2026	23	Construction of Service Reservoirs Tanks at Balaju

B. Wastewater Component

Rapid and unplanned urbanization in the Kathmandu Valley has led to severe pollution of the Bagmati River and its tributaries, with untreated sewage being directly discharged into them, turning these rivers into wastewater drainage channels. In response to this critical environmental challenge, the Kathmandu Valley Wastewater Management Project (KVWMP) was launched in 2013 to restore the beauty and ecological integrity of Kathmandu's rivers by ensuring that only treated water is released into them.

Under KVWMP, the Project Implementation Directorate (PID) is responsible for constructing and rehabilitating five Wastewater Treatment Plants (WWTPs) and two Decentralized Wastewater Treatment Systems (DEWATS) across the valley. Currently, PID is working on WWTPs at Guheshwori, Dhobighat, Kodku, and Shallaghari, as well as DEWATS at Gokarna and Hanumanghaat. Additionally, a Sewer Network Master Plan has been developed, which includes the construction of Intercepting Sewers (IS) along major rivers such as Hanumante, Manohara, and Khasyang Khusung, alongside sewer rehabilitation efforts in Lalitpur Metropolitan City (LMC), Gokarna Municipality, and the core areas of Kathmandu Metropolitan City.

As of this reporting period, significant progress has been made. The Guheshwori Wastewater Treatment Plant (32.4 MLD) was successfully completed and has been operational since October 2020. The Dhobighat Wastewater Treatment Plant (37 MLD) had completed its physical construction and was in the final construction stage inspection phase; however, it was severely impacted by the flood of September 28 & 29, 2024, causing delays in its final completion. Additionally, for the remaining works of previously terminated contract (TP-02) for construction of other wastewater treatment plants at Sallaghari, Kodku and Dhobighat was awarded with new contractor and with implementation currently underway.

Furthermore, two Decentralized Wastewater Treatment Plants (DEWATS) at Gokarna (3 MLD) and Hanumanghaat (1 MLD) are under implementation. The construction of other treatment facilities and sewer network upgrades remain actively ongoing, marking a crucial step toward the sustainable management of wastewater in Kathmandu Valley.



Major Works Under Wastewater Infrastructure Component

SN	Description	Activities
1	Wastewater Treatment Plants	Construction of Wastewater Treatment Plants at Guheshwori, Kodku, Sallaghari and Dhobighat with total Treatment capacity of about 138 million litres per day.
2	Interceptors along the Banks of Rivers	Interceptors along the Manohara, Hanumante and Khasyang-Khusung River/ Stream of length about 30 kilometers is completed aiming to intercept the wastewater disposing directly to the river/stream.
3	Sewer Network Rehabilitation and Construction	Rehabilitation and construction of sewer networks in Patan and Gokarna, and a storm water network at Baluwatar area is under construction
4	Decentralized Wastewater Treatment Plants (DEWATS)	Construction of two DEWATS at Gokarna of Kathmandu and Hanumanghat of Bhaktapur (4 MLD)

Progress of Packages under Wastewater Infrastructure Component Wastewater Treatment Plant Construction Packages

Package Number	Contractor	Contract Commencement Date	Contract Completion Date	Progress %	Included Works
WWTP Package 1	VA Tech Wabag Ltd.	01 Aug 2016	27 Oct 2020	Completed and in Operation	Rehabilitation and Expansion of Guheshwori WWTP (32.4 MLD)
WWTP Package R-02	VA Tech Wabag Ltd.	26 June 2024	26 June 2026	4%	Construction Works Under Progress.
WWTP Package 3	CGCOC- ATAL JV	25 Mar 2018	31 Dec 2025	97%	Construction of Wastewater Treatment Plants at Dhobighat (37 MLD). Currently, damaged due to Flood.
DEWATS -01	TEAMS- BCPL JV	20 Mar 2022	14 April 2025	16%	Construction of DEWATS at Gokarna of Kathmandu (3 MLD) and Hanumanghat of Bhaktapur (1 MLD)



Inceptors Construction Packages

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Progress %	Included Works
Interceptor Package 1	GIETC-Lama- Raman JV	3 May 2016	09 Oct 2020	47.80	Construction of Interceptor sewer at Hanumante (25.331 Km)
Interceptor Package 2	ZIEC-Sharma- BKOI JV	2 Nov 2016	27 Nov 2020	42.93	Construction of Interceptor sewers at Manohara (11.363 Km)
Interceptor Package 3	Lama-Raman- Golden Good JV	15 Dec 2017	7 Dec 2019	Completed	Construction of Interceptor sewer (7.679 Km)
WW/SN-03	Sharma- Lama Golden Good JV	17 Aug 2020	15 July 2024	Completed	Sewer line (2.4 KM) at Patan
WW/SW-01	Samantar Nirman Sewa Pvt Ltd	2 Mar 2022	5 June 2023	Completed	Storm Water line (1.22 KM) at Baluwatar
WW/SN-04	Lama-Golden Good JV	2 March 2023	21 March 2025	35.7	Sewer line (6.24 KM) at Gokarna



JICA TECHNICAL CO-OPERATION

"The Project on Capacity Development of KUKL to Improve Overall Water Supply Service in Kathmandu Valley" (the Project) is a technical cooperation project to strengthen the water supply operation capacity of KUKL staff and to improve customer service, as the water supply is expected to increase significantly through Melamchi Water Supply Project supported by ADB and JICA. In order to achieve the project purpose and outputs, the necessary activities were planned according to the concept as shown below. After the project is completed, KUKL itself will continue its activities, thereby achieving a virtuous cycle of water supply business as shown below:

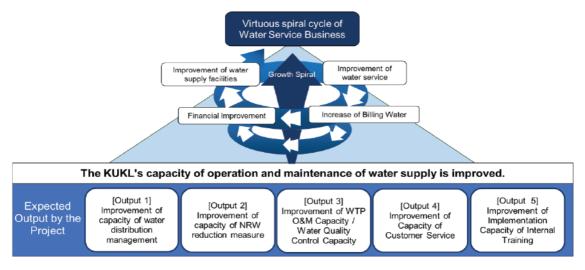


Figure 1: Concept of JICA Technical Cooperation Project

Output 1

- GIS PC and RTK-GNSS Equipment were provided to Mahankalchaur, Maharajgunj, Tripureshwor, Lalitpur, Baneshwor Branches and the Head Office. With the PC, GIS Engineers of the Branch Offices can update the field information in the GIS Software and periodically update in the GIS Server. RTK-GNSS Equipment will be used by the GIS Engineers to collect the location data from the field.
- Installation of the GIS Server at the Server room of the Tripureshwor Branch. GIS Engineer at the Head Office will regulate and monitor the activities conducted by the Branch Offices and maintain the data in the server with collaboration with the IT Section.
- > The digitization of information using mobile devices and the use of GIS was enable third parties in

KUKL other than the surveyor/supervisor to check customer information in a timely manner. Furthermore, a document creation application was installed on the tablet, and the process of filling out and printing out the necessary information on the designated sheets by the survey staff themselves became a routine part of their work.

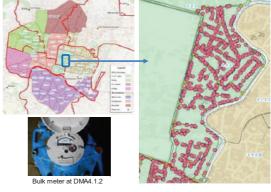


Digitization of customer registration forms (R: Digitized form / L: Traditional form)



Output 2

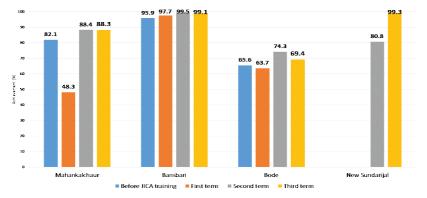
- The Project promoted the capacity building of KUKL staff through thematic training of trainers (TOT). The commercial loss prevention on which this project will focus has four major objectives as shown in below.
 - a. To keep accuracy of water meter for customer
 - b. To keep accuracy of meter reading
 - c. To keep accuracy of data input and checking
 - d. To reduce illegal connections and unmetered customers
- Since DMA 4.1.2 switched to water supply through a new distribution pipe network, the Project began work on collecting and analyzing bulk meter readings and customer billed water volume data necessary to calculate the nonrevenue water rate on a pilot program basis.



Location of DMA 4.1.2

Output 3

In order to ensure that the staffs of the branch offices and the head office are accurately aware of the daily water treatment plant operation status, monthly reporting meetings are held to confirm water quality data and problems that need to be improved at the four water treatment plants.



Percentage of samples achieving turbidity of 5 NTU or less

Output 4

- A "Customer Service Report" (including a customer satisfaction survey and an analysis of complaints received by KUKL) reflecting the information obtained from the activities up to 2023 was prepared by the C/P by March 2024 and reported to the executive from the head office and 6 branch offices.
- The Business Improvement Committee (BIC), which has been coordinating between JICA Expert Team and KUKL management, including the CEO, since November 2023, was established and held its first meeting on August 30, 2024, chaired by the CEO.
- > During the meeting, the staff members gave presentations on the contents of the Customer



Service Analysis Report by C/P in Output 4, and a lively discussion took place based on the complaint information for each branch office. In addition, the following items were resolved by the Committee

- Mandatory preparation and reporting of "Customer Service Analysis Report" at each branch office
- Election of a person responsible for customer satisfaction surveys
- Digitalization of records of complaints and requests in each branch office
- Prioritization of online complaint handling

The Project on Capacity Development of KUKL to Improve Overall Water Supply Service In Kathmandu Valley



Customer Service Analysis Results



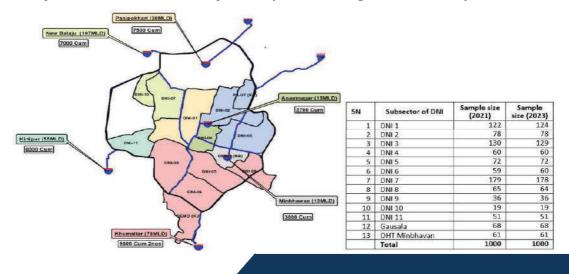
Dear KUKL Customers.

The JICA Project Output-4 working group (Customer Service / Public Awareness) has summarized the results of a statistical process, analysis and discussion based on the findings and survey outcomes obtained through its activities.

We are pleased to share the results with you, as it became clear that the content should be shared not only within KUKL, but also with the public.

Customer Satisfaction Survey (CSS) Outline

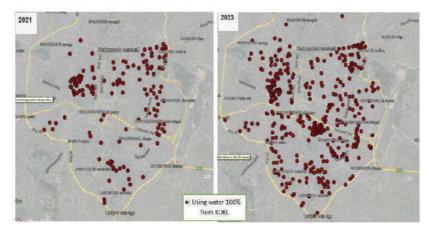
Customer Satisfaction Survey of one thousand customers in various DNI (Project Implementation Directorate) within the ring road area of Kathmandu Valley conducted in Nov 2021 and May 2023 to have some picture about the overall service provided by KUKL. The target area of the survey is shown below.



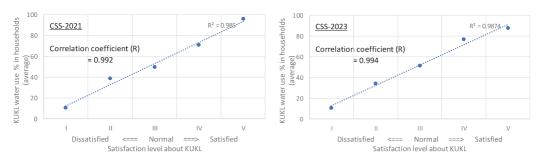


CSS Result Analysis - Change by Melamchi Water Supply

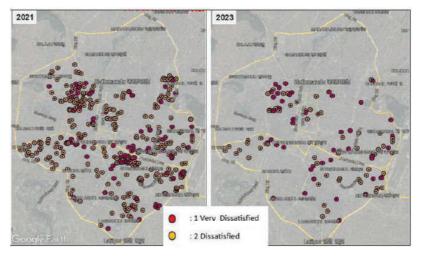
The number of customers who reported a KUKL water supply sufficiency rate (ratio of KUKL water supply to water consumed in the household) of 100% has doubled. And a plot of customers who reported that KUKL water covers 100% of their consumption, based on GPS information and location, is shown in the maps below.



Customer satisfaction increases as the amount of water supplied by KUKL increases as shown in the linear relationship between KUKL water use and the satisfaction level of customers.

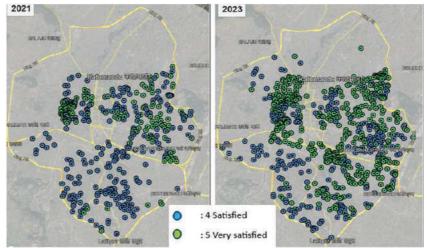


The survey revealed not only the amount of water supplied, but also the improvement in water quality. The survey asked respondents to rate their satisfaction with the quality of KUKL's water supply on a scale of 1 (low) to 5 (high).



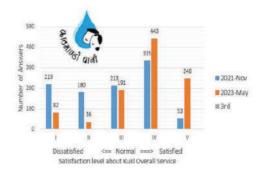


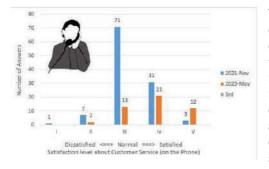
The results are shown in the figure. Low ratings (1 and 2) decreased in 2023, while the number of "very satisfied" responses has increased significantly, which is a positive trend.



CSS Result Analysis - Customer Satisfaction Levels

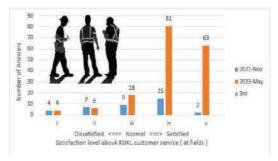
Customer satisfaction levels in 2021 and 2023 are compared based on a scale from very dissatisfied (I) to very satisfied (V). While both years show the highest satisfaction at level IV, 2023 exhibits a notable increase in levels IV and V compared to 2021. This improvement is attributed to the expansion of water supply through the Melamchi project, indicating its significance in enhancing satisfaction.





On the other hand, the number of field responses has increased, and it was noted that communication in the field has increased in line with the water supply expansion project. The results led to proposals for the internal sharing of customer service reports with KUKL and the establishment of regular meetings with the PID (Project Implementation Directorate) who is also a key player.

With the Question, "How did you feel about the communication services by KUKL?", with regard to customer satisfaction with customer services in telephone support, the peak satisfaction level moved from III (either) to IV (a little satisfied), indicating an improving trend. As a reason for the decrease in the absolute number of complaints, it is assumed that the number of complaint calls has definitely decreased after the Melamchi water supply.





Photographs





"अमूल्य पानी अनमोल जीन्दगानी"



सुनिल कोईराला जवालाखेल शाखा

कहिले बन्छ बादल कहिले बन्छ वर्षा वर्षा परेपछि किसानमा छाउँछ हर्ष !!!!

बहुउपयोगी यो पानी यत्रतत्र छ नी ? संरक्षणमा कमि अनि अभाव हो नी ? बुझौँ हामी सबैले आफ्नै पाराले बहुअपयोगी पानी वारे बुझौँ साराले !!!!!

अमृत हो नी पानी संरक्षण गरौं हामी वातावरण हराभरा हुने जन्मदा नी पानी मर्नु अधि पानी उज्यालो बनाउने नी पानी

संरक्षणमा लागी हामी, किनकी अमूल्य छ पानी अनमोल जीन्दगानी !!!!!!

उपत्यकाको प्यास मेट्न मेलम्बीको पानी यो पानीलाई वितरण गर्ने के. यु. के. एल. छ नी वितरणको तालिका छ पानी आउँछ घर—घरमा खुसीयाली छाएको छ उपत्यका नगरमा !!!!!!!

कुच्चिएका केही थान गाग्रीहरु

झिसमिसेमै लामवद्ध छन् कुवा सैंगै ।

भर्नु छ खाँदीखाँदी, थोपा थोपामा मायाँको स्पर्स ।

वर्षातको प्रतिक्षामा एकटकसँग, आकाशतिर नियाल्छन,

थाक्दैनन् पुकार गर्न, किनकी, उमार्नु छ अमृत वृक्ष

फलाउनु छ अज़ुलीभरीको मायाँ, अनि बाँढ्नु छ

एकाएक वादलहरू रुनलाई जम्मा हन्छन्

रातको सुन्यतामा, रहस्यहरु फुसफुसाउने वर्षा हुन्छ,

आकाश रोएको वेला, खेतहरु, खुसिले बुर्कुसी मार्छन्

तिनिहरुको हाँसो वर्षाको पानी झैं छरपस्ट हुन्छ ।

किसानहरू सपनाहरूलाई वालीनालीमा परिणत गर्छन् ।

तिर्खाएको माटोलाई प्राण भर्छन्

वर्षासँगै पानिको मूल फुट्छ पाइपहरुमा पानि सँगै तुष्णा मिसिन्छ,

रत्तिभर नडगमगाई, तप्त हुने आपमा

चिरा चिरा परेका खेतका गहाहरू

संसारभर ।

"भोलीको तिर्खा"

नविन पराजुली

मेहेनत र पसिनाको वेग बग्छ । घर घरमा प्यासको टुटी खुल्छ अनि जिवनका गितहरुले ट्याद्दी भरिन्छ ।

पानिको प्रत्येक चुस्की उत्सव हो प्रत्येक चम्किलो थोपा आर्शिवाद हो । सबैको हृदयलाई जोड्ने अदृष्य कडि हो सजिव वस्तुहरुको लागी बरदानको छुडी हो ।

पानी... रङ्गहिन भएपनी इन्देभी झेँ रङ दिन्छ स्वाद हिन भएपनि, जिन्दगी ज्यूनुको स्वाद चखौँउछ आकारहिन भएपनि जिन्दगीलाई सार्थक बनाउँछ मृत्यु नजिक पुगेकाहरूलाई पनि बौच्ने बनौँउछ ।

त्यसैले, आजैबाट पानी बचाउने प्रण गरौं खेर गएका श्रोतहरुको संरक्षण गरौं जिबनको यो असुल्य सम्पत्ति जोगाउन, अनि भोलीको तिर्खा मेटाउन, सबैले हातेमालो गरौं ।

धास हो पानी शक्ती हो पानी आशा हो पानी उर्जा हो पानी साथी हो पानी सबै भन्दा माथि हो पानी भण्डार अपार छ तर पनि अभाव छ !

मोल छैन अनमोल छ पानी यही पानी बिना चल्दैन हाम्रो जिन्दगानी 'रुपरङ्ग देखिदैन स्वाद पनि भेटिदैन बिना पानी कसैको तिर्खा पनि मेटिदैन !!

पशुलाई पानी पंछीलाई पानी मनुष्यलाई त झन नभई नहुने नुहाउन पानी लुगा धुन पानी भान्सामा त झन् नभई नहुने उद्योगमा पानी खेतीमा पानी बनस्पतीलाई त झन नभई नहने !!!

चुलबुल छ कोमल छ कटोर पनि उत्तिकै मौन छ शान्त छ सुन्दरता पनि उत्तिकै निर्जीब जस्तो देखिन्छ चलायमान छ उत्तिकै



TARIFF RATE

Piped Water Connection

			Me	Metered		
S.N.	Connection Size (inch)	Minimum Consumption (Liters)	Minimum Charge (NRs.)	Additional Charge Per 1000 Liters (NRs.)	Monthly Fixed Charge (NRs.)	
. 1	1/2"	10,000	100	32	785	
2	3/4"	27,000	1,910	71	4,595	
3	1"	56,000	3,960	71	9,540	
4	1 1/2"	1,55,000	10,950	71	26,280	
5	2'	3,20,000	22,600	71	5,42,55	
6	3"	8,81,000	62,240	71	1,49,415	
7	4"	18,10,000	1,27,865	71	3,06,880	
	Sewera	age service charg	50% o	f water bill		

Supply by Tankers

S.N	Quantity of Water (Liters)	Rate (NRs.)
1	5000	1995
2	6000	2300
3	8000	2860
4	9000	3155
5	10000	3435
Payment at Delivery Place		Extra Charge of 10%

Water and Wastewater Quality Analysis

S.N.	Analysis Type	Rate (NRs.)
1	Physico-chemical Analysis	495.00
2	Bacteriological Analysis (Total coliform, Fecal coliform, E. coli, Vibrio cholerae, Salmonella and Shigella)	300 each
3	Arsenic Test	300.00

Sewer Cleaning by Jetting Machine

S.N.	Description	Rate (NRS)
1	Cleaning of sewer Upto 100 ft length	1000
2	Cleaning of sewer more than 100 ft length	1500



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