Government of Nepal

Ministry of Water Supply

Singhadurbar, Kathmandu

WATER SUPPLY, SANITATION & HYGIENE

SECTOR PERFORMANCE REPORT

Joint Sector Review **2023**

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Table of Contents

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Message

I am delighted to announce the successful completion of the water supply, sanitation, and hygiene (WASH) Joint Sector Review 2023, a collaborative effort involving all the sectoral stakeholders, including Federal Government, Provincial Governments, Local Governments, International and National development partners, Civil societal organizations, Service providers and the communities. Together, we conducted a comprehensive assessment of the water supply, sanitation, and hygiene (WASH) sector in Nepal, evaluating progress made and identifying areas that need further improvement.

I am pleased to share the publication of the Sector Performance Report, a comprehensive document that encapsulates the findings and recommendations of the Joint Sector Review 2023. This report serves as a valuable resource that provides insights into the status of water supply, sanitation, and hygiene in Nepal, and delineates a strategic roadmap for improving access, quality, and sustainability. Guided by the twenty declaration points established during this JSR 2023, this report paves a path towards a more equitable and resilient WASH sector.

At this special event of report publication, I would like to extend my sincere gratitude to the JSR Management Committee, seven thematic leads and co-leads, National Conclave session chair, presenters, all participants, and contributors. Your expertise and dedication have been invaluable in this significant undertaking, and your insights have extended the way forward for informed decision-making and transformative action in the WASH sector. As we move forward, the Ministry of Water Supply remains dedicated to putting the report's recommendations into action. Together, let us continue our collective efforts towards ensuring safe and sustainable water supply and sanitation for all Nepali citizens.

Rajendra Kumar Rai
Minister
Hon'ble Rajendra Kumar Rai
Minister

Government of Nepal
MINISTRY OF WATER SUPPLY

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Foreword

It gives me immense pleasure to introduce the water supply, sanitation, and hygiene (WASH) Sector Performance Report based on the third Joint Sector Review (JSR), 2023. I am extremely proud of the collaborative efforts and achievements reflected in this report - a testament to our collective dedication towards enhancing the WASH sector of our nation to a new height.

The third WASH-JSR 2023, a comprehensive process spanning ten months, was a collaborative effort involving all the stakeholders, including the three tiers of government agencies, international and national development partners, sectoral experts, civil societal organizations, service providers and the communities. Through a rigorous consultation process, we identified sectoral gaps and issues, revealing that 7% of the population still lacks access to basic water supply, and 4.5% of the population is yet to get access to basic sanitation services (CBS Report 2021). This intense journey, characterized by thorough data review, in-depth analysis, thematic workshops, and consultation with over eight hundred individuals, also included extensive field studies. The culmination of our efforts was the two-day WASH-JSR National Conclave, held on September 26 and 27, 2023, where we jointly unveiled the twenty points Kathmandu Declaration. This declaration points out the potential to bridge these gaps and guide our future efforts in the WASH sector.

At this outset, I would like to extend my heartfelt congratulations and appreciation to the JSR Management Committee, all the seven thematic leads and co-leads for their continuous effort in the JSR process. The session chairs, presenters, speakers, and moderators also deserve recognition for their efforts in the National Conclave. Their dedication and tireless efforts have been instrumental in shaping out the course of WASH sector and laying the foundation for sustainable progress.

As we move to the implementation phase of the Kathmandu Declaration, it seems more important to translate its principles into actionable steps with clear timelines. By delineating specific action points for each declaration, we can facilitate effective coordination and monitoring of our progress towards achieving our shared objectives. In our collective pursuit of fulfilling the declaration and achieving the SDG-6, I earnestly seek the support and cooperation of every individual and institution involved in the WASH sector. Your unwavering support and dedication to the WASH-JSR 2023 process have been equally invaluable.

If we work more collaboratively, I am confident that we will continue to make significant strides towards building a healthier and more prosperous Nepal. I thank you all once again for your commitment and look forward to your continued support in the days to come.

Suresh Acharya
Secretary
Suresh Acharya
Secretary

Acronyms and Abbreviations

CSO	-	Civil Society Organization
DPR	-	Detailed Project Report
DWSSM	-	Department of Water Supply and Sewerage Management
EMIS	-	Education Management Information System
FSM	-	Faecal Sludge Management
GESI	-	Gender Equality and Social Inclusion
GLAAS	-	Global Analysis and Assessment of Sanitation and Drinking-Water
GoN	-	Government of Nepal
HR	-	Human Resources
HMIS	-	Health Management Information System
JMP	-	Joint Monitoring Programme (UNICEF/WHO)
JSR	-	Joint Sector Review
KPIs	-	Key Performance Indicators
KUKL	-	Kathmandu Upatakya Khanepani Limited
LISA	-	Local Government Institutional Self-Assessment
M&E	-	Monitoring and Evaluation
MDG	-	Millennium Development Goals
MIS	-	Management Information System
MoFAGA	-	Ministry of Federal Affairs and General Administration
MoWS	-	Ministry of Water Supply
MuAN	-	Municipal Association of Nepal
NARMIN	-	National Association of Rural Municipalities in Nepal
NGO	-	Non-Governmental Organization
NMIP	-	National Management and Information Project
NWASH	-	National Water Supply, Sanitation and Hygiene
NWASH-MIS	-	National Water Supply and Sanitation Management Information System
NWSC	-	Nepal Water Supply Corporation
OHS	-	Occupational Health and Safety
ODF	-	Open Defecation-Free
SDG	-	Sustainable Development Goal
SDP	-	Sector Development Plan
SEIS	-	Sector Efficiency Improvement Section
UN	-	United Nations
UNICEF	-	United Nations Children's Fund
WASH	-	Water Supply, Sanitation, and Hygiene
WHO	-	World Health Organization
WSSDO	-	Water Supply and Sanitation Division Offices
WSMB	-	Water Supply Management Boards
WUA	-	Water User Association
WUSCs	-	Water User and Sanitation Committees

Executive Summary

The Water Supply, Sanitation and Hygiene (WASH) Joint Sector Review (JSR) for 2023 marks a significant milestone in Nepal's efforts to improve water supply and sanitation services across the country. This comprehensive review process brings together a diverse range of stakeholders, including government bodies, development partners, International Non-Governmental Organizations (INGOs), Non-Governmental Organizations (NGOs), Service providers, Sectoral experts, Research institutions, and Civil Society Organizations (CSOs) to assess the progress and performance of the WASH sector. The JSR process involves the consolidation and analysis of various forms of information and evidence, such as data, studies, reports, field visits and independent reviews to inform decision-making and priority actions.

Strategically, JSR 2023 outlines seven major themes: *Governance, Institutional arrangement & capacity building, Safely managed water supply services, Safely managed sanitation & hygiene services, Sector financing, Gender equality and social inclusion (GESI), Climate change adaptation & disaster risk reduction, and Sector planning, monitoring and evaluation*. The report delves into the analysis of water supply, sanitation, and hygiene (WASH) services in Nepal, highlighting key findings and challenges across various aspects. It reveals that while significant progress has been made, there are still substantial gaps in ensuring safe and accessible WASH services for all. It also underscores the need for comprehensive data collection and frameworks to address issues such as water quality testing, sanitation infrastructure, and hygiene education. The report discusses regional disparities, technological typologies, service sustainability, equity, and inclusion challenges, emphasizing the importance of tailored approaches for different geographic regions. Furthermore, it identifies critical challenges, including the lack of legal provisions, institutional mechanisms, funding, and aging infrastructures, requiring concerted efforts for progressive improvements in service delivery. The report also suggests strategies for enhancing institutional coordination, strengthening capacity, mobilizing resources, and promoting inclusive sanitation programming. Ultimately, it calls for sustained political will, regulatory frameworks, and investment to transform mandates into tangible actions for achieving safe and inclusive WASH services throughout Nepal.

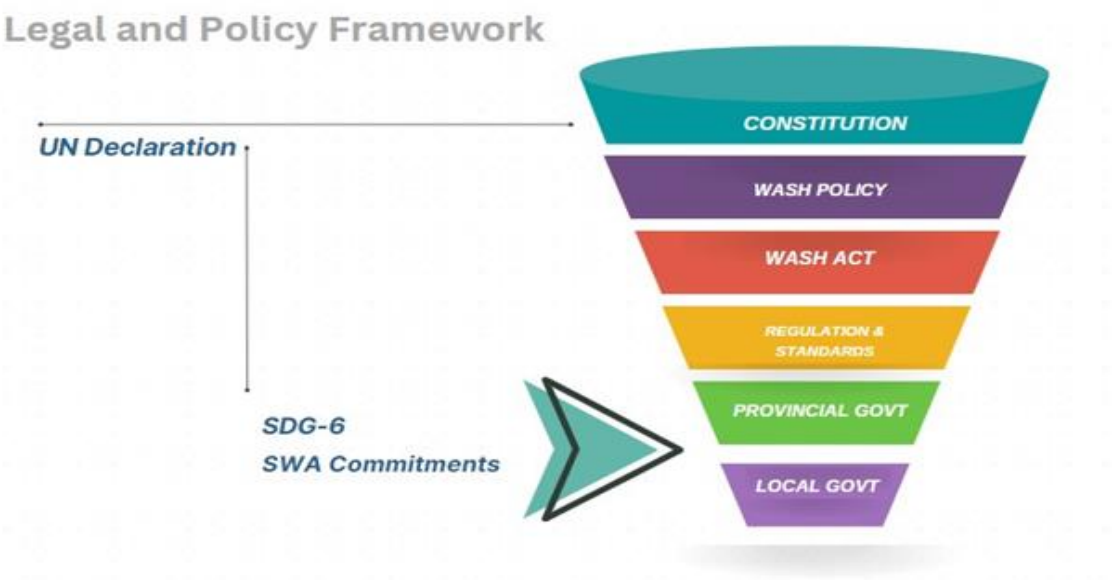
The JSR 2023 provides a comprehensive assessment of Nepal's WASH sector, addressing key challenges and aiming a way forward towards achieving the SDGs and ensuring equitable access to safe water supply and sanitation services for all. It highlights the critical importance of effective governance, collaboration, and sustainable financing mechanisms in driving positive change in the sector. The twenty declaration points outlined in the key recommendations provide a roadmap for Nepal to further strengthen its commitment to improving the lives of its citizens through enhanced water supply, sanitation, and hygiene services.

CHAPTER 1: INTRODUCTION

1.1 Country Overview

Nepal went through a recent transformation from a centralized state to a three-tier federal system with the enactment of the new Constitution of Nepal in 2015. It became a Federal Democratic Republic nation with seven Provinces and 753 local levels. Policies and administrative procedures are therefore at a state of paradigm shift and are being redefined and rolled out gradually while institutions jostle for authority and access to resources.

Access to safe water supply and sanitation is a fundamental right of every individual, linked to human dignity and public health. Article 30(1) of Nepal's Constitution recognizes the fundamental right of every citizen to live in a clean and healthy environment, while Article 35(4) ensures access to safe water supply and sanitation as a fundamental right. In 2010, the United Nations (UN) declared access to clean drinking water and sanitation as a human right. From 1981 to 1990, following the declaration of safe drinking water and sanitation as a global priority by the UN, this issue gained significant attention worldwide. As a result, all the stakeholders made multiple efforts in the country to address the challenges related to safe water supply and sanitation. This led to the enactment of the Water Resources Act, 1992; the National Water Resources Policy, 2020; the Water Supply Regulation, 1998; National Water Supply, Sanitation, and Hygiene Policy, 2023; Water Supply and Sanitation Act, 2022; and various initiatives aimed at the conservation and protection of safe water supply and sanitation.



This WASH Joint Sector Review, 2023 is the first such review conducted after the enactment of the new constitution and federal structure of the state. The three tiers of government - federal, provincial, and local - each have distinct rights, roles, and responsibilities in the WASH sector, including both concurrent and exclusive rights. Consequently, the process approach differs from previous reviews. It has been reshaped to align with the federal structure, emphasizing the institutionalization and development of the sector at the provincial and local levels.

1.2 Rationale of JSR

In 2023, Nepal's WASH sector is at a critical juncture. The global framework outlined in the Sustainable Development Goals, coupled with the inclusion of the Right to Water Supply and Sanitation in Nepal's Constitution 2015, underscores the importance of effective collaboration within the sector. The primary goals are to enhance both the level and quality of services, minimize redundancy, and ensure that "no one is left behind". This is in pursuit of the overarching vision of providing safe water and safely managed sanitation services for all by 2030. Following the federalization of Nepal in 2015, the WASH sector is undergoing a period of transition and transformation. The objective is to strengthen the capacity of the government and development partners to meet these challenges effectively. As the country gears up to expedite progress toward achieving WASH targets, evaluates the midway status of SDG objectives, and implements the inaugural Water Supply and Sanitation Act (2022) and WASH Regulation, there is a renewed interest in JSR. The Ministry of Water Supply (MoWS), with support from development partners, is eager to organize the third JSR in mid-2023. A robust sector review process like the JSR will enable an assessment of sector performance and the identification of key obstacles to accessing safe and inclusive water supply and sanitation services. The JSR process fosters closer collaboration among WASH stakeholders and ensures that all stakeholders feel included. JSR is one of the few mechanisms where the MoWS leads the efforts in harmonizing the sector which can bring all stakeholders into a single forum for mutual accountability at national level. It is a platform for discussion, reviewing progress and setting priorities along with commitments.

1.3 Objective of the Joint Sector Review 2023

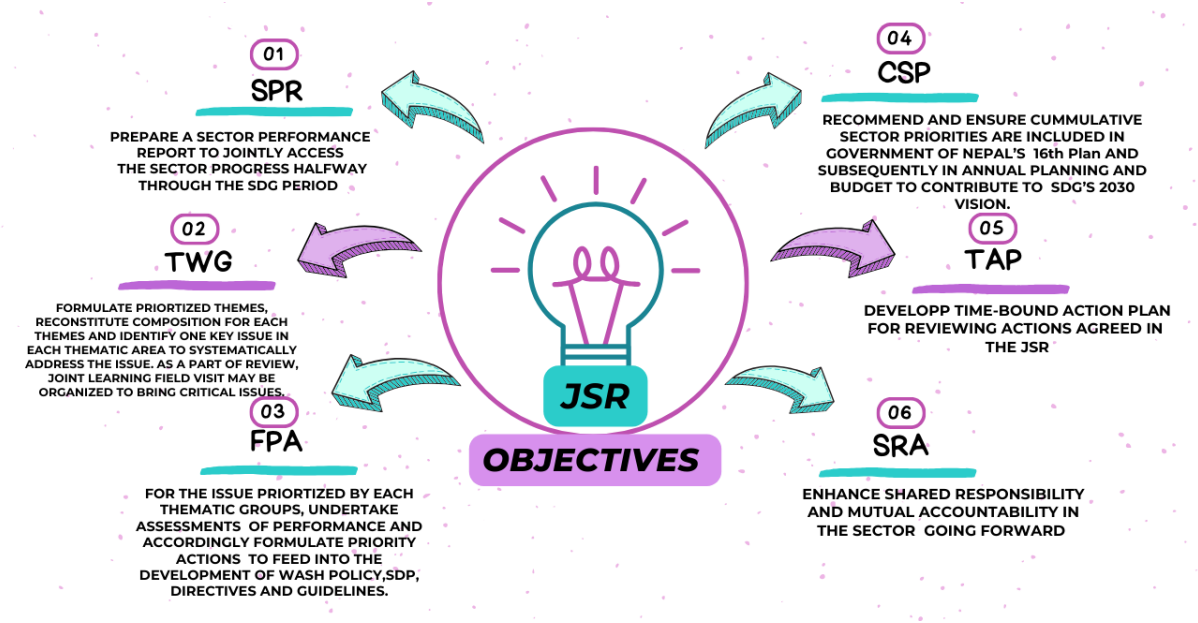
The key objective of the JSR is to bring all stakeholders into a single platform to engage in government led periodic process to review sector status, progress and performance and take decisions on priority actions. The outcomes of JSR will be able to provide essential building blocks for improved sector planning and performance monitoring. JSR process brings WASH stakeholders closer and feel they are inclusive.

The specific objectives of JSR, 2023 include:

1) Formulate prioritized themes for the sector, reconstitute group composition for each theme.
2) Identify keys issue in each theme to systematically address the issue. As part of the review, joint learning field visits may be organized to bring critical issues from implementation level to policy level.
3) For the issue prioritized by each thematic group, undertake assessment of performance and accordingly formulate priority actions.
4) Prepare Sector Performance Report based on sector analysis and feeds from the provincial consultations.
5) Organize national JSR conclave to jointly assess the sector progress, key issues to be addressed, and commitments, as a result of agreed actions. Ensure actions are included into the Government of Nepal's Sixteenth Plan, Sector Development Plan and subsequently in annual planning to contribute to government's SDGs 2030 vision.
6) Develop time-bound action plan for reviewing actions agreed in the JSR; and
7) Enhance shared responsibility and mutual accountability in the sector, going forward.

1.4 Approach and Methodology

The JSR process, 2023 is comparatively advanced than previous, drawing in new stakeholders and better information with improved review mechanisms setting more realistic, and ambitious priority actions. To make an impact on sector policies, institutions, programme implementation and funding the JSR process envisaged as an integral part of government, development partners, NGOs and CSOs for sector planning, monitoring, and reporting. However, this takes years to achieve. WASH JSR, 2023 a ten-month process geared up in December 2022 and included inceptions meetings, thematic groups division, bottleneck analysis, preparation of questionnaire/checklist, field visits, provincial consultations, collection of quantitative and qualitative data and analysis of available data and information. Sector Efficiency Improvement Section (SEIS) of MoWS led the process with efficient coordination and clear communication among them.



The following diagram presents the process flow adopted in the JSR 2023.

1.5 Thematic Working Groups

WASH Thematic Working Groups (TWG), established as a part of earlier JSRs, remained central to the review process with realignment to the current sector priorities. As the first step, the thematic groups reactivated with a dedicated lead from the government and a co-lead from the relevant development partner, with relevant agencies as contributing members in each thematic group. The seven thematic groups include:

1) WASH Governance, Institutional Arrangement and Capacity Building.
2) Safely Managed Water Supply Services.
3) Safely Managed Sanitation Services and Hygiene.
4) Sector Financing.
5) Gender Equality and Social Inclusion.
6) Climate Change Adaptation and Disaster Risk Reduction.
7) Sector Planning, Monitoring and Evaluation.

1.6 Limitation

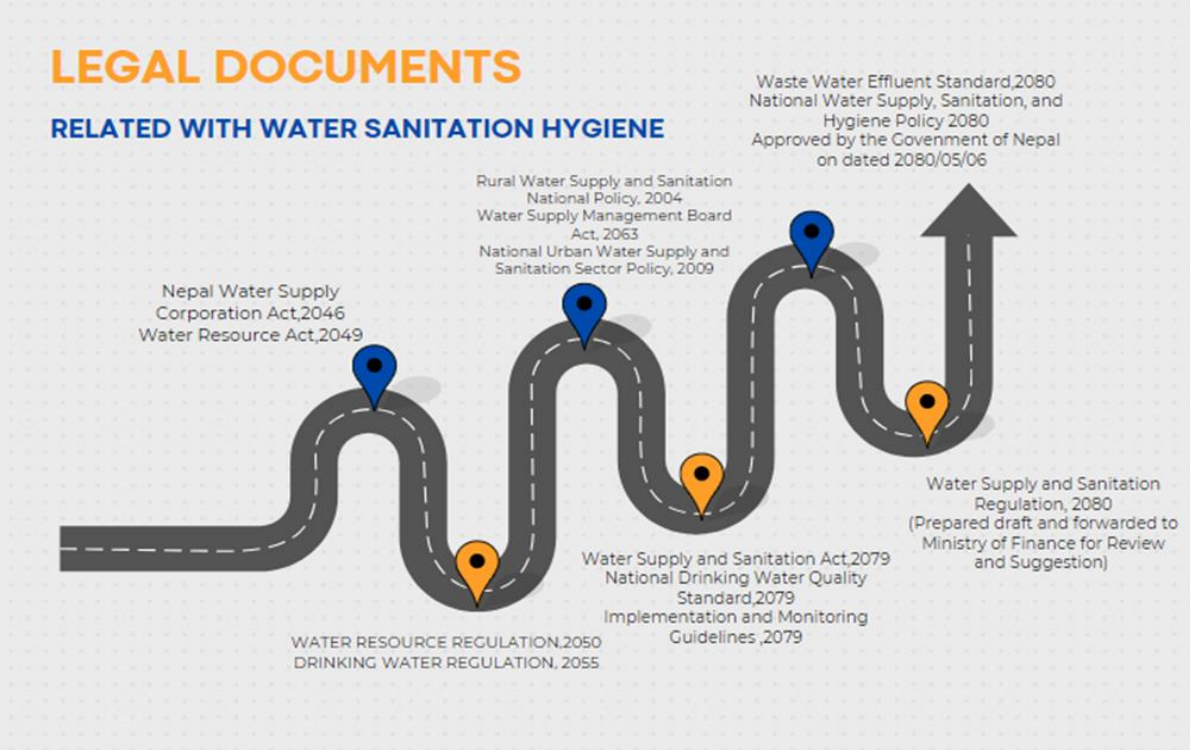
Joint sector reviews, while valuable in assessing and improving various sectors, do come with certain limitations. The major limitations of JSR 2023 are as follows:

1) As the first JSR after federalization with third JSR as a baseline. The initial examination provided an overview but the fourth JSR will be more comprehensive and insights.
2) Restriction of sample size for local government was due to limitations, including time constraints, human resource limitations, cost considerations, and logistical challenges.
3) Limited urban WASH field visits.

CHAPTER 2: SECTOR GOVERNANCE

2.1 Legal and Regulatory Framework

Nepal's constitution, enacted in 2015, has recognized "access to safe water supply and sanitation" as a fundamental right of its citizens. This demonstrates an unprecedented commitment to ensuring that everyone has access to safe water supply and sanitation facilities. Through the Sustainable Development Goal 6, Nepal committed to ensuring the availability and sustainable management of water and sanitation for all by 2030.



The policies related to water supply and sanitation in Nepal have evolved through a series of national policies and strategies. The Water Resources Act, 1992; Water Resources Regulation, 1993; Water Supply Regulation, 1999; Nepal Water Supply Corporation Act, 1989; Water Supply Management Board Act, 2006; Water Supply and Sanitation Act, 2022; National Water Supply, Sanitation, and Hygiene Policy, 2023 were formulated to address sanitation and drinking water issues. In recent years, policies such as the Rural Water Supply and Sanitation Policy, 2004; Urban Water Supply and Sanitation Policy, 2009; and the Sanitation and Hygiene Master Plan, 2011, along with the Sustainable Development Goals and their targets (2016-2030), National Drinking Water Quality Standards, 2022/ Implementation and Monitoring Directive, 2022; Domestic Wastewater Effluents Standards, 2023 have played a crucial role in guiding water supply and sanitation-related initiatives and strategies in the country.

2.1.1 Legal and Regulatory Framework Priorities Accorded for Water

Drinking Water	Urban	Rural
Formal national standards	Yes	Yes
Surveillance of drinking water in formal instrument defined	Yes	Yes
Roles and responsibilities of drinking water safety defined	Partially yes	Partially yes
Service delivery requirement beyond water quality	Partial	Partial
Drinking water risk management through water safety plan	Approved	Approved

Adopted from GLAAS

2.1.2 Legal and Regulatory Framework Priorities Accorded for Sanitation

Sanitation	Availability	Available components
National Standards-on-site sanitation, containment, desludging and transportation, Occupational Health, and Safety (OHS) and end use	Partial	Domestic Wastewater effluents standards
National treatment Standards- Wastewater	Yes	Domestic Wastewater effluents standards
Surveillance requirement defined in formal instrument	No	
Sanitation risk management through sanitation safety planning	No	

Adopted from GLAAS

2.1.3 Legal and Regulatory Framework Priorities Accorded for Hygiene

Hygiene	Availability	Available components
National standards for hygiene facility in public place	No	
Inclusion of hygiene in M&E framework	Yes	NWASH MIS – household, public places, and WASH in institutions components.

Adopted from GLAAS

2.2 Policy and Plan (Including Standards and Guidelines)

Nepal currently has the National Water Supply, Sanitation and Hygiene Policy, approved by the Government of Nepal (GoN) in 2023. This policy has replaced the previous two policies: the Rural Water Supply and Sanitation Policy, 2004 and the Urban Water Supply and Sanitation Policy, 2009.

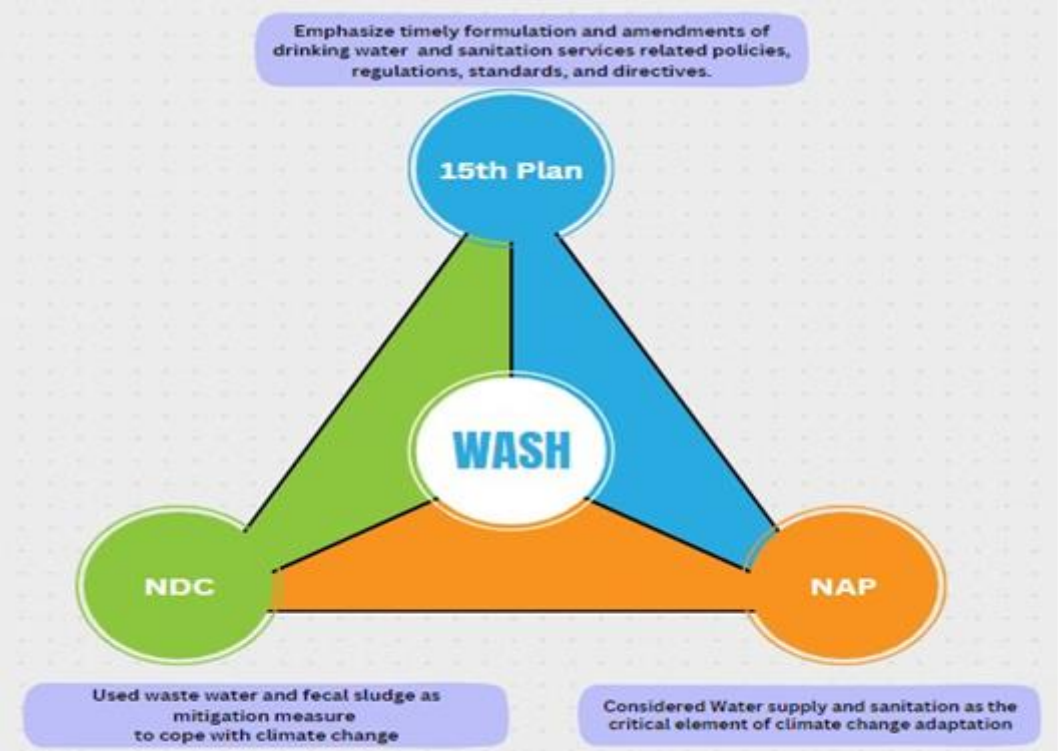
Policy / Plan	Policy status	Regulations shared via public notice	Year approved	Plan status	Plan Budgeted	Sufficient finance for plan	Sufficient Human Resources for plan
National Water Supply, Sanitation and Hygiene Policy	Approved	Regulation under preparation	2022	Update of SDP (2016)	Yes	No	No

Adopted from GLAAS

The National Water Plan (2005-2027) is an extensive and long-range strategy which has overarching goals for the entire water sector, encompassing energy, water resources management, and WASH. The Sanitation and Hygiene Master Plan of 2011 sets a target to attain universal access to sanitation by 2017. Even though the plan concluded in 2017, various components from it served as the building blocks for the sanitation sector's further development.

The 15th Periodic Plan (2019/2020–2024/2025) is a comprehensive five-year strategy aimed at achieving Nepal's overarching objective of becoming a middle-income country. Within this plan, the WASH sector has specific goals, primarily centred on enhancing public health. These objectives focus on ensuring that reliable, affordable, and safe water supply and sanitation facilities are accessible to people in urban, peri-urban, and rural areas. The plan sets specific targets, including providing 100 per cent of the population with access to improved sanitation facilities, maintaining the open defecation-free (ODF) status of the country, and progressively working towards proper treatment and discharge of at least 20 per cent of wastewater.

The Ministry of Water Supply (MoWS) had previously drafted the Water Supply, Sanitation, and Hygiene Sector Development Plan (SDP) (2016-2030), which is now undergoing revision to incorporate recent developments and information. The new WASH Sector Development Plan is envisioned to span a duration of 20 years (2024 to 2043) and is expected to be approved by the Government of Nepal in 2024. This revised SDP will serve as a comprehensive framework for the entire sector, aiming to enhance the capacity, responsiveness, and accountability of the WASH sector by guiding and aligning all stakeholders. It acknowledges the decentralized institutional setups outlined in the Constitution and emphasizes the need for a fundamental restructuring and systematic overhaul of the existing arrangements.



Major National Planning documents which have WASH related goals

Plan	Plan Status	Plans shared via public notice	Year approved	Plan Budgeted	Sufficient finance for plan	Sufficient Human Resources for plan
Nepal National Water Plan (2005 – 2027)	Approved	Yes	2005	No	No	No
Sanitation and Hygiene Master Plan	Approved	Yes	2011	Yes	Partially	No
The 15th Periodic Plan (2019/2020 – 2024/2025)	Approved	Yes	2019	Yes	Partially	No
Nepal Water Supply, Sanitation and Hygiene Sector Development Plan (2016 – 2030)	Under Update	No	2016	Yes		

Adopted from GLAAS

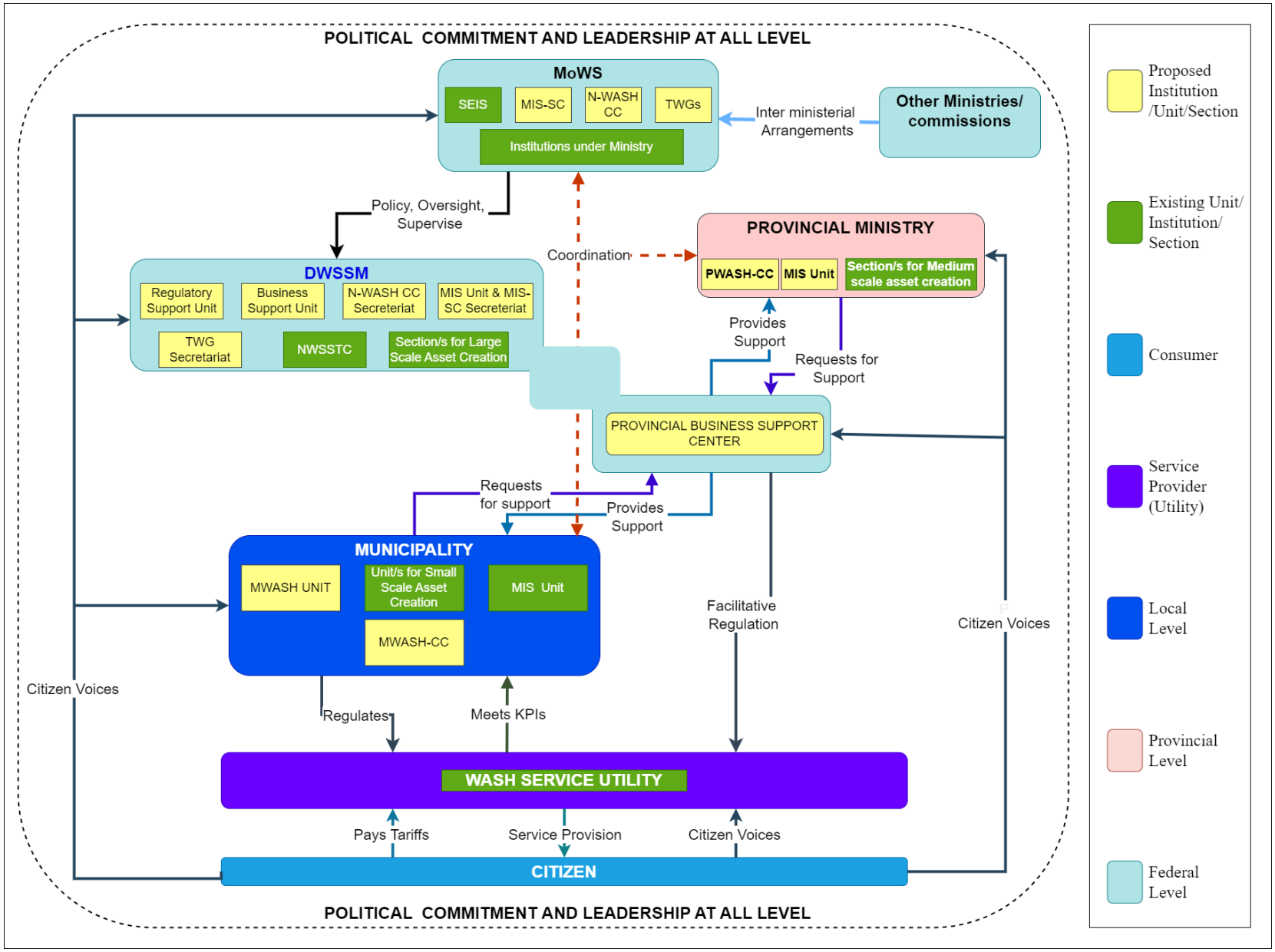
2.3 Institutional Framework - Flow diagram

Nepal's institutional framework for WASH involves a complex web of government bodies and stakeholders at various levels. At the national level, the Ministry of Water Supply (MoWS) serves as the central authority responsible for formulating policies, plans, and strategies related to

WASH. The MoWS coordinates and oversees WASH activities nationwide, with the Department of Water Supply and Sewerage Management (DWSSM) operating under its umbrella to plan, develop, and manage water supply and sanitation systems. The Nepal Water Supply Corporation (NWSC) and Water Supply Management Boards (WSMB) manage most of the urban water supply systems, while Kathmandu Upatyaka Khanepani Limited (KUKL) undertakes and manages the water supply and sanitation system of the Kathmandu Valley, previously operated by NWSC.

Under the 2015 Nepal Constitution, jurisdiction is shared among federal, provincial, and local governments. The Local Government Operation Act, 2017 outlines their roles in planning, implementing, and monitoring water supply and sanitation projects. Local governments, particularly municipalities and rural municipalities, are responsible for delivering water, sanitation, and hygiene services within their jurisdictions. To facilitate this, WASH Sections at the local level are established. The National Sanitation and Hygiene Coordination Committee (NSHCC), chaired by the Joint Secretary of the MoWS, fosters coordination, collaboration, and policy dialogue among government agencies, development partners, and stakeholders involved in sanitation and hygiene promotion.

Federal Water Supply and Sanitation Management Project (FWSSMP) Offices develop and implement federal water supply and sanitation infrastructure projects. Additionally, Water Supply and Sanitation Division Offices under the provinces implement provincial-level water supply and sanitation infrastructure projects. Water User and Sanitation Committees (WUSCs) play key roles in managing community-level WASH facilities, while development partners provide support and technical assistance to enhance WASH services and capacity building.

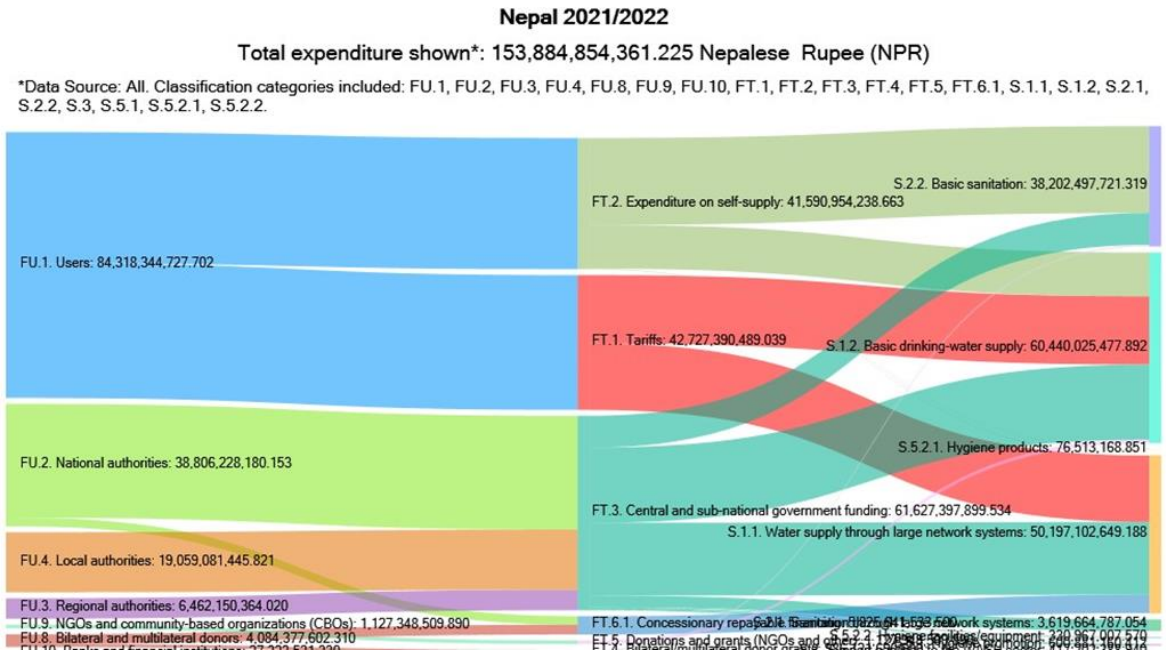

POLITICAL COMMITMENT AND LEADERSHIP AT ALL LEVEL
MoWS
SEIS
MIS-SC
N-WASH CC
TWGs
Institutions under Ministry
Inter ministerial Arrangements
Other Ministries/ commissions
Policy, Oversight, Supervise
Coordination
PROVINCIAL MINISTRY
PWASH-CC
MIS Unit
Section/s for Medium scale asset creation
DWSSM
Regulatory Support Unit
Business Support Unit
N-WASH CC Secreteriat
MIS Unit & MIS-SC Secreteriat
TWG Secretariat
NWSSTC
Section/s for Large Scale Asset Creation
Provides Support
Requests for Support
PROVINCIAL BUSINESS SUPPORT CENTER
Requests for support
Provides Support
MUNICIPALITY
MWASH UNIT
Unit/s for Small Scale Asset Creation
MIS Unit
MWASH-CC
Facilitative Regulation
Citizen Voices
Citizen Voices
Regulates
Meets KPIs
WASH SERVICE UTILITY
Pays Tariffs
Service Provision
Citizen Voices
CITIZEN
POLITICAL COMMITMENT AND LEADERSHIP AT ALL LEVEL
Proposed Institution /Unit/Section
Existing Unit/ Institution/ Section
Consumer
Service Provider (Utility)
Local Level
Provincial Level
Federal Level

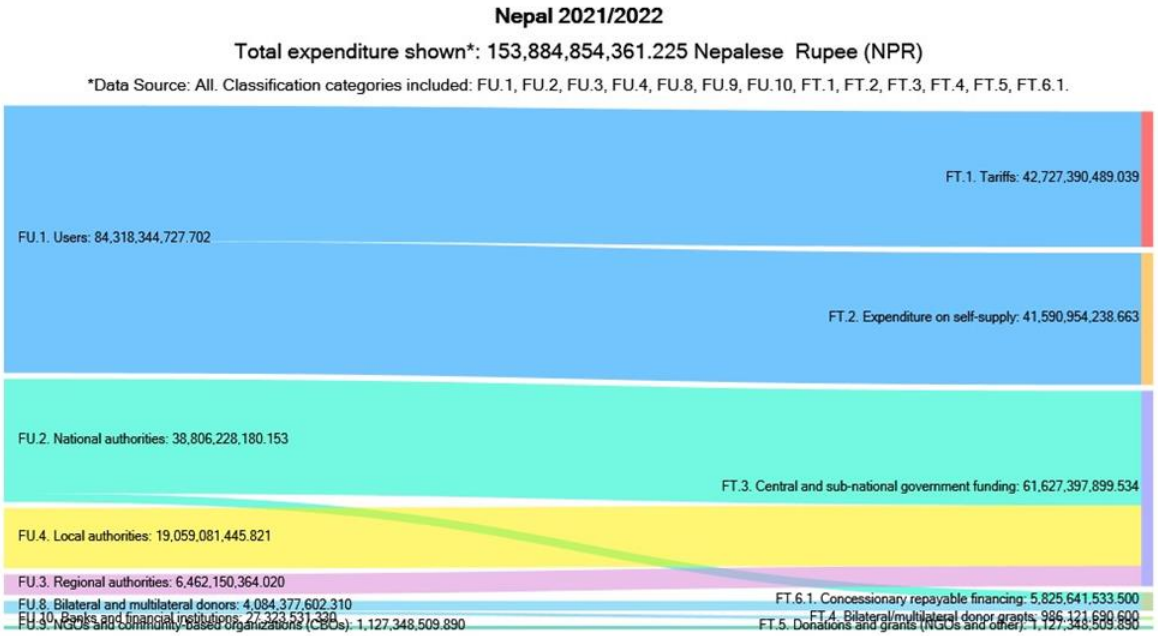
2.4 Financial Framework

The Government of Nepal adopts public financial management (PFM) systems based on the 2016 Public Expenditure and Financial Accountability (PEFA) assessment methodology. Also, the GoN continuously prepares the medium-term expenditure framework which is an important tool for bringing alignment between periodic plans and the annual budget.

MoWS comes under the rank of 9th highest receiving budget among 22 ministries in 2021/22. The federal and provincial governments allocated a total of NPR 50.5 billion to WASH sector in Nepal. Out of total budget, NPR 39.8 billion has been allocated by the federal government and NPR 10.7 billion (NPR 4.4 billion conditional grant from the federal government and NPR 6.3 billion allocated by the provincial governments from federal transfer and their own sources) has been allocated by the provincial governments, for Water Supply and Sanitation Sector. In the past four years of SDG period from 2016/17 to 2019/20, Water Supply and Sanitation Sector utilized only 63 per cent of the allocated budget. Compared to 82 per cent average fund utilized during the period '2016/17- 2017/18', it could utilize only 45 per cent in '2018/19-2019/20'.

In 2021/22, WASH budget at the Koshi Province was NPR 1.8 billion, Madhesh Province was NPR 0.69 billion, Bagmati Province was 1.92 billion, Gandaki Province was NPR 2.53 billion, Lumbini Province was NPR 2.04 billion, Karnali Province was NPR 0.34 billion and Sudur Paschim Province NPR 1.34 billion.





2.5 Monitoring and Evaluation Framework

The National Planning Commission (NPC) has developed standard frameworks for a systematic, simplified, result-oriented, reliable, and effective monitoring and evaluation (M&E) system of development projects in Nepal. The NPC's M&E framework is designed to ensure that projects are effectively implemented, outcomes are achieved, and resources are utilized efficiently. This framework involves a systematic process of collecting, analysing, and using information to track project progress and performance against predefined objectives and targets. The NPC employs a range of tools and methodologies, such as logical frameworks, performance indicators, and baseline studies, to assess the impact and sustainability of projects. Regular field visits, progress reports, and stakeholder consultations are integral components of this process, providing insights into on-ground realities and facilitating timely interventions. The NPC's M&E framework emphasizes transparency, accountability, and evidence-based decision-making, ensuring that projects contribute meaningfully to national development goals and align with the Sustainable Development Goals (SDGs).

In the WASH sector, the Ministry of Water Supply has developed the NWASH-MIS system to record georeferenced digital data of water supply, sanitation, and hygiene-related infrastructure, including its governance, managerial, and financial aspects. This system utilizes over 15 android applications for data collection. Field enumerators use these mobile applications to record georeferenced structural and management-related data, which is then uploaded to a central server. The data is subsequently analysed and grouped from different applications and displayed on the web portal nwash.mows.gov.np.

NWASH-MIS encompasses all WASH data and is integral in formulating municipalities' WASH plans. The system includes a WASH plan module, which helps municipalities input and prioritize projects. After receiving necessary inputs and priorities, the module auto-generates a WASH plan report, which municipalities can further customize and upload to the system. To date, over 405

municipalities have started using this system to digitize their WASH profiles, identifying unreached areas of water supply. Additionally, the water quality module has been integrated into NWASH-MIS for monitoring the quality of water supply systems.

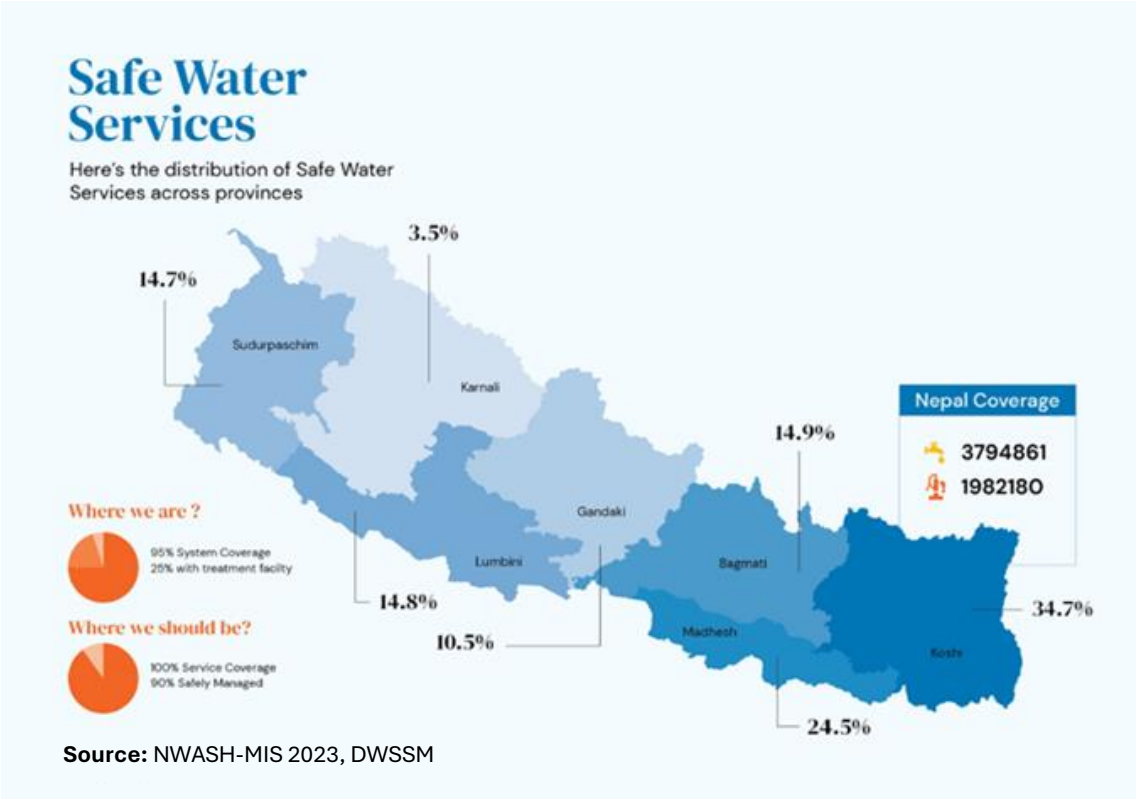
The Joint Sector Review (JSR) is an invaluable tool for assessing sector progress in Nepal, particularly within the WASH sector. It facilitates comprehensive reviews of ongoing initiatives, policies, and strategies by bringing together government bodies, development partners, and stakeholders. The JSR process involves systematic data collection, analysis, and reporting to evaluate achievements against set targets and identify challenges and gaps. This collaborative approach ensures accountability, enhances transparency, and fosters coordinated efforts to address sectoral issues. However, there are gaps in its follow-up mechanisms, particularly at provincial and local levels, which can hinder the effective implementation of recommendations. Despite these limitations, the JSR remains crucial for making informed decisions, adjusting strategies, and prioritizing actions to ensure the effective implementation and sustainability of WASH programs.

The use of NWASH-MIS as a planning and monitoring tool aligns with global indicators, enabling Nepal to track its progress against international standards. The system has been widely appreciated by the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) for enhancing transparency, accountability, and data-driven decision-making within the WASH sector. These monitoring and evaluation efforts, combined with a culture of continuous learning and improvement, have collectively contributed to the continuous improvement and advancement of the sector.

CHAPTER 3: ANALYSIS OF SERVICE

3.1 Safe Water Supply Services

According to National Population and Housing Census 2021, major source of drinking water is tap/piped water (57 per cent), tube well/ hand pump (30 per cent), covered well/*kuwa* (1.5 per cent), uncovered well/*kuwa* (2.1 per cent), spout water (4 per cent), jar/bottled water (5 per cent). Despite Nepal's attainment of water supply related MDG targets, a closer examination of facility types reveals an increase in piped coverage from 45 per cent in 2000 to 47 per cent in 2017, as reported by JMP 2019. Similarly, when evaluating service levels, the proportion of safely managed improved water supply sources has dwindled from 24 per cent to a mere 19 per cent and then to 16 per cent over the course of these two decades, according to JMP 2023 data. 57.8 per cent of the population is using basic drinking water services.



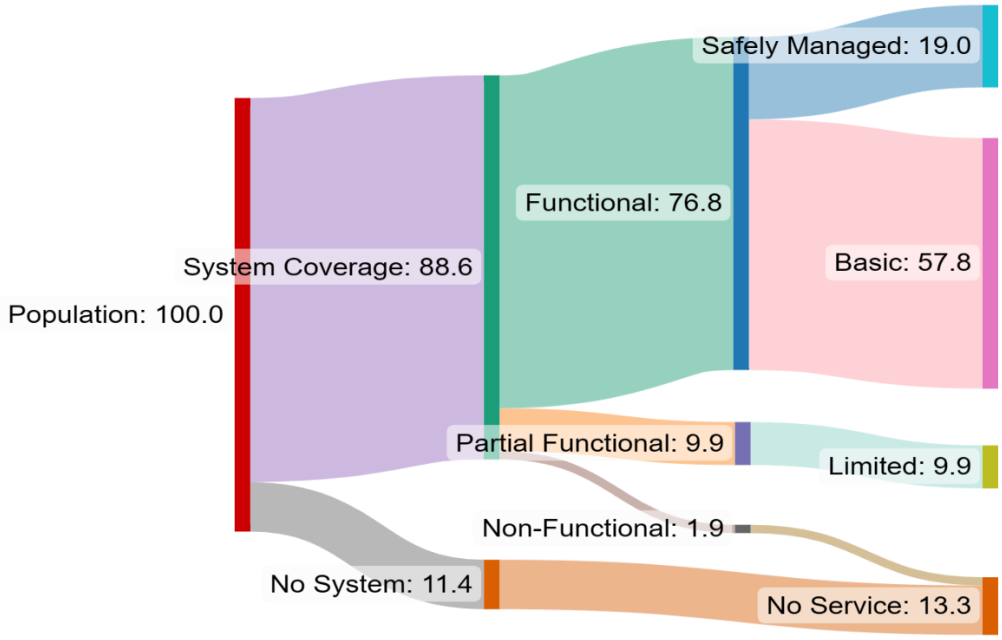
Source: NWASH-MIS 2023, DWSSM

Springs are the predominant source across all six provinces, while Madhesh Province relies on groundwater (90.9 per cent), which is clean throughout the year at a rate of 55.57 per cent and may or may not require treatment. In the rainy season, 26.5 per cent of groundwater in Madhesh Province becomes turbid/dirty, necessitating minor treatment. About 14.7 per cent of water sources have appropriate treatment options available, while 3.1 per cent are constantly turbid/dirty throughout the year, demanding significant treatment. Bagmati Province requires major treatment due to 4 per cent of its water being turbid/dirty throughout the year. Madesh, Lumbini, and Sudurpaschim show an average of 3 per cent turbidity in their water sources throughout the year, whereas the remaining provinces have less than 3 per cent turbidity throughout the year. Out of the existing sources, 62.7 per cent of water sources were safe and free from risks and the remaining 37.3 per cent susceptible to potential issues. When examining

the condition of the sources or intakes, 45.5 per cent of water sources are in good condition, 22.5 per cent require minor repairs, 18.9 per cent need reconstruction, and 13.1 per cent demand major repairs. In 41.9 per cent of households, the distance between the water source and pit latrines is greater than 30 feet and 23.8 per cent have less than 10 feet.

Nepal faces a critical challenge in providing safe and accessible water to its population. While treatment units are increasing, the absence of water quality testing data hinders the achievement of safely managed water coverage. The lack of data is a significant hurdle, and it underscores the need for a comprehensive data and water quality framework. This framework should encompass the collection of vital information on water quality and treatment technologies, as well as strategies to make potentially low-cost treatment technologies available where needed.

Water Supply System Coverage and Service level

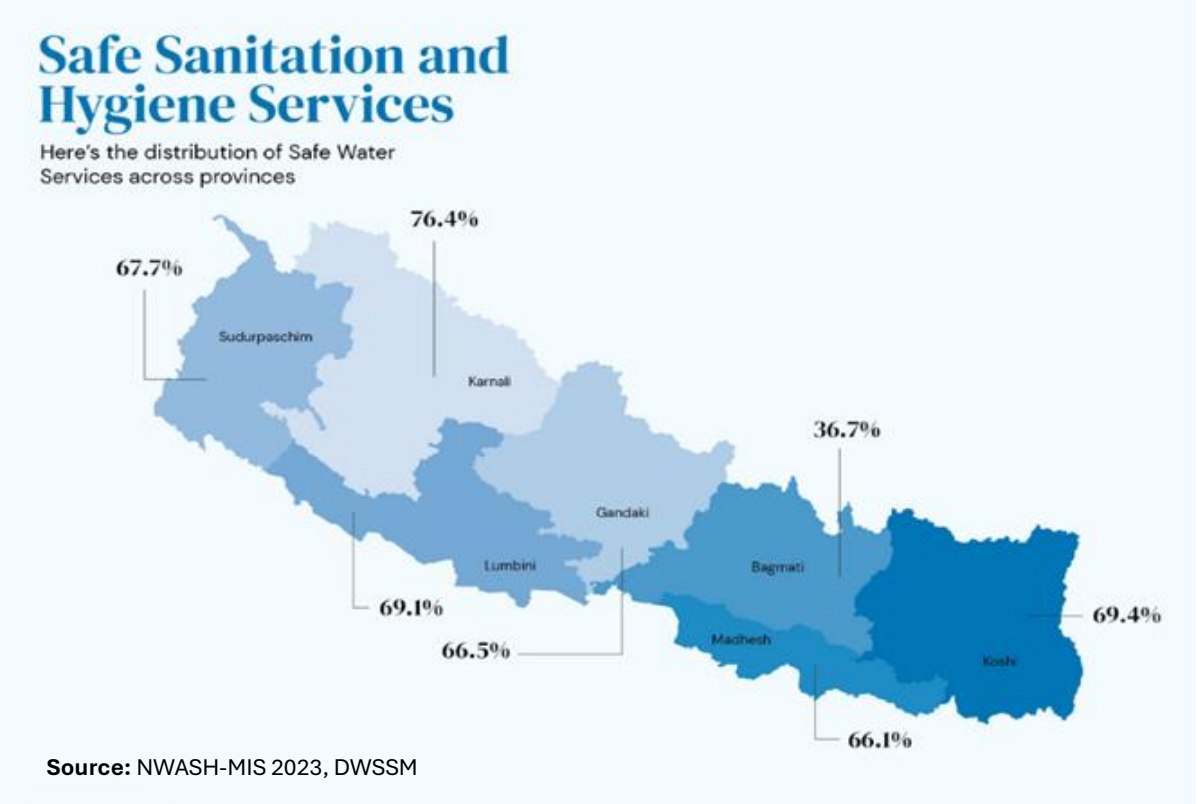


Source: *NWASH-MIS, CBS 2021 & MICS 2019*

Note: The system coverage includes piped system within premises or outside premises (57 per cent), Tubewell or handpump (30 per cent) and covered water supply sources (1.6 per cent).

3.2 Safe Sanitation and Hygiene Services

Data from the National Population and Housing Census 2021 reveals that 55.1 per cent of households possess flush toilets with septic tanks, 30.1 per cent have pit toilets, 9.8 per cent use flush toilets connected to public sewerage systems, 0.5 per cent use public toilets, and 4.5 per cent of households still lack toilets within their residences. In Madesh Province, 41.1 per cent of households do not have space for two pits, indicating a potential limitation in sustainable waste management. In rural municipalities, 25.9 per cent of households lack space for two pits, while in municipalities, this per centage rises to 31.3 per cent, and in metro/sub-metropolitan cities, it reaches 47.7 per cent.



Source: NWASH-MIS 2023, DWSSM

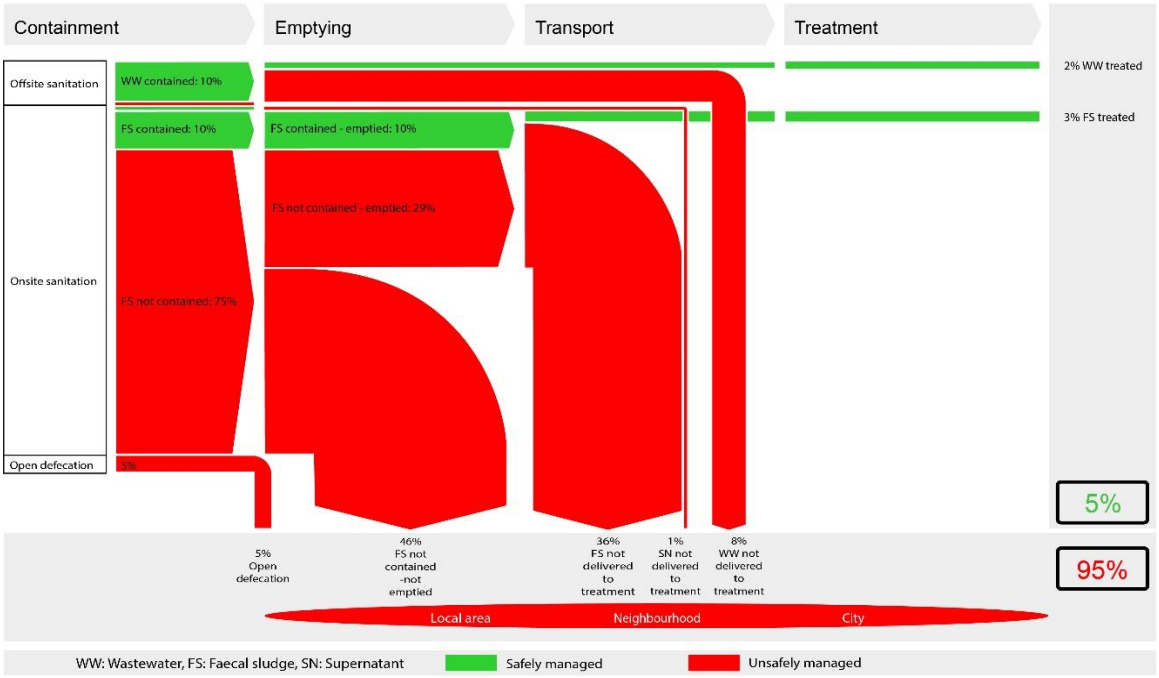
Overall, 10 per cent of the population relies on sewered systems, while the remaining 90 per cent relies on non-sewered sanitation systems, which may be onsite or offsite. The major wastewater treatment plants in the country include the Guheshwori Wastewater Treatment Plant with a capacity of 32.4 MLD, the Biratnagar Wastewater Treatment Plant with a capacity of 18.5 MLD, and the Birgunj Wastewater Treatment Plant with a capacity of 10 MLD. These treatment plants, along with other smaller facilities, treat around 2.6 per cent of the total population's wastewater.

Given that 90 per cent of the population relies on non-sewered sanitation systems, the need for well-designed septic tanks and faecal sludge treatment plants is growing. Standardizing septic tank designs is essential to ensure safe, consistent, and effective sanitation solutions across the country. Moreover, tailoring the design and standards to the specific ecological regions of Nepal is crucial, as the country's diverse topography and climate demand region-specific solutions. As containment systems continue to fill up, there is a pressing need to establish and enforce standards for the proper disposal and management of faecal sludge.

The Lubhu faecal sludge treatment plant, with a capacity of 1 cubic meter per day, is the first of its kind in the country. There has been a recent increase in the number of faecal sludge treatment plants due to investments from the government and other partner organizations. Other notable faecal sludge treatment plants include Gulariya (6 cubic meters per day), Charali (27 cubic meters per day), Kakarvitta (12 cubic meters per day), Waling (6 cubic meters per day), Birendranagar (16 cubic meters per day), Murgiya (3 cubic meters per day), Tikapur (9 cubic meters per day), and Tilotama (30 cubic meters per day). The total faecal sludge treatment capacity is estimated to handle around 3 per cent of the total population-generated faecal sludge.

The overall landscape of sanitation is depicted in the national shit flow diagram prepared during this Joint Sector Review (JSR) process, as shown below.

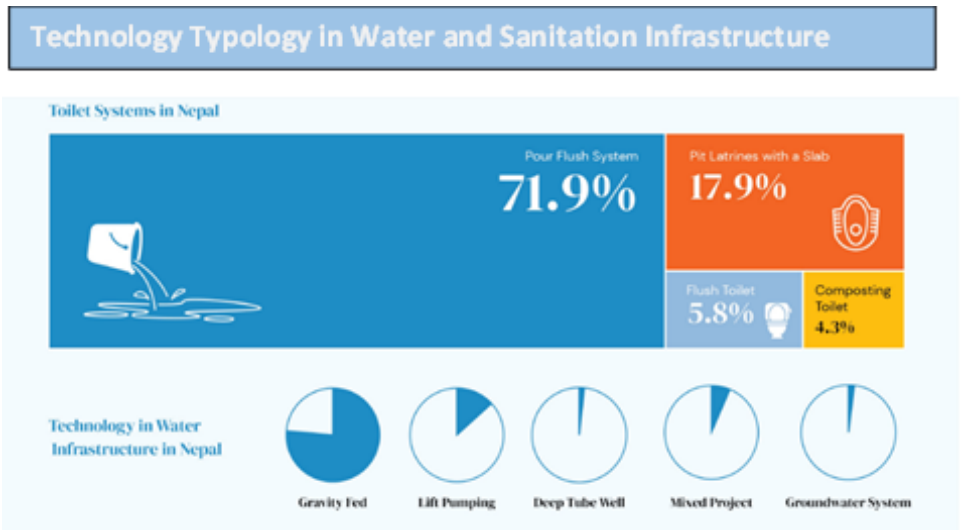
Safely Managed Sanitation Status



Source: *NWASH-MIS, CBS 2021 & MICS 2019*

3.3 Technology Typology in Water and Sanitation Infrastructure

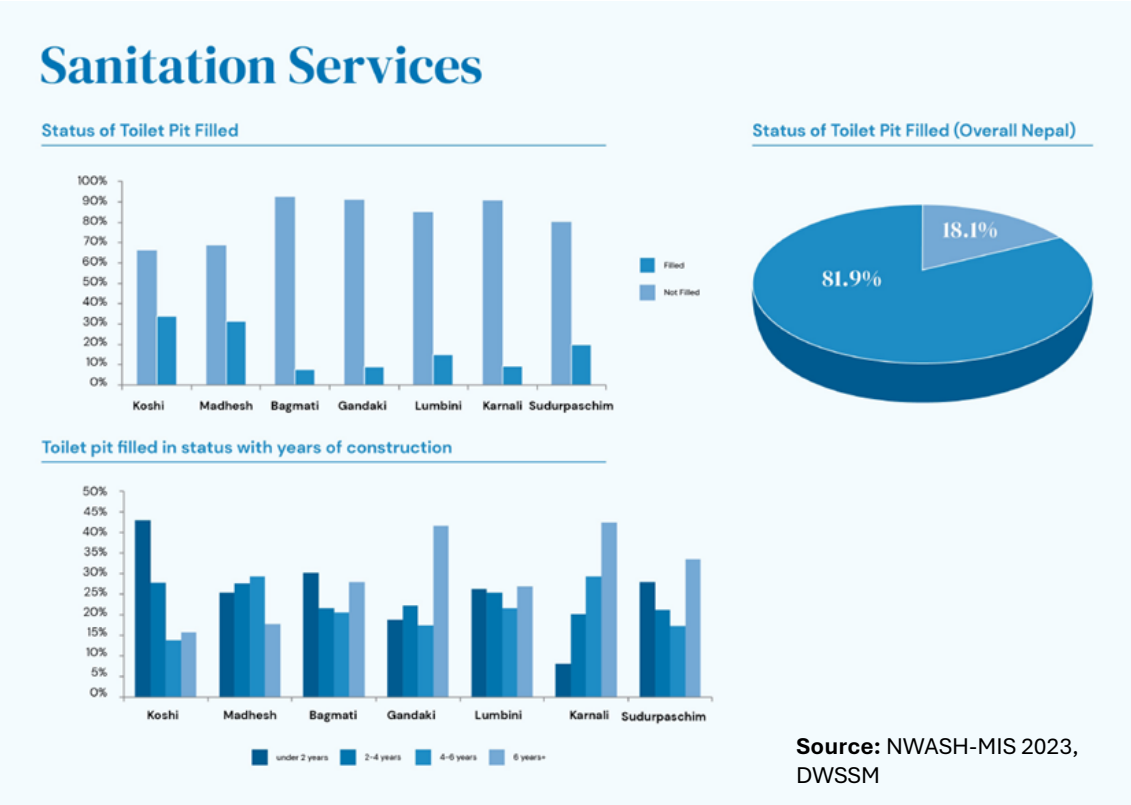
Technology in water supply infrastructure in Nepal include gravity fed (76.4 per cent), lift pumping (13.3 per cent), deep tube well (6.5 per cent), mixed project (2 per cent) and groundwater system (1.7 per cent). In Himalayan region, 98.4 per cent gravity fed, 1.3 per cent lift pumping and 0.3 per cent groundwater. In hilly regions, 80.4 per cent gravity fed systems, 15.6 per cent lifting, and 2.3 per cent mixed systems and in Terai 44.6 per cent deep tube well, 26.4 per cent gravity fed, 17.75 per cent lift pumping.



Source: NWASH-MIS 2023, DWSSM

71.9 per cent of toilets in Nepal utilize the pour flush system, 17.9 per cent consists of pit latrines with a slab, 5.8 per cent are flush toilets, and 4.3 per cent are composting toilets. The province with the highest proportion of pit latrines is Sudurpaschim, with 40.1 per cent, followed by Lumbini with 29.2 per cent. Many households, over 50 per cent, reported that their pits have not filled, whereas in Lumbini, 81.2 per cent of households reported that their pits have filled up. Unfortunately, the management of faecal sludge is unsatisfactory due to its disposal in open spaces without any proper processing and without using suitability analysis consideration in WASH planning.

Regarding the emptying of pits, 77.7 per cent of households in the Terai region contact contractors for this service. In hilly regions, the per centage is 37.2 per cent, and in the Himalayan region, only 10.6 per cent of households hire contractors to empty their pits after they have filled up.



Source: NWASH-MIS 2023, DWSSM

Most of the faecal sludge treatment plant and wastewater treatment plants installed are natural wastewater treatment systems or nature-based treatment systems. However, the Guheshwori, Biratnagar, and Birgunj Wastewater Treatment Plants are mechanized systems. Among these, Guheshwori is the most modern and state-of-the-art facility. It not only treats wastewater to stringent standards, achieving a biochemical oxygen demand (BOD) of less than 10, but it also generates up to 49 per cent of its electricity needs.

Guheshwori Wastewater Treatment Plant (32.4 MLD)

Tikapur Faecal Sludge Treatment Plant (9 cum per day)

3.4 Quality and Sustainability of WASH Services

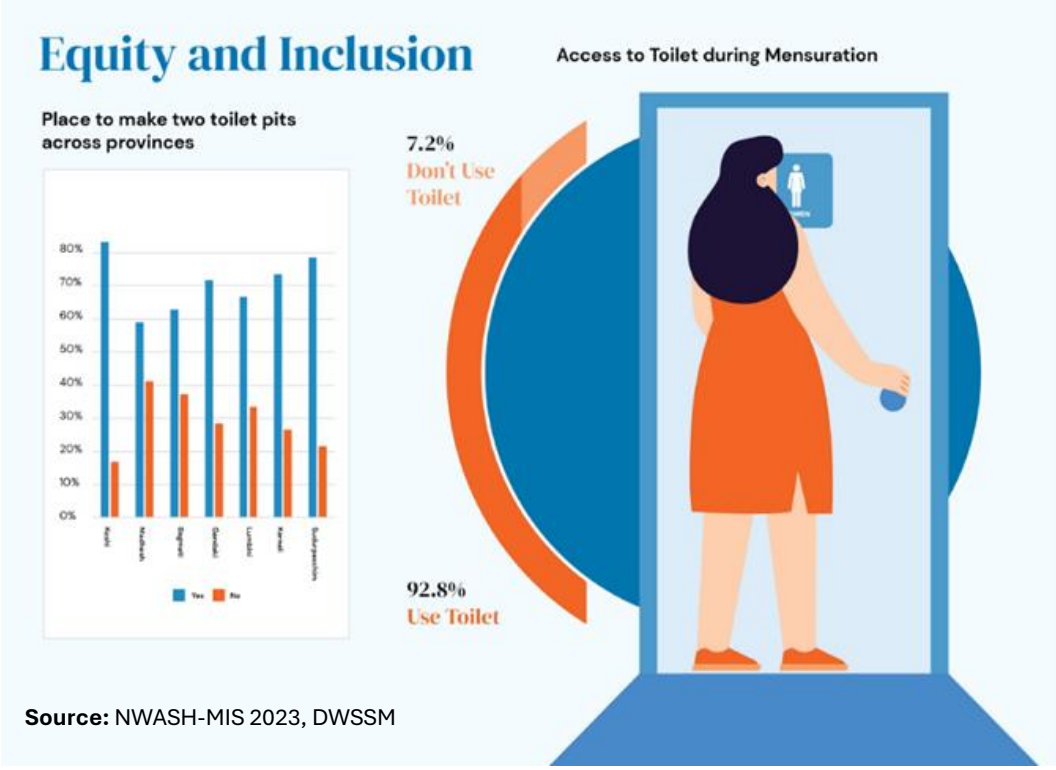
Data on water supply sustainability in Nepal reveals a diverse picture of the current state. In terms of water usage for income generating activities, over half of the respondents (53.6 per cent) employ water for such purposes to a limited extent, potentially highlighting a focus on non-commercial use. Moreover, many employees (56.6 per cent) have received training, which can contribute positively to effective water management practices. However, income disparities are

evident, with an equal split between those facing sufficient and insufficient income levels (47.8 per cent and 46.8 per cent respectively). This financial context may influence attitudes towards water conservation and investment in management efforts.

On the administrative side, encouraging signs include the registration of a significant majority of water sources (58.5 per cent) and consistent water flow measurements (83.3 per cent). This points to initial steps taken for securing water rights and monitoring availability. However, certain aspects of governance and financial management require attention. Notably, a lack of standardized bookkeeping or auditing systems (91.5 per cent) and limited provision of water supply system insurance (2.4 per cent) could potentially hinder effective emergency responses and financial resilience. Gender representation also emerges as a concern, with males dominating Water Users and Sanitation Committees (WUSC) structure committees (66.6 per cent). Achieving a more balanced and inclusive representation is crucial for holistic decision-making and effective service.

3.5 Equity and Inclusion

The data shows regional disparities in access to WASH services in Nepal. Provinces such as Bagmati, Gandaki, Lumbini, Karnali, and Sudurpaschim have high sanitation coverage of over 90 per cent, indicating better access to facilities. In contrast, Koshi (82.6 per cent) and Madhesh Provinces (72 per cent) show lower coverage, indicating disparities between provinces. There are differences in WASH service access between geographic regions. Himalayan and Hilly regions exhibit exceptional sanitation coverage, exceeding 90 per cent, while the Terai region lags with only 81.5 per cent coverage of household sanitation facilities. This highlights the need to address inequalities in WASH services based on geography.



Source: NWASH-MIS 2023, DWSSM

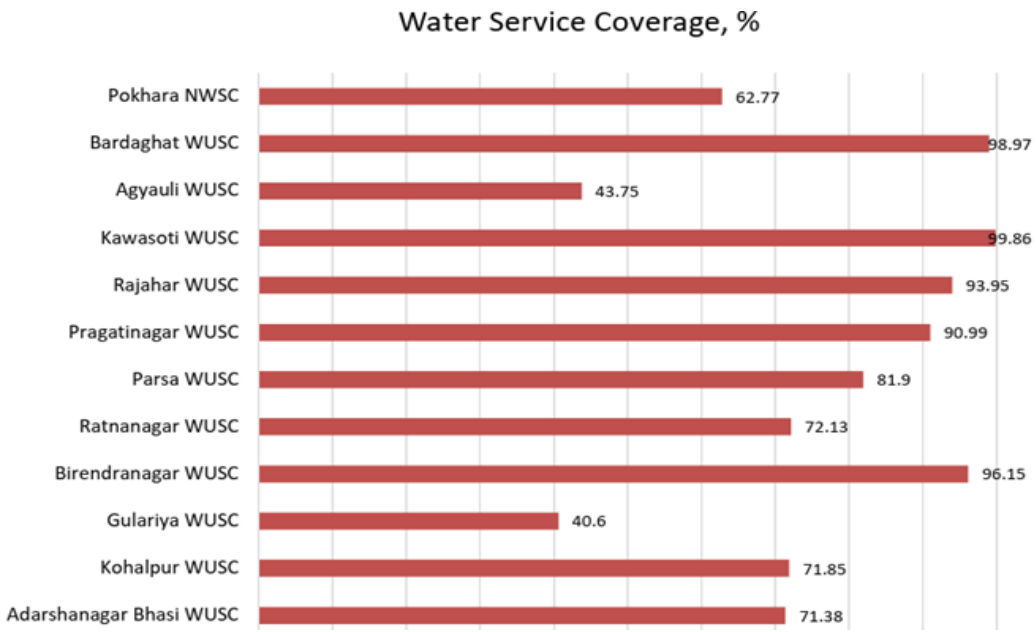
The lack of space for two pits in toilets affects 41.1 per cent of households in the Madesh province, 25.9 per cent in rural municipalities, 31.3 per cent in municipalities, and 47.7 per cent in metro/sub-metropolitan cities. This limitation can impact marginalized communities that often live in congested urban areas or remote regions.

According to the data, a vast majority of households, 93.7 per cent, do not have toilets with disabled-friendly structures. This suggests that a substantial proportion of households do not have facilities that cater to the needs of individuals with disabilities. This situation is a cause for concern as it denies persons with disabilities the right to access proper sanitation facilities, which are essential for their dignity, health, and well-being.

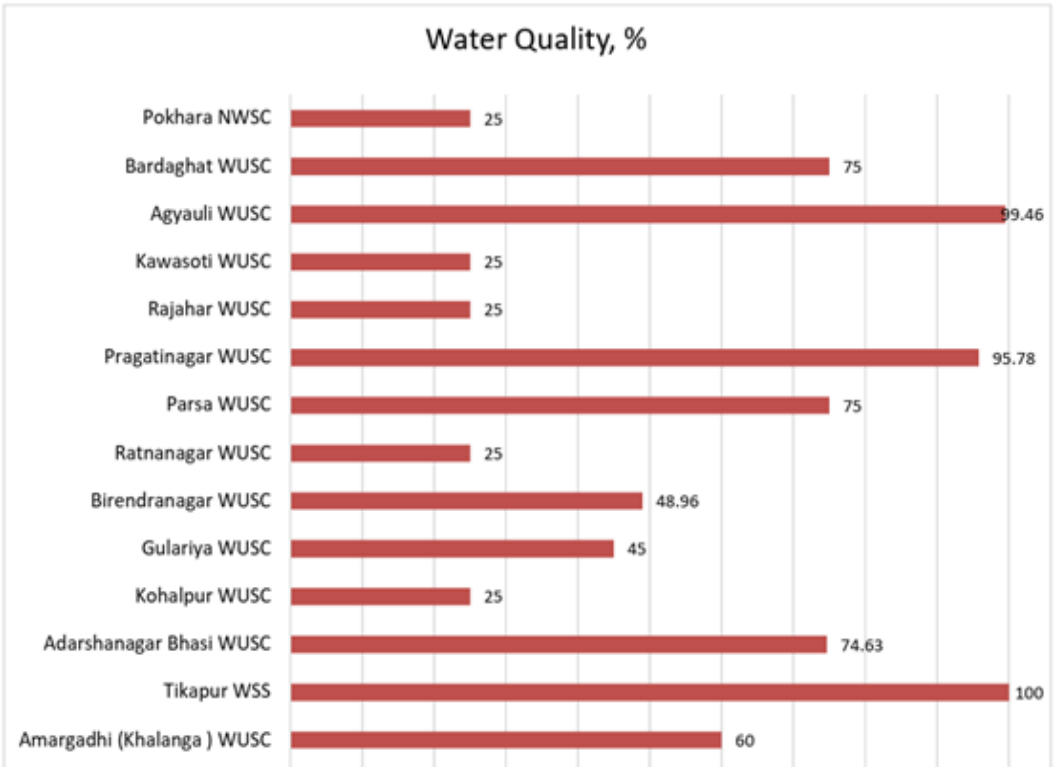
The fact that more than 7 per cent of girls do not use toilets during menstruation suggests that there are barriers or challenges related to menstrual hygiene management. Girls may face cultural taboos, lack of access to clean, safe, and private facilities, or inadequate knowledge about proper menstrual hygiene.

3.6 Efficacy of Service Delivery Models (Benchmarking, Categorization of Service Providers, Transitioning to Utility Management)

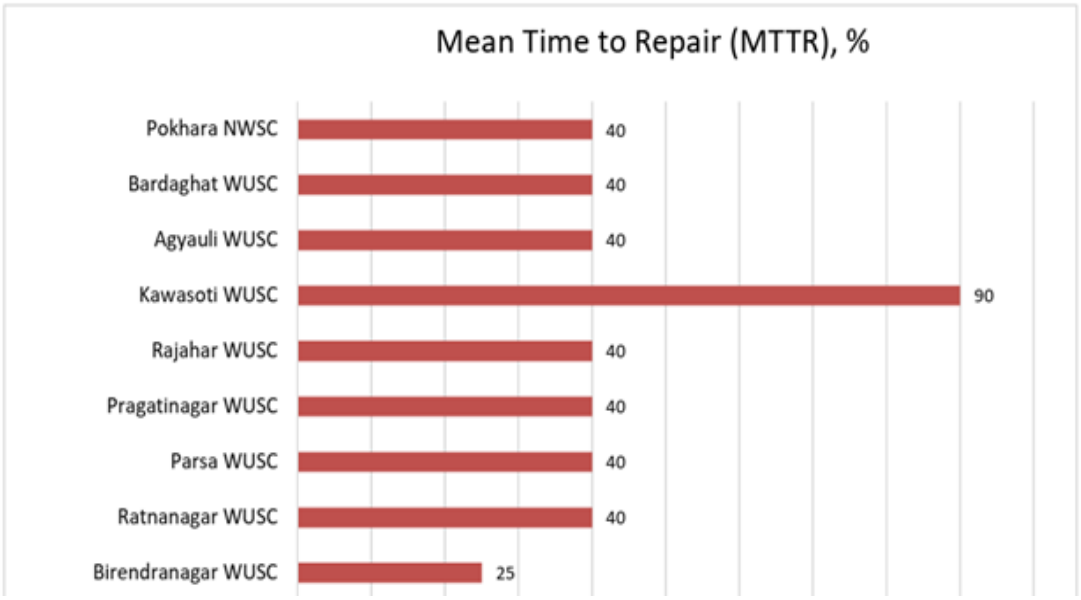
Benchmarking is a vital process in evaluating the efficiency and effectiveness of water supply systems. In the years 2013, 2014 and 2015, the Water Supply by Sector Efficiency Improvement Section meticulously assessed the performance of water supply initiatives during those periods. This analysis involved scrutinizing key performance indicators, resource utilization, and operational efficiency to gain insights into the sector's functionality. The Institutional Support and Service Advisory Unit followed up the study in WUSC's to benchmark the water supply service provision in 2023. Despite these commendable efforts to evaluate and improve water supply services, it's worth noting that no benchmarking study for sanitation services was carried out, indicating an opportunity for future assessments and enhancements in this crucial domain.



Determining Factor: Consumers' perceptions,
Standards compliance of *E*-coli
Standards compliance of priority contaminant (Arsenic), and
Standard compliance of quality parameters to be checked annually



Determining Factor: Reserve fund
Average repair time

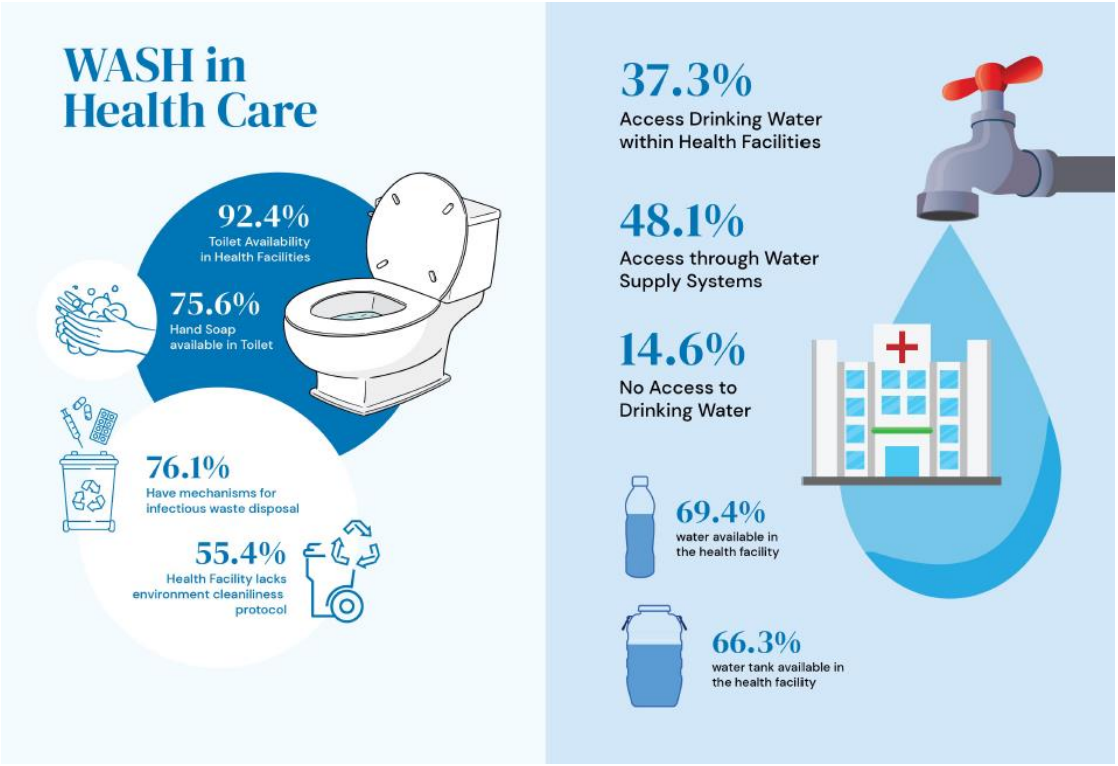


3.7 WASH in Institution

3.7.1 WASH in health care facility

Considering water sources and quality in health care facilities in Nepal, NWASH-MIS reveals that around 37.3 per cent of respondents' access drinking water within health facilities, while 14.6 per cent do not have such access. Half of the respondents (48.1 per cent) rely on water supply systems. The analysis of primary water sources demonstrates that safe piped water (44.6 per cent) is the most common source, followed by secure boreholes/tubewells (30.3 per cent) and protected taps (18.3 per cent).

However, a mere 0.6 per cent use surface water sources, like ponds or rivers, highlighting a need for improved access to safe drinking water in these areas. Furthermore, awareness of arsenic contamination in water sources is low, with only 8.7 per cent of respondents informed about this issue. Efforts should be made to increase awareness and improve water quality testing. Regarding sanitation and hygiene, many healthcare facilities (92.4 per cent) have access to toilets, while 7.6 per cent do not. Hand washing facilities with soap and water are present in 75.6 per cent of the facilities, yet 24.4 per cent lack these crucial amenities. The limited availability of alcohol-based hand rubs, essential for hand hygiene, is only 43.9 per cent of facilities providing them. Waste disposal practices vary, as 76.1 per cent of facilities report having mechanisms for infectious waste disposal, while 23.9 per cent do not. For menstrual hygiene management, only 19.4 per cent of facilities have incinerators, highlighting the need for improved facilities in this regard. Additionally, environmental cleanliness protocols are absent in 55.4 per cent of healthcare facilities. Ensuring water quality, enhancing waste disposal practices, and implementing rigorous environmental cleanliness protocols are necessary in health care facilities in Nepal.



3.7.2 WASH in School

Many surveyed schools (96.6 per cent) have functional toilets, a fundamental element in preserving students' health and dignity. Additionally, 63.5 per cent of schools provide soap and water for hand washing, which is vital for promoting good hygiene practices and preventing the spread of illnesses. These positive aspects reflect a commitment to ensuring basic sanitation and hygiene facilities in educational institutions. Nevertheless, there are areas for improvement. While 47.1 per cent of schools offer menstrual hygiene materials as needed, there is room for improvement in providing equal access to these materials, as almost half of the schools do not provide. Additionally, 58.9 per cent of schools offer menstrual hygiene education, which is crucial for breaking menstrual taboos and fostering healthy menstrual practices among girl students. Addressing these disparities and continuing prioritized promotion of menstrual health education.

On the waterfront, most schools, 97.8 per cent, have access to drinking water, the source varies, with some relying on piped water systems and others on their own sources. 74.9 per cent of schools reported adequate availability of water, but it remains a concern in the remaining 25.1 per cent. The presence of water storage tanks for rainwater harvesting in 62.8 per cent of schools is a positive step toward water sustainability. However, the absence of water purification tools in 67.2 per cent of schools underscores the need to ensure that students have access to safe and clean drinking water. Moreover, the data touches upon concerns related to water quality, with a notable portion of respondents not having information about water quality testing in their schools. The presence of faecal contamination in water in 5.5 per cent of schools and arsenic contamination in 5.7 per cent of schools raises important health and safety concerns that require urgent attention and mitigation efforts. Finally, the data highlights most girl students attending school during menstruation. However, a significant of school going girl either partially attends or abstains from school during their menstrual period and 7 per cent do not use school latrines during menstruation, which are still a challenge.

CHAPTER 4: PROVINCIAL THEMATIC LANDSCAPE

4.1 Provincial Thematic Traffic Light Summary

The provincial status, challenges, and proposed strategies for the way forward were derived from comprehensive consultations held during thematic workshops and field visits. These consultations involved the dissemination of 35 sets of questionnaires, categorized into green, yellow, or red lights, to assess various aspects of the provincial WASH landscape. The 35 questionnaires were divided into 7 thematic areas, facilitating focused discussions during the provincial consultation workshops. These workshops provided a platform for stakeholders to delve into the intricacies of each thematic area, examining challenges, opportunities, and potential strategies for improvement.

A standardized approach for provincial consultations was used through the implementation of Common Questionnaires employing a Traffic Lights Indicator system. The sub-set of questions ranged from 4 to 10 per thematic area. This system served as a cohesive framework to assess and categorize the efficiency of various themes, ensuring a consistent assessment across all seven provinces. The workshops conducted for each thematic group in all seven provinces played a pivotal role in shaping the traffic lights. These traffic lights, developed and applied collaboratively, encompassed a comprehensive range of short, medium, and long-term actions derived from the collective outcomes of the workshops. This structured process not only facilitated the formulation of actionable strategies but also ensured a uniform alignment of the Joint Sector Review process throughout all seven provinces.

The culmination of these efforts is presented in the Traffic Light Summary Table shown below, where the outcomes of the provincial consultations are depicted in the form of traffic lights. This table provides a clear and concise representation of the agreed-upon actions and strategies for each thematic group, offering a valuable resource for stakeholders and decision-makers. The use of Traffic Lights Indicators not only simplifies the communication of questionnaires but also enhances transparency and comparability, fostering a more efficient and collaborative approach to sector improvement across the seven provinces.

In this assessment, a green light indicated that the service component was well-established and supported by documented evidence. Conversely, a yellow light signified partial fulfilment, while a red light indicated a complete absence of documentation or evidence. For components marked with yellow or red lights, further action was deemed necessary.

More than 500 participants were engaged in detailed discussions to identify specific challenges faced by each province, ranging from infrastructure deficiencies to institutional capacity gaps. These discussions highlighted the pressing need for coordinated efforts to address WASH issues comprehensively.

Additionally, the formulation of actionable strategies was emphasized, with participants tasked with identifying key action points to improve the status of components marked with yellow or red lights. Each action point was accompanied by an estimated duration for completion, providing a roadmap for addressing deficiencies and achieving optimal service levels. Major action points

included political consultations to bring mutual accountability mechanisms and the development of frameworks and guidelines for clarity at subnational levels. The details of the provincial consultations and the field visits to different municipalities are present in **Annex - B**.

The outcomes of these consultations serve as a foundation for the development of targeted interventions and policy initiatives aimed at addressing the identified challenges and advancing the WASH agenda at the provincial level.

Traffic Light Summary: Key Components with Thematic Area											
Thematic Area/ Component	**Koshi**	**Madhesh**	**Bagmati**	**Gandaki**	**Lumbini**	**Karnali**	**Sudur Paschim**		**Total**		
Governance, Institutional Arrangement and Capacity Building (GIACB):											
1. Discussions to establish WASH legal frameworks and institutional mechanism									-	7	-
2. WASH legal frameworks presence									-	5	2
3. Dedicated WASH institutional mechanisms									-	7	-
4. Effectiveness of WASH legal frameworks									-	2	5
5. Established provincial coordination mechanism between 3 tiers of government and concerned stakeholders									-	5	2
6. Effective provincial coordination mechanism									-	4	3
7. Established service provider/utility models for water and sanitation services									-	7	-
8. Established regulatory framework with the provision of licensing and KPI									-	1	6
9. Transparency and accountability mechanism									-	6	1
10. Capacity gap assessment and preparation of capacity development plan									-	3	4
Safely Managed Water Supply Services:											
1. Proper understanding on meaning of safely managed water supply service and program developed									1	6	-
2. Key bottleneck analysis to achieve SDG and Periodic plan targets on safely managed water supply service									-	3	4
3. Presence of accredited lab/mini laboratory/kit facility and human resource									-	7	-
4. Public disclosure and reporting mechanism for assurance of water quality									-	6	1

Traffic Light Summary: Key Components with Thematic Area											
Thematic Area/ Component	**Koshi**	**Madhesh**	**Bagmati**	**Gandaki**	**Lumbini**	**Karnali**	**Sudur Paschim**		**Total**		
Safely Managed Sanitation Services and Hygiene:											
1. Proper understanding on meaning of safely managed sanitation service and hygiene									-	7	-
2. Key bottleneck analysis to achieve SDG and Periodic plan targets on safely managed sanitation service									1	2	4
3. Presence of accredited lab/mini laboratory/kit facility and human resource for monitoring SMSS									-	1	6
4. Comprehensive understanding/suitability analysis of sewer and non-sewer sanitation									-	2	5
5. Standardization and regulating mechanism along the sanitation value chain (containment to safely reuse/disposal)									-	2	5
6. Public disclosure and reporting mechanism for sanitation service level									-	1	6
Sector Financing:											
1. Assessment of Investment requirement and available financial resources									-	6	1
2. Presence of WASH financial strategy, guiding documents and financial procedure to meet the investment plan									-	1	6
3. WASH Business plan available and implemented									-	3	4
4. Financing institution, private sector and household leveraged the supply of finance in WASH									-	6	1
CCA & DRR:											
1. Integration of NAP, NDC and LAPA in provincial/local level WASH plan, policy, program etc.									-	5	2

Traffic Light Summary: Key Components with Thematic Area											
Thematic Area/ Component	**Koshi**	**Madhesh**	**Bagmati**	**Gandaki**	**Lumbini**	**Karnali**	**Sudur Paschim**		**Total**		
2. Guidelines/ working procedure/ standards for mainstreaming climate change adaptation and disaster risk reduction in place for WASH landscape									-	6	1
3. Vulnerability risk assessment done in existing WASH infrastructures and services									-	4	3
GESI:											
1. GESI consideration reflected in WASH plan, policy, and legal frameworks									-	6	1
2. GESI representation in WASH sector									-	6	1
3. Concerns from GESI representative is listened, recorded, and acted upon									-	6	1
Sector Planning, M&E:											
1. Provincial/ Local level WASH Plan alignment with SDG 6 goals and indicators									2	5	-
2. Priority program and projects of WASH Plan included and budgeted in annual fiscal plan									1	5	1
3. WASH expenditures tracked and analysed									-	3	4
4. Presence of dedicated MIS unit									-	5	2
5. CCA/ DRM/ GESI related segregated data available in WASH monitoring and evaluation									-	3	4

Governance, Institutional Arrangement and Capacity Building

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	6	4	-
2	Madhesh Province	4	6	-
3	Bagmati Province	4	6	-
4	Lumbini Province	2	8	-
5	Gandaki Province	3	7	-
6	Karnali Province	3	7	-
7	Sudur Paschim Province	1	9	-
	Total	**23**	**47**	**-**
	per cent	***33 %***	***67 %***	**-**

Safely Managed Water Supply Services

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	-	4	-
2	Madhesh Province	-	3	1
3	Bagmati Province	1	3	-
4	Lumbini Province	-	4	-
5	Gandaki Province	1	3	-
6	Karnali Province	1	3	-
7	Sudur Paschim Province	1	3	-
	Total	**4**	**23**	**1**
	per cent	***14 %***	***82 %***	***4 %***

Safely Managed Sanitation Services and Hygiene

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	5	1	-
2	Madhesh Province	3	3	-
3	Bagmati Province	3	3	-
4	Lumbini Province	2	3	1

S.N.	Provinces	Red Light	Yellow Light	Green Light
5	Gandaki Province	4	2	-
6	Karnali Province	4	2	-
7	Sudur Paschim Province	5	1	-
	Total	**26**	**15**	**1**
	per cent	***60 %***	***36 %***	***4 %***

Sector Financing

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	2	2	-
2	Madhesh Province	3	1	-
3	Bagmati Province	2	2	-
4	Lumbini Province	3	1	-
5	Gandaki Province	-	4	-
6	Karnali Province	1	3	-
7	Sudur Paschim Province	1	3	-
	Total	**12**	**16**	**-**
	per cent	***43 %***	***57 %***	**-**

Climate Change Adaptation and Disaster Risk Reduction

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	2	1	-
2	Madhesh Province	-	3	-
3	Bagmati Province	1	2	-
4	Lumbini Province	2	1	-
5	Gandaki Province	-	3	-
6	Karnali Province	1	2	-
7	Sudur Paschim Province	0	3	-
	Total	**6**	**15**	**-**
	per cent	***29 %***	***7 1 %***	**-**

Gender Equality and Social Inclusion (GESI)

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	-	3	-
2	Madhesh Province	-	3	-
3	Bagmati Province	-	3	-
4	Lumbini Province	2	1	-
5	Gandaki Province	-	3	-
6	Karnali Province	-	3	-
7	Sudur Paschim Province	1	2	-
Total		**3**	**18**	**-**
per cent		***14 %***	***86 %***	**-**

Sector Planning, Monitoring and Evaluation

S.N.	Provinces	Red Light	Yellow Light	Green Light
1	Koshi Province	2	3	-
2	Madhesh Province	-	5	-
3	Bagmati Province	4	-	1
4	Lumbini Province	-	3	2
5	Gandaki Province	2	3	-
6	Karnali Province	2	3	-
7	Sudur Paschim Province	1	4	-
Total		**11**	**21**	**3**
per cent		***31 %***	***60 %***	***9 %***

4.2 Key Gaps in Thematic areas across seven Provinces

Utilizing Traffic Lights-based questionnaires, a comprehensive analysis identified key gaps within seven themes across all provinces. This systematic approach facilitated understanding of each theme and enabled comparative assessment, highlighting regional differences. The findings, compiled and presented in **Annex - B**, will serve as a valuable resource for policymakers, researchers, and stakeholders. They offer insights into the challenges and opportunities within each province, providing a foundation for targeted interventions and informed decision-making. The key gaps in each thematic area, identified through consultations across the seven provinces and field visits to various municipalities, are presented below:

Key Gaps in Thematic Areas Across Seven Provinces

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
Koshi	• Low political will and strategic direction for development of WASH legal and policy framework. • Absence of dedicated human resources in the Municipalities to oversee WASH. • Limited Inter-sectoral Linkage, learning, and exchange.	• Low quality water provision as many HHs in Jhapa, Morang and Sunsari depends on use of shallow tubewells. • Deficient water quality standards even in the piped water services.	• Absence of a dedicated programme and province wide financing. • Limited concentrated effort and strategies to explore public private partnership	• Inadequate attention by the provincial government and LGs on WASH programming and adequate budget allocation.	• Lack of effective cluster coordination between WASH and disaster response	• There is a significant gap in gender and disability-friendly WASH policy and infrastructure, posing a challenge in ensuring equitable access to WASH services.	• Only a few LGs (9 out of 116) have prepared WASH plan and there is no clear strategy for expanding WASH plans throughout the province. • There is limited technical knowledge available to develop WASH plans. • There is no mechanism in place for grievance handling.
Madhesh	• Low awareness on the need for preparing WASH Policy, Act and Regulation.	• Lack of safe water services as majority of HHs in Terai depend on	• Absence of legal and regulatory basis for public service approach to sanitation.	• Gap in innovative thinking to mobilize significant	• Significant decrease in ground water table.	• While some LGs have constructed inclusive sanitation facilities,	• Capacity gaps in all stages of sanitation service chain.

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
	• Inadequate attention and insufficient budget to establish dedicated WASH Unit for most of the LGs. • Capacity gaps for the sustainable operation of the large infrastructure and plants, design Standards/Building codes.	shallow tubewells. • Scarcity of water supply during the dry season due to high dependency in shallow tubewell. • Inadequate water treatment systems.	• Service providers unrecognized. • Low quality containment. • Lack of treatment plants. • Lack of sustainable business model.	finance to meet SDG targets. • Limited enabling environment for private sector investment. • Lack of Financing Framework and Multi stakeholders' investment tracking system.	• Increased frequency of unpredictable flash floods.	significant gap for province wide scaling up.	• Unavailability of staff and capacity for monitoring and evaluation
Bagmati	• Shortage of political will for the formulation of WASH policy, Act and Regulation. • Dearth of human resources to oversee WASH Unit at local level. • Limited WASH Resource learning sharing platform.	• Limited awareness at the Palika and community level on water quality standards. • Insufficient technical knowledge of service providers on treatment means.	• Sanitation safety is a missing element. • Sanitation remains a low priority. • Very limited FSM and Wastewater treatment plants. • Low support for Private Sector Sanitation	• Dismal resource allocation on water supply and sanitation. • Lack of WASH financing strategy. • Inadequate Co-financing and Cost Recovery Model.	• Absence of knowledge on localization of NAP and LAPA, Vulnerability Risk Assessment.	• Lack of GEDSI integration in WASH Plan. • Integration of WASH in LISA indicator is invisible. • GEDSI Audit is not carried out. • Low gender representation in capacity building activities.	• Limited WASH Planning as per SDG target – budgeting and Expenditure tracking. • Limited focus on O&M of facilities. • Inadequate attention to regular progress review and documentation.

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
	• Limited WASH-CC meetings at Provincial & local level.	• Limited knowledge on water safety plan.	service providers.	• Lack of public private partnership.			• Limited institutional initiatives for cross-sector collaboration.
Gandaki	• Nascent political will to formulate WASH legal and policy framework throughout the province. • No clear institutional arrangements yet for water supply and sanitation management. • Service delivery approach requires a rethinking to introduce a more professional utility approach given rapid urbanization. • Inadequate institutional capacity of LGs to	• Lack of water testing lab at local level. • Absence of consumer feedback on water quality. • Absence of programme expansion of safe water services.	• Absence of a programme and budget for safe and inclusive sanitation services throughout the province. • Weak planning and institutional capacities. • In the absence of credible sanitation information, Municipalities find difficulty to create demand for improved services.	• Inadequate finance with the province and LGs for addressing safe and inclusive water and sanitation services funding. • Absence of knowledge on investment models to attract innovative financing in the sector.	• Limited sensitization on DRR and CCA issues to effectively integrate NAP, NDC and LAPA into WASH plan. • Absence of vulnerability risk assessment to assess existing WASH infrastructures and services. • Absence of mapping of the water sources including source depletion.	• Limited technical capacity to design and operationalize GEDSI friendly WASH structures and services. • Limited demand-based capacity building and training.	• Inadequate attention to the expansion of WASH Plans throughout Province. • Lack of institutional knowledge on prioritizing annual programmes and budget based on WASH plan.

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
	assume their mandated functions.						
Lumbini	• Incipient political resolve to formulate comprehensive, province wide WASH legal and policy framework. • Noticeable gap in establishing a well-defined institutional framework for the management of water supply and sanitation. • Inadequate HR is a major bottleneck both at the provincial and LG level. • Given rapid urbanization, current service delivery model	• Unavailability of water testing lab. • Users have unaware if water supplied to them is safe and meet quality standards.	• No dedicated programme and budget on safe and inclusive sanitation. • Finding a suitable land for the establishment of FSTP is a challenge due to perceived nuisance issues and economic value that land provides. • Low knowledge on circular economy.	• Significant shortage of financing for safe and inclusive sanitation services. • Absence of a national/ municipal programme, plan, clear strategies including public private partnership.	• LGs and service providers are handicapped by lack of knowledge on climate smart WASH infrastructure and services. • Absence of water sources analysis and trends. • Very few vulnerability risk assessment of WASH infrastructures conducted.	• Inadequate knowledge to mainstream GEDSI practices. • Lack of knowledge in the pro-poor design and management of WASH services.	• No strategy for gradual expansion of WASH plan. • Absence of institutional strategy for regular monitoring and evaluation of WASH services.

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
	necessitates a more professional utility-oriented approach.						
Karnali	• Absence of legal and policy framework in all the LGs. • Few local levels have dedicated institutional arrangement for WASH. • Absence of regulation of water and sanitation services. • Limited institutional coordination mechanism. • Lack of capacity development plan both for the LGs and service providers.	• Lack of water quality labs, testing and kits at the local level. • Inadequate institutional and human capacity for water quality testing.	• Hurdles for availability of land for sanitation infrastructures development. • While Birendranagar has total sanitation strategy it has not transformed into other LG along sanitation service chain. • Limited budget for sanitation at province level.	• Inadequate institutional capacity on budget experience tracking. • Significant financing gap to meet SDG goals. • Limited knowledge on how to address financing gap.	• Absence of vulnerability risk assessment in existing WASH infrastructures and services. • Lack of integration of CC and DR aspects in WASH Plan.	• GESI focal person present at province but not at the local level. • Absence of Gender Audit.	• Limited knowledge of political leaders about WASH plan. • Limited WASH plan in place. • Limited human resource for MIS unit.

Province	Governance, Institutional Arrangement & Capacity Building	Safely Managed Water Supply Services	Safely Managed Sanitation Services and Hygiene	Sector Finance	Climate Change & DRR	Gender, Equality and Social Inclusion	Sector Planning, Monitoring & Evaluation
Sudurpaschim	• Absence of province-wide WASH Policy, Strategy, Legal Frameworks, and Regulation. • Service providers remain unregulated. • Lack of institutional coordination between provincial, local levels and service providers. • Capacity building plan is not prepared & resource centre remains unmaterialized.	• Quality, quantity, reliability and accessibility of water services is inadequate. • Weak operation & maintenance of water infrastructure and services. • Tariff fixation and regular collection of tariffs is unaccounted. • Lack of water quality lab at local level.	• Total sanitation guidelines with 5+1 indicators not followed. • Waste to energy remains unpractised.	• Absence of WASH Financing Strategy. • Lack of co-financing and Cost Recovery Model. • Absence of Public and Private Sector Engagement.	• Localization of NAP, LAPA, and NDC is missing. • Lack of Climate Resilient - Water Supply & Sanitation System design.	• Absence of equitable planning and resource allocation for WASH. • Absence of GESI Audit	• Inadequate attention to systematic Planning and Budgeting for WASH. • Lack of progress review and cross-sector collaboration.

4.3 Strategic Action Points based on Local Level and Provincial Consultation

Based on comprehensive consultations across seven provinces and field visits to various municipalities, strategic action points have been developed to address gaps and challenges. These points aim to strengthen local capacities, improve service delivery, and ensure sustainable, equitable access to water supply, sanitation, and hygiene services. Details of the strategic action points from all provinces are presented in **Annex - B**. The following key strategic action points are meticulously crafted to align with the specific needs and contexts of the provinces, ensuring a targeted approach to WASH improvement. These points serve as a roadmap for stakeholders and decision-makers, guiding efforts to enhance the WASH landscape across provinces and municipalities in Nepal.

1. **The current local-level legal and policy framework for Water Supply, Sanitation, and Hygiene is inadequate and requires a political push to ensure comprehensive coverage across all provinces and R/Municipalities.**

   Although Gandaki Province has enacted a Water and Sanitation Act (2079), other provinces and municipalities lack similar legislation and comprehensive WASH Plans. Even Waling municipality, known for Faecal Sludge Management (FSM), faces challenges in advancing its WASH plan.

   Political determination for significant WASH sector transformation is insufficient due to competing priorities, financial constraints, insufficient awareness, and a lack of a unified vision. Limited public understanding also hinders political commitment to WASH initiatives. Enhancing political determination for WASH can be achieved through collaborations among governmental bodies, MPs, civil society, and stakeholders. Dialogues, best practice exchanges, and knowledge sharing can create a common vision and mobilize efforts for a strong legal and policy framework for WASH.

   Political leaders must prioritize and visibly commit to addressing water supply and sanitation challenges. Effective mechanisms require unwavering political resolve, comprehensive legal structures, well-defined policies, and efficient institutional mechanisms. Priority actions include allocating resources for political dialogues, ensuring effective communication for mutual accountability, and integrating WASH priorities into annual plans and budgets.

2. **There is no clear institutional arrangement yet for water supply and sanitation management, therefore a dedicated institutional home must be instituted at the local and provincial levels.**

   It is of utmost importance to establish and operationalize a dedicated WASH Unit within municipalities to ensure the provision of safe water supply and sanitation services to the community. This unit plays a central role in planning, developing and overseeing WASH services.

   Both Provincial Governments and Municipalities are facing staffing shortages due to the lack of a dedicated institutional structure to lead water supply and sanitation services within their respective areas of authority. The Province Government in Gandaki has a specialized WASH Section led by one Divisional Engineer, and there are plans to hire four additional engineers.

During provincial consultations, LG representatives communicated that financial constraints and limited human resources have prevented establishment of a dedicated WASH Unit at local level.

Strategies for creating and making Local level WASH Unit operational include:

- **Institutionalize the WASH Unit:** Officially integrate the WASH Unit into municipal structures through clear legal frameworks, and defined roles.
- **Enhance Staffing and Capacity:** Recruit skilled professionals for the WASH Unit and provide comprehensive training to address water supply and sanitation management challenges.
- **Develop and Implement WASH Plans:** Create and execute strategic plans with clear objectives, targets, and strategies to improve water supply and sanitation services, infrastructure, and hygiene practices.

3. Implement water quality enhancement program focused on establishing testing facilities and treatment systems.

Implementing a water quality enhancement program with a focus on establishing testing facilities and treatment systems is essential to address the critical gaps in water supply across Nepal. Despite improvements in piped water coverage and treatment plant capacities, the percentage of the population with access to safe drinking water remains very low. Key issues include (1) Poor water quality standards, even for piped water services, (2) Inadequate water services in Terai, where many households rely on shallow tubewells, Insufficient water treatment systems, (3) Limited awareness at the Palika and community levels regarding water quality standards, (4) inadequate of knowledge about water safety (5) absence of local water testing labs, (5) no consumer feedback mechanism for water quality, (6) weak operation and maintenance of water infrastructure, and (7) unaccounted tariff fixation and regular collection.

Establishing well-equipped water testing laboratories at the local level will enhance the ability to monitor water quality continuously, ensuring that all supplied water meets national drinking water quality standards. Upgrading and expanding water treatment systems, such as installing chlorination units and filtration systems, will significantly improve water quality, reducing health risks associated with waterborne diseases. Furthermore, enhancing community awareness and involvement through education and training programs will empower local populations to participate actively in water quality monitoring and maintenance.

The federal government, through the Department of Water Supply and Sewerage Management, already has a specialized program dedicated to water quality. Leveraging this existing program can provide the necessary support and resources to local initiatives, ensuring a cohesive and comprehensive approach to water quality management across the country. By focusing on these areas, the program will create a robust, sustainable framework for ensuring a safe, reliable, and accessible water supply across all provinces in Nepal.

4. **Building on the success of ODF, transition to safely managed sanitation services.**

   During provincial consultations, stakeholders expressed significant concerns about the lack of attention to safely managed sanitation services following the country's Open Defecation Free (ODF) declaration. To address these sanitation challenges, municipalities must adopt an inclusive, public service approach that encompasses both sewered and non-sewered solutions.

   This transformation requires a substantial reorientation, emphasizing equity, safety, and sustainability in sanitation programming within WASH. It necessitates dedicated programs and investments throughout the country, suitable institutional framework, stringent regulation and enforcement, and evidence-based demonstration models. As urbanization accelerates, municipalities face increasing pressure to manage wastewater and faecal sludge effectively. Investment in wastewater collection and treatment systems is necessary, including both centralized sewer networks and decentralized solutions. Smaller towns and low-density settlements will likely rely on non-sewered sanitation, necessitating robust Faecal Sludge Management systems.

   Key steps involve:
   - Leadership in developing and implementing standards and regulations,
   - Expansion and upgradation of sanitation infrastructure,
   - Strengthening institutional capacity and planning,
   - Securing sustainable funding and implementing demonstration models.

   This comprehensive approach is crucial for ensuring safe, reliable, and sustainable sanitation services in Nepal's rapidly urbanizing landscape.

5. **Enhancing coordination among provincial governments, municipalities, and stakeholders requires establishing a well-defined structure and mechanism.**

   The collaboration between the federal government, provincial administrations, and local municipalities for water and sanitation services follows the federalism principles set by Nepal's Constitution, which defines the roles and responsibilities of each government tier in WASH. Currently, coordination at the provincial and municipal levels is ad-hoc, with meetings held only as needed.

   To enhance institutional coordination, the following strategic points are essential:
   - **Strengthen Intergovernmental Cooperation:** Establish regular communication channels and coordination mechanisms among federal, provincial, and municipal levels through collaborative meetings, consultations, and information sharing to align policies and resource allocation.
   - **Build Capacities Across All Levels:** Implement capacity-building programs to improve the technical and managerial skills of government officials involved in water supply and sanitation services. This includes training sessions, workshops, and knowledge-sharing platforms to foster learning and exchange of best practices.
   - **Robust Management Information Systems (MIS):** Enhancing and integrating MIS platforms across different sectors enables real-time data sharing and informed decision-making. By connecting WASH-MIS with other relevant systems, such as

health and education MIS, stakeholders can gain a comprehensive view of the development landscape, allowing for better coordination and strategic planning.

6. **Service providers remain unregulated; hence, regulatory measures for service standards and quality need to be established.**

   Local and provincial consultations have revealed a significant gap in the oversight of service delivery by providers within R/Municipalities. Currently, there are no established benchmarks for performance, such as key performance indicators (KPIs), and monitoring of service quality is inadequate.

   The Local Government Operation Act, 2017 grants municipalities to oversee water supply and sanitation services, including the setting of tariffs. However, due to a lack of understanding of regulatory processes and insufficient institutional capacity, municipalities struggle to fulfil their regulatory responsibilities as outlined in the Act. Ensuring accountability from service providers is crucial for meeting water supply and sanitation goals and achieving national targets.

   Therefore, implementing regulatory measures is urgently needed. The following actions are crucial:

   - Facilitate discussions between municipalities and service providers to establish consensus on regulatory mechanisms and procedures.
   - Define clear service objectives and quantify them through key performance indicators (KPIs) to drive incremental service improvements. Specific KPIs should focus on delivering WASH services to underserved populations and quality of service.
   - Collaborate with service providers to determine necessary incentives for expanding coverage to overlooked areas.
   - Compile and disseminate an annual performance report detailing service provision.
   - Promote public engagement and grievance mechanisms to support the implementation of improvement strategies.

7. **Heightened political will is critical to address the financing gap for safe, inclusive, and sustainable water and sanitation services.**

   During provincial and municipal consultations, local stakeholders reported that budget allocations from local sources and federal grants are insufficient to meet their WASH priorities. These funds also need to cover operational costs, resulting in inadequate resources that are spread too thinly across numerous small projects.

   To achieve Nepal's SDG 6 by 2030 and the goals of the Sixteenth Plan (2024-2029), it is crucial to address these funding gaps. Success will depend on coordinated efforts by federal, provincial, and local governments to secure better sector financing.

   The recommended priority actions include:

   - **Prioritizing Safe and Quality Services:** All levels of government must consistently increase funding each year to address immediate needs and support long-term sustainable development.

- **Attracting Development Partner Funding:** A strategic and diplomatic approach is essential for securing increased funding from development partners. Building trust, maintaining transparent communication, and demonstrating the tangible impact of investments can align national goals with development partner priorities, creating compelling narratives that garner global support.
- **Promoting Public-Private Partnerships (PPPs):** Sustainable business models and PPPs are crucial for boosting sector financing. Governments should work with the private sector to explore opportunities beyond mere financial contributions.
- **Exploring Innovative Financing Models:** Implementing innovative financing mechanisms, such as social impact bonds, green bonds, and blended finance, can diversify funding sources and attract new investment. These models can help leverage private capital and ensure more effective use of available resources.

8. Climate-resilient WASH service framework, underpinned by a robust climate rationale, must be increasingly applied.

Nepal ranks among the most vulnerable countries to climate change impacts due to its complex topography and climatic variability. Recent increases in unpredictable precipitation, landslides, flash floods, and droughts necessitate a proactive and strategic approach to WASH services.

To strengthen water supply and sanitation systems involves upgrading infrastructure to withstand extreme weather, enhancing water conservation, and ensuring sustainable water management. Implementing advanced early warning systems, promoting community-based disaster preparedness, and fostering resilient urban planning can reduce vulnerabilities.

Instruments such as the Localization of Nationally Determined Contributions (NDC) and Local Adaptation Plans for Action (LAPA) can play a pivotal role in operationalizing these measures. Embedding NDC principles into WASH policies will align interventions with broader national climate goals. Incorporating NDC into the development and implementation of WASH plans will enhance the adaptive capacity of these services.

A tailor-made capacity-building training module must be instituted, along with stringent technical guidelines and standards. These resources are essential for empowering all tiers of government and sector stakeholders, ensuring that WASH investments align with the principles of Green, Resilient, and Inclusive Development (GRID). By adopting a holistic approach, this framework will facilitate the development of inclusive, climate-responsive, and disaster-resilient WASH plans and programs, ensuring the sustainability and adaptability of essential WASH services in the face of evolving environmental and disaster challenges.

9. Mainstreaming Gender Equality and Social Inclusion is a pivotal step towards fostering inclusivity.

Mainstreaming GESI encompasses the establishment of GESI-responsive and gender-balanced institutional structures, featuring dedicated GESI personnel strategically placed in key entities such as the MoWS and the DWSSM. The integration of GESI aspects into WASH

sector policies, regulations, and guidelines is being pursued through the active involvement of GESI experts in the drafting teams, ensuring a nuanced and comprehensive approach.

To fortify these efforts, capacity development will need to be implemented, providing standardized training packages and manuals for GESI mainstreaming. This focus extends to the entire project cycle, where GESI experts play a proactive role in mainstreaming GESI considerations from project inception to completion. This commitment is underscored by the preparation of an inventory delineating GESI-related terminologies and the identification of excluded, vulnerable, and marginalized groups. The integration of these elements into WASH sector policy and legal documents ensures a shared understanding across stakeholders.

The adoption of GESI-responsive programming, financing, and budgeting practices needs to be emphasized in WASH projects and services, accompanied by regular GESI and Accessibility Audits to monitor and enhance effectiveness.

10. Enhance evidence-based decision making and resource allocation in WASH.

To strategically advance WASH-related initiatives across all levels of government, it is essential to first expand the WASH Plan as the fundamental framework for planning, programming, monitoring, and executing projects. This foundational document will guide the sector, ensuring a cohesive and standardized approach to water supply, sanitation, and hygiene initiatives. By embedding the WASH Plan within the operational procedures of all three tiers of government, efficient coordination, resource allocation, and timely project execution can be facilitated, promoting sustainable improvements in WASH infrastructure and practices.

Additionally, optimizing and scaling up the NWASH MIS is crucial for enhancing data-driven decision-making. Strengthening the existing Management Information System (MIS) will involve refining its functionalities and establishing robust connections with other sectoral MIS platforms, such as the Local Institutional Self-Assessment (LISA). This cross-sectoral integration will provide a comprehensive understanding of the broader development landscape, enabling informed actions and policy adjustments. These measures will create a dynamic and interconnected information ecosystem, empowering stakeholders to make strategic decisions, effectively measure progress, and address emerging challenges in the WASH sector with agility and precision.

CHAPTER 5: KEY RECOMMENDATIONS

This WASH Joint Sector Review (JSR) 2023 as a periodic process brings different stakeholders in WASH sector together to engage in dialogue, review status, progress, and performance, and take decisions on priority actions. As part of the review process, information, or evidence in the form of data, studies, reports, field visits and/or independent reviews is consolidated and analysed. The process includes various formal and informal procedures of stakeholder engagement that lead up to provincial and local level consultations, meetings, and dialogues. The process is led by the sector ministry (MoWS) and has the participation of a wide range of stakeholders. JSR processes covered at local, provincial, and national level, depending on need and in-country inclusive sector governance set-up aligned with federalization. It concluded with solid recommendations, action points and way forward for sector effectiveness as below:

1. Update and operationalize the Sector Development Plan (SDP) aligning with the Constitution of Nepal, National WASH Policy 2023, and Water Supply and Sanitation Act 2022 and key recommendations of the third JSR 2023.
2. Catalyse political commitment and enhance mutual accountability mechanisms among stakeholders to accelerate actions towards achieving universal, equitable, sustainable WASH services meeting SDG targets.
3. Realign institutional and governance set up for WASH system strengthening with appropriate intergovernmental coordination mechanism to backstop the service providers, including WUSCs, for improved service reliability and operational management efficiency.
4. Undertake actions for Mapping, Facilitating, Licensing, Regulating, and Standardizing Water and Sanitation Services across the sanitation value chain for both onsite and offsite sanitation services.
5. Operationalize institutions established for the regulation of WASH services as mandated in the Water Supply and Sanitation Act at all levels and build appropriate capacities of regulatory institutions.
6. Work towards achieving access to safely managed water supply services adopting a programmatic and system thinking approach ensuring people live in water and hygiene safe communities where no one is left behind.
7. Enhance capacity of local governments and other service providers in water quality monitoring and surveillance and ensure service compliance with national drinking water quality standard.
8. Adopt municipality wide inclusive sanitation approach for implementing a national sanitation and hygiene mission and accelerate actions to capture, transport, treat and safely dispose domestic wastewater; safely manage Faecal Sludge and Solid waste considering circular economy principles to contribute to clean health of water bodies and the environment.
9. Prepare information briefs and strategic negotiators for education and advocacy in targeted intersectoral dialogues/coordination/collaboration for better sector positioning.

10. Establish systemic support services and a Federal-level setup to aid Provincial and Local governments in creating resilient assets, improving service delivery, and enhancing regulation.
11. Prepare and Operationalize Capacity Development Master Plan of three tiers of the governments for universal, equitable, inclusive, and sustainable service delivery.
12. Establish the WASH plan as the foundational framework for planning, programming, and executing all local-level WASH-related initiatives from three tiers of government.
13. Strengthen, Optimize and Scale-up NWASH MIS; establish connections with other Sectoral MIS for informed actions.
14. Strengthen SEIS for efficient, collaborative, and inclusive WASH Sector Progress by operationalizing the business plan and establish linkage with academia and research institutions for R&D and learnings.
15. Leverage private sector expertise and investments and create an enabling environment for public private partnerships to enhance service delivery by creating opportunities for their meaningful engagement in sector advancement including use transformative technologies in infrastructure and services.
16. Prepare and Operationalize WASH Financial Strategy, clearly presenting a strong economic case to secure investments for achieving the SDG targets.
17. Develop Climate Resilient WASH service delivery frameworks, Climate Rationale for WASH, capacity building training module, technical guidelines, and standards to support all three tiers of government and sector stakeholders aligning WASH investment with Green, Resilient and Inclusive Development (GRID) for inclusive, Climate and Disaster resilient WASH plans and programs.
18. Mainstream Gender Equality and Social Inclusion (GESI) in WASH sector to ensure equitable access, meaningful participation and empowered decision-making including for ensuring Occupational Health and Safety for frontline sanitation workers.
19. Improve inter-sectoral collaboration among three tiers of government and strengthen partnerships with MUAN, NARMIN, FEDWASUN, Sanitation Advocacy Organizations/ Associations and other CSOs for harmonization and informed advocacy through use of appropriate IEC materials and leveraging mass media.
20. Promote cross-sectoral/intersectoral collaboration and cooperation for implementation and delivery of WASH services both in communities and institutions (WinS, HCF, Public Places); implement programs for the protection of water sources, recharge of under-ground water, developing early warning systems on WASH sector and their watersheds through Integrated Water Resource Management (IWRM).

CASE STUDIES

CASE STUDIES

Model Clean and Hygiene Community

Maghbari is a low-income community in ward 5 of Khadak Municipality. The community, having 103 HHs with 100 per cent sanitation coverage, has declared 'Model Clean and Hygiene Community' few years ago and currently they are promoting Menstrual Health and Hygiene (MHH), Waste, and Faecal Sludge Management (FSM). Sardar and Tharu are the main residents of the community with agriculture and foreign employment as main occupations. Most of the HHs have constructed dish drying racks and placed community dustbins. During the visit of JSR Consultation, the community claimed that there is a significant reduction in diarrheal diseases since this community has 100 per cent access to toilets.

Challenges in Household Connections and Municipal Regulations

The Secondary Towns Integrated Urban Environmental Improvement Project, with the assistance of the ADB, constructed a wastewater treatment plant. This treatment plant has a treatment capacity to accommodate both domestic wastewaters generated from 2,000 HHs and partial storm water. The treatment system includes one grit chamber, two flocculation units, and two oxidation/ settling ponds. The pumps transfer collected wastewater by the sewer into the flocculation ponds, and then to sedimentation ponds through gravity flow. These ponds have a total volume of 10,000 cubic meters. However, there has been a shortfall in household connections compared to the initial design expectations, primarily due to discrepancies between municipal regulations and service provisions.

Transforming Water and Sanitation Services Governance: The Journey of Success in Bheriganga Municipality

The WASH Alliance Nepal sub-programme in Bheriganga Municipality to strengthen water and sanitation services governance was successful due to following key drivers:

The **WASH Plan** development outlining the current water and sanitation situation with the identification of municipal need. It helped identify the underserved areas, set priorities for investment, and effective allocation of resources. This plan helped the municipality in securing additional budget allocation from both the federal and the provincial governments and organizations working in the WASH sector.

The integration of **NWASH-MIS**, a web-based GIS enabled system, for data collection for the WASH Plan generated reports for the informed decision-making facilitation evidence-based planning at all levels of government as well as by the WASH users' committees.

The establishment of a dedicated **WASH Unit** within the municipality office was also an essential part of the WASH Plan implementation. Earlier the municipality did not have a WASH focal person, but there were efforts made to appoint and capacitate one. Currently, the municipality appointed a technically proficient WASH focal person with a well-defined and clear roles and

responsibilities. The goal was to develop a permanent WASH Unit within the municipality over time.

As **WASH Financing** mechanism to address crucial challenge of WASH sector financing. The municipality office addressed this challenge by establishing a Water and Sanitation Management Board with a WASH fund. The WASH fund operational design was based on a revolving basis allowing water systems to access the funds for maintenance, repairs, and expansion of the system. This WASH fund ensures equitable access without any charge of interest and aims to grow the fund with additional investment in future, even beyond the program period.

Furthermore, there still needs to address key priorities which are as follows:

- To ensure the **full implementation of the WASH Plan** along with regular data updates to reflect the existing situation, the federal government support in allocating sufficient funds is essential.
- To ensure continuity of **the WASH Unit** in the municipality, it is essential to take ownership of WASH Unit where the responsibility for establishing and maintaining the WASH Unit was done by the SUSWA project. It's vital that the staff members of this unit become part of the local government's payroll to ensure its continuity.
- To expand the **Water and Sanitation Fund from** its nascent stage to full fledge fund benefitting all the water supply systems. However, the WASH Unit must manage the use, monitoring, repayment of funds adhering to defined terms and conditions.
- In conclusion, the success in strengthening WASH governance in Bheriganga Municipality demonstrates the importance of strategic planning, data integration, capacity building, and innovative financing mechanisms in ensuring safe and sustainable water and sanitation services. The journey is ongoing, with a focus on sustainability and continued improvement.

Breaking Barriers: Laxmi Pun Magar's Journey of Women's Empowerment in Leadership

Laxmi Pun Magar, the vice-chairperson of Barahatal Rural Municipality in Surkhet, is a symbol of women's potential in a bureaucratic leadership position. Despite the signage reading "Vice-Chairperson'," she demonstrates the importance of women's representation, highlighting the underrepresentation of women in powerful roles. Her journey began as a WASH sector volunteer for ENPHO, where she received training in sanitation, clean water, hygiene, and menstrual health. With this knowledge, she educated her community about the significance of proper sanitation practices and clean water, effectively breaking taboos such as the practice of *Chhaupadi*.

Laxmi is a staunch advocate for empowering women, emphasizing that women can contribute beyond traditional roles. Her determination led her to run for vice-chairperson, gaining immense support due to her work with ENPHO. She believes that women's presence in politics is essential, as they consider the impact of policies on women and contribute to household prosperity when given

decision-making power. Her inspiring story highlights the transformative potential of women in leadership roles.

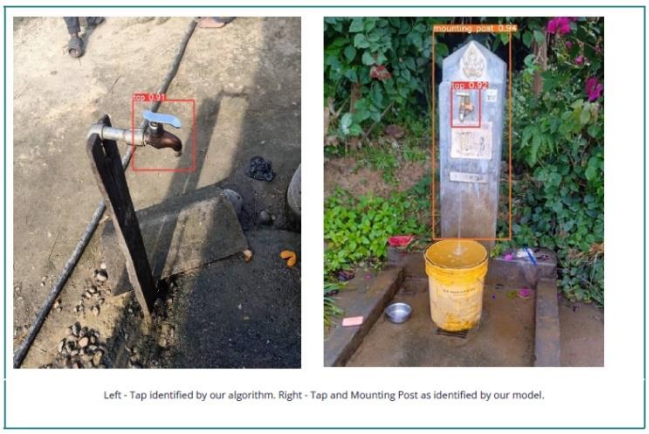
Faecal Sludge Management Capacity Building Curriculum Implementation: National Water Supply and Sanitation Training Centre

The MoWS, in collaboration with the DWSSM, has identified a significant issue with unutilized budget allocations for sewerage management due to a lack of capacity in designing non-networked sanitation systems, including Faecal Sludge Management (FSM), in urban areas. To address this, they partnered with the United States Agency for International Development (USAID) Water Supply, Sanitation, and Hygiene Finance (WASH-FIN) project to enhance the capacity of government engineers in designing FSM infrastructure. A 14-day comprehensive training curriculum on FSM for NWSSTC was developed with the support of Environment and Public Health Organization (ENPHO) and Consortium for DEWATS Dissemination Society (CDD Society), India. This curriculum aimed to bridge capacity gaps and provided practical skills for designing viable Faecal Sludge Treatment Plants (FSTPs) in Nepal. The training covered various modules related to FSM and took place in February 2021 due to COVID-19 safety measures in virtual mode. It served as a Train-the-Trainer (TOT) program for federal officials and newly appointed engineers in the sanitary group, aiming to improve FSM practices in Nepal.

Integrating AI into the asset management of rural water supply schemes in Nepal

Rara Labs, with the financial support from Frontier Technology Hub funded by FCDO conducted a study from January – March 2023 to test the feasibility of AI solution in WASH asset management of rural water supply schemes in Nepal. The study started with a hypothesis that AI can help to analyse the condition of infrastructure and improve the quality of data in NWASH-MIS, which would better decisions for e.g., estimation of the budget requirements for maintaining and repairing water supply schemes.

The findings of the study suggested that it was technically possible to build an AI solution capable of processing the imagery in NWASH portal, to identify assets and faults with assets (such as breakages, corrosion) - including faults not currently logged within the structured data on the NWASH system. The testing succeeded in developing a model capable of successfully identifying and classifying distinct types of assets in the images. Also, the model was able to identify taps, pipelines, tap stands, and metered connections as well as capable of identifying faults and defects in WASH assets within images - such as broken pipes and corrosion.



Left - Tap identified by our algorithm. Right - Tap and Mounting Post as identified by our model.

When tested against existing manual validation processes, the study found that an AI tool was more efficient and accurate than manual data validation at identifying anomalies in WASH asset photographs – including corrosion and breakages to taps. Within one minute the AI was able to automatically validate data that took an individual 30 minutes to work through. In terms of accuracy, the AI model was identical to the manual approach for detecting objects, while it was more accurate in identifying anomalies.

It is highly recommended to continue with the development and further testing of the solution. The expansion of this technical approach could be to look beyond identifying faults relating to corrosion and breakages. The next step of the study will further refine the algorithms, optimize the processes and test whether the model fits for integrating in the NWASH portal itself or not or to identify how to integrate the model in NWASH portal.

Rural Water Supply Management Board

In Nepal, many rural water supply systems are managed by Water User Committees (WUCs), but a concerning 71 per cent of these systems are not functioning properly. Oxfam has identified several reasons for this dysfunctionality, including the technical limitations of WUCs, a lack of accountability and transparency in financial management, and the absence of a scalable business approach. Due to the current tariff structure, WUCs struggle to access expertise, resulting in recurring system failures and the need for continuous local government investments in ad hoc repairs. To address this issue, Oxfam is pioneering a sustainable solution by consolidating multiple water supply systems within a rural municipality into a single entity called the Rural Water Supply Management Board. This approach aims to create a larger-scale business that can hire professional technicians and implement digital financial and performance monitoring systems to enhance governance. Oxfam is implementing this Rural Water Supply Management Model in collaboration with four local governments in Nepal, with partnerships in place for digital technology adoption and innovative cost-effective technological solutions.

What is RWSMB?

Rural Water Supply Management Board is an autonomous and corporate body with perpetual succession formed under Section 3 of Water Supply Management Board Act endorsed by Rural/ Municipalities making proper and effective provisions to provide, or cause to be provided, reliable services to the residents of the municipal areas by making water supply and sanitation services regular, managed, qualitative and easily accessible. It is a government-recognized, locally owned and accepted sovereign entity with expertise to tackle any issues related to water supply management in Rural Nepal. The overall objective of the Board is to increase access of community people to safe, reliable, and sustainable.

Establishing the Rural Water Supply Management Board

Formation of Rural Water Supply Management Board: Oxfam and its implementing partners under the leadership of the local government worked to develop the Water Supply Management Board Act in Benighat Rorang and Jwalamukhi Rural Municipality of Dhading district, Rajpur Municipality of Rautahat district and Haripur Municipality of Sarlahi district which was later endorsed by the assembly meeting of respective R/Municipalities. The act was then published in the local government gazette and an executive committee was formed under the act comprising the representative of Palika, the WASH lead of Palika, an independent expert of the WASH sector, and a representative of local NGOs working in the WASH sector. There were a series of orientations and consultations with WUCs before the formation of the board.

Formation of the Board Policy and Other Operational Regulations: R/Municipality has now developed and endorsed the Board Operation Regulations. Based on the Act and regulations, RWSMB has developed necessary policies and procedures like scheme handover procedure, financial management procedure, temporary staff management procedure, tariff setting, and collection procedures which support the board to function well and ensure governance.

Fulfilling human resource demand in the Board: A league of required human resources comprising the executive director/manager, engineer, sub-engineer, admin and finance associate, social technician, and meter reader has been hired by the board. The executive director/manager is mainly responsible for the day-to-day operation of the board. Both the Water Management Boards in Dhading District have women in leadership positions, Executive Director, Archita Upreti Shrestha in Benighat Rorang Rural Water Supply Management Board and Sabina Chhatkuli, Manager at the Jwalamukhi Rural Water Supply Management and Sanitation Board.

Operating the Rural Water Supply Management Board

Developing DPR of Water supply systems: Oxfam together with local implementing partners has supported RWSMB and local government to develop the WASH plan of the R/Municipalities. The team has supported geo-referencing of water supply systems, financial analysis of schemes, and DPR preparation of the entire WSS of respective R/Municipality which will help the board make better financial planning in the future. The information is also uploaded at the NWASH portal.

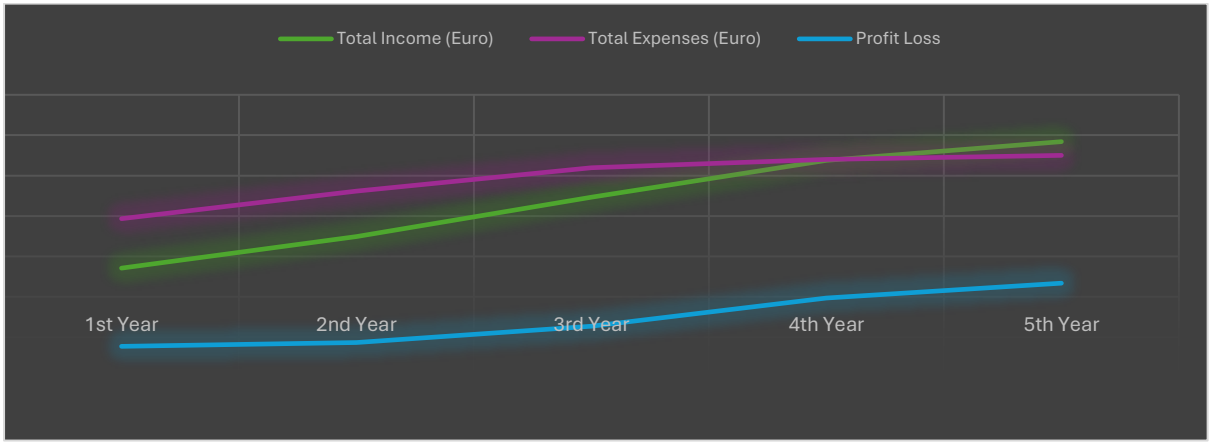
Developing a five-year business plan: Oxfam and its local partners supported in building the five-year business plan of the boards. The business plan was formed together with the board executives to make the financial requirements for the board operation transparent. Further, a scientific tariff has already been set which is the basis for tariff collection for the board. The digital platform for accounting is already in use and tariff collection has started.

Digital services in place: Oxfam in partnership with the Diyalo Technologies has already installed a digital platform for financial management. This means all income and expenses of the water supply systems and individual tariff collections are now digitally visible from a single dashboard. A plan is set to increase the digital literacy of the community to encourage them to tariff payment via digital/online platforms.

Promoting automation where needed: Oxfam has a partnership with the NIC for automation to solve local problems relating to the water supply infrastructure. Oxfam has invested in developing remotely operating gate valves for rural areas. The technology has passed the lab test and the field test and will soon be deployed at the water supply schemes for its intended purpose. Oxfam will invest in other automation technologies in the future to make the water supply management board's operation more efficient.

Upgrading water supply systems: Oxfam is investing in upgrading rural water supply systems willing to integrate under the governance of the board, making them functional and operational under minimum technical standards. Oxfam has been investing in upgrading water supply schemes every year since 2018. In 2022/23, Oxfam upgraded 39 schemes to be a part of the board.

The primary income sources of the board are tariff collection, new tap connection charges, penalties, grants received from local, provincial, and federal governments, funds from development partners, and loans from financial institutions. Local governments have also taken ownership of the board modality and support the boards in their operation by allocating budgets to the boards for the repair and maintenance of water supply schemes. Approx. NPR 2.5 crore in total has been allocated by local governments of Dhading, Rautahat, and Sarlahi for the fiscal year 2080/81.



Oxfam is aiding RWSMBs to become financially sustainable and technologically advanced in rural water supply management, with a projected timeline of at least 5 more years for the water supply management board to achieve full-scale sustainability.

Growing Green Profits

Deepak Maharjan, a 43-year-old plumbing professional from Ward 6 of Mahalaxmi Municipality, recently completed a 3-day rainwater harvesting training program as part of the BCR project. Deepak, with 15 years of experience in plumbing, was enthusiastic about expanding his technical expertise in rainwater harvesting installation. Following the training, he applied his newfound knowledge by educating communities about rainwater harvesting and generating demand for its installation. He successfully assessed and set up rainwater harvesting systems in four

households recommended by the Ward office and an additional three households from his personal network. This training has significantly benefited Deepak, enhanced his skills, and boosted his plumbing business, as rainwater harvesting aligns closely with his profession. He expressed gratitude to ENPHO and the Municipality for this opportunity and is now well-prepared to make a positive impact in his community and beyond.

Advancing Gender Responsive Budgeting in Nepal: Progress, Challenges, and Recommendations

Nepal introduced Gender Responsive Budgeting (GRB) in 2007/08 to meet constitutional and international gender equality commitments. The Ministry of Finance recently updated its legal framework for GRB at local and provincial levels and integrated GRB components into the budgeting software, SUTRA. The SUSWA project, funded by various entities, monitored GRB implementation in municipalities, finding a lack of coding and budget activity for gender responsiveness. Training sessions were conducted in 19 out of 21 municipalities, supported by UN Women, resulting in improved GRB coding. Participants suggested modifications to SUTRA, such as manual entry options and better beneficiary selection. Recommendations were also made for detailed budget reporting and inclusion of disability and socially excluded people responsive budgeting provisions.

Empowering Local Governments for Sustainable WASH Development in Karnali Province

The Sustainable WASH for All (SUSWA) project, underway in Nepal's Karnali Province since November 2021, is a collaborative effort supported by the Government of Nepal, Government of Finland, and the European Union. Local Governments (LGs) require a minimum contribution of 22 per cent of the total project budget, as outlined in their annual work plans (AWP). These funds and contributions from various sources are channelled into the respective LGs' bank accounts for the implementation of WASH activities. LGs allocate their matching funds across three project outcome areas: WASH infrastructure, WASH Governance, and sanitation and hygiene initiatives. In the first year, eight fast-track LGs in upper Karnali committed an average of NPR 6.8 million to the SUSWA project, a figure that increased by 31.4 per cent to an average of NPR 8.8 million in the second year, demonstrating LGs' willingness to invest in expanding WASH activities to meet community needs. Furthermore, 13 new LGs included in the second year also expressed their commitment to the SUSWA project, allocating an average of NPR 10.9 million with a 59 per cent increase compared to the first year, resulting in a total contribution of NPR 207 million from both years.

The project has enabled LGs to develop tailored WASH plans to address community-specific needs, and 15 LGs were provided with additional support to in coordination with the Provincial Government and NWASH team, demonstrating LGs' commitment to contributing matching funds. Their willingness to allocate more funds, averaging 28 per cent, with a range from 23 per cent to 39 per cent, reflects their dedication to securing program budgets from development partners to fulfil WASH requirements in their respective LGs. During a recent Joint Sector Review workshop in September 2023, Ms. Urmila Bishwokarma, the honourable Minister of the Ministry of Water Resource and Energy Development, emphasized the importance of LGs not reducing their budget allocations for matching funds, as many development partners rely on these allocations when deciding investment budgets for LGs. This highlights the strong commitment of LGs to sustain and expand WASH initiatives in the region.

Transforming Water Safety: Enhancing NWSC Lahan's Drinking Water Supply

Water Safety Planning is a proactive approach to ensure safe drinking water from source to consumer. In the case of NWSC Lahan branch in Nepal, water supply improvements were made with the support of the Beacon project. Key changes included network enhancements using DMAs, electromagnetic volume measurement, chlorine dosing, and regular tank schedules. A Water Safety Plan team was formed with frequent meetings to document corrections and improvements. Regular water quality testing was done by NWSC with its own laboratory. Construction of six boreholes following international standards, sedimentation tank use to reduce turbidity, and daily chlorination led to increased water supply hours. NWSC meets the national water quality standards, ensuring safe water supply.

Chlorine Dosing System

Training on WQ

Water quality testing mini-lab and kit facility with trained human resources

The establishment and operation of mini-labs in multiple municipalities, including Baragadhi Rural Municipality, Bheriganga Municipality, Siraha Municipality, and Bhume Rural Municipality, serve as successful instances of NWASH-driven water quality initiatives. Trained personnel from these municipalities consistently test water samples, ensuring the test results are within the permissible limits. They also upload the data into NWASH MIS and WASH FIT, helping effective monitoring and management of water quality.

Thinking from system lens to fulfil WASH needs

A village of 252 households in Panchkhapan Rural Municipality of Sankhuwasabha District, Koshi Province were reached with the Sibhuwa water supply project. The project was prioritized by the local government in their municipal WASH plan. Women and children are the one who were reached by some of the targeted interventions. In addition to this, schools and health care facilities of that community were targeted by the programme. In general, the programme took holistic approach to solve the water, sanitation and hygiene related issues of the village.

"*Our village used to be known as a "dry village" as water scarcity used to be the main problem."* shared by 35 year's old lactating mother and user of Sibhuwa water supply project. She further added, *"we had to wait 30 min to 1 hour to fetch the water as there were only few public taps for more than 200 households and water supply was not regular. We used to call June/July as months of diarrhoea. Also, we were not able to grow any green vegetables at our home. Also, our children used to carry water from home due to unavailability of water in their school."*

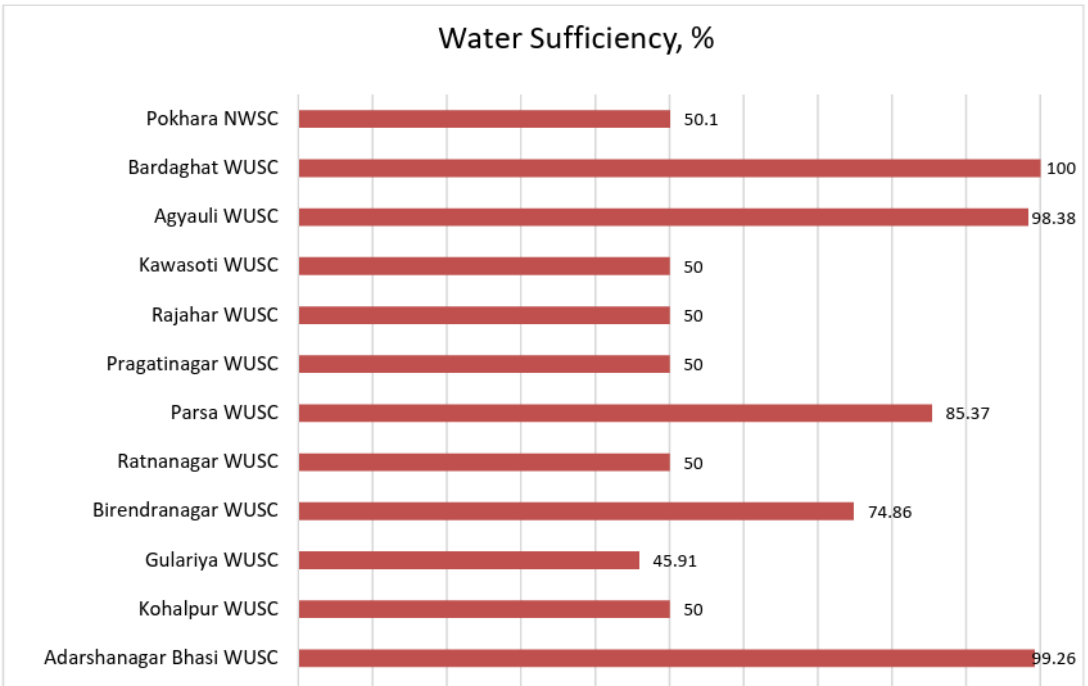
"*After construction of Sibhuwa water supply schemes, all the252 households are accessing clean water throughout the day which has saved the time of women and girls and they are able to use those saved time in other productive works*", shared by chair of the water user committee. Also, health post in charge told that the diarrheal cases has been decreased by more than 75% in the current fiscal year as compared to the previous year. One of the pregnant women shared that after the interventions under RWEPP, water is enough not only for drinking purpose, but they are also growing vegetables by using the used water. It was observed during field visit that school are equipped with water tap, toilet and handwashing stations and children and teacher were happy.

The RWEPP programme provided financial and technical support to prepare a municipal WASH plan in this palika, constructed resilient water supply schemes with 260 tap stands including 8 in public institutions. Conducted WASH and DRR related awareness sessions and trainings. Supported HHs with pregnant and lactating mother to implement simple drip irrigation to promote kitchen gardening. Constructed child, gender and disability friendly toilets and handwashing stations in schools.

Benchmarking Assessment and Analysis of Water Supply Utilities/Service Providers in Nepal

Benchmarking entails the assessment and comparison of different water supply service providers based on a range of performance indicators. This analysis offers a comprehensive understanding of each provider's effectiveness, facilitating well-informed decision-making and targeted actions. It empowers stakeholders, including government bodies, regulators, consumers, and donors, to gain insights into the strengths and weaknesses of each water supply service provider. This valuable information can leverage to identify areas requiring improvement, establish best practices, and elevate the entire water supply services sector. Moreover, benchmarking aligns with national standards and serves as a valuable model for assessing contractor performance and promoting resource recovery. Additionally, it incorporates faecal sludge management indicators to benchmark WASH services and facilities.

Determining Factor: Consumers' perception
Per capita consumption



Innovative Financing Solutions for WASH: Bheriganga Municipality's Revolving WASH Fund

In the field of Water Supply, Sanitation, and Hygiene (WASH), securing sufficient funding is a well-known challenge, often leading to insufficient budget allocation from municipal budgets due to competing priorities. To address this issue, Bheriganga Municipality has introduced an innovative approach under the leadership of its mayor. They established a Water and Sanitation Management Board and created a WASH fund that operates on a revolving basis. This fund allows water systems to access financing for maintenance, repairs, and expansion, with borrowed funds repaid through interest-free Equated Monthly Instalments (EMIs) to ensure equitable

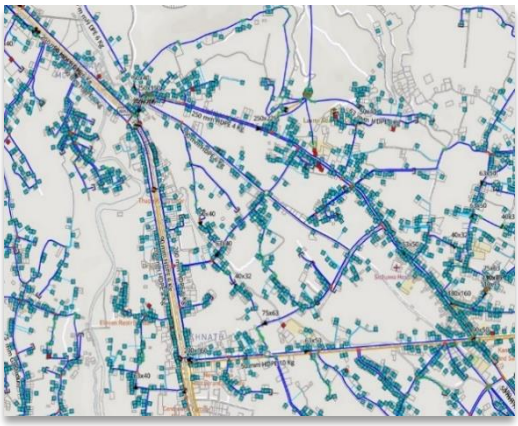
access. To mitigate loan default risks, the municipality has implemented financial clauses and conditions to ensure timely repayment.

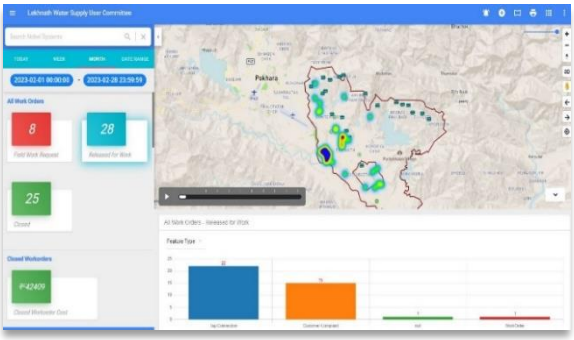
Harre Water and Sanitation Users Committee were allocated an initial NPR 3,17,753 for constructing a water filtration unit and its maintenance. This committee makes monthly EMIs totalling NPR 17,636.28 over 18 months. After the repayment of the funds, they will once again be used to assist other water systems requiring support.

While still in its initial stages, the Water and Sanitation Fund aims to expand its scope to benefit more water systems. Effective monitoring of fund repayment and adherence to agreed terms and conditions falls under the responsibility of the WASH Unit.

Water System Asset Management: The GeoViewer Solution for Lekhnath Water Supply Users Committee

The deployment of an effective Asset Management System (AMS) can transform the management of water system assets and engage the community. AMS aids in routine maintenance, controls Non-Revenue Water, and supports climate resilience, aligning with ADB's goals. In the case of Lekhnath Water Supply Users Committee (LWSUC) serving around 85,000 people, GeoViewer was implemented recently, an ADB-supported GIS-based system. It geo-positions water assets, keeps their data, and integrates with billing systems. The system streamlines O&M work orders, helps pipe isolation for maintenance, and includes a citizen app for reporting issues, enhancing customer responsiveness. This innovative solution addresses asset management challenges efficiently.





The LWSUC Public Reporting Application is a free application that residents can download to their mobile phone. Using the app, they can quickly and easily report to LWSUC issues such as leaks, jammed meters, etc. This information is integrated into the GeoViewer Work Order system, which creates a work order immediately, to dispatch a field crew to resolve the issue. Ms. Tirtha Maya Subedi lives in a modest home within the LWSUC service area. Like many of her fellow residents, she relies on LWSUC to provide life sustaining water to the community. Ms. Subedi reports that "*now if we are walking on the road and see a pipe leaking, we can easily send a photo to the utility through the app without having to go to the office. This saves everyone time and water*".

Empowering Communities in Madhesh: Local Initiatives to Ensure the Quality of Water

In Madhesh Province of Nepal, access to safe drinking water has been a significant challenge, with a substantial part of the population relying on shallow tube wells and hand pump-equipped dug wells due to the absence of a piped water supply system. Unfortunately, these water sources have been prone to contamination due to poor maintenance, inadequate drainage infrastructure, and waterlogging, particularly during the monsoon season. Furthermore, there was a lack of awareness among the local population about the quality of the water they were consuming. In response to these issues, Sabal Nepal and WHH conducted water quality tests, revealing the presence of E. coli bacteria in 27 per cent of the samples. Additionally, a baseline survey conducted earlier shown that 81 per cent of community members consumed untreated water, leading to waterborne illnesses. While awareness efforts improved the situation, the absence of local water quality testing facilities remained a challenge. To address this, the Government of Nepal encouraged local governments to set up Mini Water Quality Testing Laboratories, supported by development partners like WHH, Sabal Nepal, and MCDC. As a result, three municipalities have started these labs, enabled regular water quality monitoring and raised awareness among both authorities and community members. Health care staff received training to conduct water quality tests, and the municipalities collaborated with federal and provincial governments to set up systematic water testing mechanisms.

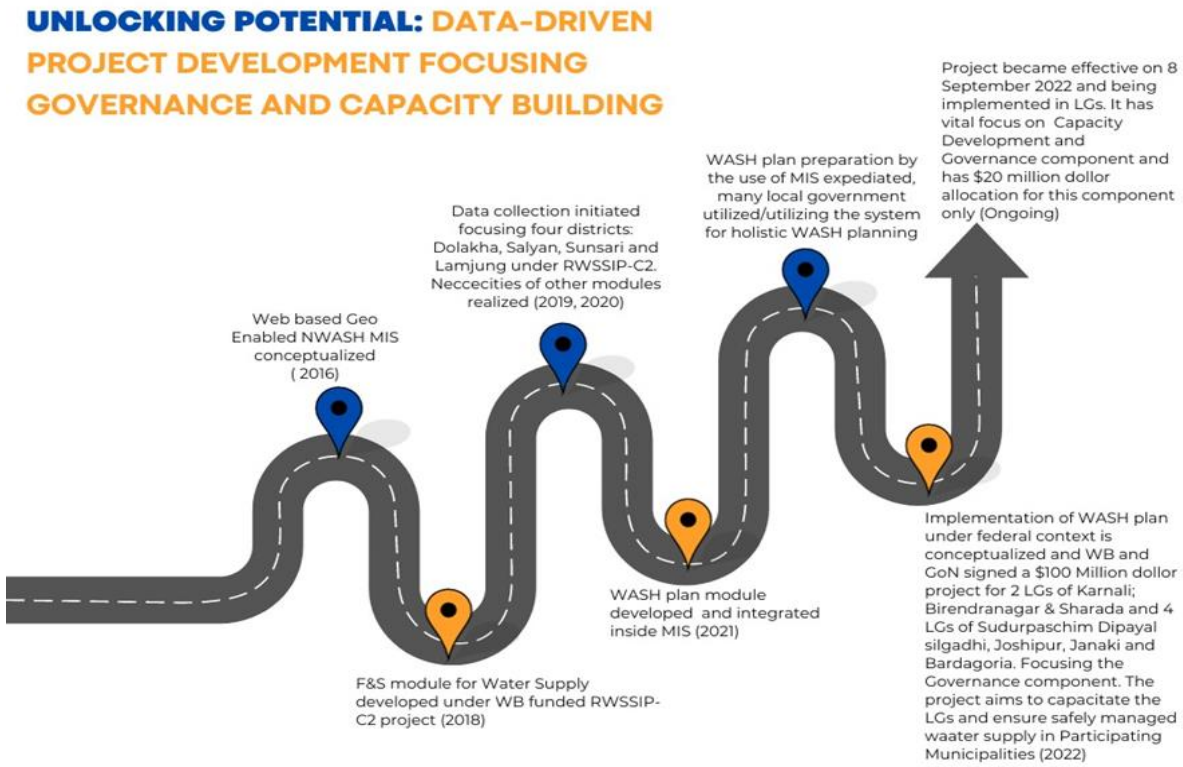
Three municipalities in Nepal, namely Siraha Municipality, Dakneshwari Municipality, and Bishnupur Rural Municipality, have taken commendable steps to address the water quality challenge. Recognizing the importance of safe drinking water, these municipalities started Mini Water Quality Testing Labs, equipped to test thirteen parameters of water quality. They received comprehensive training, collaborated on funding, and took responsibility for securing lab facilities and equipment. These municipalities are now actively implementing standard operating procedures for the labs and are developing water surveillance guidelines and policies. Their vision extends beyond basic testing, aiming to set up a systematic water quality monitoring mechanism that covers various sectors and institutions, including schools, healthcare facilities, government offices, and households. To achieve this, they are working closely with federal and provincial governments to ensure the enforcement of necessary policies and procedures within their respective areas, reflecting a proactive approach to improving water quality and public health.

Merger of Water Supply and Sanitation Users Committee

The merger of Water supply and sanitation users' committees in Urlabari, Morang, demonstrates an effective utility functionality model. Urlabari Municipality led the initiative to acquire and merge inefficient users' committees from neighbouring communities into the municipality. This merger resulted in a unified and improved Water Supply and Sanitation Users Committee (WUSC) that efficiently expanded its services while maintaining sustainable management and operation.

Investment and Funding for Capacity Development in WASH

A capacity development program launched focused on for Local Governments by DWSSM in financial support with The World Bank. The bank allocated USD 20 million for the program. The priority for local government's capacity development is encouraging example of WASH sector development. The capacity development program will focus on the government's efforts on sector sustainability and SDG 6 target.



Research and Development: Navigating Challenges in the Melamchi Water Supply Project

Recognizing the pressing challenges posed by climate change and disasters, the Melamchi Water Supply Project now places a high emphasis on research and development (R&D). Despite

enduring political, managerial, financial, and environmental obstacles, the project has persevered. However, it faced setbacks, notably the devastating 7.6 magnitude earthquake in April 2015, which struck near the project's site in Sindhupalchowk district, causing extensive damage and obstructing access due to road disruptions. Furthermore, in June 2021, severe flooding in the Melamchi River resulted in substantial infrastructure damage and seventeen casualties, underscoring the importance of adapting to changing environmental conditions through rigorous research and development efforts.

Source: https://www.melamchiwater.gov.np/gallery

Occupational Health and Safety - a necessary part of the Faecal Sludge Management Service Chain

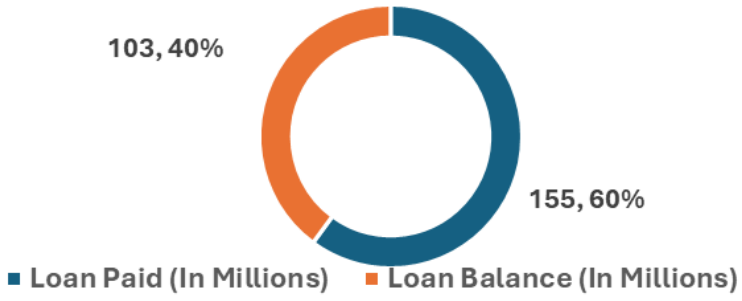
Kushal Thapa, Sita Gautam, and Suresh Thapa are proud of the services their faecal sludge emptying companies are delivering to the citizens of Birendranagar Municipality. They are not only providing critical sanitation services to the city, but they are also doing so safely, for their staff and for the communities. All three service providers have proper signage on the desludging tankers with pumping equipment that are regularly checked and well-maintained. Their staff is trained on the risks associated with possible release of gases while opening manholes and the potential of accidents. Before starting the work for the client, they protect themselves by wearing boots, gloves, and masks; they demarcate the site to keep away by-standers; and after the pumping is complete, they clean all spills with disinfectant. They are also skilled in handling the equipment to avoid splashing at the disposal site. Importantly, they make sure to wash their hands with the soap, which is convenient to do at the hand washing unit fitted into the desludging tanker.

A few years ago, the service providers and their staff were not so careful; the emptier did not wear any personal protective equipment, follow the safety protocols for emptying, or care for personal hygiene. With the support of the WASH SDG Sub-Programme funded by the Government of Netherlands, they received trainings on Occupation Health and Safety (OH&S) protocols for faecal sludge emptying, which made them understand and address the risks associated with their services. The local government also adopted OH&S Guidelines in 2021 and the staff at the municipality are available to support them when needed. As owners of their businesses, the three proprietors take OH&S very seriously, and it is not easy. They are providing frequent orientation and reminders on the protocols to their staff, and Kushal even gives a bonus to those who wear their protective gear regularly. All three of them have also insured their staff.

Similar progress has taken place with the emptying practices of the two private sector service providers in Nepalgunj Sub-Metropolitan City, and the municipality's own services in Khadak Municipality in Saptari District. Nevertheless, it is an on-going process that will require continuous oversight by the local governments and willingness to adhere to the protocols by the service providers and their staff.

Innovative Financing: Repayable Model in Urban WASH Projects

The introduction of repayable financing in urban WASH projects and facilities by the Town Development Fund (TDF) in Nepal has emerged as a commendable financing method. This approach has demonstrated its innovative potential as a financing instrument. Till now 60 per cent of the loan has been already recovered.



"Advancing Urban Public Sanitation: A Citywide Integrated and Inclusive Solutions"

Urbanization is an irreversible global phenomenon that is transforming the way we live, work, and interact with our environment. As more people commute daily to cities seeking better opportunities and improved living standards, the demand for essential services, particularly urban public sanitation, has reached critical levels. The challenges posed by rapid urbanization to public sanitation are multi-faceted, encompassing issues of public health, environmental sustainability, and social equity.

In response to these challenges, there is an urgent need to develop a comprehensive and integrated approach to urban public sanitation that can adapt to the dynamic urban landscapes of the 21st century. This approach should not only address the traditional components of public sanitation, such as water supply, sanitation facilities, and waste management but should also embrace a citywide perspective that considers the broader urban environment, including green spaces, sustainable sanitation, water optimization tools, ground water recharge, and public health infrastructure.

This compilation of cases was implemented to address these pressing issues but also recognized that urban public sanitation is not merely a technical challenge but a complex and interconnected which affects the quality of life as well as long-term sustainability of urban centres. The integration of diverse element of urban sanitation while promoting inclusivity in its planning and execution, these cases aim to provide an insight for policy makers, planners as well as practitioners to create safe, equitable, sustainable and inclusive urban sanitation environment.

In the following cases, the overall goal is to shed light on the key principles, components, and strategies, emphasizing the importance of collaboration among various stakeholders, including local governments, communities, the private sector, and non-governmental organizations, showcasing the path toward advancing urban public sanitation, ensuring that our cities are not only vibrant and thriving but also healthy and inclusive for all their residents.

"Sustaining Open Defecation Free (ODF) Status in Low-Income Communities through Community Toilets"

Siraha district was declared ODF in March 2018, but the recent census data shows that only 9.2 per cent of households have access to toilets, which is about the same 9.3 per cent in the Lahan municipality. Located on the bank of *Khutti* river in ward 5 of the municipality, *Baluwa Tole* has 100 HHs of *dalits* out of 164 HHs. The main reason for not having the household toilets in these areas was due to the lack of land required for toilet construction which was more affected as many families neither own the land nor have landownership

documents. Open defecation was generally followed in the riverbanks of the river having privacy as a big issue which becomes more challenging during monsoons and flooding. Particularly women face these issues, and it became more challenging during the menstruation period. On such instances, Shiva Kumari Paswan (44) remembers how they would travel back to home after defecation without changing the used cloths during menstruation period. In the daytime they must go to nearby gardens to change their clothes.

Lahan municipality, in collaboration and support from the Beacon Project implemented by WaterAid Nepal and Nepal Water Supply Corporation, successfully implemented a community managed toilet (CMT) for the people of this ward. The O&M of this CMT is being carried out by the group of women from the ward. During the implementation there were several encounters with the land encroachers and others to grab the land and construct individual houses in the land.

This CMT now is a model in the Lahan municipality, which has 14 cubicles including one with disability friendly. 45 HHs use the CMT regularly and group HHs are responsible for cleaning the toilet cubicle assigned to them. The overall O&M of this CMT is taken care by 11 women membered committee, which collect fee of NPR. 100 every month from the 45 HHs and uses it for buying toilet cleaning materials, paying the electricity bills, some minor maintenance, and remaining amount is deposited in their groups bank account. These committee members having gone through the O&M process empowered them in such a way that they can put their voice in the regular meeting and raise concerns on upkeep of the CMT to relevant stakeholder and external agencies.

"Enhancing Hygiene and Functionality at a Bus Park Public Toilet"

Public toilets provide essential public sanitation facilities in urban areas however, they are often underutilized due to design deficiencies, unpleasant odours, and discomfort. Similar was the story with *Chapagaun* Bus Park Public Toilet in Godawari municipality. While the fixtures in the public toilet may seem intact, issues such as the availability of soap and water, poor aesthetics, and subpar sanitation conditions deterred the usage by the local people as well as the floating population.

This bus park public toilet was renovated with separate male and female sections, handwashing stations, sanitary pad vending machine, dustbins, automated urinals, and soap dispensers.

Ramesh Bika, a local user, appreciated the convenience and cleanliness with modern surroundings provided positive feedback which made it no longer resemble a public toilet. Similarly, Ms. Punisha Deshar remembered struggled with menstrual pad disposal and praised the provision of pad vending and disposal machines, which made the public toilet facility more valuable during her period.

The IUWM project of ENPHO with support of BORDA upgraded this bus park public toilet not only for better functionality but with incorporation of business model for sustainability. This facility also has a coffee shop, which operated effectively to draw the attention of visitors as well as researchers. The transformation of this facility from an unpleasant condition to a clean, convenient, and modernization demonstrates the potential for enhancing public toilet services across urban areas. The success of this transformation has led to demands to replicate the model in other wards too, prompting budget allocation to renovate other existing public toilets with this approach in the municipality. Mr. Santa Bahadur Deshar, Social Development Officer acknowledged the positive results along with plans to expand the successful model to other areas this year.

"Advancing Step-by-Step Towards Inclusive Sanitation and Public Toilet Services Across the City"

Birendranagar Municipality has made visible progress on city-wide inclusive sanitation services. The journey started as a part of the country's Open Defecation Free campaign and has continued with the collaborative efforts of successive elected leaders, committed officials, development partners and civil society organisations, community activists, effective private sector service providers, and media actors. In 2016, the city approved its first City Sanitation Plan (with subsequent revisions), the culmination of a comprehensive data collection exercise (census, GIS-based data) followed by intensive multi-stakeholder discussions and decisions under the leadership of the Municipality WASH Coordination Committee. Based on the status at the time, the stakeholders identified seven priority areas: (i) access to hygienic use of toilets, (ii) domestic wastewater management,

(iii) septage management/FSM, (iv) storm water management, (v) solid waste management, (vi) special waste management (vii) and greenery and beautification.

Fast forward to 2023, the city has much to be proud of with progress in the quality and outreach of services, including: segregation and collection of solid waste and treatment of organic waste in a private commercial biogas plant; collection and treatment of faecal sludge; WASH facilities in schools, health facilities, and public places; and collection and treatment of health care waste from private clinics. City-wide, inclusive sanitation with sustainable services is, however, a hard task, and the work is never done! One such area where the local government is currently intensifying efforts is on public toilet services.

In 2019, Birendranagar Municipality conducted a city-wide functionality assessment of existing public toilets and identified hotspots with no toilets. Based on the findings, the local government, in partnership with SNV and UNDP implemented 8 gender and disability inclusive toilets throughout the city, which would be safe and comfortable to use by men, women, transgender, children, and people with disabilities. Accessibility audits carried out together with representatives from Organization of People with Disabilities confirmed the accessibility of the toilets. Operation of the toilets was outsourced to private operators under different financing arrangements.

Ongoing monitoring of the toilets has, however, shown that although the toilets in general function well and are clean, there are challenges in regular repair and maintenance. Deeper analysis has shown that a city-wide service approach needs to be taken to differentiate between and address the daily operation tasks, the minor repair tasks, and the maintenance tasks in all the city's public toilets, and management models need to be developed accordingly. The mayor, herself, is keen to ensure that all public toilets in the city provide a good service for the citizens.

ANNEXURES

Annex - A

Climate Rationale for Water Supply, Sanitation, and Hygiene services in Nepal

This document summarizes the Climate Rationale for climate resilient Water Supply, Sanitation and Hygiene (WASH) services in Nepal[1] **|** The Climate Rationale sets out the evidence for embedding climate-related risks and vulnerabilities to WASH services in both policymaking and programming in Nepal. An extensive analysis of primary and secondary data allowed the development of a comprehensive narrative on climate hazards that are affecting the delivery of water and sanitation services, alongside an assessment on the exposure of specific groups of the population, critical infrastructure, water sources, and intrinsic vulnerabilities that tend to increase the impacts on the sector. The impacts of climate change are causing negative impacts upon economies, livelihoods, and the environment. Communities in Nepal are often ill-prepared to respond and adapt to the main hazards linked with climate change such as droughts, floods, and landslides etc. Based on future trends and climate projections, this situation may worsen in the coming decades, hampering the accomplishment of SDG 6 and the realization of the human right to water and sanitation.

Through multi-stakeholder consultation using the WASH Bottleneck analysis exercise, a set of technical and non-technical solutions have been identified and prioritized in subsector Action Plans to mitigate and adapt to the climate risks, presenting the rationale for a WASH sector response | The approach to developing sub-sectoral Action Plans for climate resilient services is stepwise, based on the GWP and UNICEF Strategic Framework for WASH Climate Resilient Development[2]. First, a comprehensive climate risk and vulnerability assessment conducted for the WASH sector, combining a desk review exercise, confirmed by government planners, decision-makers, practitioners, and other stakeholders responsible for and engaged in WASH service delivery in Nepal. Second, through a multistakeholder consultation through WASH Bottleneck Analysis exercise, in early June 2023 in Dhulikhel, Nepal, a set of technical and non-technical solutions identified and prioritized for addressing main climate risks and delivering sustainable and climate resilient services, at national and at community levels. The process ended with the development of Action Plans by subsector, rural and urban water supply, sanitation, and hygiene services, as well as WASH in health care facilities and WASH in schools, which compiles key priority adaptation measures in relation to water supply, sanitation and hygiene. This document, as well as the Climate Rationale, intended to assist policymakers, donors, and practitioners in WASH and related sectors to achieve climate resilient WASH services, most pertinently during the Joint Sector Review, scheduled for the end of September 2023.

Key prioritized climate risks to resilient WASH services in Nepal

Sector representatives focused on the need to ensure services could adapt to climate change and to continue to function as needed under increased uncertainty and pressures |

[1] This document can be accessed separately through UNICEG Nepal Country Office, contact Arinita Maskey Shrestha amaskeyshrestha@unicef.org

[2] UNICEF and GWP (2022) Strategic Framework for WASH Climate Resilient Development. United Nations Children's Fund (UNICEF) and Global Water Partnership (GWP), New York and Stockholm

A clear climate rationale was set as a central element, by designing and implementing programmes that encompasses a comprehensive understanding of climate risks. Key climate risks to resilient WASH service delivery are, for e.g.:

- During **droughts**, water sources such as river flows are highly exposed due to a higher concentration of contaminants and pollutants. Raw water supply is reduced due to a decrease in the volume of surface water and ground water which can result in rapid migration from the drought-prone areas, with particular concern for those less mobile, such as elderly, women, and children and those differently abled.
- **Floods** affect quality, quantity and reliability of water sources and water and sanitation infrastructure due to limited financial resources, poor water governance, and a lack of reliable information such as early warning systems.
- WASH infrastructure is vulnerable to damage in case of **landslides**, due to limited financial resources to make robust systems, poor water governance, and a lack of information such as geo-hazard mapping.
- All the risks mentioned above are linked to secondary risk of waterborne disease outbreaks that are common in the country and are further aggravated by impacts of climate change.

Key prioritized solutions to climate resilient WASH services in Nepal

Overlaps and synergies in climate resilient solutions between subsectors | There are commonalities and synergies among the different Action Plans, suggesting solutions that can be applied in response to several types of climate hazards which are outlined below:

- **Political will and prioritization of climate resilient WASH:** All groups emphasized the need for increased prioritization of climate resilient WASH by political leaders that will support and influence planning, budgeting and implementation priorities.
- **Technical guidelines and service standards for climate resilient infrastructure:** The WASH Standards should provide both national and local governments with technical guidance on the design and implementation of climate resilient services. They can be also used as an instrument to measure progress from a no or low service level to safely managed and climate resilient services.
- **Capacity Building on climate resilient WASH based on standards and guidelines:** Capacity building of stakeholders at all levels was a key activity prioritized by the six sub sector groups, both generally on the importance of climate resilience, and specifically on ensuring sustainable climate resilient service delivery and standards based upon the CR-WASH framework as well as monitoring framework. Capacity development needs to be promoted at all levels i) to raise awareness of people on the links between climate and WASH (e.g., water efficiency and conservation), particularly in rural areas, ii) to assist WASH stakeholders in the identification, appraisal, and implementation climate mitigation and adaptation solutions, at both the national, provincial, and local level.
- **Budget and resource mobilization for climate resilient WASH:** More and better resources are needed to make the climate shift towards climate resilient WASH programming and leveraging various climate fundings and inter sectoral programmes **for** the achievement of NAP, NDCs and the national WASH goals.

The Action Plans developed speak to potential solutions to address and withstand local climatic impacts, but further operationalization and their implementation is needed | The Action Plans developed are based on the key priorities for climate change in Nepal; and grounded in a comprehensive understanding of climate risks. However, the Action Plans need to be presented to key government representatives from all ministries involved in WASH and climate and disseminated further. This would encourage engagement from the highest political level, which could facilitate the further development of the plans into actionable activities for implementation. This process would need comprehensive stakeholder representation from the climate sector, as well as a discussion about financing, prioritization, regulation, accountability, and sustainability.

Specific subsector priorities for climate resilient WASH services

Potential solutions for Urban Water Supply include flood resilient reservoirs for urban areas and ways to increase water supply in drought-prone areas:

- Construction of recharge pits with identification of potential recharge areas and adopt policy measures for rainwater harvesting and recharge measures by urban municipality.
- Construction of flood resilient impounding reservoirs (in urban areas) and appropriate water treatment systems.
- Establishment of independent authority for regulation and tariff fixation. Tariff shall cover O&M cost, partial cost recovery, affordability and climate resilience and sustainability of urban water supply system.

Potential solutions for Rural Water Supply focus on the development of capacity of staff, and indicators for climate resilient WASH services, including the development of standards, guidelines, and technical options for rural water service:

- Revise the organogram of local governments to incorporate HR related to rural water (WQ, planning, implementation, and monitoring).
- Dialogue with IMCCCC/MOFE for rural water (Institutional reformation, MIS, Financing, data sharing, and service delivery model for rural water supply).
- Review and documentation of best practices of CR intervention and service models and development of standards, Guidelines, SOP, technical options, and technical standards) in rural water.

Potential solutions for Urban Sanitation include evidence-based planning and budgeting, sensitization of political leaders, and improved monitoring of climate resilient urban sanitation services:

- Evidence based planning, budgeting, and financing considering climate resilient and sustainable infrastructure for all in urban areas.
- Sensitization to political leaders regarding climate resilient urban sanitation facility and services.
- Establishing monitoring mechanism, protocol, and guidelines for climate resilient urban sanitation at sector level under leadership of MoWS.

Potential solutions for rural sanitation include advocacy for climate resilient sanitation and hygiene for political decision-makers, the development of guidelines on climate resilient service delivery, and capacity building of service providers and governments:

- Interaction programme with the political leaders on Rural Sanitation and Hygiene due to climate change impacts (to influence the making of policies, planning, budgeting etc.).
- Development of guidelines/manuals/SOPs focused on Climate resilient facilities and private sector engagement to ensure sanitation services and hygiene are sustainable.
- Capacity building activities (training/orientation etc.) on climate resilient sanitation services (govt, local service providers).

Potential solutions for WASH in Health Care Facilities include capacity building to improve knowledge and skills on climate resilient WASH and improve resources mobilization for climate-resilient WASH in HCF:

- Capacity building of WASH and Health actors, stakeholders on CR WASH in HCF.
- Develop Climate Resilient construction guidelines for WASH in HCF retrofitting and new construction.
- Resource mobilization for climate-resilient WASH in HCF.

Potential solutions for WASH in Schools include capacity building to improve knowledge and skills on climate resilient WASH and developing a financing plan for climate resilient WinS:

- Design Climate Resilience School WASH facilities Construction Manual in line with three-star approach WASH in School procedure and rollout it at federal, province and local levels.
- Design and implement capacity development package based on capacity assessment report (mason, low-cost water treatment solutions, WASH in School) at federal, province and locals.
- Develop evidence-based climate resilient financing plan for WASH in school.

Recommendations to concretely take forward the outputs of this process and mobilize actions.

- **To improve contingency planning and preparedness for the WASH sector |** The Plan should detail the risks and predicted impact of climate-related disasters at the national level provincial and local levels, but also targeting highly exposed and most vulnerable areas in Nepal. The aim is to enhance the preparedness, planning, and coordination of any WASH response, which includes i) the design of appropriate actions, ii) improved coordination with stakeholders, and iii) an assessment of WASH partners' capacities in responding to the WASH needs. This also should include engagements of multiple sectors including private sectors with whom WASH stakeholders and local government need to work closely on preparedness and response. The inclusion of contingency plan at both national and local level WASH plan to make it part of the planning, budgeting, and

implementation process to make the local government and communities prepared for unforeseen events due to various climate hazards.

- **To build capacity on Climate Resilient WASH service delivery, at all levels |** To ensure that mainstreaming of climate resilience throughout national, provincial, and local government, as well at community levels, with a capacity development plan and training package. This should be based on a thorough needs assessment of key stakeholders. The objective of this should be to firstly, raise awareness of the climate risks to resilient WASH service delivery, secondly to support WASH stakeholders in the identification, appraisal, and implementation climate mitigation and adaptation solutions, and thirdly to support the implementation and monitoring of such solutions at the national, provincial, and local levels.
- **To capitalize on the momentum by enhancing coordination and mandating a national WASH and Climate taskforce/Thematic group |** The mapping of stakeholders revealed that key tasks along the chain of WASH services lies among different line ministries, making coherence in implementation more difficult. On top of that, the Ministry of Forestry and Environment should provide integration of climate directives in WASH sector policy. Improving coordination with the relevant multi-sector through engagement at the WASH CC/DRR thematic group recently re-established for Joint Sector Review could lead to more efficiency and effectiveness. This would mean mandating a dedicated, experienced working group that could provide advice on the formulation of climate and WASH policies, as well as to monitor the implementation of related plans and strategies. In addition, it could help coordinate sector efforts going forward, including assisting the development and subsequently uptake, integration and institutionalization of response measures and actions. Moreover, this thematic group could create space for coordination among key ministries dealing and contributing to water supply, sanitation and hygiene, and push for a clear prioritization of the revision of WASH sector in the climate policy by 2024.
- **To further influence the elaboration of WASH and climate in national policies |** The policy assessment suggests that well representation of WASH in national climate policies and strategies, and climate integrated WASH policies. Building on the example of the updated version of the NDC, submitted in 2020, which integrates WASH services as a priority element for improving human health, efforts should be directed to ensure that national climate and WASH policies and strategies are well aligned, describing linkages to other general sector processes (e.g., Joint Sector Reviews, Sector Development Plan, and the 16th Plan in development process, etc.) An update of the NAP or the development of strategies and plans for the next policy cycle would provide an opportunity for the WASH and climate sectors to join forces and coordinate efforts to develop a more resilient WASH sector, which could also include further support at subnational levels, such as municipal and local level WASH and development plans. The aim would be to integrate the narrative that describes the impacts of climate change on water supply, sanitation, and hygiene services, as well as the inclusion of appropriate response measures. This process should ensure that the contents of the climate related policies and strategies and the WASH related policies and strategies align as much as possible. In parallel, assessing and prioritizing the actual implementation of policies, plans, and strategies, identifying bottlenecks that constrain progress.

- **To better leverage climate finance by developing a dedicated policy, strategy, and capacities |** There are opportunities to leverage regional and international climate finance through new and additional financial flows above official development assistance for supporting climate actions. Capacity needs to be increased, especially around formulating, and writing climate proposals to the international funds [such as Green Climate Fund (GCF), Adaptation Fund (AF), Least Developed Countries Fund (LDCF) etc.], and cooperation with international and national NGOs as well as academic and research institutions operating in the country should be facilitated to ensure cooperation and coherence in project development. Mobilization of funds channelled through bilateral and multilateral implementing agencies or local NGOs who play a key role in project implementation, training and monitoring and evaluation of project indicators. Beyond external financing, raising domestic funds through various mechanisms for e.g., strengthening the interface between public and private sectors, pooled financing models, water user committee mobilizing fees, and local financing products. Information on the need of the communities' own 'ability to pay' and 'willingness to pay' to promote their commitment to financially sustain climate resilient WASH.
- **To monitor the implementation of the proposed Action Plans, while further understanding bottlenecks and gaps in water and climate governance |** Following on the development of the Action Plans, it is important to create effective monitoring mechanisms to follow up the implementation of all actions and prioritized climate solutions. More specifically, the follow-up and monitoring should include the who (lead organization), the what (which activities to monitor) and the how (accountability mechanisms in place, set of indicators to measure progress, etc.). In addition, it is also important to analyse broader governance elements that positively and negatively affect the sector's development. Rules, practices, and processes built as the defining elements of water governance are the key drivers of successful WASH interventions, with thorough understanding of the constraints affecting its performance. For instance, a discussion about the promotion and placement of financing mechanisms to implement the Action Plan, identifying opportunities for resource mobilization. Conducting these activities could by the WASH and Climate taskforce or the current CC/DRR thematic group.

Action Plans by subsector, with the associated targeted climate risks

Urban Water Supply

Climate Risks	**Associated Climate Solutions for urban water supply**
Droughts result in lower raw water levels, higher concentration of contaminants and pollutants, which can result in migration and more severely affecting those most vulnerable (CR1).	**Construction of recharge pits with identification of potential recharge areas and adopt policy measures for rainwater harvesting and recharge measures by urban municipality**: • Develop policy and regulatory measures for RWH and recharging based on land use plan. • Implementing nature-based solutions using bioengineering technology and source improvement • Identification of potential recharge area. • Construction of recharge pits and RWH structures. • Establish EWS by monitoring wells and weather forecast
During floods, the urban population is exposed to water-borne diseases and a lack of access to safe drinking water (CR2).	**Construction of flood resilient impounding reservoirs (in urban areas) and appropriate water treatment systems**: • Conduct feasibility study of Flood resilient impounding reservoir (RIR) to serve urban areas. • Construction of RIR. • Design and construction of RIR appropriate water treatment systems. • Establish Early warning System (EWS) and awareness so that population can prepare beforehand
Climate adaptation budgets for climate resilient WASH, including specific guidelines, are lacking (CR3).	**Establishment of independent authority for regulation and tariff fixation. Tariff shall cover O&M cost, partial cost recovery, affordability and climate resilience and sustainability of urban water supply system**: • Legal provision for independent authority for regulation and tariff fixation. • Fixation of tariff based upon O&M cost, partial cost recovery, affordability and climate resilience and sustainability. • Seek climate investment through various available funds to meet adaptation and mitigation cost.

Rural Water Supply

Climate Risks	Associated Climate Solutions for rural water supply
Drought results in water deficit in spring, tube well and decrease in water availability, compromised services and migration of population (CR1).	**Revise the organogram of local governments to incorporate HR related to rural water (WQ, planning, implementation, and monitoring):** • Dialogue with MOFAGA to incorporate WASH unit/section into organogram of LGs and include WASH indicators, including water quality for climate resilient WASH, into the Local Government Institutional Self-Assessment (LISA), as part of the JSR/Governance thematic group. • Capacity development of WASH unit/sections and service operators (user committees) at all levels (as per revised and approved organogram). • Coordinate with Local Development Training Academy (LDTA) under MoFAGA on already developed CB framework and materials
Due to limited financial resources, water governance, information such as early warning system, ground water monitoring, flood that affect quality, quantity and reliability of water sources and structures (CR2).	**Dialogue with IMCCCC/MOFE for rural water (Institutional reformation, MIS, Financing, data sharing, service model for rural water supply):** • Advocacy for a common platform and to prioritize climate resilience water supply services at rural settings, financing, standard service models with specific programs and plans (WECS, NDRRMA/MOHA, MOFE, MOF, DHM, MOEWRI). • Create a common data-sharing platform between WASH (NWASH) and climate data providers at national and sub national level. • Advocacy for repository of data from all sources. • Analyses of data and monitoring of data.
Due to limited financial resources, water governance, information such as geo-hazard mapping, and landslide affect the quality, quantity and reliability of water sources and	**Review and documentation of best practices of CR intervention and service models and development of standards, Guidelines, SOP, technical options, and technical standards in rural water:**

Climate Risks	**Associated Climate Solutions for rural water supply**
structures (CR3).	Evidence generation of best practices on climate resilient WASH intervention and service models (collection and review of existing information with support from JSR/CC and DRR thematic group). • Review and revision of standards, Guidelines, SOP, technical options, and technical standards incorporating climate change in rural water.

Urban Sanitation

Prioritized Climate Risks	**Associated Climate Solutions for urban sanitation and hygiene**
Urban populations especially children, women, those elderly are more likely to have inadequate/compromised access to sanitation services because of high (and increasing) population density and decreased water availability due to drought (CR1).	**Evidence based planning, budgeting, and financing considering climate resilient and sustainable infrastructure for all in urban areas:** • Collect data related to climatic factors in coordination with other agencies. • Data of loss and damage caused by climatic hazards. • Data related to Climate resilient budget allocation. • Data related to financing for climate resiliency. • Seek climate investment through various available funding sources (e.g. GCF, AF, LDCF, including internal and public as well as private financing)
Due to inadequate guidelines and budget provision for climate resilient sanitation infrastructure, damaged infrastructure requires intensive investment for rehabilitation after breakdowns that leads to financial burden and compromised services for users (CR2).	**Sensitization to urban political leaders regarding climate resilient urban sanitation facility and services:** • Formation of task group. • Review of existing practices for sensitization. • Stakeholder analyses. • Organize sensitization events/capacity building (orientation, exchange visits etc.).
Sanitation infrastructures in urban areas were damaged by landslides, thus creating huge economic losses and regressed coverage of safely managed sanitation in urban areas (CR3).	**Establishing monitoring mechanism, protocol, and guidelines for climate resilient urban sanitation at sector level under leadership of MoWS:** • Establish a coordinated monitoring mechanism/ framing under the leadership of MoWS. • Develop climate resilient design guideline for urban sanitation infrastructure.

Rural Sanitation

<table>
<tr><th>Climate Risks</th><th>Associated Climate Solutions for rural sanitation and hygiene</th></tr>
<tr><td rowspan="3">Accelerated melting of Himalayan glaciers has increased droughts, which has limited safe and proper hygiene practices, leading to risk to users in rural areas (CR1).
In rural areas floods destroy or compromise access to sanitation and hygiene services, leading to rural populations reverting to open defecation. Resulting outbreaks of water-borne disease are likely (CR2).
In case of landslides, sanitation infrastructure gets damaged resulting in economic losses for rural population groups. Accountability at the three tiers of governments is lacking (CR3).</td><td>Interaction programme with the political leaders on Rural Sanitation and Hygiene due to climate change impacts (to influence the making of policies, planning, budgeting, etc.):
Conduct workshop between political leaders and experts – sanitation and climate change regarding impact of CC on RS and hygiene.
National and international visit to showcase the best practice to local leaders regarding CR sanitation and hygiene.</td></tr>
<tr><td>Development of guidelines/manuals/SOPs focussed on Climate resilient facilities and private sector engagement to ensure sanitation services and hygiene are sustainable:
Develop guidelines/ Manuals for CR- rural sanitation and hygiene facilities.
Develop policies/guidelines/standards for private sector engagement in RS and hygiene.
Piloting climate resilient sanitation and hygiene facilities (e.g. public toilets, onsite sanitation, SWM) in PPP modes.</td></tr>
<tr><td>Capacity building activities (trainings/ orientation etc) on climate resilient sanitation services (govt, local service providers):
Capacity need assessment.
Develop capacity development master plan.
Development of training manuals (for sanitation and hygiene in CC) in coordination with LDTA under MoFAGA.
Conduct training /orientation at all municipalities.</td></tr>
</table>

WASH in Health Care Facilities

Climate Risks	Associated Climate Solutions for Health Care Facilities
During droughts, health service seekers including health service providers will have limited access to water supply, leading to poor hygiene practices causing increased incidence of water-borne diseases (CR1).	**Capacity building of WASH and Health actors, stakeholders on CR WASH in HCF:** • Training needs assessment. • Develop training manual/ package in coordination with Ministry of Health and Population as well as and Local Development Training Academy (LDTA) • Training conduction at all levels.
In flood-prone areas, improved pit latrines are prone to get submerged due to inadequate climate-resilient WASH infrastructures posing hindrance to the provision of health services. Additionally, there is a risk of water contamination and environmental pollution increasing public health risks, especially of populations seeking health care (CR2).	**Develop Climate Resilient construction guideline for WASH in HCF retrofitting and new construction:** • Conduct assessment of existing HCF considering CR criteria for climate risks. • Develop design guidelines climate resilient WASH. • Development of improvement plan for CR WASH in HCF. • Implementation of improvement plan for CR WASH in HCF.
In hilly regions, water and sanitation facilities in health care facilities are exposed to landslides due to hilly and fragile landscapes causing disruption to services, and no access to water supply and sanitation facilities in certain health care facilities (CR3).	**Resource mobilization for climate-resilient WASH in HCF:** • Advocacy at 3 tires of government for (Federal>Provincial>Local). • Approach to Donors for resource allocation support. • Develop a proposal for Green Climate Fund (GCF). • Mobilization of the private sector (Banks, Individuals, foundations, etc.).

WASH in Schools

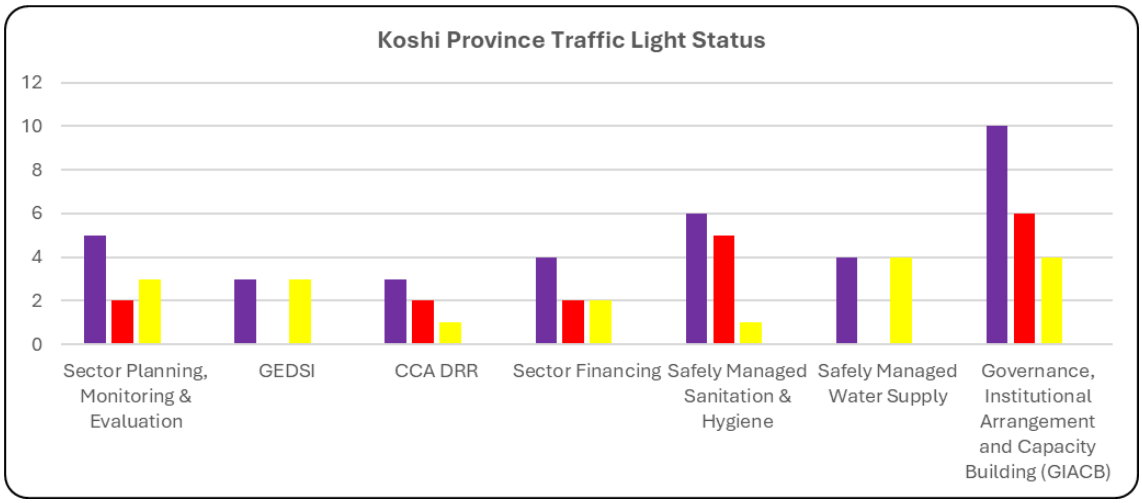
Climate Risks	Associated Climate Solutions for Schools
• Drought-induced water scarcity leads to inadequate hygiene practices, longer time to fetch water with resulting absences and drop-outs (CR1). • Sources impacted by floods may not always be treated and schoolteachers and students are not always trained on adequate water treatment (CR2). • School WASH infrastructure is built not in compliance with construction standards, having un-trained and non-skilled masons, lack of contingency plans, best fit resilient technologies, and adequate funds on time (CR3).	**Design Climate Resilience School WASH facilities Construction Manual in line with three-star approach WASH in School procedure and rollout it at federal, province and local levels:** • Review/revise existing prototype designs of WASH in school facilities and 3 stars approach WASH in School working procedure. • Localization and rollout of construction manual. • Design and Construction of WASH facilities in school for modelling based on CR construction manual and quality assurance applying NWASH MIS system and 3 stars operating procedure. (10 school in each Province)
	Design and implement capacity development package based on capacity assessment report (mason, low-cost water treatment solutions, WASH in School) at federal, province and locals: • Conduct capacity need assessment and prepare report. • Develop capacity development comprehensive plan and roll out at federal, provincial, and local levels through designated training institute in coordination with MoFE. • Human resource development on WASH in School of Technical HR on construction, campaigner, campaign, low-cost water treatment solutions, MHM, hygiene promotion and planner on climate resilient).
	Develop evidence-based climate resilient financing plan for WASH in school: • Consultation workshop with private sectors for increasing investment at federal and province level. • Organize investment summit on WASH in School at Province and local level. • Review existing policies about private sector investment on WINS. • Knowledge management, evidence generation and marketing through project proposals.

Annex - B

Provincial Level Consultation – Results and Key Points

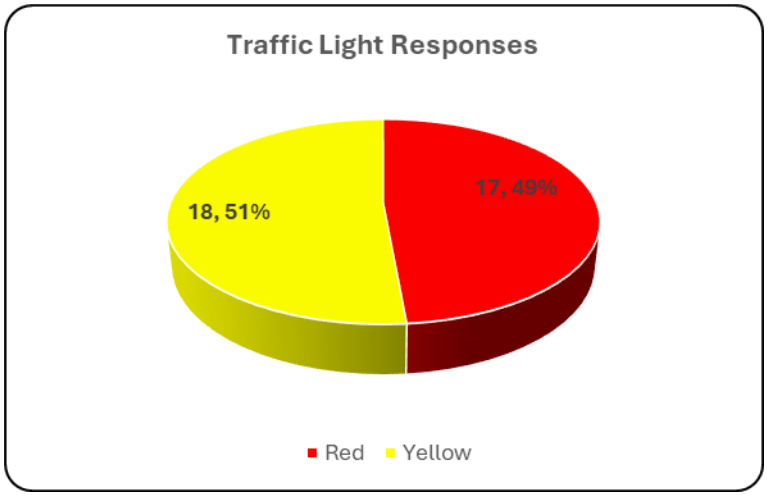
Koshi Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	6	4	-
2	Safely Managed Water Supply Services	4	-	4	-
3	Safely Managed Sanitation Services and Hygiene	6	5	1	-
4	Sector Financing	4	2	2	-
5	GESI	3	-	3	-
6	CCA & DRR	3	2	1	-
7	Sector Planning, Monitoring and Evaluation	5	2	3	-
	Total	**35**	**17**	**18**	**-**
	per cent		***49 %***	***51 %***	**-**



Type of Responses on Traffic Light by thematic groups:

There were altogether 35 traffic light questions in the seven thematic group questionnaires. Out of it, 51 per cent of the traffic lights are in the yellow category. 49 per cent of the traffic lights responses are in the red category and no traffic lights response found in the green category. Two thematic discussions (GESI and SMWS) identified the status yellow in all questions without any red. Safely Managed Sanitation and Hygiene and Governance, Institutional Arrangement and Capacity Building thematic discussion group identified more red status (5 red out of 6 questions and 6 red out of 10 questions respectively) than others.



Responses on Timeframe of Action Plan:

S.N.	Groups	Total	Short Term (within a year)	Medium Term (within 3 Years)	Long Term (after 3 years	N/A
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	37	12	17	8	-
2	Safely Managed Water Supply Services	11	6	5	-	-
3	Safely Managed Sanitation Services and Hygiene	2	1	1	-	-
4	Sector Financing	8	3	5	-	-
5	GESI	11	4	7	-	-
6	CCA & DRR	12	5	5	2	-
7	Sector Planning, Monitoring and Evaluation	11	-	5	6	-
	Total	**92**	**31**	**45**	**16**	**-**

The timeframe is focused to get groups' perspectives on when they are likely to complete the planned activities. Altogether there were 92 time-frame questions in this exercise. Out of 92 proposed activities, the groups believed that 31 (34 per cent) numbers of activities will complete within a year. Similarly, 45 (49 per cent) activities planned for the Medium Term and 16 (17 per cent) action points planned for the Long Term that takes more than 3 years.

Traffic Light Vs Action Plans:

Out of 35 Traffic Light questions, there was not any green Traffic Light response, which corresponds to 'No Action Required'. The other two traffic lights, yellow and red, require actions to accomplish in the short, medium, and long term. The short, medium, and long terms are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	6	7	4
		Red	6	10	4
2.	Safely Managed Water Supply Services	Yellow	6	5	-
		Red	-	-	-
3.	Safely Managed Sanitation Services and Hygiene	Yellow	1	1	-
		Red	-	-	-
4.	Sector Financing	Yellow	2	4	-
		Red	1	1	-
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	4	7	-
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	2	3	1
		Red	3	2	1
7.	Sector Planning, Monitoring and Evaluation	Yellow	-	2	4
		Red	-	3	2
Total		**92**	**31**	**45**	**16**

Summarizing the responses of all seven thematic groups, out of 18 Yellow Traffic Light Questions, 21 responses were short, 29 were medium, and 9 were long term plans. Similarly, out of 17 Red Light Questions, 10 responses were short, 16 were medium and 7 were long term plans.

	Short	Medium	Long	N/A	Total
Green (-)	-	-	-	-	**-**
Yellow (25)	21	29	9	-	**59**
Red (10)	10	16	7	-	**33**
Total	**31**	**45**	**16**	**-**	**92**

CONCLUSIONS OF THEMATIC GROUP:

This section summarizes the additional action-plans of the concerned thematic group's consultations and the end-remarks of each group. The end-remarks of thematic consultation groups are the reflections of opinions and recommendations for the status of improvement of concerned themes in the sector. The remarks are at the end of each questionnaire where the groups asked to reflect their opinion on status. Following is some of the reflections:

S.N.	Groups	Overall conclusion and insight of the workshop
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	• Dedicated WASH section to be established at each local level. • Prepare plans and policies for WASH programs within one year of budget allocation at each level along with the establishment of WASH section and make them accountable. • An additional action point is to prepare directives and design guidelines. • The directives and design guidelines should be prepared within three years. • Need for capacity enhancement of WASH focal person. • Timely decision made for the needs. • Need for establishment of legal frameworks within time. - The timely formulation of policy/act/regulation/ guidelines and institutional mechanism. Koshi Province lacks the policy making and fund allocation for the WASH program. - All actions identified during the group discussions are necessary to comply in all the Palikas and municipalities of the province. - Inadequate HR and finance are the major bottleneck both at the provincial and local government level.
2	Safely Managed Water Supply Services	• A major action point to ensure operational capacity of safely managed water supply services is establishment of water testing labs in each local government. • N-WASH MIS and essential information should be accessible to local and concerned authorities. - Preparation of plans of local government should be a priority. - Public awareness activities on water quality are a must. - Supporting agencies should have trained sufficient human resources. - Organize yearly progress update and learning/sharing events. - This type of event/ workshop (JSR) should be conducted periodically e.g., once every three years. - It is not possible to achieve WASH target/SDG goals without proper financing framework. - Quality assurance and coverage should be majorly focused.
3	Safely Managed Sanitation Services and Hygiene	• Need for budgeting for WASH Plan. • Draft of WASH Act has been prepared. • Provincial Policy of One House One Tap. • Safely managed sanitation programs not developed, and goals not set. • Goal of formulating Municipal WASH Plan in this fiscal year. • Regarding Key Bottleneck analysis, there is not any discussion made, and no plans prepared for mitigating the bottleneck.

S.N.	Groups	Overall conclusion and insight of the workshop
		• One water quality lab in support of the federal government, and no mechanism and human resources. • Federal water quality lab in Sunsari, but no other mechanism for monitoring and compliance management. • Regarding comprehensive understanding and suitability analysis, some Municipalities including Biratnagar MPC, Itahari, Dharan, Bhojpur; but no coordination made with the provincial government. • Regarding standardization and regulating mechanism, initiation in the municipality level but not in the provincial level. • No mechanism of public disclosure and reporting. • Must have political will and commitment from leaders. • Envisaged policy reform and development of regulations from elected representatives of Municipalities and officials. - Without full commitment from local governments and support of Provincial and Federal government, the efforts of Safely Managed Sanitation Services and Hygiene are not possible. - Foundation not created (Acts, Policy, Plan, Master Plan). - Insufficient dedicated human resources. - Insufficient budgeting. - Lack of mechanism (value chain, competent management, coordination, documentations, and reporting). - Expedite public awareness activities in communities and local level. - Support from Provincial and Federal Government is the must, and it should be visible with support and inter-governmental coordination.
4	Sector Financing	• Local level WASH plan prepared in 9 out of 116 *Palikas* in Koshi Province; 6 are in Sunsari- Gadhi, Barahakshetra, Barju, Inaruwa, Duhabi, Ramdhuni; and Maiwakhola in Taplejung, Sotang in Solukhumbu and PanchKhapan in Sankhuwasabha. • Additional action point regarding WASH investment requirement plans as 'Coordination and integration of WASH Plan in budget. • Sharing of funds in WASH planning is in process. • Act, regulation, procedure of province and local level is the additional action plan for WASH financial strategy, guiding documents, and financial procedure to meet investment plan. • WASH investment summit, project information, handover, coordination mechanism envisioned by the group on short-term action for WASH financial strategy to draw international/ bilateral/ multilateral and inter-governmental investment. • The participants are aware about the investment strategy for obtaining international/ bilateral, multi-lateral and inter-

S.N.	Groups	Overall conclusion and insight of the workshop
		governmental investment but it is not possible immediately. So, the actions are planned as medium-term within three years. All are aware and sensitized about these issues yet to be materialized. • Regarding private sector financing in WASH, the group mentioned Water Supply as Industries of Bottle, Jar and Tankers. Similarly septic tank emptying services for sanitation. • The group identified for Conference of BFIs and MFIs for financing leverage in WASH. • Political commitment is a must for the sector's development; the worst condition exists due to political biasness. - WASH Plan should be prepared based on fact base, disintegrated data, and real needs of community; the existing situation is lack of such data and plan. - Budget allocation must be the priority. - Exploring the resources and management is immediate need in sector.
5	Gender Equality, and Social Inclusion (GESI)	• Suggestion to include 'Gender WASH Monitoring Tools' during FGDs of NWASH data collection. • No meaningful participation in decision making regarding GESI consideration is reflected in WASH policy, plan, and legal frameworks. • Additional action point as proper implementation of GESI policy regarding of GESI representative are heard. • Concluded as 'Koshi Province has medium status of GESI'.
6	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	• No clear funding/ budgeting or resources to implement WASH Plan/ activities. • The group recommended two separate timeframes for action plan 2 of planning and implementation process: medium term for planning and long term for implementation. • There are not any guidelines/ working procedure/ standards for mainstreaming CCA and DRR at Province Level in Koshi Province • It is time to review and update the WASH Plan at a local level for proper budget allocation, periodic planning and implementation integrating DRR and CCA. - More representatives from Provincial Government representing different sectors. - Some Rural Municipalities (RMs) have budgets to address climate change and disaster risk but have not identified yet the technical human resource.

S.N.	Groups	Overall conclusion and insight of the workshop
		- Need to identify, coordinate, and collaborate with lead government authority and relevant organizations to work in CCA and DRR in local level WASH sector.
7	Sector Planning, Monitoring and Evaluation	• At provincial level, some but limited knowledge about local level WASH Plan; some knowledge obtained after the orientation of federal government on WASH Plan. • WASH Plan is being prepared aligning with SDG6 and localization of sector goals and indicators. • Local level WASH Plan prepared in 9 out of 116 *palikas* in Koshi Province; 6 are in Sunsari- Gadhi, Barahakshetra, Barju, Ineruwa, Duhabi, Ramdhuni; and Maiwakhola in Taplejung, Sotang in Solukhumbu and PanchKhapan in Sankhuwasabha. • The group identified a need to complete all local level WASH Plan using NWASH database within 3 years and put a medium-term action plan for it. • Regarding action points in priority programs and projects of WASH Plan included and budgeted in annual fiscal plan, the group suggested 'not only local government but provincial and federal government needs to budget as per the priority of local level WASH Plan. However, the provincial government has not prioritized budget as plan, the WASH Plan but federal government has allocated budget as per the plan. The Provincial Government has been investing in an ongoing project. Local government has allocated budget but is not adequate. For example: Budgeted for WASH champions to run campaign in community for awareness, update data using N-WASH. Rural municipality verifies it but not uploaded in cloud so far. RM has issued sanitation identity card with indicators from N-WASH, based on which RM provides services using Swachha app from plan. • Barahakshetra Municipality budgeted in WASH champions but not sanitation services; Barju RM has a plan to distribute sanitation card; similar plan of Gadi Rural Municipality. • The revision and adjustment in WASH Plan should follow the three-year contingency plan to address any oversights during the planning phase or resulting from unforeseen disasters. • Required tracking and analysis of WASH expenditure is necessary but lacks capacity and priority to do so at local level. So, an incremental basis budgeting is done. • For tracking and analysing percentage of GDP expenditure in WASH, GDP calculation is required.

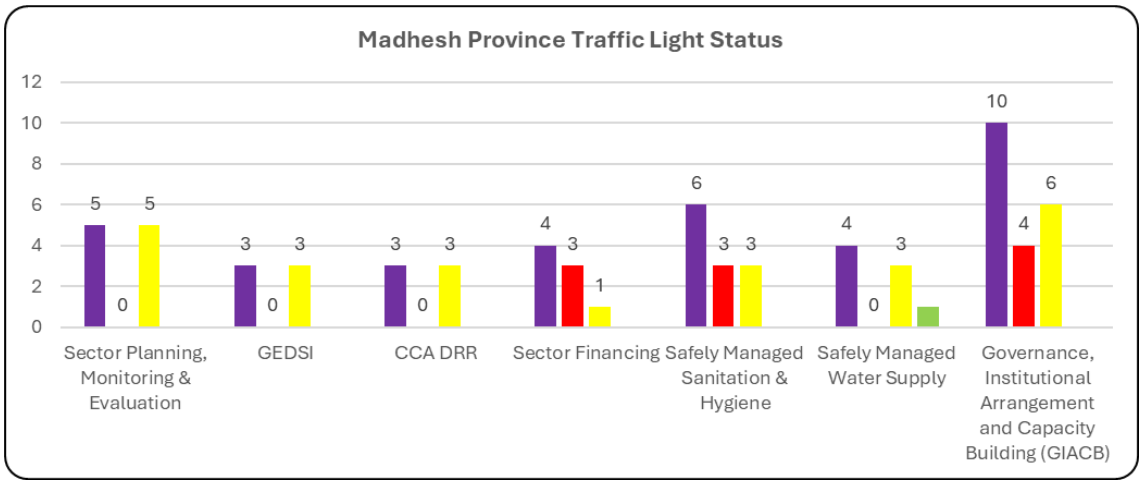
S.N.	Groups	Overall conclusion and insight of the workshop
		• Regarding MIS unit in province and local level, the group mentioned that M&E section is present in provincial/ local Government; there is monitoring committee at each local level. • The group thinks that establishing MIS unit in local level should be approved by cabinet decision. • Additional action point for MIS unit at province and local level as 'capacity enhancement of focal unit'. • Due to lack of human resources and capacity at the local level, the Federal government must support and lead local level WASH Plan formulation. - M&E unit is existing in Provincial Level; Local Governments has M& Committee. - WASH Plan completed so far in 9 (Rural) Municipalities - Mechanism of updating data started in two Rural Municipalities and one Municipality. - NWASH MIS needs to be strengthened. - Budget needs to be allocated not only by local government but also by provincial and federal government as per the priority of WASH Plan. - Proper system needs to be established for tracking progress and monitoring the budget flow

SUMMARY OBSERVATIONS:

- The participation in thematic discussion was active and insightful.
- The high per centage of Yellow Traffic Light suggests that there is some understanding of the sectoral issues and opportunities among the participants, stakeholders, and partners.
- Most of the emerging challenges and developments in all themes are not adequately translated at *Palikas* and community levels.
- Most of the groups prioritized Local level WASH Plan to be prepared and implemented properly, the WASH Plan to be materialized into periodic planning and budget allocation for annual budget and plan of the concerned Municipalities and Rural municipalities.
- Exploring and leveraging climate finance opportunities for WASH, NAP and NDC implementation.
- Limited guidelines and standards for mainstreaming Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) at Province and Local levels,
- Limited knowledge and capacity gaps to address CC/DRR issues in WASH,
- Limited Inter-sectoral Linkage, learning, and exchange (e.g.- with forestry, irrigation, water resources, etc.).

Madhesh Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	4	6	-
2	Safely Managed Water Supply Services	4	-	3	1
3	Safely Managed Sanitation Services and Hygiene	6	3	3	-
4	Sector Financing	4	3	1	-
5	GESI	3	-	3	-
6	CCA & DRR	3	-	3	-
7	Sector Planning, Monitoring and Evaluation	5	-	5	-
	Total	**35**	**10**	**24**	**1**
	per cent		***29 %***	***69 %***	***2 %***



Responses on Timeframe of Action Plan:

S.N.	Groups	Total	Short Term (within a year)	Medium Term (within 3 Years)	Long Term (after 3 years	N/A
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	29	8	21	-	-
2	Safely Managed Water Supply Services	10	7	2	-	1
3	Safely Managed Sanitation Services and Hygiene	13	3	10	-	-

S.N.	Groups	Total	Short Term (within a year)	Medium Term (within 3 Years)	Long Term (after 3 years	N/A
4	Sector Financing	11	6	2	3	-
5	GESI	10	6	4	-	-
6	CCA & DRR	11	11	-	-	-
7	Sector Planning, Monitoring and Evaluation	13	10	1	2	-
	Total	**97**	**51**	**40**	**5**	**1**

The timeframe is focused to get groups' perspectives on when they are likely to complete the planned activities. Altogether there were 97 time-frame questions in this exercise. Out of 97 proposed activities, the groups believed that 51 (53 per cent) numbers of activities would be complete within a year. Similarly, 40 (41 per cent) activities planned for the Medium Term and 5 (5 per cent) action points planned for the Long Term that takes more than 3 years.

Traffic Light Vs Action Plans:

Out of 35 Traffic Light questions, there was one green Traffic Light response, which corresponds to 'No Action Required'. The other two traffic lights, yellow and red, require actions to accomplish in the short, medium, and long term. The short, medium, and long terms are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	2	13	-
		Red	6	8	-
2.	Safely Managed Water Supply Services	Yellow	7	2	-
		Red	-	-	-
3.	Safely Managed Sanitation Services and Hygiene	Yellow	3	1	3
		Red	-	9	-
4.	Sector Financing	Yellow	4	-	-
		Red	2	2	2
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	6	4	-
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	11	-	-
		Red	-	-	-

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
7.	Sector Planning, Monitoring and Evaluation	Yellow	10	1	-
		Red	-	-	-
Total		**96**	**51**	**40**	**5**

Summarizing the responses of all seven thematic groups, out of 18 Yellow Traffic Light Questions, 21 responses were short, 29 were medium, and 9 were long term plans. Similarly, out of 17 Red Light Questions, 10 responses were short, 16 were medium and 7 were long term plans.

	Short	Medium	Long	N/A	Total
Green (-)	-	-	-	1	**1**
Yellow (24)	43	21	3	-	**67**
Red (10)	8	19	2	-	**29**
Total	**51**	**40**	**5**	**1**	**97**

CONCLUSIONS OF THEMATIC GROUP:

This section summarizes the additional action-plans of the concerned thematic group's consultations and the end-remarks of each group. The end-remarks of thematic consultation groups are the reflections of opinions and recommendations for the status of improvement of concerned themes in the sector. The remarks are at the end of each questionnaire where the groups asked to reflect their opinion on status. Following is some of the reflections:

S.N.	Groups	Overall conclusion and insight of the workshop
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	• The National Strengthening Programme for Local Government on WASH Plan Preparation is a must. • Acceleration of cost-sharing WASH programmes (local & national) is also needed for improving access to the WASH facilities. • Close monitoring by the provincial government based on indicators of service providers should be done. • Need for the Sanitation Scaling up programme with HR, Finance, and Exposure. • Coordination mechanisms must be strengthened among all levels of government. • Policy and regulatory frameworks are not properly formulated and enforced.
2	Safely Managed Water Supply Services	• In Lahan WQ testing is fairly done, & WQ tested on regular basis (need to upload in N-WASH) while in case of Hanspur WQ equipment is under procurement process. • There was High awareness on Safely Managed Water Supply. • Promotion and encouragement required at local level.

S.N.	Groups	Overall conclusion and insight of the workshop
3	Safely Managed Sanitation Services and Hygiene	• Rules & Regulations must be formulated, endorsed, and enforced for sustainable service delivery. • Some understanding is there, and some good municipal initiatives are present. • However, their lack of uniform understanding seems to be the key issue. • Limited activities have been carried out though some major infrastructure investment is required. • National Campaign design for inclusive Urban/ Municipal Sanitation & Hygiene services (Sanitation as Accelerating National Mission). • Expediting actions for the endorsement of SDP and Hand hygiene for all (HH4A) roadmap. • Finalization and endorsement of Municipal Wide Inclusive Sanitation Guideline.
4	Sector Financing	• Without proper financing framework it is not possible to achieve WASH target/SDG goals. • Need technical support for almost all plans. • Investment of multiple stakeholders in WASH activities. • Low financial commitment by federal and provincial levels. • Budgeted WASH plans are not taken as a financial instrument. • Lack of Full Cost Business Plans. • Limited enabling environment for private sectors for investment.
5	Gender Equality, and Social Inclusion (GESI)	• In some palika there is good practices. • Good practices need to be replicated. • Province & Palika level policies need to be formulated and implemented and need to be enforced. • Needs GESI Action Plan (Stand-alone). • GESI Plans to be prepared, implemented, and enforced.
6	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	• Mapping of the water sources is to be done as source depletion is becoming to be an issue. • Integrate schools' teachers for Disaster Resilient Structure. • Identification of disaster-prone hotspot (Safe zone identification) - safe centre shelter. • Promote Climate resilience agriculture. • O&M ownership & fund - Monitoring • Evidence based local level studies. • Involvement of a wider stakeholders' group (schools or farmers) for better resilience. • Implementation of Climate Resilience initiatives (Agriculture, infrastructures, and others).

S.N.	Groups	Overall conclusion and insight of the workshop
7	Sector Planning, Monitoring and Evaluation	• The WASH Plans should be prepared by the Federal/ Provincial government with cutoff date. • Capacity building is required to implement the WASH plans. • Establishment of WASH unit incorporating in Palika's Organogram (legitimacy) with dedicated budget. • Expenditure & budget tracking need to made mandatory. • Provincial WASH Plan/WASH Act must be in place. • Allocation of budget by both province and palika for planning, monitoring and evaluation.

SUMMARY OBSERVATIONS:

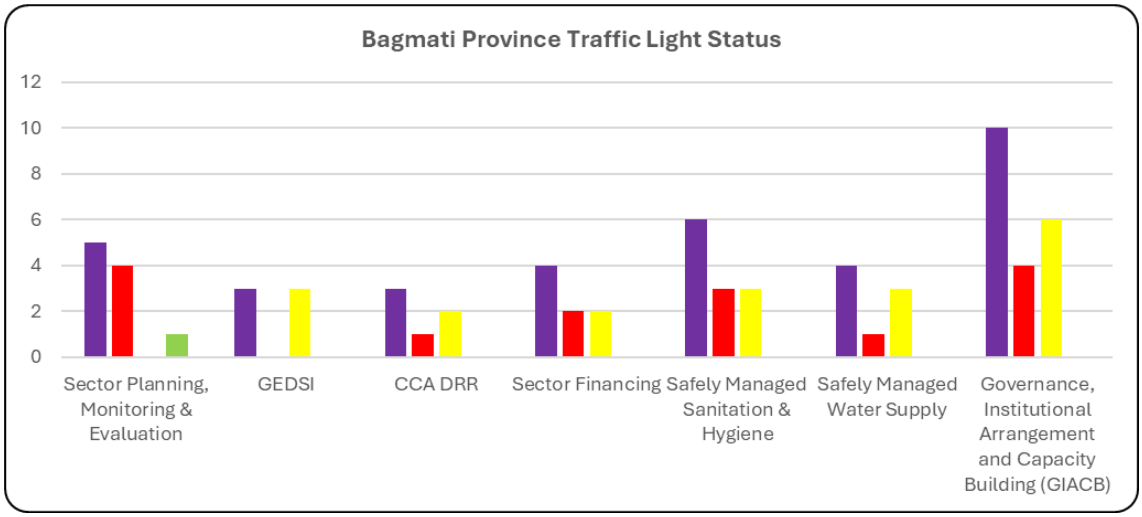
- The large no. of participation which is encouraging.
- There is a better understanding of Safely Managed Water Supply than other thematic subjects.
- High % of Yellow Traffic Light suggests that there are some understandings of the sectoral issues and opportunities.
- Most of the emerging sanitation challenges and developments are not adequately translated at Palika and community levels.
- Preparation and endorsement of Sector Development Plan (SDP), Hand hygiene for all (HH4A) roadmap, Municipal Wide Inclusive Sanitation Guideline etc.
- National Local Government strengthening programme for WASH is needed for enhancing the capacity of local government and increased service delivery,
- Need for strengthening regulatory framework and KPIs,
- Design and expansion of safely managed water supply services,
- Low Income communities addressed through various mechanisms for access to services,
- Design of National Campaign for inclusive Sanitation & Hygiene services (Sanitation as Accelerating National Mission),
- Required clear guideline and framework for GESI in WASH,
- Need for the Identification of disaster-prone hotspots,
- Need for Proper Financing Framework and Multi stakeholders' investment tracking system,
- Most of the groups prioritized "WASH Plans" to be prepared and to be utilized.
- There are good practices at Palika Levels but mostly it is in isolation.

Bagmati Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	4	6	-
2	Safely Managed Water Supply Services	4	1	3	-
3	Safely Managed Sanitation Services and Hygiene	6	3	3	-
4	Sector Financing	4	2	2	-
5	GESI	3	-	3	-
6	CCA & DRR	3	1	2	-
7	Sector Planning, Monitoring and Evaluation	5	4	-	1
Total		**35**	**15**	**19**	**1**
per cent			***43 %***	***54 %***	***3 %***

Type of Responses on Traffic Light by thematic groups:

There were altogether 35 traffic light questions in the seven thematic group questionnaires. Out of it, 43 per cent of the traffic lights were found to be yellow. 54 per cent of the traffic lights responses were found to be Red and 1 (one) traffic light response found to be Green. Sector Planning, Monitoring and Evaluation thematic discussions identified the status red in 4 questions and one as green. GESI thematic discussion group identified yellow status in all questions.



Responses on Timeframe of Action Plan:

S.N.	Groups	Total	Short Term (within a year)	Medium Term (within 3 Years)	Long Term (after 3 years	N/A
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	31	15	13	3	-
2	Safely Managed Water Supply Services	10	2	3	5	-
3	Safely Managed Sanitation Services and Hygiene	16	6	10	-	-
4	Sector Financing	10	2	3	5	-
5	GESI	12	8	3	1	-
6	CCA & DRR	11	5	6	-	-
7	Sector Planning, Monitoring and Evaluation	9	6	3	-	-
	Total	**99**	**44**	**41**	**14**	**-**

The timeframe is focused to get groups' perspectives on when they are likely to complete the planned activities. Altogether there were 99 time-frame questions in this exercise. Out of 99 proposed activities, the groups believed that 44 (44.4 per cent) number of activities would be complete within a year. Similarly, 41 (41.4 per cent) activities planned for the Medium Term and 14 (14.2 per cent) action points planned for the Long Term that takes more than 3 years.

Traffic Light Vs Action Plans:

Out of 35 Traffic Light questions, there was one green Traffic Light response, which corresponds to 'No Action Required'. The other two traffic lights, yellow and red, require actions to accomplish in the short, medium, and long term. The short, medium, and long terms are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	9	8	2
		Red	6	5	1
2.	Safely Managed Water Supply Services	Yellow	2	2	3
		Red	-	1	2
3.	Safely Managed Sanitation Services and Hygiene	Yellow	2	6	-
		Red	4	4	-

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
4.	Sector Financing	Yellow	2	2	4
		Red	-	1	1
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	8	3	1
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	1	5	-
		Red	4	1	-
7.	Sector Planning, Monitoring and Evaluation	Yellow	-	-	-
		Red	6	3	-
Total		**99**	**44**	**41**	**14**

Summarizing the responses of all seven thematic groups, out of 19 Yellow Traffic Light Questions, 24 responses were short, 26 were medium, and 10 were long term plans. Similarly, out of 15 Red Light Questions, 20 responses were short, 15 were medium and 4 were long term plans.

	Short	Medium	Long	N/A	Total
Green (1)	-	-	-	1	**1**
Yellow (19)	24	26	10	-	**60**
Red (15)	20	15	4	-	**39**
Total	**44**	**41**	**14**	**1**	**100**

CONCLUSIONS OF THEMATIC GROUP:

This section summarizes the additional action-plans of the concerned thematic group's consultations and the end-remarks of each group. The end-remarks of thematic consultation groups are the reflections of opinions and recommendations for the status of improvement of concerned themes in the sector. The remarks are at the end of each questionnaire where the groups asked to reflect their opinion on status. Following is some of the reflections:

SN	Thematic Area	Action points to be considered
1	Governance, Capacity Building and Institutional Arrangements	- Political Commitment - Resource Allocation and Regular Monitoring - Preparation of Policy, Strategy, Legal Frameworks, and Regulation - WASH Plan preparation - project selection and implementation based on Plan - Capacity Building/ Sensitization/ Persuasion of Elected Representatives - WUSCs Registration and Accountability Check

SN	Thematic Area	Action points to be considered
		- Institutional setup – WASH Unit - Development of WASH Resource learning sharing platform - Regularize WASH-CC meetings at provincial, Palika and Ward level.
2	Safely Managed Water Services	- Dissemination of National Drinking Water Quality Standard at local level, - Preparation of Standard Operating Procedure for different water quality standard, - Regularize Chlorination – to minimize water and sanitation borne diseases, - Automatic dosing mechanism to be accelerated, - Implementation of Climate Resilient Water Safety Plan (CR-WSP), - Capacity development of Water Users and Sanitation Committee on Water Quality and Safety, - Water Quality Laboratory Facility at Palika Level.
3	Safely Managed Sanitation Services	- Sensitization to local government's political leadership, and focus to integration of sanitation at their annual program, - Total Sanitation and safely managed sanitation should align with WASH Plan, - Very limited FSM and Wastewater effluents test facility, - Integrated long-term planning for liquid and solid waste management at Palika level, - Sanitation Value/Service Chain to prioritize and engagement of Private Sector / Sanitation Workers, - Focus to Citywide Inclusive Sanitation (CWIS) at Urban areas.
4	Sector Financing	- Resource limitation to complete water supply and sanitation schemes, - Lack of WASH financing strategy, guiding document and as such lack of WASH Plan, - Focus to prepare investment plan for every 3 years Strategy, - Resource Leverage on WASH Financing, - Co-financing and Cost Recovery Model, - Public and Private Sector Engagement (PPP).
5	Gender Equality and Social Inclusion	- Gender Disability and Social Inclusion (GEDSI) should be collaborated in WASH Plan, - Equity and Equality based sectoral Planning and Sectoral GEDSI Policy, Plan and Program,

SN	Thematic Area	Action points to be considered
		- Prepare guideline for the sanitation worker of informal settlement, - Include WASH in LISA indicator of local level, - GEDSI Audit need to be focused, - Ensure participation of women in every workshop and seminar.
6	Climate Change Adaptation and Disaster Risk Reduction	- Focus on Climate Resilient Water Supply and Sanitation System Management, - Climate Change (CC) and Disaster Risk Reduction (DRR) intervention is not started, should harmonize in WASH Plan / N-WASH system, - Localization of NAP and LAPA, focus on Vulnerability Risk Assessment (VRA), - WASH Unit should also harmonize with CC, - 3R's principle (Reuse, Recycle and Retention) should start to preserve and spring sources.
7	Sector Planning, Monitoring and Evaluation	- WASH Planning as per SDG target – budgeting and Expenditure tracking, - Focus to Operation and Maintenance (O&M) management of Water Supply Schemes, - WASH Unit need focus to Management Information System (MIS) at Local Palika, - Crosscutting issues – CC, DRR and GEDSI should also be harmonized at MIS, - Focus to WASH sector Disaggregated data collection, also Climate Change (CC) data, - Regular Progress Review and Cross-sector Collaboration.

SUMMARY: TAKE AWAY MESSAGE

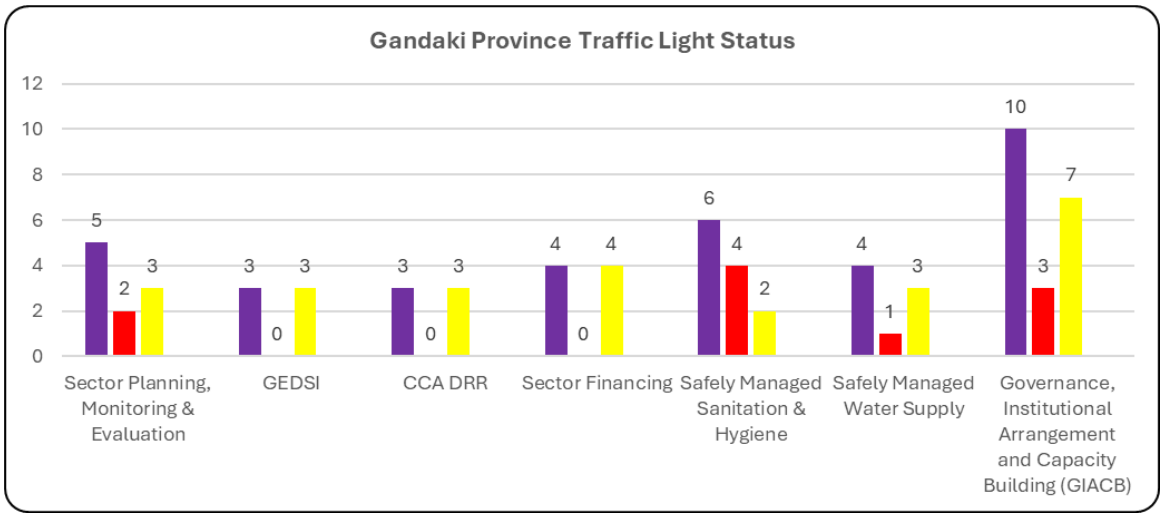
Joint Sector Review of Bagmati Province focused on Safely Managed Water Services (SMWS). But workshop has discussed on all thematic areas and developed following key take away messages:

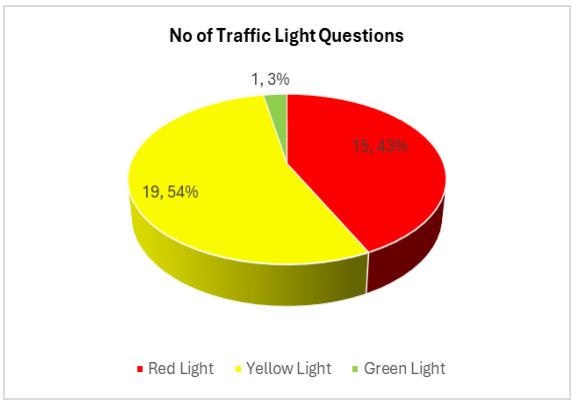
- Catalyse Political Commitment and enhance Mutual Accountability Mechanisms among stakeholders to accelerate actions towards achieving SDG 6.
- Establish systemic support services and a Federal-level setup to aid Provincial and Local levels in creating resilient assets, improving water service delivery and enhancing regulation,
- Establish & Capacitate authorities for regulation of water supply services as provisioned in the Act.
- Regularize the chlorination to ensure quality of supplied water.

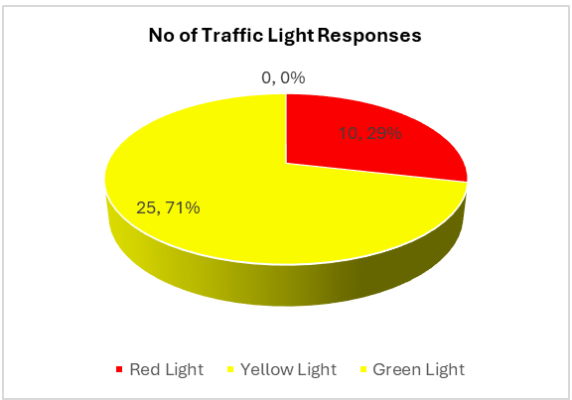
- Create Institutional setups and Programs to Backstop the water supply service providers, including WUSCs, for improved service reliability and operational management efficiency,
- Focus on Citywide Inclusive Sanitation (CWIS) and FSM and wastewater quality standard to be set and need laboratory facility for effluent standard.
- Inclusion of WASH sector indicators in existing LISA indicators and needs to focus on regular GESI Auditing.
- WASH Unit needs focus to Management Information System (MIS) at Local Palika for planning and harmonizing crosscutting issues – CC, DRR and GESI.
- Localization of NAP and LAPA, focus on Vulnerability Risk Assessment (VRA) on Water Supply and Sanitation Schemes.
- Resource Leveraging and Co-financing and Cost Recovery Model on WASH sector strengthening.
- Foster networking and partnership with CSOs: MUAN, NARMIN, FEDWASUN etc. for improved advocacy and accountable water service delivery.
- Promote intersectoral collaboration and implement programs for the protection of water sources and their watersheds.

Gandaki Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Sector Planning, Monitoring and Evaluation	5	2	3	-
2	Safely Managed Water Supply Services	4	1	3	-
3	Safely Managed Sanitation Services and Hygiene	6	4	2	-
4	Sector Financing	4	-	4	-
5	GESI	3	-	3	-
6	CCA & DRR	3	-	3	-
7	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	3	7	-
	Total	**35**	**10**	**25**	**-**
	per cent		***29 %***	***71 %***	**-**







Type of Responses on Traffic Light by thematic groups:

There were altogether 35 traffic light questions in the seven thematic group questionnaires. Out of it, 71 per cent of the traffic lights were found to be yellow. 29 per cent of the traffic lights responses were found to be Red and no traffic lights response were found to be Green. Three thematic discussions (GESI, CCA DRR and Sector Financing) identified the status yellow in all questions without any red. Safely Managed Sanitation and Hygiene thematic discussion group identified more red status (4 red out of 6 questions) than others.

Responses on Time Frame of Action Plan:

S.N.	Groups	Total	Short Term (Within a year)	Medium Term (Within 3 years)	Long Term (After 3 years	N/A
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	35	12	23	-	-
2	Safely Managed Water Supply Services	11	5	4	-	2
3	Safely Managed Sanitation Services and Hygiene	24	9	15	-	-
4	GESI	12	6	5	-	1
5	Sector Financing	12	3	9	-	-
6	CCA & DRR	10	3	6	1	-
7	Sector Planning, Monitoring and Evaluation	11	-	11	-	-
	Total	**115**	**38**	**73**	**1**	**3**

The timeframe questionnaire focused to get groups' perspectives on when they likely to complete the planned activities. Altogether there were 115 questions in this exercise. Out of 115 proposed activities, the groups believed that 38 (33 per cent) numbers of activities can be completed within a year. Similarly, 73 (63 per cent) activities have been planned for the Medium Term.

Traffic Light VS Action Plans:

Out of 35 Traffic Light questions, there was not any green Traffic Light response, which corresponds to No Action Required. The other two traffic lights, yellow and red, require actions to accomplish in the short, medium, and long term. The terms as short, medium and long are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	12	13	-
		Red	-	10	-
2.	Safely Managed Water Supply Services	Yellow	6	5	-
		Red	-	-	-
3.	Safely Managed Sanitation Services and Hygiene	Yellow	3	5	-
		Red	6	10	-
4.	Sector Financing	Yellow	3	9	-
		Red	-	-	-
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	6	6	-
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	3	6	1
		Red	-	-	-
7.	Sector Planning, Monitoring and Evaluation	Yellow	-	4	-
		Red	-	7	-
Total		**115**	**39**	**75**	**1**

Summarizing the responses of all seven thematic groups, out of 25 Yellow Traffic Light Questions, 33 responses were short, 48 responses were medium, and 1 response was Long Term Plans. Similarly, out of 10 Red Light Questions, 6 responses were short, and 27 responses were Medium Term Plans.

	Short	Medium	Long	N/A	Total
Green (-)	-	-	-	-	**-**
Yellow (25)	33	48	1		**82**
Red (10)	6	27	-		**33**
Total	**39**	**75**	**1**		**115**

CONCLUSIONS OF THEMATIC GROUP:

This section summarizes the additional action-plans of the concerned thematic group's consultations and the end-remarks of each group. The end-remarks of thematic consultation groups are the reflections of opinions and recommendations for the status improvement of concerned themes in the sector. The remarks are at the end of each questionnaire where the groups were asked to reflect their opinion on status. Following are some of the reflections:

S.N.	Groups	Overall conclusion and insight of the workshop
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	• All actions identified during the group discussions are necessary to comply in all the *Palikas* and municipalities of the province. • Gandaki province Water and Sanitation Act (2079), Electricity Subsidy Directive on lift water supply, Water standards are being prepared. Sanitation has not received a political priority. Regulation of service providers is a must and there is interest in preparing it. In Waling Municipality, no policy and Act exist. Source registration and WSUC registration is done as per Water Resource Act • The province's thinking is to initiate dialogue with all the Palikas for the preparation of Water Supply and Sanitation Regulation and standards. • Attention: SEIS to review MoFAGA letter issued to LGs to establish WASH Unit and draw action to follow-up. • The province has a dedicated WASH Section with one DE and 4 engineers for which vacancy announcement is being initiated. • Need to lobby for adequate HR with MoFAGA through different channels: MPs, media. • Inadequate HR and finance are the major bottleneck both at the provincial and LG level. • Establishment of provincial coordination mechanism between three tiers of government and concerned stakeholders is the first initiation where representatives from three tiers of government came together. Coordination mechanism needs to be embedded into the LG Act so that its application becomes binding. • Additional action point regarding effective provincial coordination mechanism: Documentation and monitoring the extent to which coordination mechanism is effective needs to be attempted. • 14 service providers are registered under the district water resource committee, and not under Palika. • The weakest area to be focused on urgency is the establishment of a regulatory framework with the provision of licensing and preset KPI to deliver both Water and Sanitation services. • Needs to be initiated by the national WASH Training Centre in a phased approach. • Regarding WASH capacity gap assessment and capacity development plan, the national WASH Training Centre should initiate a phased approach.

S.N.	Groups	Overall conclusion and insight of the workshop
		• Overall conclusion and insight of the workshop: 1. While province and Palika and Municipality have authority and responsibility for the management of provincial and local water and sanitation services, these are largely unfunded mandates both in terms of inadequate financing and inadequate HR capacity. 2. Design and implementation of the federal led LG strengthening programme is critically needed. 3. Need to formally establish and empower M-WASH Units backed up by adequate HR, skills, and knowledge. 4. Transformation towards utility operations based on corporate culture is required, need to start with categorization of service provides and application of phased KPIs and regular monitoring by the Municipality. 5. Sanitation has not received due attention in the province. Safe sanitation programme needs to be prioritized in periodic plans, programmes and budgets. 6. The water supply and sanitation services will need to be regulated through licensing arrangements.
2	Safely Managed Water Supply Services	• Additional action points regarding proper understanding about safely managed water supply are awareness programs and activities at users and consumers levels. • Capacity building of local level, water supply agencies and authorities in provincial and federal governments will result proper program designing for safely managed water supply system. • Political commitment is the most motivational factor for achieving SDG 6.1 as a safely managed water supply at community level all over the country. • Provincial and local government should be able to implement programs, policy, policies and strategy to achieve SDG. • Expansion of mini-lab and availability of kits for water testing laboratories at local level will enhance the quality of water at consumer level. • A major action point to ensure operational capacity of safely managed water supply services is establishment of water testing labs in each local government. • N-WASH MIS and essential information should be accessible to local and concerned authorities. • Water testing data needs to be uploaded in N-WASH.

S.N.	Groups	Overall conclusion and insight of the workshop
		• An additional action point regarding public disclosure and reporting mechanism for assurance of water quality is Consumer Satisfaction Survey on Water Quality. • For more transparent disclosure of water quality rest result and accountability of water quality, need to enhance the reporting system in digital platform. - Public awareness activities to be expedited in communities and local level. - Without proper financing framework, it is not possible to achieve WASH target/SDG goals. - Major focus to be granted on quality assurance and quality coverage. - The important factor for Safely Managed Water Supply Services is to acquire political commitment from local, provincial, and federal governments. - Strong advocacy needed for suppliers and consumers as the concerns of water quality is most sensitive. - Routine and regular water quality surveillance is required as per the mechanism and guideline of Water Quality Monitoring and Surveillance as well as Water Quality Standards, 2079. - Financial investment and allocation of resources should be substantially increased for the proper implementation of Water Safety Plan, Safe Water Community initiatives with proper monitoring, evaluation, and reporting mechanism.
3	Safely Managed Sanitation Services and Hygiene	• Awareness campaign with rules and regulations must be formulated, endorsed, and enforced for sustainable service delivery. • Sanitation Safety Plan to be formulated targeting the SDP and SDG as a national and local target up to 2030. • Political will and commitment from leadership to be must. • Policy reform and development of regulations from elected representatives of Municipalities and officials are envisaged. • Regarding bottleneck analysis in sanitation and hygiene, identifying the intensity of bottlenecks if big, it requires long term evidence-based studies or research collaborating with research institutions and academia. • Regarding accredited lab/ mini kit/ kit facility at local level, collaboration between academia and professional research lab in procurement process and establishment of such facilities should be strengthened.

S.N.	Groups	Overall conclusion and insight of the workshop
		• Additional actions regarding comprehensive understanding/ suitability analysis of sewer and non-sewer sanitation as per National Sanitation Standard. Motivated and competent leadership is a must for this. • Technical backstopping of development partners/ donors, funding agencies and federal government as well as provincial government is sought by local level for suitability analysis. • Only a few (rural) Municipalities have partial FSM policies and regulations. • For standardization and regulating mechanism along the sanitation value chain, the major pre-requisites at the local level are awareness raising of communities and (rural) Municipalities as well as budget allocation and competent human resources. Coordination among the stakeholders and establishment of WASH Unit are the most important priority actions for the local levels. • It requires one to three years for local government and provincial government to standardize regulating mechanism along the sanitation value chain (containment to safely reuse/ disposal). For this, a strong mechanism to be established collaborating with University, Research Centre, Labs with trained human resources and sufficient funding. - Without full commitment of local governments with support of Provincial and Federal government, the efforts of Safely Managed Sanitation Services and Hygiene are not possible. - Strong and sustained collaboration of all stakeholders including Universities, research centre and development partners to be enhanced for obtaining the SDG Goal 6.2 at local level. - Public awareness activities to be expedited in communities and local level. - Without proper financing framework, it is not possible to achieve WASH target/SDG goals. - Need to incorporate Safely Managed Sanitation and Hygiene in the academic program at school and university level. - Support from Provincial and Federal Government is a must, and it should be visible with felt support and inter-governmental coordination.

S.N.	Groups	Overall conclusion and insight of the workshop
		- Financial support, technical support and proper planning is necessary to obtain the goal with various financing models, i.e. Public Private Partnership.
4	Sector Financing	• Madi and Dordi Rural Municipalities participating in the consultation have their own WASH Plan prepared with support of GWT; The WASH Plan itself is an assessment of WASH investment requirement of the concerned local governments. • Khairenitar Water Supply System; a project of ADB funded small Towns Water Supply and Sanitation Program have made assessment of financial or investment requirement by the WUSC and they are aware on the concerns of investment. They have also prepared a Business Plan and functioning of the project in line with the business plan. • The participants are aware about the investment strategy for obtaining international/ bilateral, multi-lateral and inter-governmental investment but it is not possible immediately. So, the actions are planned as medium-term within three years. All are aware and sensitized about the issues but yet to be materialized. • Political commitment is required for the Business Plan of all service providers at local and provincial level so, it is also the medium-term action plan. • Participants discussed the various investment models in sector financing. The potential models are Public Private Partnership (PPP) and private sector financing. Machhapuchhre Gaunpalika have formulated and enacted Public Private Partnership Act for fund allocation in development activities. • Discussed financial institutions and potentiality of investment in WASH sector at local and province level. There are lot of difficulties to obtain loan and investment in WASH sector development because the Banks and Financial Institution asks for collateral. • The GWT working Gaunpalikas are worried about the potential fund deficit in WASH sector development in coming years because the major development partner Gorkha Welfare Trust (GWT) working in their Palika is being phased out next year. - The consultation program is insightful and informative. - It strengthened and sensitized WASH sector review to local levels and development partners/ stakeholders. It is effective

S.N.	Groups	Overall conclusion and insight of the workshop
		and beneficial for awareness, planning, and mobilization of resources in the days to come. - Needs to expedite the efforts of local level WASH Plan formulation and implementation to mitigate duplication of projects and budget allocation; various sensitization activities to stakeholders at local level are to be increased. - Budget allocation from Federal and Provincial Level are misused in WASH sector too; unless and until the WASH Plan in each Municipalities/ Rural Municipalities are not formulated properly the misuse of budget cannot be controlled. - Political commitment is a must for the sector development; the worse condition exists due to political biasness. - It is not possible to achieve WASH target/SDG goals without proper financing framework. - Need technical support for almost all plans. - Investment of multiple stakeholders in WASH activities.
5	Gender Equality and Social Inclusion (GESI)	• Technical support required from experts and Federal or Provincial Governments for design consideration of GESI friendly WASH structures, facilities, and policy in local level. Not only for the design of structure, technical and financial support needs for formulation of WASH Plan, inclusiveness decision making, implementation and empowerment of sector capacity at local level. The sector can anticipate strengthened and inclusive local level plan, policy, and legal frameworks only after the strong support from provincial and federal governments. • Capacity building and training programs are added as additional action plans. • ToR of GESI focal unit and focal person are to be updated and disseminated. • Senior citizen unit to be placed in government structure. • MHM friendly toilets are being constructed. • A development partner 'Good Neighbour' is assisting sector project implementation in Machhapuchhre Rural Municipality. • Voices of GESI representatives in sector development is being heard and the situation of inclusiveness is improving. • GESI inclusiveness and representation in National Conclave to be considered and increased. - Good practices in some *Palikas which need to be replicated*.

S.N.	Groups	Overall conclusion and insight of the workshop
		- Province and Palika level policies need to be formulated and implemented and need to be enforced.
6	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	• To integrate NAP, NDC and LAPA at local and provincial level WASH Plan, the prior actions are sensitization to local and province governments on DRR and CCA issues and concerns at WASH sector. • It is time to review and update the WASH Plan at a local level for proper budget allocation, periodic planning and implementation integrating DRR and CCA. • All plans are to be localized in the context of specific Gaunpalika or Nagarpalika whether these plans are WASH contingency plan, climate-resilient WASH development plan or climate-resilient emergency response plan. • Regarding the vulnerability risk assessment in community to assess existing WASH infrastructures and services, Vulnerability Capacity Assessment (VCA) has been conducted for Disaster Preparedness Plan in Madi, Annapurna and Dordi Rural Municipalities. The reports are available but need to be updated, reviewed, and integrated in WASH. The Gorkha Welfare Trust Nepal (GWT/N) has conducted participatory VCA at community level and supported the Rural Municipalities to prepare 'Climate Resilient Water and Sanitation Plan (CRWSP). - Mapping of the water sources (source depletion). - Some Rural Municipalities (RMs) have budgets to address climate change and disaster risk but have not yet identified the technical human resource. - All plans, policies and guidelines are to be localized in the perspective of CCA and DRR. - The first action to address CCA and DRR is to identify technical experts and provide orientation/ training. - Integrate schools' teachers in Disaster Resilient Structure. - Need to identify, coordinate, and collaborate with lead government authority and relevant organizations to work in CCA and DRR in local level WASH sector. - Ensure sufficient resources for the emergency response and preparedness in the sector. - Available documents in Province: o Province level Disaster Preparedness and Response Plan (Wash Integrated) o Local Disaster and Climate Resilience Plan (LDCRP)-needs to be updated.

S.N.	Groups	Overall conclusion and insight of the workshop
		○ Local Adaptation Plan of Action (LAPA)- need to be updated.
7	Sector Planning, Monitoring and Evaluation	• WASH Plans are being prepared aligning with SDG-6 and localization of sector goals and indicators. • In provincial level, there is Drinking Water Quality Surveillance Committee function as per validated Water Safety Plan (WSP); District level such committees are being formulated. • Water quality test activities are ongoing from Ministry of Health; coordination with EDCD to be improved. • Due to lack of human resources and capacity at the local level, the Federal government must support and lead for Local level WASH Plan formulation. • Digital systems need to be created for prioritization of sectoral projects and budgeting. • Federal government needs to advocate strongly and capacitate local and provincial government for establishing MIS unit at local level, otherwise it will be burden for local governments; It should be done in provincial and federal level. • Due to huge influence of political interventions and lack of capacitated human resources, the MIS unit and mechanism would not be functional at local governments. - The WASH Plans should be prepared with the huge support of the Federal /Provincial government with cutoff date. - Practice of projects monitoring after the completion is not functioning. - No proper audit of project and budget allocation at local level. - Chances of corruption and misuse of budgets are high. - A proper system needs to be established for tracking progress and monitoring the budget flow. - Define organogram with required HR with numbers.

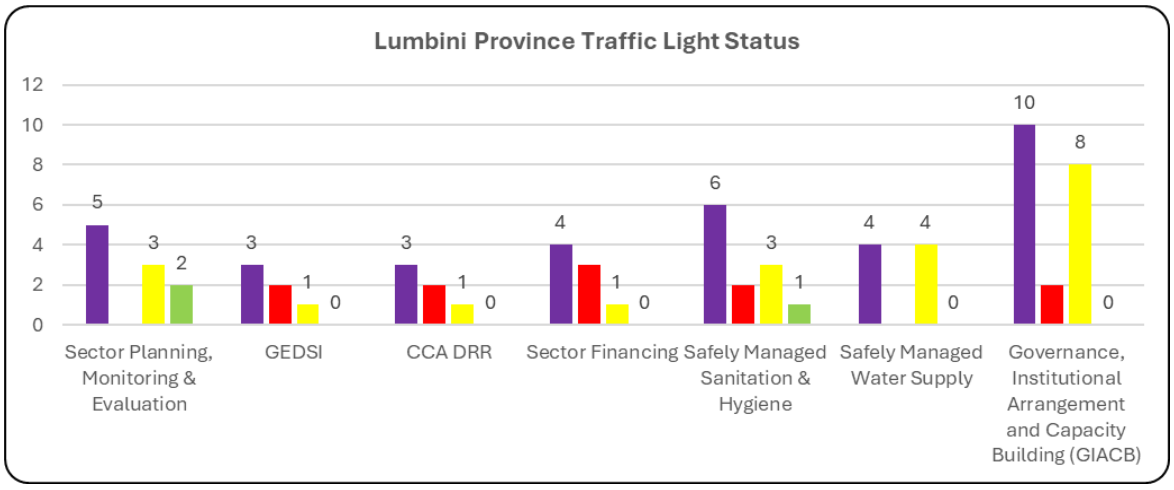
SUMMARY OBSERVATIONS:

- Despite being mandated with overseeing provincial and local water and sanitation services, both province and municipalities are struggling due to inadequate institutional capacity and insufficient funding. Turning these responsibilities into effective legal and policy frameworks, including strategies to bridge financial gaps, demands unwavering political will.

- The initial crucial move involves devising and enacting a fundamental requirement for municipalities is to formally establish and empower dedicated WASH Units. These units should be integrated into an approved municipal structure and adequately supported with competent personnel, skills, and knowledge. This empowers them to progressively take on their mandated roles.
- Shifting towards utility operations necessitates cultivating a corporate culture. This journey begins with classifying service providers, achieving a shared understanding with stakeholders about utility reforms, and employing phased Key Performance Indicators (KPIs) with regular municipality oversight.
- Both provinces and municipalities have overlooked safely managed sanitation services, demanding urgent attention. Prioritizing safe and inclusive sanitation programmes in municipal and provincial policies, complete with dedicated budgets, is crucial for effective implementation.
- Effectively regulating water supply and sanitation services entails introducing licensing arrangements. These arrangements should encourage progressive service improvements, with incentives aimed at rectifying issues related to fairness and inclusivity.

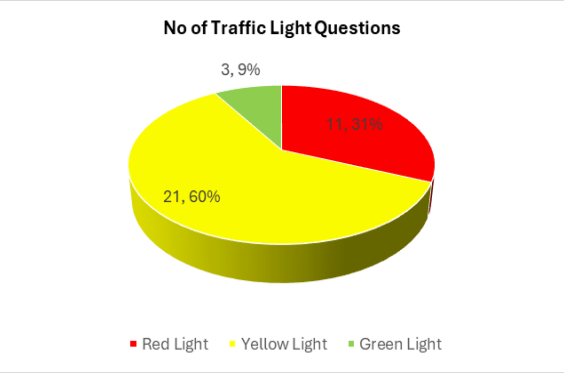
Lumbini Provincial Consultation

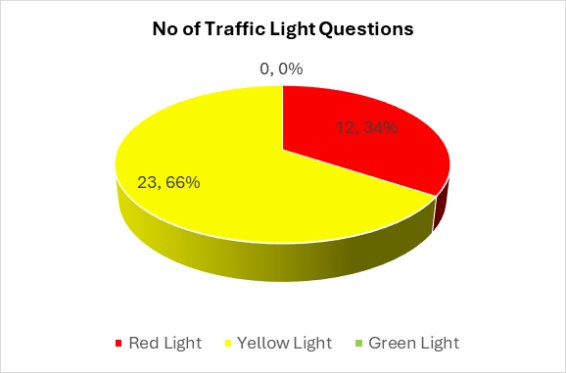
S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	2	8	-
2	Safely Managed Water Supply Services	4	-	4	-
3	Safely Managed Sanitation Services and Hygiene	6	2	3	1
4	Sector Financing	4	3	1	-
5	GESI	3	2	1	-
6	CCA & DRR	3	2	1	-
7	Sector Planning, Monitoring and Evaluation	5	-	3	2
Total		**35**	**11**	**21**	**3**
per cent			***31 %***	***60 %***	***9 %***



Types of Responses on Traffic Light by thematic groups:

Out of 35 traffic light questions in Lumbini Province, 60 per cent of the traffic lights were found to be yellow and 31 per cent of the traffic lights responses were found to be Red. 3 out of 35 (9 per cent) traffic lights response were found to be Green. Sector Planning, Monitoring and Evaluation and Safely Managed Water Supply thematic discussion groups identified the status yellow in all questions without any red.





Responses on Time Frame of Action Plan:

S.N.	Groups	Total	Short Term (within a Year)	Medium Term (Within 3 Years)	Long Term (after 3 Years	N/A
1	Governance, Institutional Arrangement and Capacity Building	33	13	18	-	2
2	Safely Managed Water Supply Services	11	3	2	2	4
3	Safely Managed Sanitation Services and Hygiene	16	4	5	4	3
4	Sector Financing	12	3	6	2	1
5	GESI	12	4	3	4	1
6	CCA & DRR	12	9	2	-	1
7	Sector Planning, Monitoring and Evaluation	11	6	2	3	-
	Total	**103**	**42**	**38**	**15**	**12**

Out of 107 proposed activities, the groups believed that 42 (39%) numbers of activities can be completed within a year. Similarly, 38 (36%) activities have been planned for the Medium Term and 15 (14%) actions point planned for Long Term that takes more than 3 years.

Traffic Light VS Action Plans:

Out of 35 Traffic Light questions, 9 per cent of the responses were green traffic light, 21 per cent were found to be yellow and 31 per cent of the traffic lights responses were found to be Red. The two types of responses, yellow and red, necessitate actions to be taken in the short, medium, and long term. The terms "short," "medium," and "long" are defined with specific timeframes in the questionnaire, and the group assigned one timeframe among the three for each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	8	15	-
		Red	5	3	-
2.	Safely Managed Water Supply Services	Yellow	2	2	2
		Red	1	-	-
3.	Safely Managed Sanitation Services and Hygiene	Yellow	3	3	-
		Red	1	2	4
4.	Sector Financing	Yellow	1	4	-
		Red	2	2	2
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	4	3	4
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	4	-	-
		Red	5	2	-
7.	Sector Planning, Monitoring and Evaluation	Yellow	5	2	3
		Red	-	-	-
Total		**95**	**42**	**38**	**15**

Summarizing the responses of all seven thematic groups, out of 25 Yellow Traffic Light Questions, 33 responses were short, 48 responses were medium, and 1 response was Long Term Plans. Similarly, out of 10 Red Light Questions, 6 responses were short, and 27 responses were Medium Term Plans.

	Short	Medium	Long	N/A	Total
Green (-)	1	-	-	-	**-**
Yellow (25)	27	29	9	6	**71**
Red (10)	14	9	6	6	**35**
Total	**42**	**38**	**15**	**12**	**107**

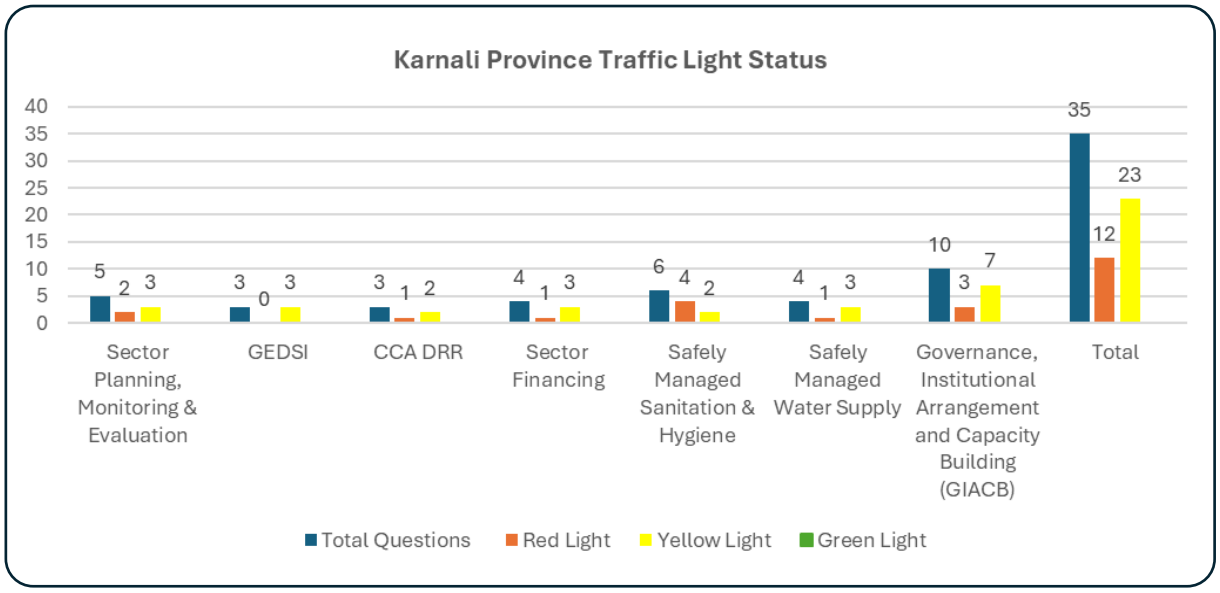
SUMMARY OBSERVATIONS:

- While the province and municipalities have authority and responsibility for the management of provincial and local water supply and sanitation services respectively. However, these mandates are largely underfunded, necessitating committed political will to translate mandates into legal and policy instruments. This includes developing strategies to address financing gaps throughout the province.

- The design and implementation of federal led municipal WASH strengthening programme for safe and inclusive water supply and sanitation services is the first critical step.
- Formal establishment and empowerment of dedicated Municipality WASH Units, as part of approved Municipality organogram, backed up by adequate HR, skills and knowledge is a prerequisite to enable them to increasingly assume their mandated functions.
- Transformation towards utility operations based on corporate culture is required, need to start with categorization of service provides, uniform understanding with the stakeholders on the utility reforms, and application of phased KPIs and regular monitoring by the Municipality.
- Sanitation has not received due attention both in the province and the municipalities. Safe and inclusive sanitation programme needs to be prioritized in municipal and province policies and plans, with clearly earmarked budgets, and implemented in earnest.
- The water supply and sanitation services will need to be regulated through licensing arrangements with progressive service improvements backed up with incentives for addressing equity and inclusion issues.

Karnali Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	3	7	-
2	Safely Managed Water Supply Services	4	1	3	-
3	Safely Managed Sanitation Services and Hygiene	6	4	2	-
4	Sector Financing	4	1	3	-
5	GESI	3	-	3	-
6	CCA & DRR	3	1	2	-
7	Sector Planning, Monitoring and Evaluation	5	2	3	-
Total		**35**	**12**	**23**	**-**
per cent			***34 %***	***66 %***	**-**



Types of Responses on Traffic Light by thematic groups:

Out of 35 traffic light questions in Karnali Province, 66 per cent of the traffic lights were found to be yellow and 34 per cent of the traffic lights responses were found to be Red. No traffic lights response was found to be Green. Gender Equality, Disability and Social Inclusion (GESI) identified the status yellow in all questions without any red. Safely Managed Sanitation and Hygiene thematic discussion group identified more red status (4 red out of 6 questions) than others.

Responses on Time Frame of Action Plan:

S.N.	Groups	Total	Short Term (within a Year)	Medium Term (Within 3 Years)	Long Term (after 3 Years	N/A
1	Governance, Institutional Arrangement and Capacity Building	33	17	14	2	-
2	Safely Managed Water Supply Services	11	6	4	1	-
3	Safely Managed Sanitation Services and Hygiene	15	4	9	1	1
4	Sector Financing	10	1	9	-	-
5	GESI	11	4	3	4	-
6	CCA & DRR	12	4	5	-	3
7	Sector Planning, Monitoring and Evaluation	11	5	6	-	-
	Total	**103**	**41**	**50**	**8**	**4**

Out of 103 proposed activities, the groups believed that 41 (40 per cent) numbers of activities can be completed within a year. Similarly, 50 (49 per cent) activities have been planned for the Medium Term and 8 (8 per cent) actions point planned for Long Term that takes more than 3 years.

Traffic Light VS Action Plans:

Out of 35 Traffic Light questions, there was not any green Traffic Light response, which corresponds to No Action Required. The other two traffic lights, yellow and red, require actions to accomplish in short, medium, and long term. The terms as short, medium and long are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	14	8	-
		Red	3	6	2
2.	Safely Managed Water Supply Services	Yellow	5	2	-
		Red	1	2	1

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
3.	Safely Managed Sanitation Services	Yellow	3	3	-
		Red	1	6	1
4.	Sector Financing	Yellow	-	9	-
		Red	1	-	-
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	4	3	4
		Red	-	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	4	4	-
		Red	-	1	-
7.	Sector Planning, Monitoring and Evaluation	Yellow	2	4	-
		Red	3	2	-
Total			**41**	**50**	**8**

Summarizing the responses of all seven thematic groups, out of 23 Yellow Traffic Light responses, 32 responses were short, 33 responses were medium, and 4 responses were Long Term Plans. Similarly, out of 12 Red Light Questions, 9 responses were short, 17 responses were Medium Terms, and 4 responses were Long Term Plans.

	Short	Medium	Long	N/A	Total
Green (-)	-	-	-	-	**-**
Yellow (23)	32	33	4	2	**71**
Red (12)	9	17	4	2	**32**
Total	**41**	**50**	**8**	**4**	**103**

After the long preparation, field visit, consultation at different levels the provincial WASH JSR Sector Financing - TWG workshop of Surkhet successfully concluded. The workshop has put forward some findings in each thematic area of JSR. Findings from the workshop are shown as summarized below.

S.N.	Thematic Area	Way forward to be considered
1	Governance, Institutional Arrangements and Capacity Building	- Total sanitation strategy is in Birendranagar Municipality - WUSCs Registration and Accountability Check is the additional action point. - HR strategy/ resource mobilization and dedicated WASH unit should be available in each *Palika*.

S.N.	Thematic Area	Way forward to be considered
		- Establishment of dedicated section with focal person within 3 years is the action point identified by the group work. - Total sanitation guidelines and environmental guidelines for WASH are to be in each Palika. - Capacity building, Budget and resource allocation are additional action points for establishment of dedicated WASH institutional mechanism in the province/local level. - Ownership development, inclusive accountability and participatory approach are suggested for WASH sector development in Local and Provincial Level. - Political commitment is a must. - Exposure visit, incentive mechanism and rewards tend to establish provincial coordination mechanism between 3 tiers of government and concerned stakeholders. - Communication strategy formation and implementation are the additional action points of effective provincial coordination mechanism. - The discussion group mentioned a communication strategy within 3 years. - Service Support Centre under process; SOP drafted. - TNA in some local government; plumber training. - Policy formulation underway; lack of political commitment and budget in WASH sector development.
2	Safely Managed Water Supply Services	- Capacity building training for water quality testing human resources. - Water treatment plants are needed for providing safe water supply. - Lack of budget. - Labs should be installed in every local level with sufficient kits and machines.
3	Safely Managed Sanitation Services and Hygiene	- Although there are few water quality test lab but there is not any lab to test Wastewater. - Should emphasize on bottleneck analysis, SDGs, and sanitation market extension along value chain. - Technological option according to location. - Prepare programmatic approach for urban and rural settlement for safely managed sanitation.

S.N.	Thematic Area	Way forward to be considered
4	Sector Financing	- Additional action points identified by the participants are institutional capacity enhancement. Action plan with budget and human resources. Consumer capacity development. - Regarding assessment of WASH investment requirement, the pre-requisites are O&M survey, fulfilment of human resources and experts. - Regarding WASH financial strategy, guiding documents, and financial procedure to meet the investment plan, the additional action points are compilation of WASH plan, preparation of provincial plan and organization of investment summit. - It needs strong policy advocacy by central government to the NRB for the revolving loan by user's committee. - Chandannath Municipality has a FSM business plan; Birendranagar has a WUSC business plan. - Advocacy should be required for the tax reduction to investment in WASH line, FSM etc. - Biogas plant in Surkhet regarding financing institutions (bank, MFI, cooperatives etc.), private sector and household leveraged the supply of finance in WASH. - Establishment of WASH bank and revolving fund implementation policy is suggested for financing institutions (bank, MFI, cooperatives etc.), private sector and household leveraged the supply of finance in WASH. - More resource gap in province level. - Lack of responsible institutional organization and HR. - Duplication of resources and planning gap. - No budget in sanitation at province level.
5	Gender Equity and Social Inclusion	- Additional action points suggested by group work participants are to ensure an effective monitoring system, meaningful participation of all groups and sensitize on GESI policy to implement. - GESI focal person assigned in WASH sector in province but not in local levels and not activated well. - Capacity building of focal person and system strengthening are the additional action points of GESI representation (focal unit, focal person in Province/ Local level; in service providers) in WASH sector. - Regarding concerns from GESI representative are heard, recorded, and acted; it is heard but not recorded and acted upon.

S.N.	Thematic Area	Way forward to be considered
		- GESI Audit is necessary to make GESI policy and allocate focal person in all Palikas. - Regular monitoring and policy review should be done. - All gender participation required. - Ensure budget for GESI program.
6	Climate Change Adaptation and Disaster Risk Reduction	- Additional action points are updating of plan and policy as well as monitoring and evaluation for effective implementation. - Periodic strategy plan revision. Good practice of LDCRP plan in Chandannath Municipality; Rules and regulations should include LAPA, NDC, NAP etc. in local/provincial levels. - Contingency plans are a good practice in provincial level. Need regular update for contingency plan. The WASH Plan is partially implemented but needs regular follow-ups. - Vulnerability risk assessment is necessary in existing WASH infrastructures and services. - The JSR initiative is good and needs continuation. Suggestion: - In next provincial JSR, please, invite only concerned stakeholders with their active participations.
7	Sector Planning, Monitoring and Evaluation	- In some local level, there are WASH Plans implemented or in implementation phase. Some Municipalities are trying to make a WASH Plan as soon as possible. - Employees from the local government should be well trained and aware of NWASH-MIS. LISA and WASH should be integrated. - Strong need of WASH focal person establishment, capacity building and leadership training for comply alignment of Provincial/ Local level WASH Plan with SDG 6 goals and indicators. - Political leaders need to understand the importance of the WASH Plan. They should be committed to the WASH Plan budget. - Awareness and capacity building programs need to be done for tracking WASH expenditures and analysing (per centage expenditure in terms of GDP) - MIS unit is there but only covering administrative aspects. - The constraint is lack of institutional capacity assessment and lack of human resources for MIS unit establishment. O&M should be done regarding dedicated

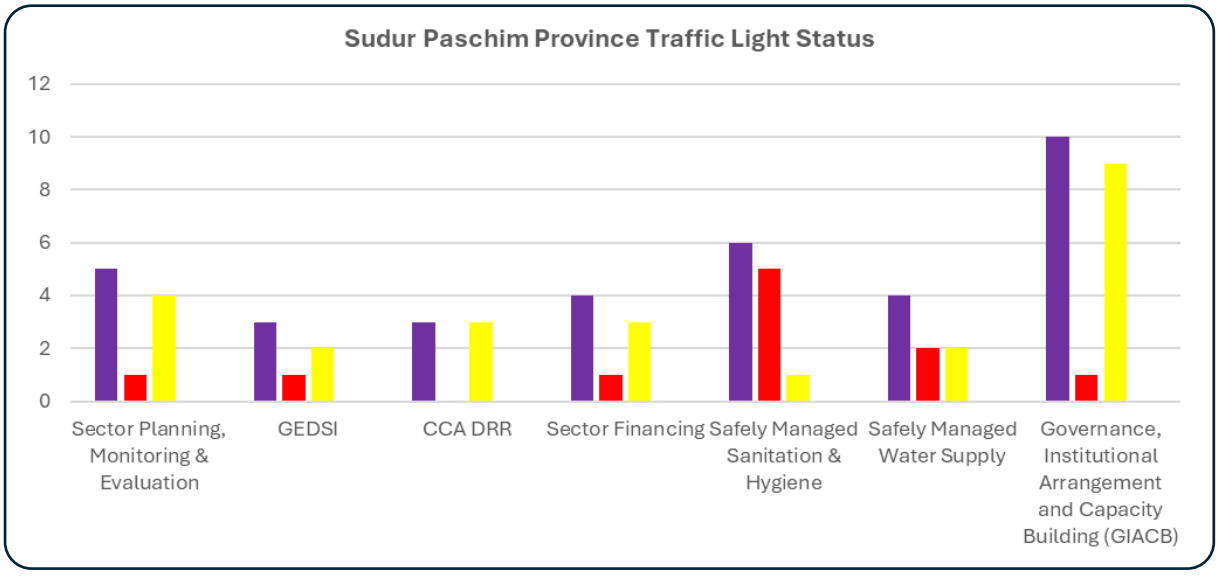
S.N.	Thematic Area	Way forward to be considered
		MIS unit (focal unit, focal person) present in Province/ Local level. - N-WASH training has been given to almost all municipalities, but it is difficult to run because of lack of human resources. - Regarding CCA/DRM/GESI related segregated data availability in WASH monitoring and evaluation; it should be done by federal government. - FEDWASUN or WUSC needs to be integrated with the NWASH -MIS system and local government.

WAY FORWARD:

- Investment requirement calculation through WASH Plans is done but it is to be integrated with annual planning and budgeting.
- No financing strategy.
- Business plan is present in few water operators which needs to be scaled-up.
- No dialogues with banks and other financial institutions to push WASH financing.

Sudur Paschim Provincial Consultation

S.N.	Thematic Groups	Total Questions	Red Light	Yellow Light	Green Light
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	10	1	9	-
2	Safely Managed Water Supply Services	4	2	2	-
3	Safely Managed Sanitation Services and Hygiene	6	5	1	-
4	Sector Financing	4	1	3	-
5	GESI	3	1	2	-
6	CCA & DRR	3	-	3	-
7	Sector Planning, Monitoring and Evaluation	5	1	4	-
Total		**35**	**11**	**24**	**-**
per cent			***31 %***	***69 %***	**-**

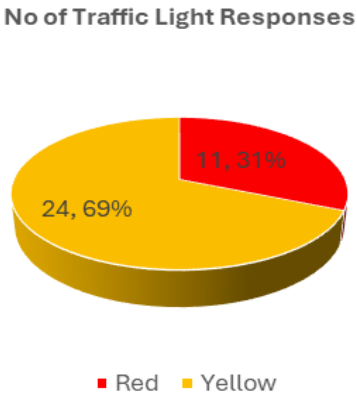


Type of Responses on Traffic Light by thematic groups:

There were altogether 35 traffic light questions in the seven thematic group questionnaires. Out of it, 69 per cent of the traffic lights were found to be yellow. 31 per cent of the traffic lights responses were found to be Red and no traffic lights response found to be Green. Climate Change Adaptation and Disaster Risk Reduction (CCA DRR) thematic discussion group identified the status yellow in all questions without any red. Safely Managed Sanitation and Hygiene thematic discussion group identified more red status (5 red out of 6 questions) than others.

Responses on Time Frame of Action Plan:

S.N.	Groups	Total	Short Term (within a Year)	Medium Term (Within 3 Years)	Long Term (after 3 Years	N/A
1	Governance, Institutional Arrangement and Capacity Building (GIACB)	38	19	9	1	9
2	Safely Managed Water Supply Services	14	5	4	-	5
3	Safely Managed Sanitation Services and Hygiene	18	3	5	1	9
4	Sector Financing	14	-	2	2	10
5	GESI	14	7	2	2	3
6	CCA & DRR	11	6	5	-	-
7	Sector Planning, Monitoring and Evaluation	13	2	7	1	3
	Total	**122**	**42**	**34**	**7**	**39**



The timeframe questionnaire focused on getting groups perspectives on when they are likely to complete the planned activities. Altogether there were 122 questions in this exercise. Out of 122 proposed activities, the groups believed that 42 (34 per cent) numbers of activities can be completed within a year. Similarly, 34 (28 per cent) activities have been planned for the Medium Term and 7 (6 per cent) activities are planned for the timeframe.

Traffic Light VS Action Plans:

Out of 35 Traffic Light questions, there was not any green Traffic Light response, which corresponds to No Action Required. The other two traffic lights, yellow and red, require actions to accomplish in the short, medium, and long term. The terms as short, medium, and long are defined with the timeframe in questionnaire and the group denoted one timeframe among three in each action point.

The table below summarizes the timeframe to accomplish the action points identified in group works of all seven thematic groups.

S.N.	Theme	Traffic Light	Short Term	Medium Term	Long Term
1.	Governance, Institutional Arrangement and Capacity Building (GIACB)	Yellow	19	8	-
		Red	-	1	1
2.	Safely Managed Water Supply Services	Yellow	1	3	-
		Red	4	1	-
3.	Safely Managed Sanitation Services and Hygiene	Yellow	1	1	-
		Red	2	4	1
4.	Sector Financing	Yellow	-	2	1
		Red	-	-	1
5.	Gender Equality, Disability and Social Inclusion (GESI)	Yellow	6	2	2
		Red	1	-	-
6.	Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR)	Yellow	6	5	-
		Red	-	-	-
7.	Sector Planning, Monitoring and Evaluation	Yellow	2	6	-
		Red	-	1	1
Total		**122**	**42**	**34**	**7**

Summarizing the responses of all seven thematic groups, out of 24 Yellow Traffic Light Questions, 35 responses were short, 27 responses were medium, and 3 responses were Long Term Plans. Similarly, out of 11 Red Light Questions, 7 responses were short, and 7 responses were Medium Term Plans.

	Short	Medium	Long	N/A	Total
Green (-)	-	-	-	-	**-**
Yellow (24)	35	27	3		**65**
Red (11)	7	7	4		**18**
Total	**42**	**34**	**7**		**83**

After the long preparation, field visit, consultation at various levels and provincial WASH JSR GESI-TWG workshop of Dhangadhi successfully concluded. The workshop has put forward some findings in each thematic area of Joint Sector Review (JSR). A summary of key findings from the workshop is presented in the following section.

SN	Thematic Area	Way Forward points to be considered
1	Governance, Institutional Arrangements and Capacity Building	- WUSCs Registration and Accountability Check - Capacity Building / Sensitization / Persuasion of Elected Representatives - WASH-CC, WASH Resource Learning Platform - Policy, Strategy, Legal Frameworks, and Regulation to prepare
2	Safely Managed Water Supply Services	- Demarcation of roles and responsibilities in WASH with three tiers of government - Policy Strategy should be revised focused to CC/DRR Responsive for Water Supply System (WSS) - Planning and Financing for Water Supply - Quality, Quantity, Reliability and Accessibility of WSS - Operation and Maintenance Management of WSS - Business Model and service delivery - Tariff fixation and regular collection. - Water Quality Laboratory Facility at Palika Level
3	Safely Managed Sanitation Services and Hygiene	- Total Sanitation with 5+1 Indicators - Participatory Planning: Sustainable Solution (RRR, Waste to Energy) - Integrated (Solid and Liquid) Waste Management - Accountability of Palika - Engagement of Private Sector / Sanitation Workers - Citywide Inclusive Sanitation (CWIS)
4	Sector Financing	- WASH Financing - Strategy - Resource Leverage on WASH Financing - Co-financing and Cost Recovery Model - Public and Private Sector Engagement (PPP)
5	Gender Equity and Social Inclusion	- Equity and Equality based sectoral Planning Sectoral GESI Policy, Plan and Program - Focal Person (at Institution) - GRB/GESI and Accessibility Audit - Ethnography/Cultural Analysis of MHM - Analysis of Intersectionality and Untouchability
6	Climate Change Adaptation and Disaster Risk Reduction	- Localization of NAP, LAPA, and NDC (Responsive Financing and Plan)

SN	Thematic Area	Way Forward points to be considered
		- Climate Resilient - Water Supply and Sanitation System Management - CC/DRR Data on WASH Plan/ N-WASH System - New and Innovative technology - Water Supply and Sanitation System Management
7	Sector Planning, Monitoring and Evaluation	- WASH Unit and Focal Person at Palika - WASH planning and budgeting - Desegregated Data - Progress Review and Cross-sector Collaboration.

WAY FORWARD:

- Demarcation of roles and responsibilities in WASH with three tiers of government.
- Establishment of WASH Unit at Palika level for WASH planning and implementation.
- Ensuring safe drinking water with water quality testing facility at Palika level.
- Establishing Climate Resilient Water Supply and Sanitation System Planning.
- Revision of Water and Sanitation: Policy/Strategy by including CC/DRR in Water Supply and Sanitation sector.
- Implementation of Total Sanitation (5+1) Indicators including FSM.
- Business financing model for water supply and sanitation.
- Cost recovery model in water and sanitation.

Annex - C

Thematic Working Groups – Lead and Co-Leads

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Photos of JSR National Conclave


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