KATHMANDU UPATYAKA KHANEPANI LIMITED

Annual Report

Fourteenth Anniversary

2078 Falgun

Kathmandu

On the occasion of

Fourteenth Anniversary of

Kathmandu Upatyaka Khanepani Limited,

we would like to commit for the

better delivery of our services in

efficient and reliable means to

our consumers.

Water is essence of life, do not waste a drop of it.

A Significant amount of money is spent on production and distribution of potable water, please use it sparingly.

Please make regular payments of the water bills to avoid fine and penalties.

Water infrastructure is communal property, lets help to make it sustainable.

Please Contact KUKL for Following Services

1. Water Supply and Sanitation Services
2. Water Tanker Service
3. Sewer Cleaning Service
4. Water Quality Test Service
5. Water Meter Test Service

मा. उमाकान्त चौधरी
मन्त्री
खानेपानी मन्त्रालय
सिंहदरबार, काठमाडौं, नेपाल

नेपाल सरकार
Government of Nepal

Hon. Umakant Chaudhary
Minister
Ministry of Water Supply
Singha Durbar, Kathmandu, Nepal

प.सं.:
च.नं.:

मिति:.....
Date:.....

Message from Hon'ble Minister of Water Supply

Best Wishes to Kathmandu Upatyaka Khanepani Limited (KUKL)

It is my immense pleasure to extend my warmest congratulations and best wishes to the entire team of KUKL on its successful completion of 14th years of providing water supply and wastewater services in Kathmandu Valley. I would like to appreciate KUKL's dedication and diligent efforts in managing the greatest challenge of equitable distribution of available insufficient water to meet growing demand.

KUKL had won the trust of customers and stakeholders by successfully distributing 170 MLD Melamchi water through the old distribution network during the last testing two and half month's period. Unfortunately, the landslides and floods at Melamchi had obstructed the initial supply of Melamchi water.

Ministry of Water Supply under the Government of Nepal, had recently committed to bringing back the Melamchi water in Kathmandu Valley within 2078 Chaitra. Melamchi Water Supply Development Board has already started the implementation of the work plan. Ministry of Water Supply is monitoring the daily work progress. I am confident that KUKL will again successfully distribute the Melamchi water by fulfilling the demand of the people of Kathmandu Valley efficiently.

I would like to thank KUKL for providing nonstop services even during the pandemic situation of COVID-19. It is a great achievement to improve services by initiating the information technology-based online revenue payment system, online self-meter reading system, online grievance system, mobile Apps, etc.

As the constitution of Nepal has declared the fundamental right of every Nepalese citizen for access to clean drinking water and sanitation, the Ministry of Water Supply has given the topmost priority in conservation and revival of water sources, regular testing of water quality, and treatment of water.

I would like to appreciate KUKL's continuous efforts on preserving water sources and supplying treated water in Kathmandu Valley. I would assure to support KUKL for further improvements from my side as well as on behalf of the Ministry.

(Hon. Umakant Chaudhary)
Minister of Water Supply
Hon'ble Uma Kanta Chaudhary
Minister

फोन नं.: ०१-४२११५६५, फ्याक्स : ०१-४२००५९७, इमेल: umakant.chaudhary@nepal.gov.np

Government of Nepal
MINISTRY OF WATER SUPPLY
Phone: 4211693
Fax: 977-1-4211433
Singhadurbar,
Kathmandu, Nepal

Ref. No.: 96 1078-079

Message from secretary, Ministry of Water Supply (MoWS)

On behalf of Ministry of Water Supply and myself, we would like to congratulate and warm wishes to KUKL family on the auspicious occasion of 14th Anniversary. In these 14 years of service journey, KUKL has left no stone unturned in its service of providing drinking water and sewerage management services to the people of Kathmandu Valley, where the hardship of water was facing since last three decades. The activities of looking after the WASH assets and widening the scope of quality water supply and wastewater management services in the Kathmandu valley by KUKL amidst unplanned urbanization, rapidly growing population, depleting surface sources and other adverse factors is commendable and wishing for the better endeavors in this regards.

KUKL has shown appreciable performances in the distribution of water transferred from Malachi last year and succeeded to raise the sun of happiness and hope in each and every face of people of Kathmandu. It has proven the capability of KUKL to achieve its objectives. Due to the unprecedented disaster in the Melamchi basin, the continuity of the quality service could not last for more than 3 months. Still we are made hopeful that the KUKL will be able to show its sectoral capacity again. We are confident that given the rich experiences of the KUKL, all possible consequences in water supply and sanitation management, will be dealt with diligence. We are also confident that KUKL will be able to provide better water supply and sanitation services in near future with Melamchi water.

I would also like to take this opportunity to deeply appreciate KUKL prompt response and continuity of its services in COVID 19 pandemic. Correspondingly, KUKL's contribution in minimizing the transmission of COVID 19 through enabling self-meter reading system, introducing portable wash basins and refilling of water in numerous hand washing station scattered in different public places across valley is praise worthy.

Being one of the major associates of KUKL, we appreciate KUKL contributions for making the valley ease access to water and its efforts for continually improving customers' services through introduction of information and communication technology in finance, human resources, inventory, customer care, online payment etc. I also like to provide assurance that we will support KUKL as like today in coming days by helping build its capacity and financial status to achieve its goal. We are thankful to ADB, JICA and other development partners for their continuous support to KUKL for the capacity development and service improvement.

At last, I would like to take this opportunity to thank KUKL for their performances done, expect continuous improvement of their services and best wishes for prosperity in the future endeavors.

Pramila 13th Feb 2022

Er. Pramila Devi Shakya Bajracharya

Secretary, Ministry of Water Supply

Government of Nepal

KATHMANDU VALLEY WATER SUPPLY MANAGEMENT BOARD

Sainbu, Bhaisepati, Lalitpur

Message of Best Wishes

It is our immense pleasure to congratulate Kathmandu UpatyakaKhanepani Limited (KUKL) for its 14th anniversary. Established on 13th February, 2008 with 30 years lease license agreement with Kathmandu Valley Water Supply Management Board (KVWSMB), KUKL is working untiringly to ensure equitable water supply to residents of Kathmandu Valley.

Increasing urbanization, rapid population growth, depleting surface and groundwater sources and changing climate have contributed in escalating difference between demand and supply of potable water in Kathmandu Valley. Assigned with the responsibility of water production, treatment and distribution inside Kathmandu Valley, KUKL has the sole responsibility of overcoming the challenges of this disproportion.

Current situation of much awaited Melamchi Water Supply Project, with damaged intake and compromised river beds have added more complexity on already water deprived capital city. To mitigate additional water stress created by Melamchi disaster, KUKL should focus on the utilization of additional water from Bagmati River during wet season, together with other alternatives. Conjunctive use of surface and groundwater together with strategy for balancing seasonal fluctuation is the best way to solve water security issues of Kathmandu Valley in near future. KVWSMB is working on Sisneri Water Supply Project, a good alternate source which has the potential to supply adequate drinking water to Kathmandu Valley.

Finally, I would like to convey my best wishes, for the advancement and prosperity of KUKL on this occasion of fourteen anniversary, with a genuine faith that KUKL will be able to upgrade its service delivery significantly in coming days as anticipated by valley denizens through establishment of a cordial relation with all stakeholders.

Date: 2078/11/1

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(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

THE AUSTRALIAN WATER PARTNERSHIP

A Water Operators Partnership, between KUKL and the Australian Water Partnership, has been operating since April 2017 to assist KUKL in improving water supply and sanitation services by sharing knowledge with Australian water utilities. Hunter Water Corporation and Logan City Council, members of Water Services Association of Australia, have been working as mentors to KUKL to support KUKL in implementing strong asset management systems and processes and to assist KUKL staff in growing their knowledge and capability.

Over nearly three years, KUKL staff have been extremely responsive and eager to grow their knowledge and capability. They have developed a robust asset management system for operating and maintaining pipe networks, treatment plants and tube wells. This will significantly improve KUKL's ability to deliver better water supply and sanitation services to residents of Kathmandu as new water becomes available from the Melamchi Water Supply Project.

The Partnership involved regular visits by Hunter Water and Logan City Council engineers to Kathmandu as well as visits by KUKL engineers and managers to the Australian water utilities. Knowledge of Australian systems was passed to KUKL along with strong mentoring and KUKL has effectively implemented these systems and has continued to use and improve them to suit their own specific needs.

From early 2020, despite COVID-19 and significant environmental interruptions to the supply of new water, the Partnership has continued through online video conferences. KUKL has continued to grow its capability in managing and improving delivery of water services to customers.

New initiatives are being developed by KUKL. Young staff members have joined Australia's Young Water Professionals program, where young engineers in KUKL are linked directly with young engineers in Australia to discuss and meet challenges they face in their professional career. Specific training for water treatment plant operators is being developed and a project to understand the causes of non-revenue water losses is being investigated.

The Partnership will continue until early 2023, by which time face-to-face visits should have resumed to enhance the outcomes of the asset management program, staff capacity building and the new initiatives.

Graeme Bartle-Smith

KUKL Water Operators Partnership Project Manager
Water Services Association of Australia

Kathmandu Upatyaka Khanepani Limited

HUNTER WATER

LOGAN CITY COUNCIL

WATER SERVICES ASSOCIATION OF AUSTRALIA

Expectations from the JICA Technical Cooperation Project Team

First of all, I would like to congratulate KUKL on celebrating 14 years of existence.
Water supply services in the Kathmandu Valley are facing serious challenges. The ever-increasing population, combined with low absolute water source and increasing demand for water supply, means that many areas do not have access to safe and comfortable water services.
At the Joint Coordination Committee meeting held on 20 July 2021, a technical cooperation project was officially launched under the support of the Japan International Cooperation Agency (JICA) to improve water services in KUKL.
Thanks to the cooperation of the Government of Nepal, the CEO of KUKL and the various branches, a project team of experts in various technical fields has been able to start its activities despite the difficulties faced by the global spread of the new corona virus.
The completion of the ongoing Melamchi Water Supply Project will significantly increase the amount of water being diverted from the Melamchi River and will provide clean drinking water from the new Sundarijal Water Treatment Plant to a large area of the Kathmandu Valley.
Areas within the Ring Road will also be served by the new distribution network, which will provide safe and comfortable water services for many residents.
In this context, the project will enhance the capacity of KUKL staff in various areas over a period of five years from 2021 to 2026.
Output 1: Equitable water distribution planning using GIS data and hydraulic analysis
Output 2: Measures to reduce non-revenue water with a focus on commercial losses
Output 3: Improvement of water quality management at the new Sundarijal water treatment plant and existing major water treatment plants.
Output 4: Improvement of customer service with a focus on water quality as well as increasing water quantity and supply hours.
Output 5: Establishment of an internal training system and capacity building of staff by KUKL itself.
All of us in the project team are very pleased to be able to deploy Japanese technical assistance at the best time, as the Melamchi Water Supply Project nears completion.
We hope that this assistance will contribute to improving the lives of citizens in the Kathmandu Valley.
We would like to wish KUKL for more successes in the future.

Koji Naito
Project Manager - JICA Technical Cooperation
The Project on Capacity Development of KUKL to Improve Overall Water Supply Service in Kathmandu Valley

DHAKA WATER SUPPLY & SEWERAGE AUTHORITY

WASA Bhaban, 98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215
PABX: 8117829-31, 8120223-27, Tel: 88-02-8189626, Fax: 88-02-8189625
Website: www.dwasa.org.bd, E-mail: md@dwasa.org.bd; info@dwasaorg.bd

শেখ হাসিনার মূলনীতি
গ্রাম শহরের উন্নতি

Memo No :...2022-04 Date :...08.02.2022...

Er. Milan kumar Shakya
CEO, KUKL
Kathmandu, Nepal

Our heartiest felicitation to KUKL on the great occasion of its glorious 14 years completion.

Nepal is our neighbor country. Dhaka WASA feels proud to support water operators through Water Operator's Partnerships (WOPs) and to split the success stories especially on DMA, NRW, SCADA, etc related works.

I strongly believe that such WOP remarkably helped improving organizational culture, quality of service, faster maintenance processes & increased technological efficiency. Due to global Covid pandemic it was tough to plan for further bilateral visits. Now the situation has improved & Dhaka WASA likes to expedite the WOP in support of development partners.

I am pleased to see that KUKL, Nepal has been enjoying fast organizational development with remarkable achievement over the years. The cooperation between two countries has brought tangible benefits to the person, which sets a good example of South Asian cooperation.

Also I would like to take the opportunity to thank ADB & JICA for extending their supports including Nepal Government Delegation's & KUKL Staffs that are associated with this partnership program.

Wishing more success in the upcoming future.

All the best for the KUKL, Nepal.

Engr.Taqsem A Khan
Managing Director & CEO
Dhaka WASA

Messages from Chairman of Board of Directors

Kathmandu Upatyaka Khanepani Limited (KUKL) is celebrating its 14th anniversary (KUKL) this year. On this felicitous occasion, I extend my sincere gratitude to all the customers for continuous support and co-operation and take this opportunity to appreciate and thank all the employees of KUKL who have made fourteen years of journey of KUKL possible through their hard work and dedication.

KUKL is faced with a double pronged challenge of providing decent and improved services to its existing customers as well as of meeting a growing demand for extension in new areas. Most of the water sources inside Kathmandu Valley have been exhaustively tapped and the infrastructure inherited by the company needs substantial upgrading. which adds to the difficulties in maintaining the service. Past thirteen years, we are continuously working to augment our existing sources, minimize losses in old networks, and judicious rationing of water to the extent possible. Though we are sincere to our efforts. results are neither satisfactory nor promising without availability of additional water. For a brief period from Chaitra 2077 to Asadh 2078. Melamchi water was successfully diverted to Sundarijal. The period was a test of our resolve to provide better services to the customer. We successfully supplied water through old networks as new networks were not tested and available for supply This has further strengthened our confidence that water supply in the valley can be fully transformed once we get reliable water diversion and new networks. We are now committed to supply 24x7 water supply on the resumption of Melamchi water.

KUKL Board and the management is committed to carry out reforms on financial, administrative, technical, and customer relations capacities of KUKL. As a chairman of the Board, I appeal to at staffs to support the reform agenda and become the vehicle for the change. These reforms are crucial to regain and retain the faith of our customers. which is shaky at this time mainly due to the unavailability of water but not united to that. As a PPP model company, our financial management and productivity need to excel in order to compete and survive in the market. Many times, we forget that the kind of monopoly KUKL is enjoying now will be challenged from all comers once Melamchi water is resumed and new networks are commissioned. That is also fair to greater interest of the people of the Valley and the government. Therefore, KUKL must be honest towards its commitments to the people, government, and themselves.

I on behalf of KUKL family extend our appreciation to the government of Nepal (GON), Asian Development Bank (ADB). Japan International Corporation Agency (JICA), Kathmandu valley water supply and management board (KVWSMB) and Australian Water Partnership (AWP) for their continuous support. At the end, I would also in to assure to our shareholders and customers that we serious in our commitments on improving our service standard.

Tiresh Prasad Khatri
Chairman
KUKL, Board of Directors

Kathmandu Upatyaka Khanepani Limited
Project Implementation Directorate
Anamnagar, Kathmandu

Ref. No.

Date: .....

Message from KUKL-PID

First of all, I offer my best wishes to Kathmandu Upatyaka Khanepani Limited (KUKL) on the occasion of its 14th anniversary. I hope that KUKL will be able to achieve progress and prosperity in coming days too by taking goodwill and satisfaction of customers as its most valuable asset and addressing challenges that lie ahead.

It will be relevant to inform through this platform that we at Kathmandu Upatyaka Khanepani Limited, Project Implementation Directorate (KUKL-PID) have been working relentlessly for the construction of infrastructure necessary to supply Melamchi water to households in the Kathmandu Valley. So far, we have completed the construction of Bulk Distribution System (BDS) and service reservoir tanks (SRTs) required for the new system. At the same time, we have completed pipe laying of 1132 km in first phase (including Demo) of Distribution Network Improvement Works and 175 km in new packages. Out of which flushing and testing of 375 km of distribution network has been completed and ready to supply water once operational arrangements are finalized.

I also take this opportunity to thank field engineers, contractors and KUKL staffs for the cooperation received to KUKL-PID during supply of Melamchi Water through the bulk distribution system and new service reservoirs during May-June 2021. I also extend my best wishes to KUKL for successful operation of the newly developed network, that is currently waiting for the handover process.

Finally, I also would like to assure every possible support to KUKL during operation of the newly developed system in near future.

Er. Kamal Raj Shrestha
Project Director
KUKL-PID

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

Commitment from Chief Executive Officer

On the occasion of 14th anniversary of Kathmandu Upatyaka Khanepani Limited (KUKL), I would like to congratulate KUKL team and valuable customers.

We had successfully supplied Melamchi water daily/ one alternate day to our customers using the old distribution network during a testing period from 2077 Chaitra 15 to 2078 Jestha 31. Our customers thanked and wished us for continuous good water supply. But we could not get Melamchi water from 2078 Asar 1 and again we have to supply water in certain days' gap. We will supply Mealmchi water again after it will be available in Kathmandu valley. To manage the growing water demand in Kathmandu valley, we need additional bulk water from new alternate sources. We are preserving the existing water sources and adding some water from new deep tube well borings.

We are committed to improve our water supply and sanitation services to our valuable customers despite of resource limitations, COVID or other calamities and doing the following to improve our services:

- updating time by time the water supply schedule as per availability of water
- maintaining water leakage and sewer blockage promptly
- implementing online revenue payment system, online grievance system, online self-meter reading system & other computerized systems
- communicating customers through KUKL facebook, App, website
- mobilizing rapid response teams and monitoring the service delivery
- reforming internal policies, organization structure, employee regulation
- sharing experience with international water operator partners
- coordinating with stakeholders, etc.

I would like to thank Ministry of Water Supply, Water Supply Tariff Fixation Commission, Kathmandu Valley Water Supply Management Board, KUKL Shareholders & Directors, Asian Development Bank, Japan International Cooperation Agency, water operator partners, customers and many other good wishers for their continuous supports.

With best regards,
Er. Milan Kumar Shakya
CEO, KUKL

Table of Contents

1. Introduction

Kathmandu Upatyaka Khanepani Limited (KUKL) is the water utility operator of the Kathmandu valley. KUKL is an autonomous water company established under the Public Private Partnership (PPP) model which is registered under the Nepal Government's Company Act 2063. KUKL is the only water company which provides all drinking water and waste water related service in Kathmandu valley. After the formation of government owned public water system in 1893, series of institutional reform has led the formation of KUKL.

KUKL's root goes back to February 2008, when KUKL officially started to render drinking water and waste water services in Kathmandu Valley. Similar to Kathmandu Valley, we have grown considerably since then, and are constantly looking for new ways to solve water stress in Kathmandu valley. KUKL is committed to being a well-organized employer that operates a productive manner, enhancing the welfare of our employees. KUKL is also responsible for operation and management of Melamchi Drinking Water Project with its availability in Kathmandu valley.

From the beginning, KUKL has always prioritized quality service within its service area along with mitigating the water crisis in Kathmandu valley. KUKL is augmenting its service areas and is building the water resilience capabilities to ensure sustainable water future for Kathmandu valley.

2. Institutional Transition for providing Water Supply and Sanitation Services in Kathmandu Valley

Looking back into the history, public water supply system was initiated in Kathmandu valley way back in 1893 AD. Before February of 2008, the water supply and wastewater management of Kathmandu valley had been managed by different institution at different periods of time as formed by Government of Nepal (GoN). Pani Adda, Pani Goswara, Water Supply and Sewerage Management Board and Nepal Water Supply Corporation were the organization which worked as water utility operator of Kathmandu valley till then.

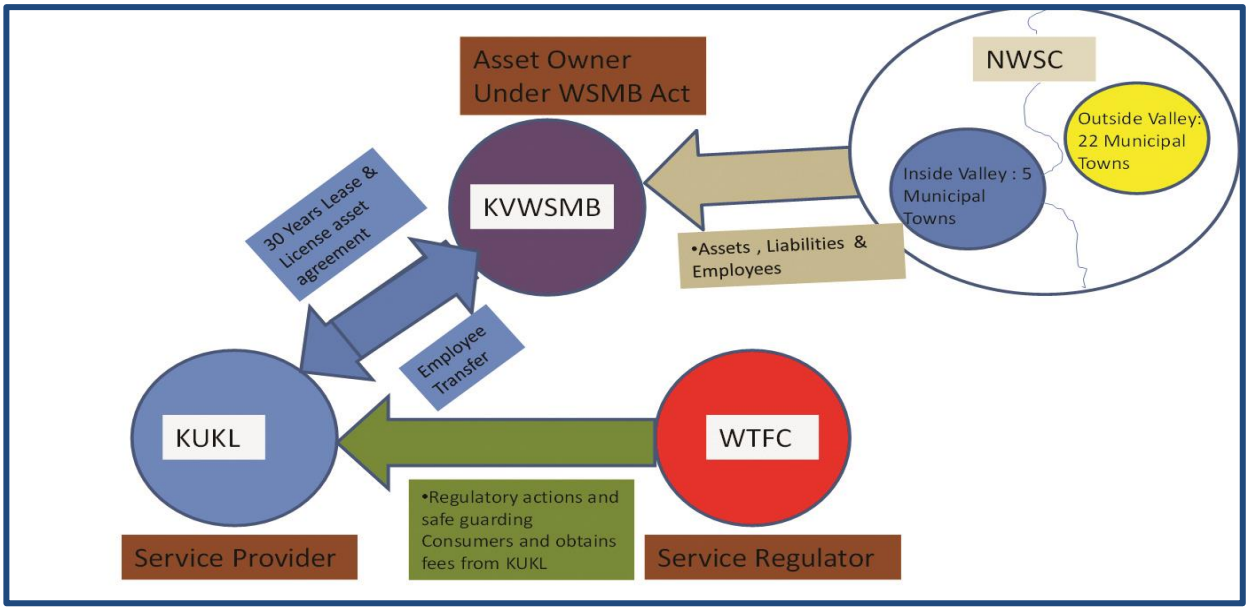
A change in institutional setup of water supply and management agency of Kathmandu valley was envisaged and was proposed through Ninth and tenth Five-year plan (1997) of then GoN which suggested a policy of involvement of local governments and private sectors for water supply and wastewater system management. GoN conceptualized the formation of Kathmandu Valley Water Supply Authority in 2000 to initiate operation of water supply services through corporate/private setup. Later, the GoN established three key entities for institutional reforms in the water sector of Kathmandu Valley. This institutional reform aimed in representation of municipalities and private sectors at a policy level with a target to safeguard operating company from bureaucratic and political intrusion in management and operational decisions. This reform also meant to implement cost recovery based tariff structures, commercial operation of the company, implement capacity development and technology transfer in this sector. This new institutional framework for water supply and sanitation facilities in Kathmandu Valley hence separated three basic functions of ownership (planning and investment), operation (day-to-day operational activities) and regulation (fixing tariff).

These three key entities established are:

I. Kathmandu Valley Water Supply Management Board (KVWSMB): KVWSMB is the asset owner of water and waste water infrastructure within the Kathmandu valley. It is the organization responsible for developing and overseeing policies regarding water and wastewater system development and operation. KVWSMB was established under Water Supply Management Board Act, 2063 and is accountable for overall planning of maintenance, service improvement and additional investment. However, the board cannot involve directly in the operation of the services, implementation of the works and fixation of water tariff.

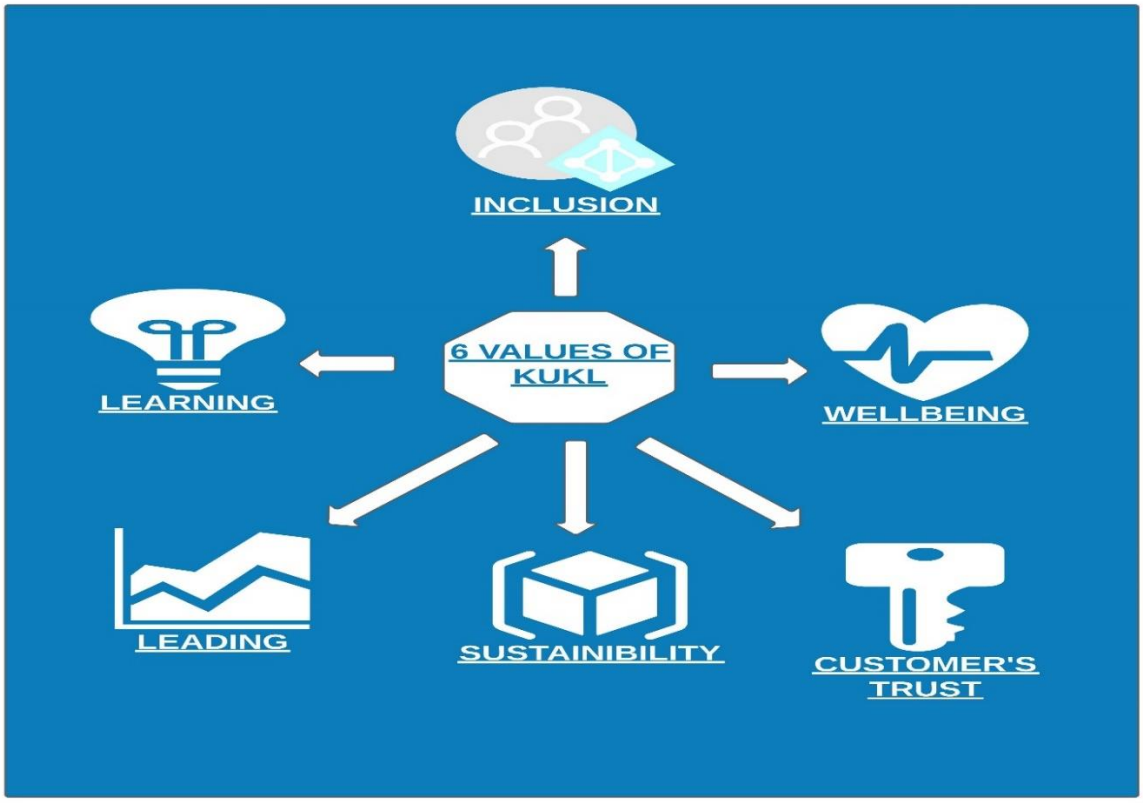
II. Water Supply Tariff Fixation Commission (WSTFC): WSTFC is responsible for the economic regulation of the water supply sector of Nepal. The commission is established as per Water Tariff Commission Act to determine water tariff based on commercial principles and set scientific criteria. The commission functions as an independent regulator of tariffs for water supply and wastewater services. KUKL at regular interval submits proposals for tariff fixation to the Commission together with its documentary evidence and upon scrutiny the commission approves the tariff with amendments, if necessary. The commission also facilitates in resolution of customer complaints by providing a mediator service to which customers can appeal against performance of the service provider.

III. Kathmandu Upatyaka Khanepani Limited (KUKL): As mentioned earlier, KUKL is a utility operator responsible for operation and maintenance of drinking water supply and sewerage system of the Kathmandu valley and is operating the system under the license granted by KVWSMB for 30 years. The official operation of the water and wastewater system of Kathmandu valley by KUKL commenced in February 2008.



Institutional Reformation of Water Utility Operator of Kathmandu Valley

3. KUKL's Values



4. 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
3	**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**

5. List of Chairman of Board of Directors in KUKL till date:

NAME	REPRESENTATION FROM	PRESENCE IN BOD	SELECTED AS CHAIRMAN
Mr. Birendra Man Shakya	Representative, GON	2063/11/29 to 2064/09/26	2063/11/29
Mr. Suresh Kumar Basnet	Nepal Chamber of Commerce	2063/11/20 to 2073/12/03	2071/3/3
Dr. Janak Raj Shah	Ministry of Physical Infrastructure and Transport	2064/05/27 to 2064/09/26	2064/08/24
Mr. Timila Thapa Yami	Ministry of Physical Infrastructure and Transport	2064/09/27 to 2067/11/28	2064/10/22
Mr. Dhruba Bahadur Shrestha	Independent Director	2064/01/05 to 2067/04/01	2065/10/20
Mr. Prayag Lal Joshi	Independent Director	2068/02/25 to 2069/08/20	2068/10/08
Mr. Sanjay Raj Upadhyaya	Kathmandu Metropolitan City	2070/06/01 to 2071/04/18	2069/12/11
Mr. Ghanashyam Bhattarai	Ministry of Water Supply	2072/10/05 to 2073/12/28	2073/12/03
Mr. Dhaniram Sharma	Kathmandu Metropolitan City	2074/05/16 to 2075-01-25	2074/09/07
Mr. Surya Raj Kadel	Ministry of Water Supply	2075/01/26 to 2076/7/17	2075/03/04
Mr. Rama Kanta Duwadi	Ministry of Water Supply	2076/7/17 to 2077/10/10	2076/08/04
Mr. Tiresh Prasad Khatri	Ministry of Water Supply	2077/10/11 to till date	2077/10/27

6. Executive Chiefs of KUKL

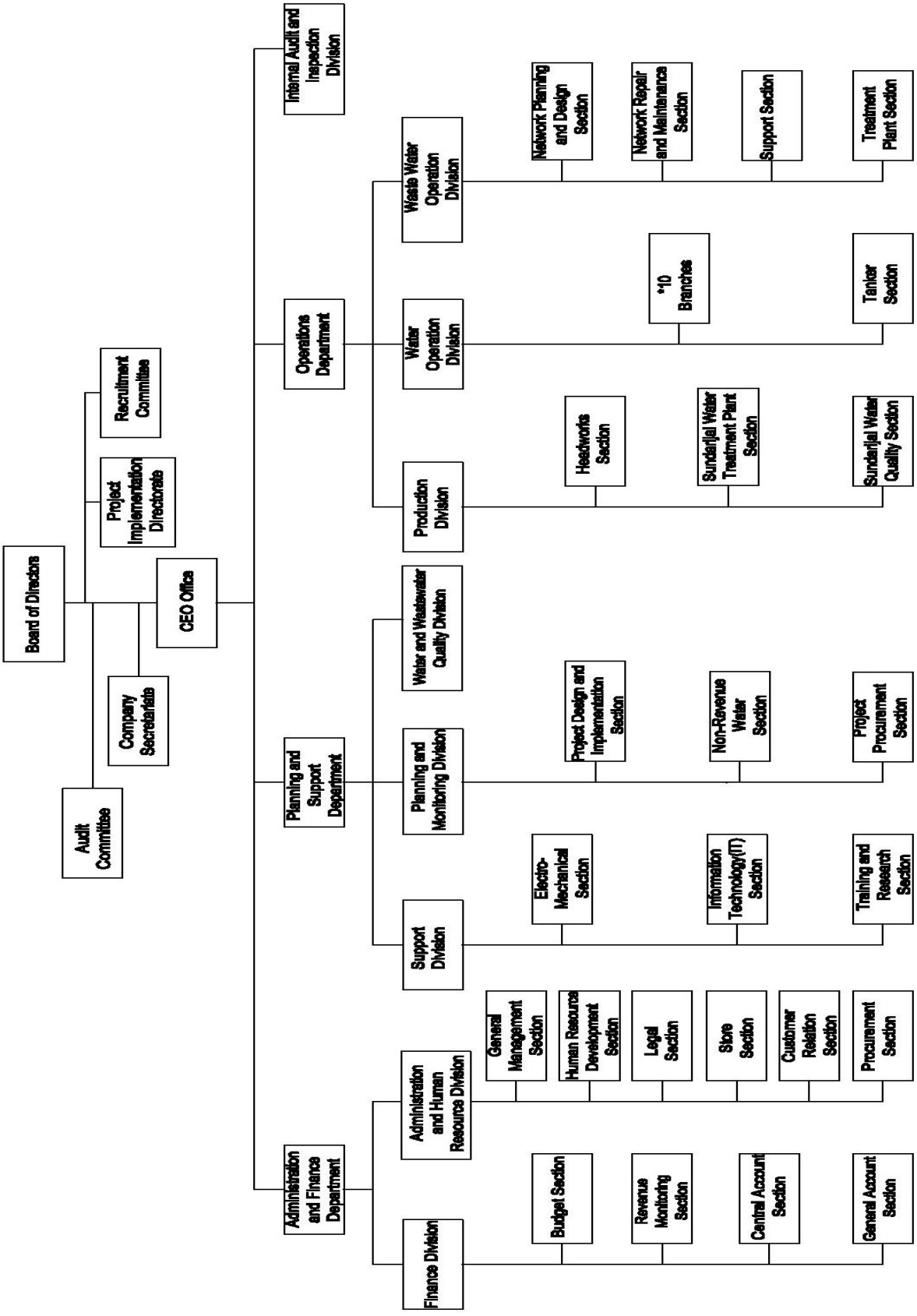
NAME	DESIGNATION	APPOINTMENT
Er. Mr. Gyanesh Nanda Bajracharya	Deputy General Manager	2064-11-01
Mr. Richard Austin	General Manager	2064-11-30
Er. Mr. Rudra Prasad Gautam	Managing Director	2065-12-14
Er. Mr. Kiran Prakash Amatya	Acting General Manager	2068-02-27
Mr. Kalyan Singh Thapa	Acting General Manager	2069-06-19
Er. Mr. Chandra Lal Nakarmi	Officiating General Manager	2070-09-23
Er. Mr. Chandra Lal Nakarmi	General Manager	2071-10-27
Er. Mr. Rudra Prasad Gautam	General Manager	2072-05-22
Er. Mr. Indra Man Suwal	Executive Chief	2072-09-05
Dr. Mr. Mahesh Prasad Bhattarai	General Manager/ CEO	2072-10-13
Er. Mr. Milan Kumar Shakya	Chief Executive Officer	2076-06-09
Er. Mr. Milan Kumar Shakya	Chief Executive Officer	2077-05-08 till date

7. Directors of KUKL Board

S.N.	NAME OF DIRECTORS	POSITION	REPRESENTATIONFROM
1.	**Er. Mr. Tiresh Prasad Khatri**	Chairman	Ministry of Water Supply, GoN
2.	**Mr. Yogendra Chitrakar**	Member	Ministry of Water Supply, GoN
3.	**Mr. Basant Acharya**	Member	Kathmandu Metropolitan City
4.	**Mr. Rudra Prasad Gautam**	Member	Lalitpur Metropolitan City
5.	**Mr. Mahesh Kumar Kafle**	Member	Kathmandu Metropolitan City
6.	**Mr. Kamlesh Kumar Agrawal**	Member	Nepal Chamber of Commerce
7.	**Mr. Roshan Gyawali**	Member	Mahalaxmi Municipality

8. Organizational Structure and Human Resource Information

8.1 Organizational Structure



8.2 Human Resource Status

SN	Level/ Position	Service	Approved Positions	Presently fulfilled Permanent Staff (as of Magh 2078)	Mandatory Retirement Status				
					2078 Falgun to 2079 Asadh	F/Y 2079/2080	F/Y 2080/2081	F/Y 2081/2082	F/Y 2082/2083
1	CEO		1	1					
2	11 Deputy CEO	Technical	2						
		Non-Technical	1						
3	10 Manager	Technical	7	1					1
		Non-Technical	3	1			1		
4	9 Deputy Manager	Technical	13	5					
		Non-Technical	6	1					
5	8 Asst. Manager	Technical	15	5					
		Non-Technical	7	7			1		
6	7 Officer	Technical	45	25					
		Non-Technical	20	13		2	1	1	2
7	6 Asst. Officer	Technical	29	13	1	1	1	1	4
		Non-Technical	55	34	2	4	5	3	2
8	5 Senior Assistant	Technical	92	52	1	1	4	3	3
		Non-Technical	117	84	1	5	7	13	6
9	4 Assistant	Technical	89	52	4	2	5	2	3
		Non-Technical	131	156	1	6	6	10	6
10	3 Junior Assistant	Technical	207	91	3	10	9	9	16
		Non-Technical	130						
11	2 Helper	Technical	21	4	1				
		Non-Technical							
12	1	Technical	239	82		6	5	5	7
		Non-Technical	154	71	2	5	5	5	2
		Total	**1384**	**698**	**16**	**42**	**50**	**52**	**52**

9. KUKL Service Area

9.1 KUKL Service Area for Water Supply

KUKL has 10 Branch Offices for the production and operation of the water supply component. After the re-structuring of the Local Bodies within the Kathmandu valley, the revised details of the service areas of the KUKL is as given in the table below;

Branch Office	Present		Previous	
	Municipality	Ward Number	Municipality/ VDC	Ward Number
Baneshwor	Kathmandu	9,10,29,30,31,32	Kathmandu	9,10,32,33,34,35
Chhetrapati	Kathmandu	15, 17, 18, 19, 24, 25, 26, 27, 28		
Tripureshwor	Kathmandu	11,12,13,14,20,21,22, 23		
	Naagarjun	9, 10	Syuchatar VDC Sitapaila VDC	1 - 9 1 – 4
Maharajgunj	Kathmandu	1,2, 3, 16, 26, 27, 28	Kathmandu	1,2, 3, 16, 29, 30, 31
	Tokha	1 -15	Dhapasi VDC Gangabu VDC Tokha (Chandehwori)VDC Tokha Saraswoti VDC	1 - 9 1 - 9 1 - 9 1 - 9
	Tarkeshwor	1 -21	Sangla VDC Kabhresthali VDC Jitpur VDC Goldhunga VDC Dharmasthali VDC Phutung VDC Manamaiju VDC	4 – 6 1 – 9 1, 4, 6 1 – 9 1 – 9 1 – 9 1 – 9

Branch Office	Present		Previous	
	Municipality	Ward Number	Municipality/ VDC	Ward Number
Mahankalchour	Kathmandu	4, 5, 6, 7, 8		
	Gokarneshwor	1 - 9	Sundarijal VDC Nayapati VDC Gokameshwor VDC Jorpati VDC (1 to 9)	9 1, 2, 4, 5 1 – 9 1 - 9
	Budhanilkantha	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,12,	ChapaliBhadrakali VDC Bishnu VDC KhdakaBhadrakali VDC, Mahakal VDC Kapan VDC Chunikhel VDC	6, 1 – 8 1 – 9 1 – 9 1 – 9 1 – 9
	Kaageshwori - Manohara	6, 7	Mulpani VDC Gothatar VDC	1 – 9 1 - 9
	Shankharapur	-	Suntol VDC Pukhulachhi VDC Bajrayogni VDC	1, 2, 6 1 – 9 1 – 9
Lalitpur	LalitpurSub-MetropolitanCity	1 - 27	Dhapakhel VDC Sunakothi VDC	Ward no. 23- 25 and ward no 26, 27 of LSMC were previously in Dhapakhel Sunakothi
	Kaaryabinayak	1 - 13	Sainbu VDC Khokana VDC Bungmati VDC	1 – 9 1 – 9 9
	Mahalaxmi	16,18	Imadol VDC	5, 6
	Godawari	6,10, 11, 12, 13	Chapagaun VDC Thecho VDC Jharuwarshi VDC	All wards

Branch Office	Present		Previous	
	Municipality	Ward Number	Municipality/ VDC	Ward Number
Bhaktapur	Bhaktapur	1-17		
	Anantaligeshwor	14	Gundu VDC	5
	Suryabinayk	1,4,5	Katunje VDC	6,8,9
	Mahamanjushree-Nagarkot	8	Bageshwori VDC	1,2,3
	ChaunguNarayan	3,12	Chhaling VDC Duwakot VDC	5, 6 1
Madhyapur Thimi	MadhyapurThimi	1-17		
	Changunarayan	1	Duwakot VDC	7, 8, 9
Kirtipur	Kirtipur	1 -10	Kirtipur	1 to 19
	Dakshinkaaii	1 - 9	Chalnakhel VDC Setidevi VDC Shesnarayan VDC Dakshinkaali VDC	1 – 9 1 – 9 1 – 9 1 – 9

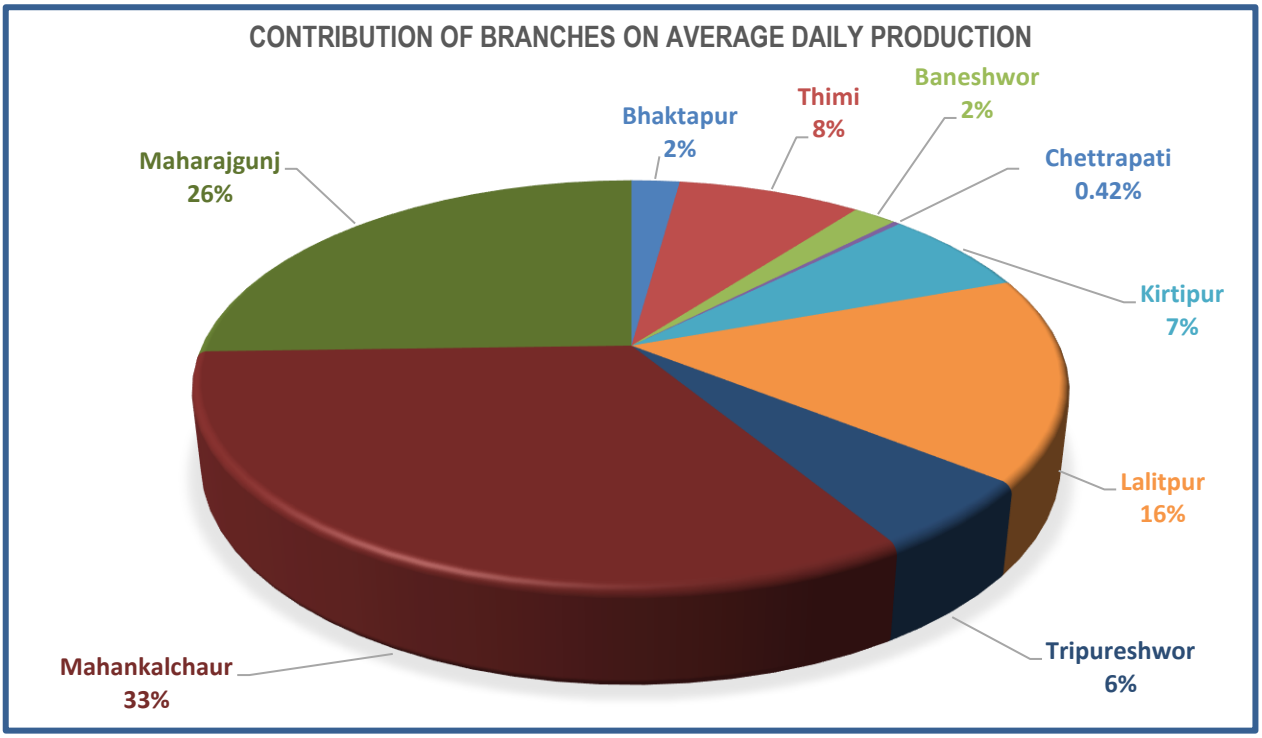
9.2 KUKL Service Area for Wastewater Services

KUKL Provides wastewater services to whole area covered by all water supply branch offices of KUKL.

10. Water Production and Distribution Status

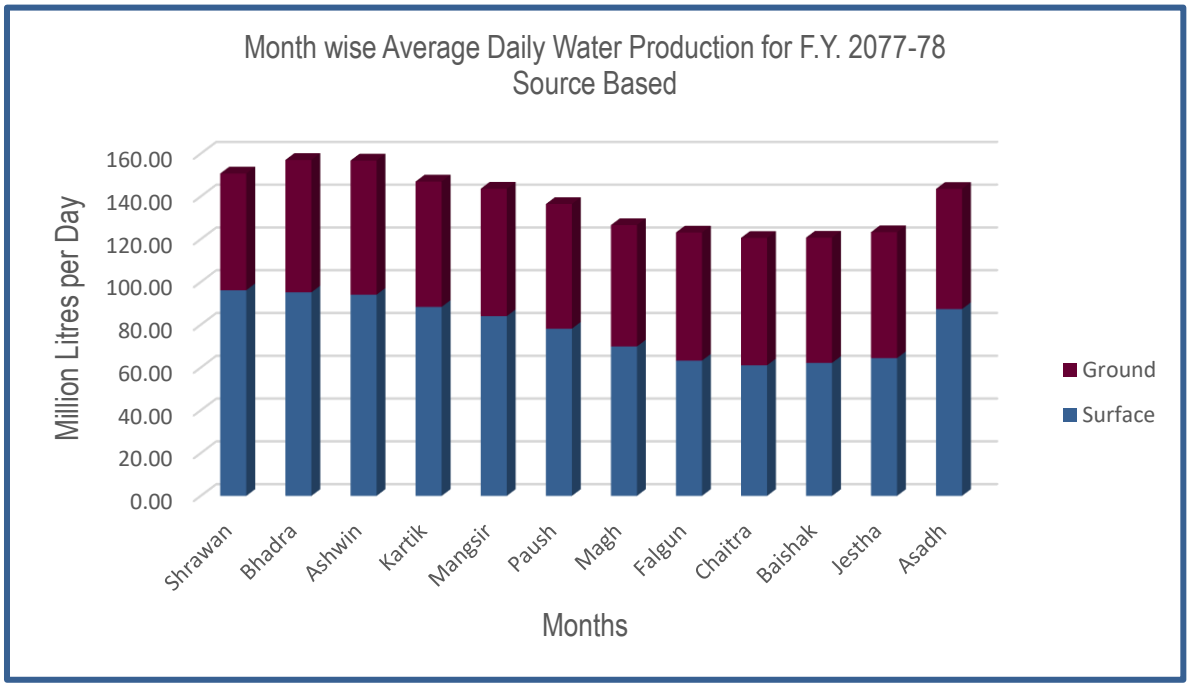
10.1 Water Production and Distribution Details (2078/79)

S.N.	DESCRIPTION	QUANTITY (Million Liters Per Day)
1.	**Demand**	472.00
2.	**Production**	
A.	Minimum Production	120.60
B.	Maximum Production	157.07
C.	Average Production	137.47
3.	**Supply (considering 20% real losses)**	
A.	During month of Minimum Production	97.00
B.	During month of Maximum Production	126.00
C.	Average Supply	110.00



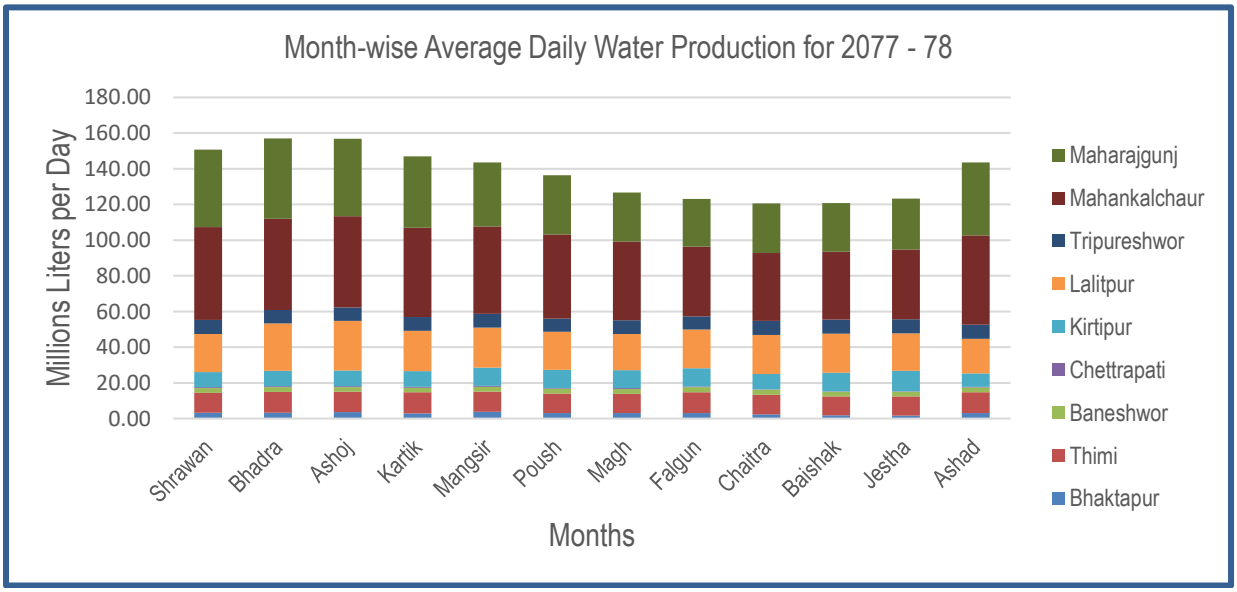
10.2 Month-wise Average Daily Water Production (Source Based) for F.Y. 2077/78 (Million Liters per Day)

Months	Surface	Ground	Total
Shrawan	96.16	54.57	150.73
Bhadra	95.18	61.89	157.07
Ashwin	94.04	62.75	156.79
Kartik	88.37	58.61	146.98
Mangsir	84.05	59.57	143.62
Paush	78.18	58.29	136.47
Magh	69.88	56.74	126.62
Falgun	63.26	59.89	123.15
Chaitra	61.06	59.54	120.60
Baisakh	62.16	58.59	120.75
Jestha	64.40	58.91	123.31
Asadh	87.37	56.16	143.53
Average Production	**78.68**	**58.79**	**137.47**



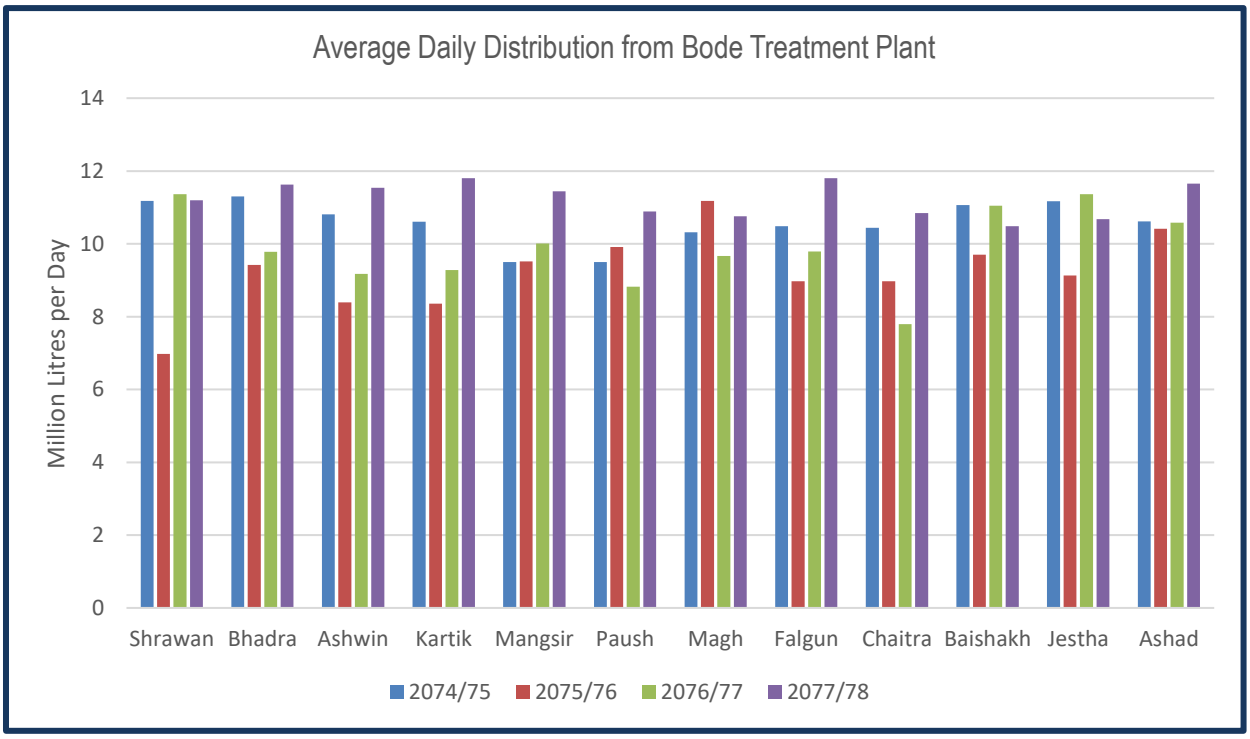
10.3 Month-wise Average Daily Water Production (Branch Based) for F.Y. 2077/78 (Million Liters per Day)

`Months	Branch Name									Total
	Mahankalchaur	Maharajgunj	Tripureshwor	Baneshwor	Chhetrapati	Lalitpur	Kritipur	Madhayapur Thimi	Bhaktapur	
Shrawan	52.04	43.41	7.82	2.64	0.54	21.38	8.43	11.20	3.27	**150.73**
Bhadra	51.04	45.12	7.58	2.73	0.53	26.65	8.47	11.63	3.32	**157.07**
Ashwin	51.04	43.42	7.66	2.52	0.51	27.80	8.69	11.54	3.61	**156.79**
Kartik	50.04	40.10	7.66	2.59	0.50	22.56	8.81	11.80	2.92	**146.98**
Mangsir	49.04	35.86	7.66	2.63	0.50	22.56	10.19	11.44	3.74	**143.62**
Paush	47.04	33.35	7.40	2.63	0.48	21.35	10.19	10.89	3.14	**136.47**
Magh	44.04	27.45	7.66	2.67	0.47	20.31	10.09	10.76	3.17	**126.62**
Falgun	39.04	26.83	7.40	2.76	0.48	21.73	10.11	11.80	3.00	**123.15**
Chaitra	38.04	27.82	7.92	2.84	0.25	21.83	8.63	10.84	2.43	**120.60**
Baishakh	38.04	27.16	7.92	2.79	0.19	21.93	10.33	10.48	1.91	**120.75**
Jestha	39.04	28.63	7.92	2.78	0.19	21.03	11.33	10.68	1.71	**123.31**
Ashad	50.04	40.92	7.91	2.79	0.35	19.30	7.51	11.65	3.06	**143.53**
Average Production	**45.71**	**35.01**	**7.71**	**2.70**	**0.42**	**22.37**	**9.40**	**11.23**	**2.94**	**137.47**



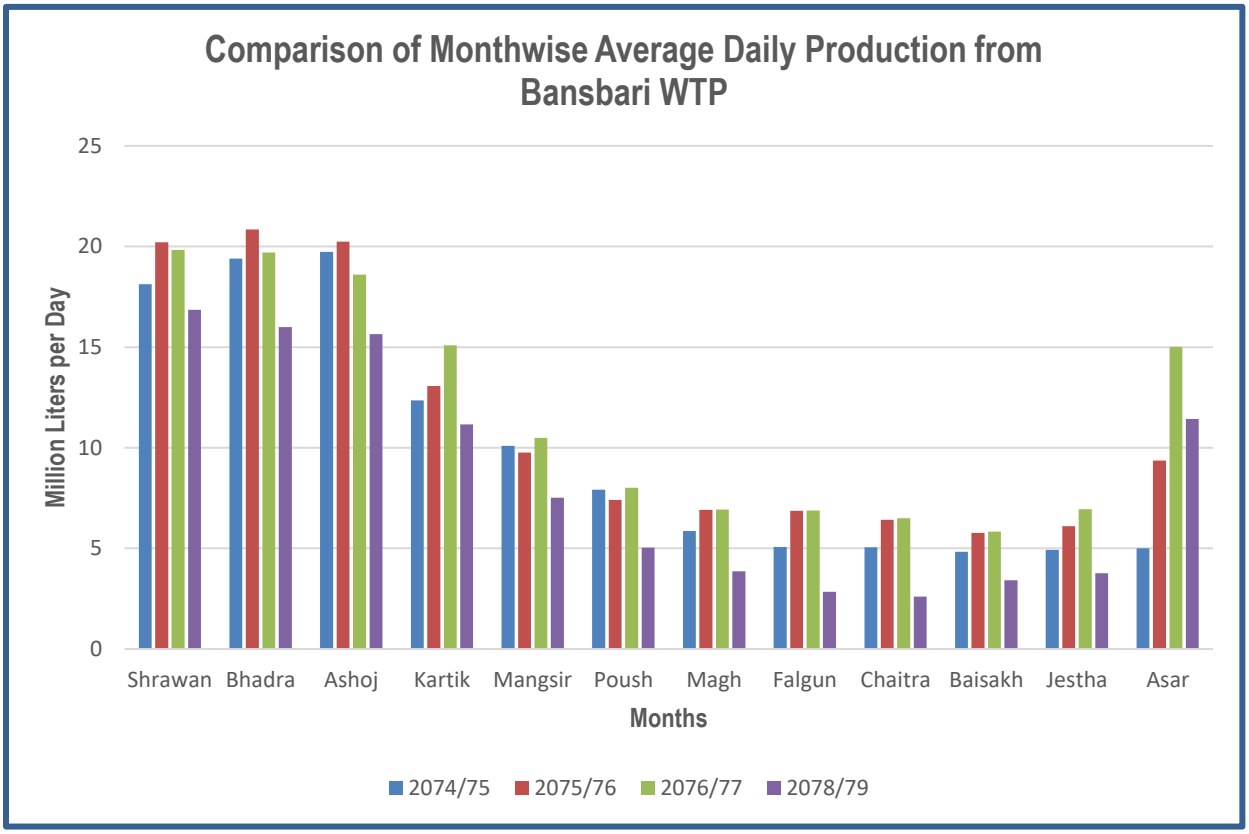
10.4 Average Daily Distribution from Bode Treatment Plant (Million Liters per Day)

Month/Year	(2074/75)	(2075/76)	(2076/77)	(2077/78)
Shrawan	6.98	11.36	11.63	11.2
Bhadra	9.42	9.78	11.50	11.63
Ashwin	8.39	9.17	11.80	11.54
Kartik	8.38	9.28	11.80	11.8
Mangsir	9.52	10.00	10.90	11.44
Paush	9.91	8.82	9.17	10.89
Magh	11.18	9.67	10.35	10.76
Falgun	6.08	10.31	10.17	11.8
Chaitra	8.97	9.79	9.92	10.84
Baishakh	9.70	11.05	10.35	10.48
Jestha	9.13	11.36	11.20	10.68
Ashad	10.41	10.58	11.64	11.65
Daily Average	**9.01**	**10.09**	**10.87**	**11.25**



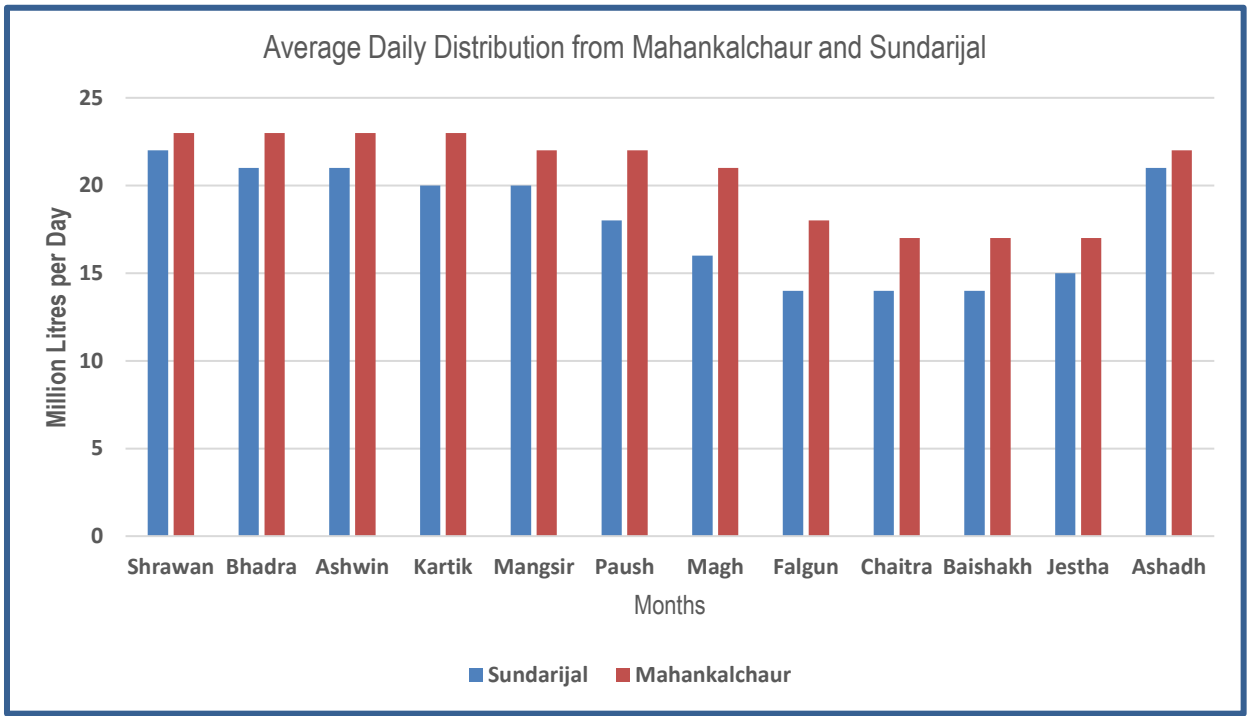
10.5 Average Daily Production from Bansbari Treatment Plant (Million Liters per Day)

Month/ Fiscal Year	2074/75	2075/76	2076/77	2077/78
Shrawan	18.13	20.21	19.83	16.85
Bhadra	19.40	20.85	19.71	16.00
Ashwin	19.73	20.25	18.61	15.64
Kartik	12.35	13.07	15.09	11.17
Marga	10.10	9.76	10.50	7.52
Paush	7.91	7.41	8.01	5.04
Magh	5.87	6.92	6.93	3.87
Falgun	5.07	6.87	6.89	2.84
Chaitra	5.05	6.43	6.50	2.60
Baishakh	4.84	5.77	5.84	3.41
Jestha	4.93	6.10	6.94	3.76
Ashadh	5.01	9.36	15.01	11.43
Daily Average	**9.87**	**11.08**	**11.66**	**8.35**



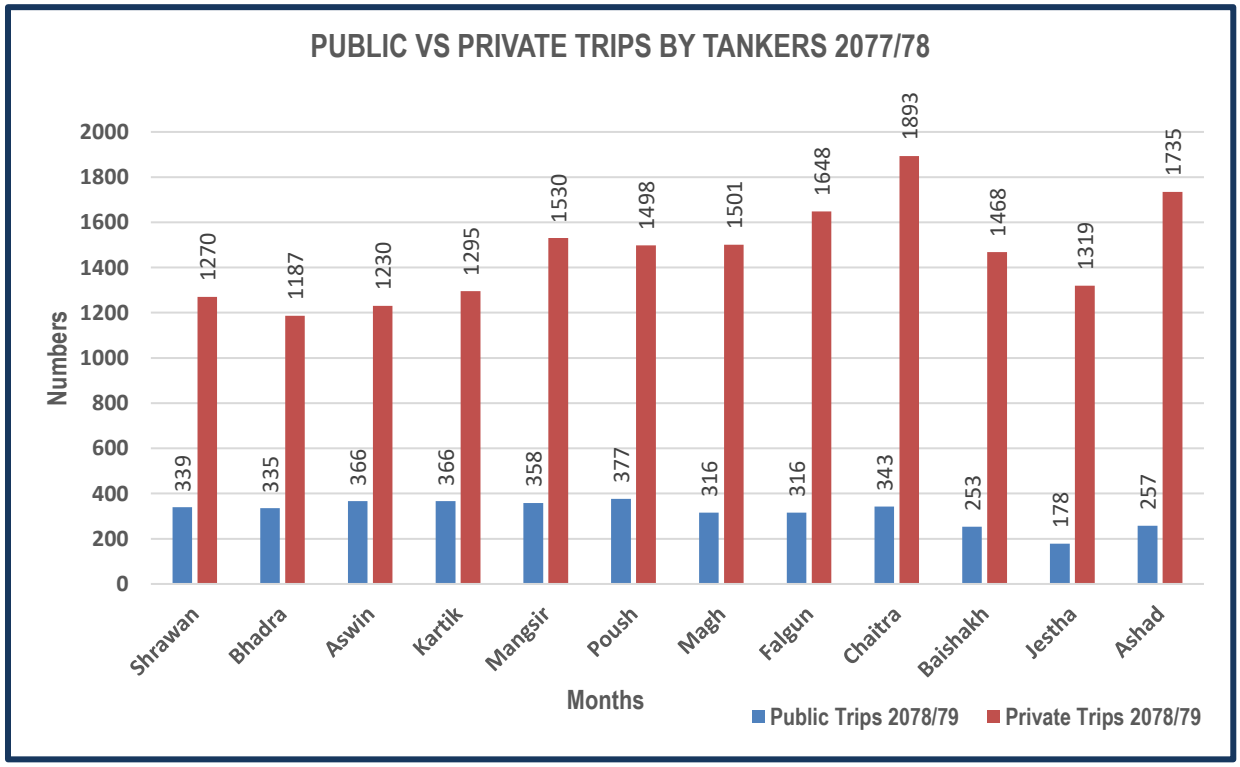
10.6 Average Daily Distribution from Sundarijal and Mahankalchaur for F.Y. 2077-78 (Million Liters per Day)

Month/ Fiscal Year	Sundarijal	Mahankalchaur
Shrawan	22	23
Bhadra	21	23
Ashwin	21	23
Kartik	20	23
Mangsir	20	22
Paush	18	22
Magh	16	21
Falgun	14	18
Chaitra	14	17
Baishakh	14	17
Jestha	15	17
Ashadh	21	22
Daily Average	**18**	**20.67**



10.7 Distribution of Water by Tankers

Month	Public Trips				Private Trips			
	2074/75	2075/76	2076/77	2077/78	2074/75	2075/76	2076/77	2077/78
Shrawan	399	391	428	339	1545	1575	1489	1270
Bhadra	341	339	318	335	1514	1364	1329	1187
Ashwin	272	339	300	366	1313	1674	1162	1230
Kartik	284	260	357	366	1326	1408	1417	1295
Mangsir	287	302	374	358	1162	1409	1230	1530
Paush	311	329	386	377	1298	1506	1353	1498
Magh	338	308	388	316	1401	1327	1487	1501
Falgun	379	370	494	316	1559	1516	1685	1648
Chaitra	534	408	385	343	1790	1595	1767	1893
Baishakh	333	328	357	253	1691	1509	1417	1468
Jestha	386	383	332	178	1930	1949	1490	1319
Ashad	409	309	296	257	1793	1836	1175	1735
Total	**4273**	**4066**	**4415**	**3804**	**18322**	**18668**	**17001**	**17574**



11. Water Transmission and Distribution System

A. Water Transmission Mains

SN	System	SIZE (mm)	MATERIAL	AGE (Years)	APPROXIMATE LENGTH (Km.)
1	BALAJU	100-400	CI, AC, Steel, DI,PVC	Up to 80	45
2	BANSBARI / MAHARAJGUNJ	100-400	CI,DI,PVC	Upto115	70
3	SUNDARIJAL	100-600	CI,DI,HDPE	Up to 45	62
4	PHARPING	200-500	CI, Steel, DI	Up to 35	29
5	KIRTIPUR	100-200	CI,PVC	Upto110	38
6	NAKHU	400	DI	Up to10	6
7	BHAKTAPUR	100-400	CI, DI	Upto115	10
8	CHAPAGAON	125-200	CI,DI,HDPE	Up to34	20
9	BODE	100-350	CI,DI,PVC	Up to45	16
10	OTHERS	50-100	CI,GI,PVC	.	10
	TOTAL				306

B. Water Distribution Main

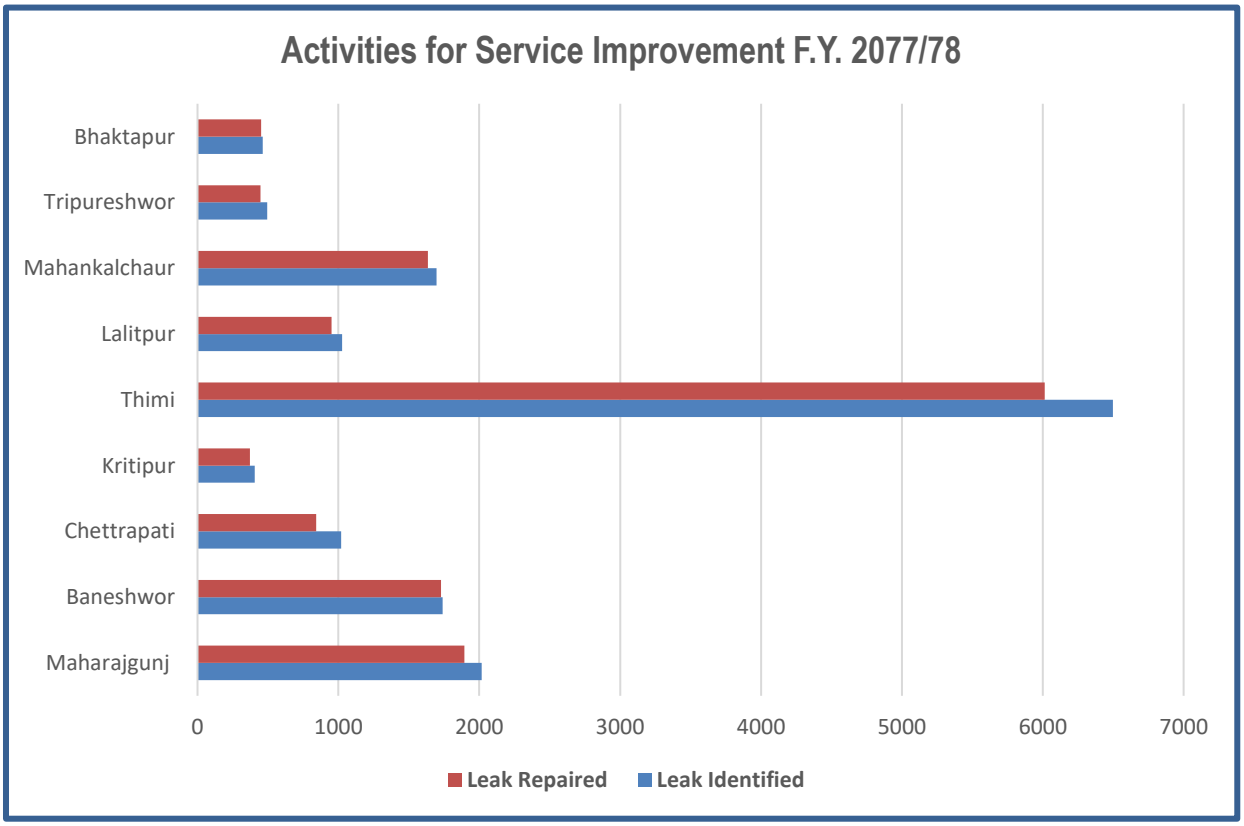
SN	PROJECT	SIZE (mm)	MATERIAL	AGE (Years)	APPROXIMATE LENGTH (Km.)
1	BASE	50-600	CI, GI, Steel, PVC	Upto115	300
2	FIRST PROJECT (IDA)	100-400	CI, GI	40	120
3	SECOND PROJECT (IDA)	100-400	CI,GI, DI	35	150
4	THIRD PROJECT (IDA)	100-800	DI,GI	25	150
5	NWSC	75-300	DI,GI	21	345
6	KUKL	25-400	CI,GI	7	437
7	PID	90-1400	DI, UPVC	3	1170
	TOTAL				2564

Note: The Pipeline by PID is for distribution of water from Melamchi in near future.

12. Maintenance and Pipeline Works

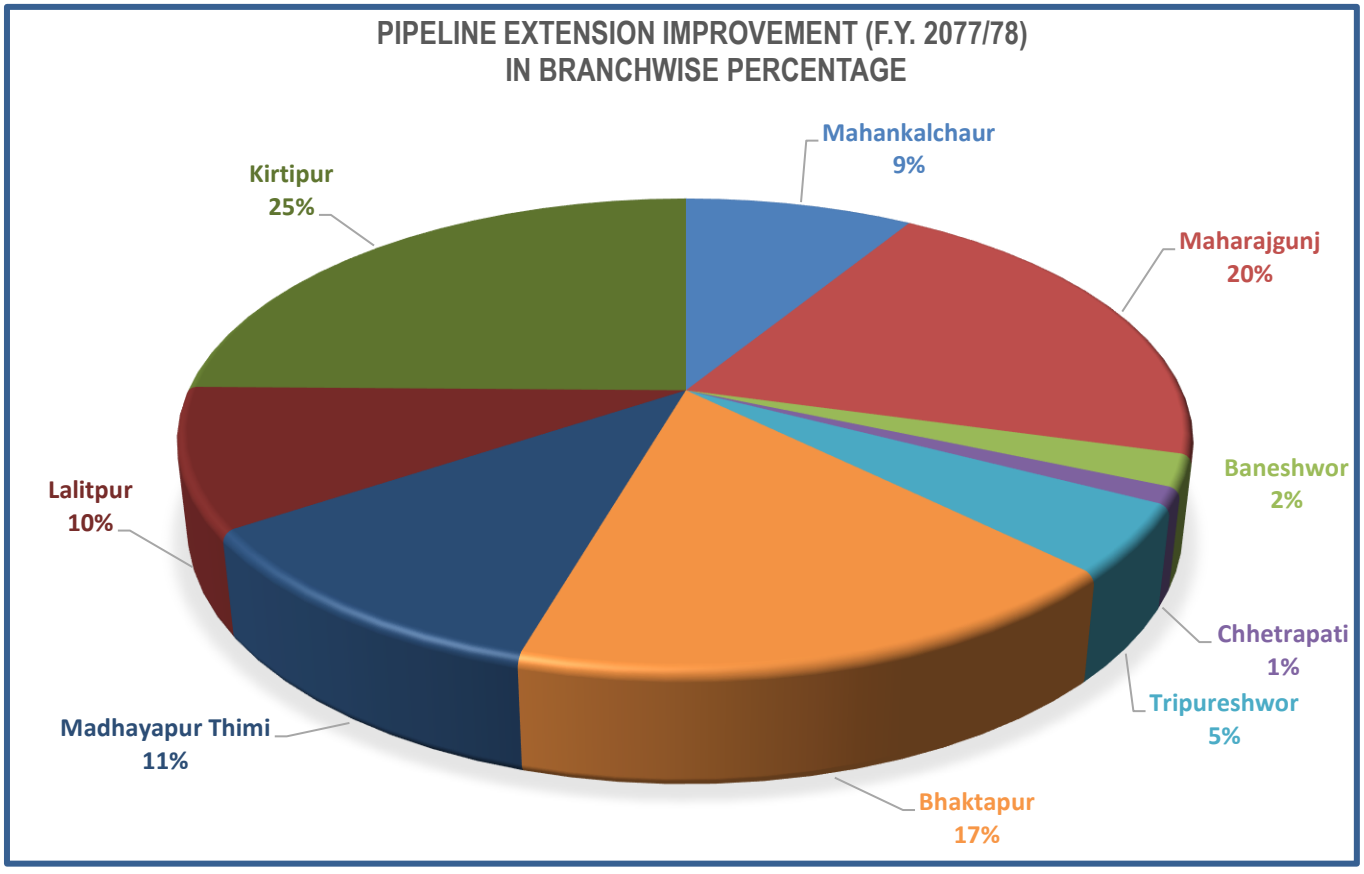
A. Activities for Service Improvement

S.N.	Branch Name	Injection Points	Installation of Polythene Tanks	Leak Identified	Leak Repaired	Installation of New Water Meters	Meter Repaired
		Nos.					
1	Mahankalchaur	0	0	1697	1636	646	789
2	Maharajgunj	0	0	2018	1895	418	104
3	Baneshwor	6	0	1740	1729	491	199
4	Chhetrapati	0	0	1020	843	189	29
5	Tripureshwor	6	0	495	448	281	138
6	Bhaktapur	0	1	463	451	97	198
7	Madhyapur Thimi	4	6	6497	6013	4536	2009
8	Lalitpur	0	18	1026	952	276	293
9	Kirtipur	0	0	407	371	0	919
	Total	**16**	**25**	**15363**	**14338**	**6934**	**4678**



B. Pipeline Installation for Distribution Improvement (F.Y.2077/78)

Branch	Size in mm														Total (M.)
	20 & 25	40	50	63	80	90	100	110	150	160	200	250	300	400	
Mahankalchaur	0	115	227	3704	0	2075	0	1240	2077	0	0	0	0	0	**9438**
Maharajgunj	0	0	0	6600	0	4958	0	5634	1100	400	1317	1277	208	714	**22208**
Baneshwor	0	0	0	0	0	800	0	820	0	350	400	0	0	0	**2370**
Chhetrapati	0	0	0	0	724	0	438	0	50	0	0	0	0	0	**1212**
Tripureshwor	0	0	539	799	734	2657	207	98	38	0	23	0	0	9	**5104.5**
Bhaktapur	0	1700	1470	4517	1026	2200	1252	5865	460	0	0	0	0	0	**18490**
Madhayapur Thimi	0	0	0	3465	2700	0	0	960	4905	0	0	0	0	0	**12030**
Lalitpur	0	0	0	2555	0	3250	420	2240	584	0	1340	0	0	0	**10389**
Kirtipur	1930	1265	9980	0	8258	0	4725	0	2332	0	170	0	0	0	**26730**
Total	**1930**	**3080**	**12216**	**21640**	**13442**	**15940**	**7042**	**16857**	**11546**	**750**	**3250**	**1277**	**208**	**723**	**107971**



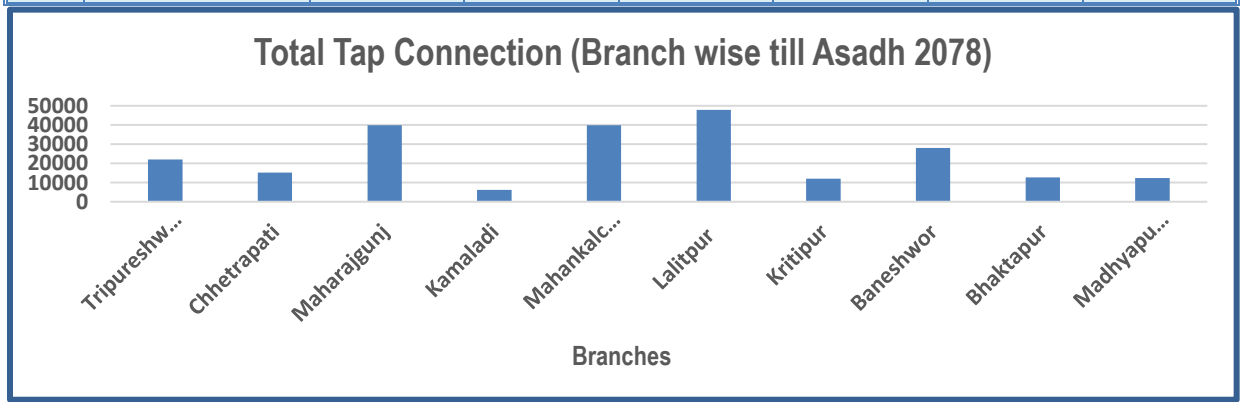
13. Consumer Water Connections

A. Total Connections till end of F.Y. 2077/78

S.N.	Branch	Govt. Connection (Metered)	Private Connection (Metered)	Govt. connection (Non Metered)	Private Connection (Non Metered)	Stand post	Total
1	**Tripureshwor**	192	19997	110	1519	138	**21956**
2	**Chhetrapati**	42	13530	9	1451	174	**15206**
3	**Maharajgunj**	53	38693	51	1099	0	**39896**
4	**Mahankalchaur**	82	38031	46	1734	0	**39893**
5	**Baneshwor**	142	27089	16	801	32	**28080**
6	**Lalitpur**	292	46748	26	799	0	**47865**
7	**Bhaktapur**	37	12068	11	364	174	**12654**
8	**Madhyapur Thimi**	18	12218	7	0	82	**12325**
9	**Kritipur**	0	11791	11	112	52	**11966**
10	**Kamaladi**	147	5746	28	236	0	**6157**
	Total	**1005**	**225911**	**315**	**8115**	**652**	**235998**

B. New Connections in F.Y. 2077/78

S.N.	Branch	Govt. Connection (Metered)	Private Connection (Metered)	Govt. Connection (Non-Metered)	Private Connection (Non-Metered)	Stand Post	Total
1	**Tripureshwor**	-	284	-	-	-	**284**
2	**Chhetrapati**	-	685	-	1	-	**686**
3	**Maharajgunj**	-	1553	-	-	-	**1553**
4	**Mahankalchaur**	-	682	-	928	-	**1610**
5	**Baneshwor**	-	278	-	-	-	**278**
6	**Lalitpur**	-	1054	1	-	-	**1055**
7	**Bhaktapur**	-	411	-	23	-	**434**
8	**Thimi**	-	718	-	-	-	**718**
9	**Kirtipur**	-	721	-	-	-	**721**
	Total	**-**	**6386**	**1**	**952**	-	**7339**



14. Major Activities in F.Y. 2077/78

14.1 Main Office

A. Supply of Melamchi Water

With availablity of the 170 MLD water from the Melamchi, KUKL had the responsibility of didtributing the extra water in efficient manner. It was successfully accomplished by KUKL through the contribution of the dedicated employees and KUKL was able supply water to valley denizens in the interval of just one day in most of the areas. KUKL had put extensive efforts for the improvement of its infrastructures, technology, and manpower to achieve this and its still continued so as to be fully prepared when Melamchi Water Supply Project resumes the raw water supply through the tunnel from Melamchi.

B. JICA Capacity Building Program

Recognizing that the various challenges faced by KUKL for providing the water supply service can be solved not only through financial support and technical support is also required, Government of Nepal and JICA agreed to implement the technical cooperation named “The Project on Capacity Development of KUKL to Improve Overall Water Supply Service in Kathmandu Valley”.

In this project, the original plan was for the Japanese experts to start their local work in Kathmandu from June 2021. But due to the impact of the global Covid-19 pandemic, remote support and training had to be provided from Japan until September 2021. Despite this, KUKL staff have maintained high expectations and motivation to improve their skills.

Under the project, the remote trainings were conducted Basic GIS, Hydraulic Analysis, NRW Reduction Measures, O&M of WTP, Water Quality Management and Grievance Management. Similarly, the Japanese experts team also conducted baseline surveys, both remotely and on field.The physical training of the project started with Basic GIS training.

Other major activity of the project was conduction of customer satisfaction survey from October to November targeting 1000 customers within the Ring Road.

C. Australian Water Partnership Program

An Australian Water Operators Partnership with KUKL was initiated in April 2017 to assist KUKL in improving water supply and sanitation services by sharing knowledge with Australian water utilities. Australian Water Partnership is the primary organisation in this partnership and KUKL is having water uyility operators partnership with Hunter Water Corporation(HWC) and Logan City Council(LCC) in this partnership.

In the past three years, the countrerparts form Australian water utility operators HWC and LCC provided KUKL with the knowledge and capability to develop a robust asset management system for operating and maintaining pipe networks, treatment plants and tube wells. Presently this partneship is focussing on NRW management aspects and staff capacity building programs.

D. Other Initiatives

Similarly partnership with other water utility operator also has been prioritized by KUKL and KUKL is also having partnership with Dhaka-WASA with DMA management as major feature so as to prepare once the new DMA’s are handed over to KUKL

14.2 Maharajgunj Branch

A. Pipeline Improvement/Extension works (DMA pilot project)

Pipeline extension works at Tokha-9,11 Baniyatar of size 200mm 250mm and 400mm to make DMA zone and monitoring of NRW. It includes the supply and installation of different sized DI pipe and fittings, construction of valve chamber and installation of flow meter at three points.

400mm 250mm and 200mm Pipeline extension works

Installation of Flow meter

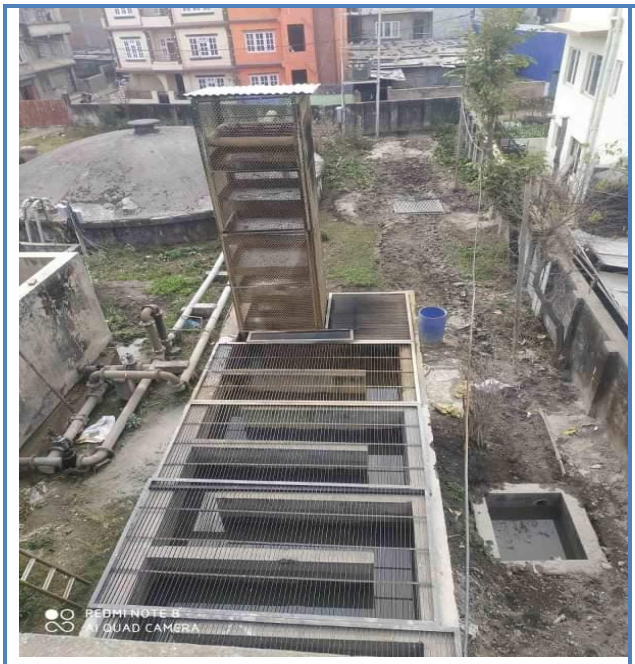
B. Interconnection Works at Bansbari Water Treatment Plant:

To distribute the Melamchi water from Bansbari treatment plant to Tokha area interconnection work done between 700 mm outlet pipe from treatment plant and 400mm coming from Tokha. Current transmission line from different well are converted into distribution line. After this interconnection most of the consumer from tokha municipality get treated water from Bansbari water treatment plant.

Interconnection between 700mm dia. DI pipe and 400mm DI pipe

14.3 Chhetrapati Branch

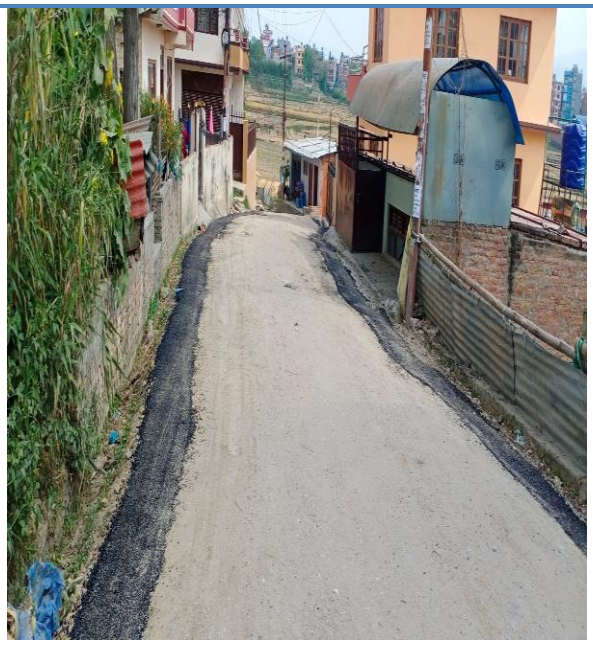
Service station of Gitamandir & Interconnection at swayambhu.



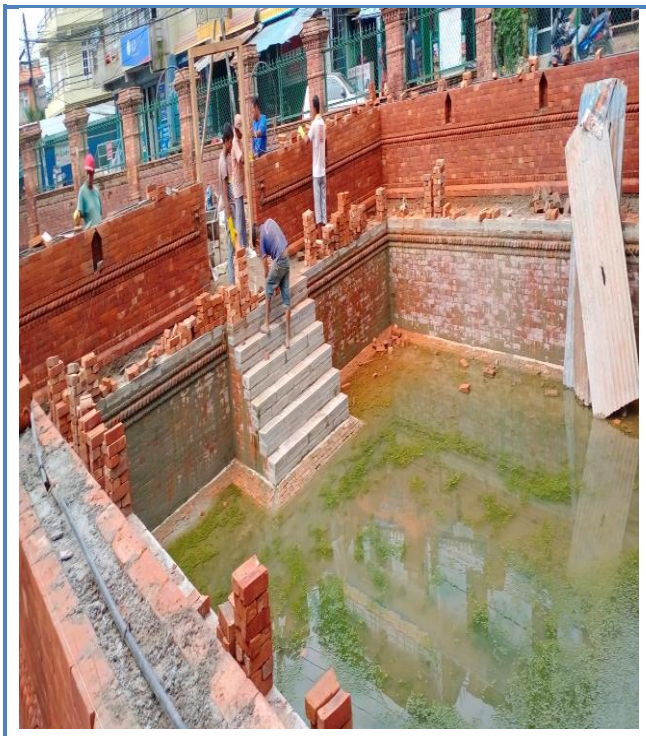
Cleaning Tubular sedimentation unit & fixing washout channel at khushibu treatment plant

14.4 Madhyapur Thimi Branch

Indrakamal 215 cum capacity reservoir base concreting work



Re-instatement of pitch at Tersetar



Wammane pond construction

12" leakage repair work at Bode

14.5 Lalitpur Branch

Water Treatment Plant at Tahakhel Naya Pokhari (Before and After)

250mm dia Transmission Main, Nallu Water Supply System (Before)

250mm dia Transmission Main, Nallu Water Supply System (After)

Inspection of Site by CEO, KUKL during Melamchi Operation

Rapid Assessment of Damaged caused by Dry Landslide on 200mm dia Transmission Main

Periodic Maintenance of Nakhipot Water Treatment Plant

200mm/250mm dia DI Pipeline Leakage Maintenance at Kumaripati

14.6 Electro-Mechanical Section

Kathmandu Upatyaka Khanepani Limited, Electromechanical Branch deals with all electrical and mechanical components under KUKL Service area. It is located at Sundarighat, Kathmandu. Currently KUKL owns more than 103 operating deep tube wells, 19 dug wells, 32 pumping stations, 3 large treatment plants, various small treatment plants and pressure filters. Electromechanical Branch performs the repair and maintenance of the deep tube wells including regular rehabilitation/ servicing, Periodic repair, and maintenance of Water treatment plant's accessories.

Major Contribution Areas
1. Repair and maintenance of Deep tube wells with rehabilitation and servicing.
2. Installation, repair and maintenance of different pumps and motor.
3. Repair and maintenance of WTP's electromechanical equipment.
4. Mechanical Workshop
5. Pump test
6. Meter test bench
7. Heavy equipment support

Major Improvement Works		
S.No	**Name of new deep tube wells constructed previous year**	**Discharge (Liter Per Minute)**
1.	Bode-3 (BH-3)	800
2.	Gokarna-3 (GK-3)	700
3.	BB-6 (Tokha)	700
4.	Sallaghari	400
5.	Narephat	480
6.	BT-2 (Tokha)	900
7.	Tarkeshwor-4	1000
8.	Sanepa	800
9.	Changunarayan-4	750
10.	Madhyapur Thimi (Gatthaghar)	450
	Total	**6980 (10 MLD)**

Well Development At Tarakeswor

New sumpwell construction at Kirtipur to distribute Melamchi Water

160 HP Centrifugal Pump set installation at Pharping Pump House

New well drilling at Madhyapur Thimi

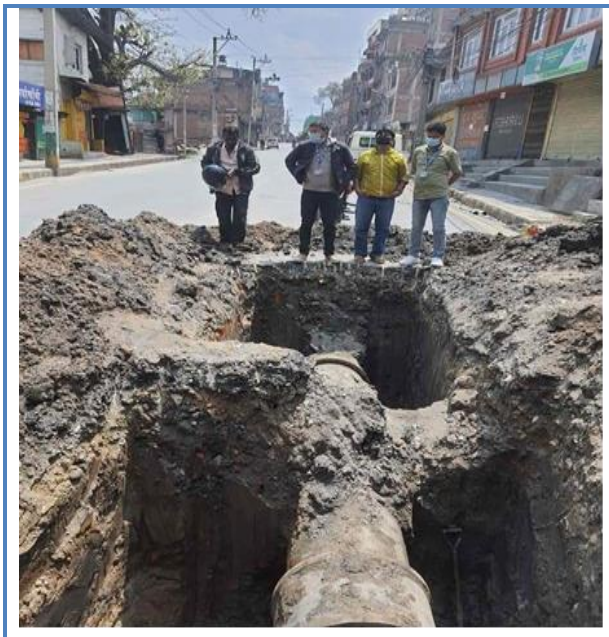
14.7 Baneshwor Branch

Block Repair at Ratopul, Gausala

3" Sluice Valve Repair at Maitidevi

14.8 Mahankalchaur Branch

Washout at Kalopul



24” leakage maintenance works at Kalopul

Pavement construction at Mahankalchaur treatment plant

14.9 Bhaktapur Branch

12 inch valve installation works

Bansbari Sedimentation tank supervision works

By pass canal cleaning at wet season

Mahadev khola intake at wet season

14.10 Training and Research section

Training and Research Section under Planning and Support Department, Head Office provides numerous trainings to employee individuals to enhance employees' capability, morale and skills. Trainings programs provided in F.Y. 2077/78 in collaboration with KVWSMB are listed herein:

Training Programs	Total Participants	Training Duration
Procurement of Work and Contract Management	20	2077/8/11 to 2077/8/20
Procurement of Work and Contract Management	27	2077/8/25 to 2077/9/4
Contract Administration and Management	20	2077/9/1 to 2077/9/8
Management of Urban Water and Enviroment	10	2077/9/26 to 2077/10/10
Technical Related	21	2078/01/30 to 2078/03/30
GESI	25	2078/02/12 to 2078/02/13
Grievance	16	2078/03/28 to 2078/03/29

14.11 Information Technology (IT) Section:

The IT section is responsible for managing Information Technology (IT) related activities of KUKL. Various application of ICT is being implemented by KUKL which is being managed by the IT section. Some ICT related application are already in implementation phase, and some are under development phase which are shown in tables below.

Table 14.12 A: ICT modules currently being operated

ICT MODULE	ACHIEVED IMPROVEMENTS
Billing Application	• Old manual records are computerized and can pay their bill removing the hassle of turning over old records file. • Billing related data of all new and old customers are managed through this system.
New Connection Application	• The new tap taken process of the company is digitized using new connection application
Account Application	• Account software is currently used in the branches. This software digitized the accounting process.
Self-Meter Reading Software	• Customer can record their meter reading information through web-based application
Ledger Management System	• Manual ledgers of customer of tanker section are digitized and managed through this system.
Leak Management Android App	• Leak Management Android Application will help the customer to report water leakage in their area
Grievance Handling System	• Query from customer or people related to facilities of water, maintenance, administration services provided by the KUKL can be done through this application. • Customers can view the status of their complaints through mobile numbers/complaint number.
Online Payment System	• KUKL has implemented online payment system, through which the customers can pay their bills using internet through selected banks and mobile wallet service providers.

Table 14.12 B: IT Advancements which is going to be implemented in future

IT ADVANCEMENTS	EXPECTED CHANGE
Inventory and Asset Management System	Captures all records of inventory and assets and digitized all process of these tasks
Human Resource Management System	Digitization of all process and records of employees starting from recruitment to retirement
Handheld Meter Reading Device	Currently we are delivering water bills of month to customers only in the following month. After implementation of this system, on the spot billing can be done.
Mobile Application for Employee and Customer	Customer can take online services from the company without waiting in queue using internet and employee can view their personal and other information

14.12 Wastewater Operation Division

Wastewater Operation Division provides its services to the whole area covered by all water supply branch offices of KUKL. The services delivered by this division are construction/extension of the new sewer line, repair and maintenance of the existing sewer line and manholes, removal of blockages in the sewer line by using jetting machines as well as manually as required and provide permission to connect the household sewer line to the public sewer line.

Summary of activities performed by Waste Water Operation Division

S.N.	Description of work	Unit	Quantity of Work		
			F/Y 2075/076	F/Y 2076/077	F/Y 2077/078
1	Laying of new sewer pipes lines	Rm	3417.50	5195	8390
2	Repair & maintenance of sewerage pipes/manholes	No	65	61	55
3	Cleaning of sewer pipes by Jet machine	No	1217	917	767
4	Service sewer pipes connection	No	43	19	25

S.N.	Description of work	Unit	Kathmandu District	Lalitpur District	Bhaktapur District
1	Laying of new sewer pipes lines	Rm	2370	4620	1400

DWC Pipe laying

Pipe Jointing Work

Manhole Construction Works

14.13 Water/Waste Water Quality Assurance Division

A. Analysis and Monitoring of Water Quality

Water/Waste Water Quality Assurance Division under KUKL monitors and controls the quality of water produced and supplied by our company by collaborating with different branches of KUKL. To provide quality water, water samples are collected from various sampling points starting from reservoir to tap representative of whole distribution network. There are three laboratories of Kathmandu Upatyaka Khanepani Limited (KUKL). They are Central laboratory at Mahankalchaur and other laboratories at Bode and Bansbari. All of these laboratories routinely monitor water quality. The following physico-chemical parameters and total coliform count are run on routine basis.

Table 14.15 A: List of Parameters Analyzed Regularly

S.N.	Parameters	Unit	S.N.	Parameters	Unit
1	Appearance	-	10	Calcium Hardness	mg/l
2	Turbidity	NTU	11	Magnesium Hardness	mg/l
3	Color	TCU	12	Calcium	mg/l
4	Temperature	ºC	13	Magnesium	mg/l
5	pH	-	14	Total Iron	mg/l
6	Electrical Conductivity	µS/cm	15	Total Ammonia	mg/l
7	Total Alkalinity	mg/l	16	Chloride	mg/l
8	PH Alkalinity	mg/l	17	Arsenic	mg/l
9	Total Hardness	mg/l as $CaCO_3$	18	Free Residual Chlorine	mg/l

B. Other Activities of Division

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 2077/78, a total number of 565 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.

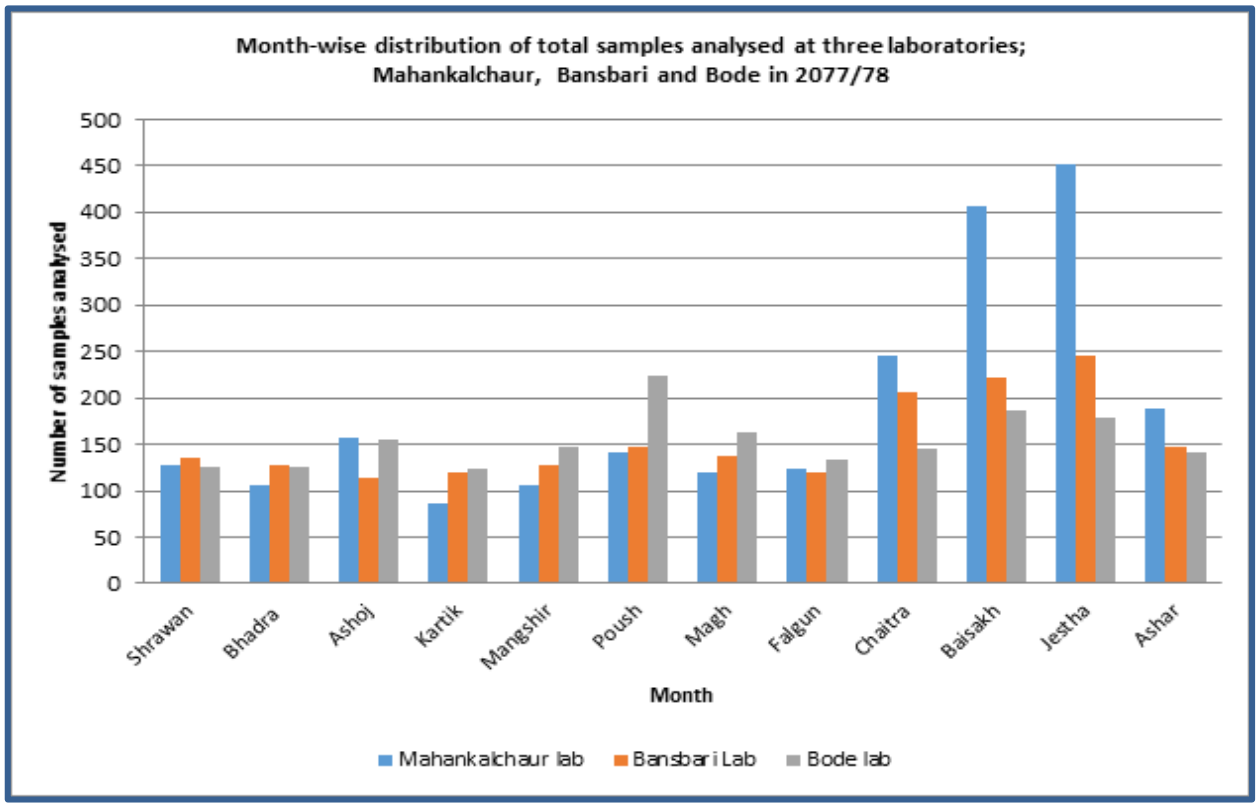
C. Information on Number of Water Samples Analyzed

The total number of water samples analyzed at three laboratories under the division is as shown in **Table 14.15 B**. Similarly, Month-wise Distribution of total water samples analyzed at three laboratories; Mahankalchaur, Bansbari and Bode in 2077/2078 is shown in Figure 1.

Table 14.15 B: Total Number of Water Samples Analyzed

Duration	Number of Client's Sample Analyzed	Number of Water Samples of KUKL Analyzed		
	Mahankalchaur Lab		Bansbari Lab	Bode Lab
Shrawan-2077/Asar 2078	1729	2262	1850	1852
Shrawan-2078/Poush 2078	1015	978	1017	754

Figure 1: Month-wise Distribution of Water Samples Analyzed in F.Y. 2077/78



Chemistry Lab

Titration

15. Activities of Project Implementation Directorate (PID):

The Bulk Distribution System (BDS), Distribution Network Improvement (DNI) of the water supply infrastructure as well as works related to wastewater management infrastructure works is being implemented by Project Implementation Directorate (PID). 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. KUKL is separate water and wastewater operator, for the management of Kathmandu Water as well as ADB financed infrastructure development projects. Project Implementation Directorate (PID) is a project office for the management of ADB funded projects in Kathmandu Valley.

The crisis in sanitation has increased disease incidence, health risks and associated economic burdens to the residents of Kathmandu Valley due to environmental pollution. Rivers of the Kathmandu Valley are heavily polluted due to unmanaged solid waste and household & industrial wastewater. To improve urban environment in Kathmandu Valley it is necessary to construct and rehabilitate urban wastewater infrastructure. Government of Nepal requested to the Asian Development Bank to finance the wastewater management project of Kathmandu Valley. The BDS, Service reservoirs and DNI works for water supply improvement are in line with ADB's Nepal country partnership strategy. It calls for economically viable, environmentally sustainable, and socially acceptable solutions for the metropolitan Kathmandu to improve the water supply system and sewage management. There are two major components under PID which are explained in detail in following paragraphs.

A.Water Supply Infrastructure Component

The objective of this component is mainly towards improvement of water supply, storage and distribution system including improvement of efficiency, service delivery, institutional development and governance in the water sector in Kathmandu Valley.

Formulated on the basis of the PPTA conducted in 2009-2010, this project was designed to complement past and ongoing efforts to develop a reliable, equitable, and sustainable water supply system in Kathmandu Valley.

Accordingly, the project will focus on reducing Non-Revenue Water (NRW) and improving the existing network. To drive efficiencies and introduce best practices, the project is utilizing the District Metering Areas (DMA) approach for distribution network improvement and NRW reduction. With the rehabilitation of Melamchi intake area, Kathmandu Valley will again receive an additional 170 million litres per day (MLD) in first phase, while the current average availability from existing sources is about 120 MLD. For the efficient distribution of this water, distribution network improvement works, bulk distribution system construction along with 10 service reservoirs constructed by PID.

Major Works Under Water Supply Infrastructure Component

S.N.	Description	Activities
1	**Bulk Distribution System Network (BDS)**	Includes construction of total 77.00 kilometers of D.I. Pipeline aiming to convey water from Sundarijal WTP to 10 newly constructed Service reservoirs located at different places and 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.
3	**Distribution Network Improvement (DNI)**	About 1132 Kilometers of Distribution network is constructed based on district metering area (DMA) to facilitate the water distribution and reduce the NRW. Contract of Distribution network Improvement of another 763km is signed and around 175km pipe laying work is completed by using the government fund through KVWSMB.
4	**Consumer connections**	About 110000 consumer connection will be constructed for supplying water to the households.
5	**Automation System (SCADA)**	Automation System (SCADA) will be installed to remotely control the major valves in service reservoirs and distribution network.

Progress of Water Supply Infrastructure Component

Distribution Network Improvement Packages

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Progress %	Included Works
DNI Package 1	Hangzhou-Kalika JV	12 Jul, 2013	April 13, 2022	94.78	Primary Pipelines from Service Reservoir, Distribution Pipelines and Reticulation Pipelines, and Consumer Connections.
DNI Package 2	Hangzhou-Sharma JV	6 Nov, 2013	April 13, 2022	93.00	
DNI Package 3	Sumec-Lama JV	9 Apr, 2013	April 23, 2022	84.40	
DNI Package 4	GIETC-Sharma-Raman JV	10 Jul, 2017	April 13, 2022	81.00	

Bulk Distribution System Construction Packages

Package Name/ Number	Contractor	Contract Commencement Date	Contract Completion Date	Progress %	Included Works
BDS Package 1	JITF	11 Mar, 2014	31 Dec, 2021	98.20	Service Reservoirs and Bulk Water Conveyance pipelines from Sundarijal WTP to the Service Reservoirs
BDS Package 2	JWIL-SCPL JV	06 Aug, 2014	31 Oct, 2021	99.00	
BDS Package 3	Tianjin-Raman JV	05 Jun, 2014	31 Dec, 2021	96.31	
BDS Package 4	Hangzhau-Ashish JV	23 Dec, 2015	28 March, 2022	91.90	

B.Wastewater Infrastructure Component

The major objective of this component is to improve the wastewater management capacity of Kathmandu Valley, to maximize the efficiency an defective ness of existing waste water sector infrastructure and service provision, through restoration, establishment and extension of wastewater services in KUKL service areas, to strengthen sewerage infrastructure to abolish ingression of foul water into water supply line and help to eradicate pollution of drinking water and to improve water quality in urban rivers and tributaries and their ecosystem.

The major expected outcome of this component will be the improved access to efficient and reliable delivery of waste water services to the residents of Kathmandu Valley, including poor women and men. This component focuses on investment in infrastructure that maximizes the efficiency, effectiveness and utility of infrastructure and services planned under the on-going ADB loan sand will prioritize the underserved areas and the poor sections of population in Kathmandu Valley. This component will also support and further consolidate the continuing efforts of the government and ADB in institutional development and improvement of governance in the wastewater sector.

Major Works Under Wastewater Infrastructure Component

SN	Description	Activities
1	**Wastewater Treatment Plants**	Construction of Wastewater Treatment Plants at Guheswori, 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 45 kilometers aiming to intercept the wastewater disposal into the river/stream
3	**Sewer Network Rehabilitation and Construction**	Rehabilitation and construction of sewer networks in Kathmandu Valley is being implemented under this part
4	**Decentralized Wastewater Treatment Plants (DEWATS)**	Presently two DEWAT systems are proposed to be constructed 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	22 July 2018 EOT-4: 27 Sep 2020	Operation Started	Rehabilitation and Expansion of Guheshwori WWTP (32.4 MLD)
WWTP Package 2	Safbon Water Service (Holding)	07 May 2019	06 Nov 2019 EOT-03: 13 April 2022	25.94	Construction of Wastewater Treatment Plants at Sallaghari (14.2 MLD), Kodku (17.5 MLD) and Dhobighat (37 MLD)
WWTP Package 3	CGCOC-ATAL JV	25 Mar 2018	14 March 2020 EOT-04: 13 April 2022	59.00	Construction of Wastewater Treatment Plants at Dhobighat (37 MLD)
DEWATS-01	Final Stage of Bidding Process for the construction of DEWATS at Gokarna and Hanumanghat				

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	23 Apr 2018 EOT-04: 09 Oct 2020	47.80	Construction of Interceptor sewer (25.331 Km)
Interceptor Package 1	ZIEC-Sharma-BKOI JV	2 Nov 2016	23 Oct 2018 EOT-04: 27 Nov 2020	47.16	Construction of Interceptor sewers (11.363 Km)
Interceptor Package 1	Lama-Raman-Golden Good JV	15 Dec 2017	8 June 2019 EOT 1, 7 Dec 2019	Completed	Construction of Interceptor sewer (7.679 Km)
WW/SN-03	Sharma-Lama Golden Good JV	17 Aug 2020	09 Dec 2021 EOT 01, 22 April 2022	30.50	Sewer line (2.8 KM) at Patan
WW/SW-01	Final Stage of Bidding Process for the construction of Baluwatar Storm Water Management Works				

16. Tariffs

16.1 Piped Water Connection

S.N.	Connection Size (inch)	Minimum Consumption (Liters)	Metered		Unmetered
			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

Sewerage service charge	50% of water bill

16.2 Supply by Tankers

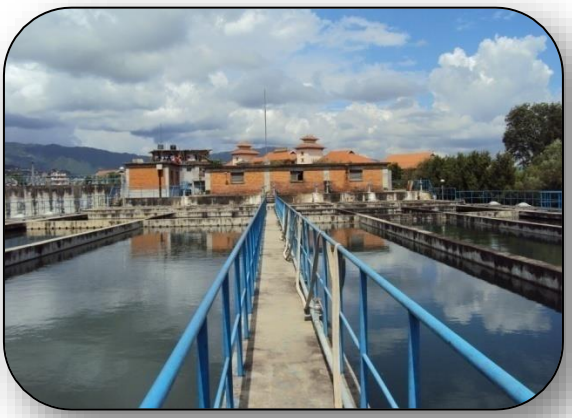
S.N	Quantity of Water (Liters)	Rate (NRs.)
1	5000	1995
2	6000	2300
3	8000	2860
4	9000	3155
5	10000	3435

Payment at Delivery Place	Extra Charge of 10%

16.3 Laboratory Test Rates

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

17. Major Water Production Infrastructure

Mahankalchour Water Treatment Plant	
Construction Year :	1992 AD
Treatment Components:	Bio Filter/ Chemical Dosing Unit/ Coagulation-Flocculation Unit/ Sedimentation Basin, Rapid Sand Filter, Disinfection Unit
Treatment Capacity:	26 MLD
Water Source:	Bagmati River, Tubewell in Dhobi Khola, Gokarna and Manohara Well Fields
Reservoir Capacity:	3 Reservoirs with total 9500 cubic meters
Funded by:	JICA
Branch:	Mahankalchour Branch
	
Sedimentation Basins	Rapid Sand Filters

Bansbari Water Treatment Plant	
Construction Year :	**2004 AD**
Treatment Components:	**Bio Filter/ Chemical Dosing Unit/ Coagulation-Flocculation Unit/ Sedimentation Basin, Rapid Sand Filter, Disinfection Unit**
Treatment Capacity:	**15 MLD**
Water Source:	**Bishnumati River, Shivapuri surface water source and Bansbari tube wells**
Reservoir Capacity:	**2 Reservoirs with total 3000 cubic meters**
	
Rapid Sand Filters	**Coagulation/Flocculation Unit**

Sundarijal Water Treatment Plant		
Construction Year :	**1966 AD**	
Treatment Capacity:	**21 MLD**	
		
Filtration Unit	**Flocculation Unit**	**Primary Sedimentation Unit**

Bode Water Treatment Plant	
Construction Year : **Treatment Components:** **Treatment Capacity:** **Water Source:** **Reservoir Capacity:**	**2004 AD** **Chemical Dosing Unit/ Coagulation-Flocculation Unit/ Sedimentation Basin, Rapid Sand Filter, Disinfection Unit/ Sludge Drying Beds** **20 MLD** **Manohara Dug Well and Bode Tube Wells** **1 Reservoir of 1000 cubic meters**
	
Coagulation Unit	**Sedimentation Basins**

Other Treatment Plants	
	
Sedimentation Tank At Sundarighat WTP	**Sainbu TP At Sainbu, Lalitpur**

18. Additional Photographs

Melamchi Water Distribution Initiation

Meeting at Ministry of Water Supply

Melamchi Water Distribution Initiation

Melamchi Water Distribution Inauguration

JICA GIS Training

Kirtipur Branch Treatment Plant Construction

Kirtipur Branch Treatment Plant Construction

Kirtipur Branch Treatment Plant Construction

GIS Training By JICA

Leak Repair works at Kesharmahal and Ranibari

Guheshwori WWTP

300mm dia UPVC Transmission Main Maintenance at Nakkhu

Protection works from landslide
by Lalitpur Branch

Guheshwori WWTP

Guheshwori Wastewater Treatment Plant

19. Management Team, Organizing Committee & Editorial Sub-committee

KUKL Management Team

Front Row (From Left to Right): Er. Ujjwal Shrestha, Mr.Bijay Timilsina (Acting Deputy CEO), Mr. Gyanendra Bahadur Karki (Acting Deputy CEO), Mr. Prakash Kumar Rai (Deputy Manager), Ms. Chapala Dhakal (Asst. Manager)

Back Row (From Left to Right): Mr. Durga Bahadur Basnet (Assistant Manager), Er. Purna Bahadur Kuwar (Asst. Manager), Mr. Dipendra Bahadur Oli (Asst. Manager), Mr. Bir Bahadur Chand (Asst. Manager), Mr. Yogendra Bahadur Bam (Asst. Manager)

Fourteenth Anniversary Organizing Committee

Front Row (From Left to Right) – Ms. Manju Manandhar (Admin. Officer), Mr. Jeevan Shrestha (Asst. Admin. Officer), **Mr. Gyanendra Bahadur Karki (Acting Deputy CEO - Convener of the Committee)**, Mr. Prakash Kumar Rai (Deputy Manager), Ms. Chapala Dhakal (Asst. Manager), Ms. Suruchi Amatya Shrestha (Asst. Account Officer)

Back Row (From Left to Right): Mr. Nandu Kumar Tandukar (Senior Asst. Account), Mr. Rajendra Prasad Gautam (Asst. Account Officer), Mr. Bashant Kumar Pal (Senior Lab Technician), Mr. Yogendra Bahadur Bam (Asst. Manager), Er. Ujjwal Shrestha, Mr. Dipendra Babadur Oli (Asst. Manager), Er. Purna Bahadur Kuwar (Asst. Manager), Mr. Bir Bahadur Chand (Asst. Manager), Mr. Durga Bahadur Basnet (Assistant Manager), Mr. Madhusudan Aryal (Asst. Adm. Officer) Mr. Prem Raj Tripathi (Senior Meter Reader).

Annual Report Editorial Sub-Committee

From Left to Right- Ms. Gauri K.C. (Asst. Acc. Officer), Mr. Bikram Shrestha (Computer Officer), **Er. Ujjwal Shrestha - Convener of the Sub-Committee**, Mr. Ramesh Dhungana (Asst. Admin Officer), Ms. Rachana Adhikari (Engineer), Ms. Neha Adhikari (Overseer) (Not in Photograph)

Contact Numbers of Division/Branch/Section

Office	Telephone Numbers
Wastewater Operation Division	4332803
Water and Wastewater Quality Assurance Division	5210534 5210538
Baneshwor Branch	4107195
Bhaktapur Branch	6610979 6610235
Chhetrapati Branch	4252326 4251815
Kirtipur Branch	4332855 4330545
Lalitpur Branch	5527268 5521723
Madhyapur Thimi Branch	6636918
Mahankalchaur Branch	5210357 5210335
Maharajgunj Branch	4422368 4418793
Tripureshwor Branch	4101246 4101006
Central Store	4331773
Electro-Mechanical Section	4331148 4332115
Tanker Section	5210019 5210351

Contact:

Public Relation : 4117356, 4117357, 4117358, 4117359

Fax: 977-1-4117353, 4117360

E-mail: info@kathmanduwater.org

Website: www.kathmanduwater.org

TOLL FREE NO.: 1660022202

https://www.facebok.com/Kuklwater/