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# Water, Sanitation and Hygiene in Federal Nepal: Strengthening Local Government Actions and Citizen Rights

Manohara Khadka, Vishnu Prasad Pandey, Govind Shrestha, Karmath Subedi,  
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## **The authors**

**Manohara Khadka**, Country Representative – Nepal, International Water Management Institute (IWMI), Kathmandu, Nepal.

**Vishnu Prasad Pandey**, Professor, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal. Researcher - Water Resources, IWMI, Kathmandu, Nepal.

**Govind Shrestha**, Policy Adviser, WaterAid Nepal, Lalitpur, Nepal.

**Karmath Subedi**, Water, Sanitation and Hygiene (WASH) Expert, Kathmandu, Nepal.

**Sushil Kumar Karki**, Development Expert, Kathmandu, Nepal.

**Alok Rajouria**, Freelance Consultant and Former Researcher - Social Science, IWMI, Kathmandu, Nepal.

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Front cover photograph: A woman washes her hand using the water collected from a rainwater harvesting system in Dailekh, Nepal (*photo*: Nabin Baral/IWMI).

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## Collaborators



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# Contents

|  |             |
|--|-------------|
| <b>Acronyms and Abbreviations</b> .....  | <b>viii</b> |
| <b>Summary</b> .....   | <b>ix</b>   |
| <b>Introduction</b> .....  | <b>1</b>    |
| Context and Rationale .....  | 1           |
| Study Objectives .....   | 2           |
| Report Structure .....   | 2           |
| <b>Study Framework, Materials, and Methods</b> .....   | <b>2</b>    |
| Study Framework .....  | 2           |
| Human Rights and Transformative Approaches to WASH in Nepal .....  | 2           |
| Study Area .....   | 4           |
| Data and Sources .....   | 7           |
| <b>Global and National WASH Policy Frameworks</b> .....  | <b>7</b>    |
| Global Policy Frameworks: WASH Rights .....  | 7           |
| Constitutional Provisions for WASH: Toward Transformational Change .....   | 8           |
| Major Governance Changes and Implications for WASH Services.....   | 8           |
| Federal Government Policy Frameworks for WASH .....  | 11          |
| More Power and Responsibilities for WASH Services Devolved to Local Level.....   | 12          |
| Federal WASH Policy Frameworks: Technical Perspectives Dominate.....   | 12          |
| Summary: Federal WASH Policy Frameworks Have Limited Understanding of Gender Equity, Inclusion, and Governance Principles Frameworks ..... | 22          |
| WASH Policy Frameworks of Subnational Governments .....  | 24          |
| <b>Jurisdiction and Institutional Structures for WASH Service Delivery and Management under Federalism</b> .....                           | <b>25</b>   |
| Jurisdictions for WASH Among Three Levels of Government .....  | 25          |
| Public Sector Institutional Structures Related to WASH Services in Federalism.....   | 26          |
| Coordination Mechanisms and Emerging Challenges .....  | 27          |
| Accountability and Regulation of WASH Services .....   | 29          |
| WASH Sector Financing.....   | 29          |
| Fiscal Power and Responsibility for Ensuring Natural Resource Benefits for Local Communities .....   | 29          |
| Budget for WASH Sector Inequitable and Low .....   | 30          |
| WASH Sector Planning, Monitoring, Evaluation, and Learning Under Federalism .....  | 31          |
| Planning Process .....   | 31          |
| Basis for Development Planning at Each Level of Government .....   | 32          |
| Processes for Annual Planning of Local Governments .....   | 32          |
| Monitoring, Evaluation, and Learning .....   | 32          |
| <b>Status of WASH Services Delivery</b> .....  | <b>34</b>   |
| Status of Water Supply .....   | 34          |

|   |           |
|---|-----------|
| Water Sources and Availability.....   | 34        |
| Water Source Issues and Protection .....  | 35        |
| Water Quality.....  | 35        |
| Water Access and Use .....  | 37        |
| Status of Sanitation and Hygiene .....  | 38        |
| Toilet Use .....  | 39        |
| Sludge Management.....  | 39        |
| Hygiene: Handwashing with Soap.....   | 41        |
| Access to WASH Services .....   | 42        |
| Availability of WASH Services .....   | 42        |
| Cost of WASH Services.....  | 43        |
| Responding to WASH Issues .....   | 45        |
| Inclusiveness in WASH Services.....   | 47        |
| WASH Stakeholders’ Understanding of Inclusiveness .....   | 47        |
| Marginalized Groups: Access to WASH Services.....   | 47        |
| Initiatives for Making WASH Services Inclusive .....  | 47        |
| Inclusiveness of WASH Committees.....   | 47        |
| People’s Participation During WASH Planning at the Local Level .....  | 48        |
| WASH in Local Budgeting and Programming .....   | 48        |
| Budget Allocation and Breakdown.....  | 49        |
| <b>Perceptions of WASH Service Delivery .....</b>   | <b>50</b> |
| Rights and Responsibilities.....  | 50        |
| Awareness of Local Elected Representatives About Rights to WASH .....   | 50        |
| People’s Awareness of Rights to WASH.....   | 50        |
| Understanding People’s Role in Improving WASH Services .....  | 51        |
| Water Supply Responsibility .....   | 51        |
| Challenges for Easy and Affordable WASH Services Access .....   | 52        |
| Potential Solutions for Better WASH Services .....  | 54        |
| Federalism and Local Governments .....  | 54        |
| Changes Observed in Public Services .....   | 54        |
| Satisfaction with Services.....   | 55        |
| Emerging Opportunities and Challenges .....   | 55        |
| Opportunities of Federalism in the WASH Sector .....  | 56        |
| Challenges for Promoting Rights and Transformational Paths to WASH .....  | 56        |
| <b>Conclusion and Recommendations .....</b>   | <b>59</b> |
| <b>References .....</b>   | <b>61</b> |
| <b>Annex 1. Criteria and Indicators for Ensuring Human Rights to WASH.....</b>  | <b>68</b> |
| <b>Annex 2. Criteria for Executing IEE and EIA in the Drinking Water Supply and Sanitation-related Projects. ....</b> | <b>70</b> |
| <b>Annex 3. Main Source of Drinking Water. ....</b>   | <b>71</b> |

|   |           |
|---|-----------|
| <b>Annex 4. Caste and Ethnicity Drinking Water and Sanitation Status.....</b>                                     | <b>73</b> |
| <b>Annex 5. Methods Used for Purifying Drinking Water. ....</b>   | <b>75</b> |
| <b>Annex 6. Use of Toilets. ....</b>  | <b>76</b> |
| <b>Annex 7. Market Access of WASH Services.....</b>   | <b>77</b> |
| <b>Annex 8. Managing WASH Issues. ....</b>  | <b>78</b> |
| <b>Annex 9. Ten-step Planning Process in WASH Budgeting in Study Rural Municipalities. ....</b>                   | <b>80</b> |
| <b>Annex 10. Perceptions of Rights and Responsibilities. ....</b>   | <b>81</b> |
| <b>Annex 11. Awareness of Local Governments on WASH Legal and Policy Frameworks ....</b>                          | <b>83</b> |
| <b>Annex 12. Perceptions of the Role of Citizens in Improving WASH Services in the Community.....</b>             | <b>84</b> |
| <b>Annex 13. Perceptions of the Responsible Institution for Providing Water Supply.....</b>                       | <b>85</b> |
| <b>Annex 14. Satisfaction with the Service Received from the Local Government by Caste and Ethnic Groups.....</b> | <b>86</b> |

# Acronyms and Abbreviations

|         |   |
|---------|---|
| DCC     | District Coordination Committee         |
| DWSS    | Department of Water Supply and Sewerage |
| FSM     | Fecal Sludge Management                 |
| GESI    | Gender Equality and Social Inclusion    |
| HDI     | Human Development Index                 |
| LGOA    | Local Government Operation Act, 2017    |
| NPC     | National Planning Commission            |
| NWSC    | Nepal Water Supply Corporation          |
| ODF     | Open Defecation Free                    |
| SME     | Small and Medium Enterprise             |
| WASH    | Water, Sanitation and Hygiene           |
| WASH-CC | WASH - Coordination Committee           |
| WSMB    | Water Supply Management Board           |
| WSS     | Water Supply and Sanitation             |
| WUA     | Water Users Association                 |
| WUSC    | Water Users and Sanitation Committee    |

# Summary

Nepal's new Constitution, promulgated in 2015 and the introduction of a federal system of governance—along with a commitment to the United Nations Sustainable Development Goals (SDGs), offer opportunities for bottom-up, participatory, inclusive, and just development of the country's Water Supply, Sanitation and Hygiene (WASH) sector. How these contexts have enabled or hindered gender and socially inclusive WASH planning and decision-making at the local level is understudied. This study aimed to generate evidence about the opportunities and challenges of translating human rights, and gender equality and social inclusion (GESI) approaches into sustainable, equitable, and inclusive WASH services in Federal Nepal. To do this, six dimensions of change in Nepal's WASH sector under federalism were analyzed: i) policy frameworks; ii) sharing of state powers and functions; iii) actors, roles and financing; iv) WASH status and services; v) WASH coordination, monitoring, and data; and vi) GESI in WASH services and decision-making.

A total of six rural municipalities from Madhesh Province, Bagmati Province (representing the Terai in the east, and central Nepal), Lumbini Province and Karnali Province (representing west Nepal) were selected as case study areas. Both quantitative and qualitative methods were used. Primary sources of data included: i) a perception survey on WASH service satisfaction among 486 households selected randomly from four wards of each rural municipality; and ii) key informant interviews with locally elected representatives, WASH service providers, water users groups (WUGs), and social leaders. Secondary sources of data included: i) key policy frameworks at both the federal and subnational levels formulated after the transition to federalism; ii) scientific literature on human rights, governance, and the equity and gender dimensions of WASH; iii) research reports and impact studies on WASH published by development partners; and iv) webinars and policy dialogues on WASH.

The authors note that the constitutional guarantee to an equitable distribution of safe drinking water, sanitation and hygiene, the enabling policy environment, and devolved institutional dynamics established by the federal system, offer opportunities for integrating GESI perspectives and actions into WASH. There are strong possibilities for the coordination and collaboration between levels of state actors as well as non-state actors to harmonize WASH planning and implementation. However, multiple challenges remain.

At the federal level, WASH policy frameworks have a varied understanding of GESI and inclusive governance principles. Some policies such as the National WASH policy 2023 and the draft WASH Sector Development Plan (SDP) 2024, have some GESI provisions, while the WASH legislation misses it. The draft WASH SDP is committed to addressing GESI issues of WASH services and decision-making at the grassroots level. Yet, it lacks perspectives and strategic measures to tackle institutional barriers and gendered unequal power relations within WASH governance that disempower women and marginalized groups to participate meaningfully in, and benefit from the WASH sector's programs and investment. Overall, the WASH policy frameworks reviewed, show limited understanding and actions toward tackling the root causes of exclusion, gender inequality and inequities in access to, and control over water resources, decision-making, and benefits from water supply and sanitation services. Although roles and responsibilities for WASH have been devolved, WASH related policies and plans are yet to be developed within four out of the six rural municipalities studied.

Moreover, collaboration between community WASH organizations and rural municipalities is limited. Institutional mechanisms for multi-actor dialogues, coordination, and cooperation are yet to develop. Annual budget allocations to the WASH sector have been persistently low. Likewise, rural municipalities lack targeted programs in dealing with water governance, gender, social inclusion, and strengthening institutional capacity to deliver inclusive WASH services. Technical approaches dominate WASH planning and service delivery, resulting in limited efforts to understand the socio-political complexities of water management, access and services.

For the people in the study areas, access to a safe, piped water supply remains significantly low. This continues to place a heavy burden on women, who are primarily responsible for fetching and collecting water for household use. Even in areas where water is accessible, it is not affordable to poor and marginalized people. Rural municipalities, however, have not prioritized the collection and use of data that highlights gender and socioeconomic factors related to WASH services during planning and budgeting.

The WASH sector needs to make greater efforts to promote bottom-up, gender responsive, and socially inclusive WASH planning, financing and services to achieve SDG targets. Efforts are also required to strengthen the capacity of Water User Associations (WUAs) and Water User and Sanitation Committees (WUSCs) for the sustainable functioning of water supply systems and WASH practices. The sector needs to focus on building relationships between the government and the people by implementing new policies and enhancing the institutional capacity of local governments for conceptualizing and implementing rights-based, gender-and socially-inclusive approaches to the design, implementation, and monitoring of WASH policies, plans and programs.



# Introduction

## Context and Rationale

Studies from federated countries show that power relationships, roles and responsibilities among different layers of government, legal frameworks, and institutional arrangements can influence how water is managed and used when a country's governance system changes (Coelho et al. 2012; De Stefano and Garrick 2018). After two decades of political instability, highly centralized development practices, and slow growth resulting from a decade of armed conflict (1996–2006), Nepal moved from a unitary system to a three-tiered federal system of governance following the promulgation of the new Constitution on September 20, 2015, and subsequent elections for local, provincial and federal governments in 2017. The federal arrangement has 761 governments at three levels (one federal, seven provincial, and 753 local). Each government has exclusive and concurrent rights regarding water supply, sanitation, and hygiene (WASH) services management, as provisioned in the Constitution. Powers, responsibilities, and roles are shared among all levels of government for WASH-related policymaking, planning and budgeting, service delivery, monitoring and evaluation. Of the 753 local governments (locally referred to as palikas), six are metropolitan cities, 11 are sub-metropolitan cities, 276 are municipalities, and 460 are rural municipalities.

Nepal's federalism aims to transform the country through three dimensions: i) promote social and regional diversity; ii) inclusive and equitable development with a greater focus on gender equality and social inclusion (GESI); and iii) devolve administrative, political and fiscal systems to the local level (Sharma 2014, 101-103). Nepal follows a cooperative federalism approach, in which each level of government is independent and the federal and subnational governments, in principle, share power, responsibilities, and cooperate to achieve their responsibilities (Adhikari 2020). The Government of Nepal (GoN) has a development vision of "Prosperous Nepal and Happy Nepali" (2019–2044) and has identified water resources and agriculture-led economic growth as pathways to attain this (NPC 2019, 2).

Water supply and sanitation (WSS) became a priority for government programs during the international water supply and sanitation decade (1981–1990) and remained an area of public investment as it started to receive aid from the mid-1990s (MoWSS 2016; Neupane et al. 2018). The dynamics of WASH sector reforms remain under-researched, especially changes in powers, roles, functions, relationships and service delivery systems among different levels of government.

An important factor in the federated context is the strengthening of different levels of government for policies and interventions to ensure availability, accessibility, quality and safety, affordability, acceptability, dignity, and privacy of WSS services (Roaf et al. 2014). Transboundary and basin-level water cooperation is critical when different tiers of government and actors share rights over water resources (De Stefano and Hernandez-Mora 2018; Bhattarai et al. 2002). Water sharing among and between municipalities will gain importance as conflict over water emerges (Devkota et al. 2018). The Multiple Indicator Cluster Survey 2019 (MICS) shows that only 19% of people have safely managed water services where the source water was tested and determined free of E. coli, and was available when needed (CBS 2020). However, only 28% of the piped water supply system is fully functional (DWSSM 2019). Governance challenges such as the sustainability and functionality of water supply infrastructure, exclusion and inequities in access to, use of and decisions regarding water supply systems, and the inefficient use of scarce water resources and water management need attention from the new subnational governments (SNV Netherlands Development Organisation and CBM Australia 2019; WaterAid 2010). The role of the government is essential for ensuring effective practices such as inclusiveness, transparency, accountability, participation, nondiscrimination, and sustainability of WASH services (Rogers and Hall 2003) and for monitoring the responsibilities of service providers in promoting effective WASH governance.

The influence of federalism in making policies and plans, setting priorities, and the extent to which new legal instruments are oriented toward effective WASH governance, including equity, and GESI in WSS services, have not been sufficiently studied. Although all levels of government have been exercising their executive, judicial, and legislative powers assigned by the new Constitution (World Bank and UNDP 2019b), there is a lack of evidence and knowledge on how the WASH sector has been federalized and how each level of government has been conceptualizing, visioning, and practicing WASH. Therefore, there is a need to research the effect of federalization and governance arrangements in the WASH sector because this is crucial for meeting Sustainable Development Goal (SDG) targets. This study helps fill this knowledge gap by unpacking policies, institutional frameworks, the current status of WASH services, and people's aspirations for accessing such services under the new federated context.

## Study Objectives

This study aimed to generate evidence on the opportunities and challenges for applying human rights and GESI approaches to WASH for sustainable, equitable and inclusive services in Nepal's federal context.

### The study was guided by the following questions:

- How does the new Constitution of Nepal and subsequent policies and strategies at the national level envisage the role of the WASH sector in the delivery of human rights and the creation of an equitable society, including the advancement of GESI?
- What are the powers, jurisdictions, and roles of the three levels of government and institutional arrangements of the public WASH sector in the new system for delivering WASH services?
- What is the status of WASH services at the local level and what are the associated opportunities and challenges to practicing inclusive WASH services locally?
- What is the perception of local communities about WASH services under federalism?
- What are the opportunities, challenges, and suggested pathways for sustainable, equitable and inclusive WASH policies and practices under federalism?

The evidence is expected to support the Government of Nepal and non-state actors in ensuring inclusive, adequate, equitable and quality WASH services aligned with the SDG targets and the international frameworks on human rights regarding water and gender equality, which Nepal has endorsed.

## Report Structure

This report has seven chapters. The first two chapters provide the rationale, framework, and methodology. The third and fourth chapters analyze the changes in the legal and policy frameworks, the jurisdiction of three levels of government, and the public sector's institutional arrangements in the WASH sector within the federal system. The fifth and sixth chapters analyze the data and information collected through household surveys in six rural municipalities in Madhesh Province, Bagmati Province, Lumbini Province, and Karnali Province. The opportunities and challenges— including possible pathways for making WASH services and governance human rights-centric, socially inclusive, and equitable— are presented in the seventh chapter.

## Study Framework, Materials, and Methods

### Study Framework

This study is guided by social science approaches to WASH. It employs human rights and transformative change perspectives (Mullinax et al. 2017; Hillenbrand et al. 2015; HRC 2011; Roaf et al. 2014) to unpack opportunities and barriers in policy, institutional structure, and implementation processes for making WSS services and decision-making socially inclusive, and gender equitable in Nepal's federal system. These frameworks are the key to achieving sustainability, functionality, inclusivity, and empowerment of women, girls, and historically marginalized groups in the WASH sector, taking into account the “Leave No One Behind” vision of the SDGs and as well as the inclusive governance development visions of the new Constitution of Nepal.

There has been a long-standing commitment by development partners toward decentralized and inclusive development. WASH has been a priority of the Government of Nepal since the 1980s (MoWSS 2016) when it became part of the implementation of the international water supply and sanitation decade (1981–1990). The new Constitution guarantees WASH as a fundamental right. Article 30 (1) ensures the fundamental right of individuals to live in a healthy and clean environment and Article 35 (4) ensures a fundamental right to clean water and sanitation.

### Human Rights and Transformative Approaches to WASH in Nepal

People's access to affordable water and sanitation services is their human right (Roaf et al. 2014; ODI 2017). Human rights to water are also linked to gender and equity. People cannot have enough water and maintain toilets even if water and

sanitation services are available because they might not be able to afford the services (HRC 2011). Studies show that people's capacity to pay for WSS differs depending on their socioeconomic and political position in society, as well as the method of service delivery (Joshi et al. 2011; Leder et al. 2017). The human rights framework recognizes the need for understanding the social dynamics of individuals and communities and their ability to pay for services, keeping in mind that water and sanitation services do not necessarily have to be available free of charge but still need to be equitable and sustainable. This calls for state interventions to guarantee that the most disadvantaged groups have access to affordable water and sanitation services, and that monitoring WASH services takes into account social equity (HRC 2015).

According to Roaf et al. (2014), states must consider five dimensions to implement human rights related to WSS and achieve GESI in WASH sector interventions. The key principles and indicators for measuring the success of framework implementation include; i) enabling policy and legal frameworks (e.g. ensuring that existing legal, policy and regulatory frameworks incorporate human rights considerations and reforms where necessary; ii) financing and budgeting (e.g. those areas or populations that lack adequate access to water and sanitation receive targeted funds to address inequalities); iii) WASH services delivery by setting appropriate targets to ensure that services are sustainable, available, accessible, safe, affordable, and culturally acceptable without discrimination; iv) monitoring WASH services which includes collecting data on service levels such as quality, accessibility, affordability, and on target groups who have or do not have access to water and sanitation to assess discriminatory practices and levels of inequality; and v) access to the legal system (Annex 1).

Implementing these measures requires that the state honor three obligations: they must respect, protect, and fulfill human rights (Roaf et al. 2014). Implementing governance and human rights principles—such as transparency, accountability, participation, non-discrimination, equity, and inclusion—as well as ensuring access to information, resources, opportunities, and spaces for women, girls, and marginalized groups to participate in, and benefit from development are important measures when implementing all human rights to water and sanitation (Roaf et al. 2014, 21). As rights holders, people have the power to challenge a denial of their rights to safe water and sanitation (End Water Poverty 2022). For this, they need to be sensitized and empowered through information and knowledge about their rights.

Studies from Nepal and other countries point out that socio-institutional dimensions, including gender and social power relations, shape the sustainability of water and sanitation services as well as women's and marginalized groups' access to, and control over water supply systems (Fisher 2006; Water Aid 2010; Ndesamburo et al. 2012; Neupane et al. 2018).

Managing water services for delivering equitable access requires transformative actions that empower women and marginalized groups in water decision-making, especially in countries with persistent gender and social inequalities (Joshi and Nicol 2020; Clement et al. 2012). Therefore, transformation is needed in WASH policy, planning, and implementation to allow policymakers and WASH stakeholders to conceptualize and operationalize WASH development beyond the traditional engineering-economic approaches (Clement et al. 2012; Harou et al. 2020). Taking these perspectives into consideration, this study defines human rights and transformational paths to WASH development in Nepal as:

“Those efforts in the WASH sector which recognize power dynamics and structural issues of inequality, inclusion, exclusion, and human development that shape access to WASH services and decision-making by women and marginalized groups, and focus on the need for an action, a process, and a set of desired outcomes. Alternatively, a way of developing the WASH sector is one that results in positive change in the livelihoods of women and men with different identities, including marginalized groups, through reliable, affordable and safe services, and one that does not reinforce existing exclusion on the basis of gender, class, ability, caste, ethnicity, religion, and language (adapted from IDPG 2017).”

The study will unpack opportunities and challenges for practicing human rights and transformational approaches to WASH services in the federal context of Nepal. These approaches are key to achieving inclusive processes and outcomes. The study uses transparency, accountability, participation, gender, social inclusion, and equity perspectives as guiding criteria for analyzing the following dimensions of changes in the WASH sector after the rollout of federalism.

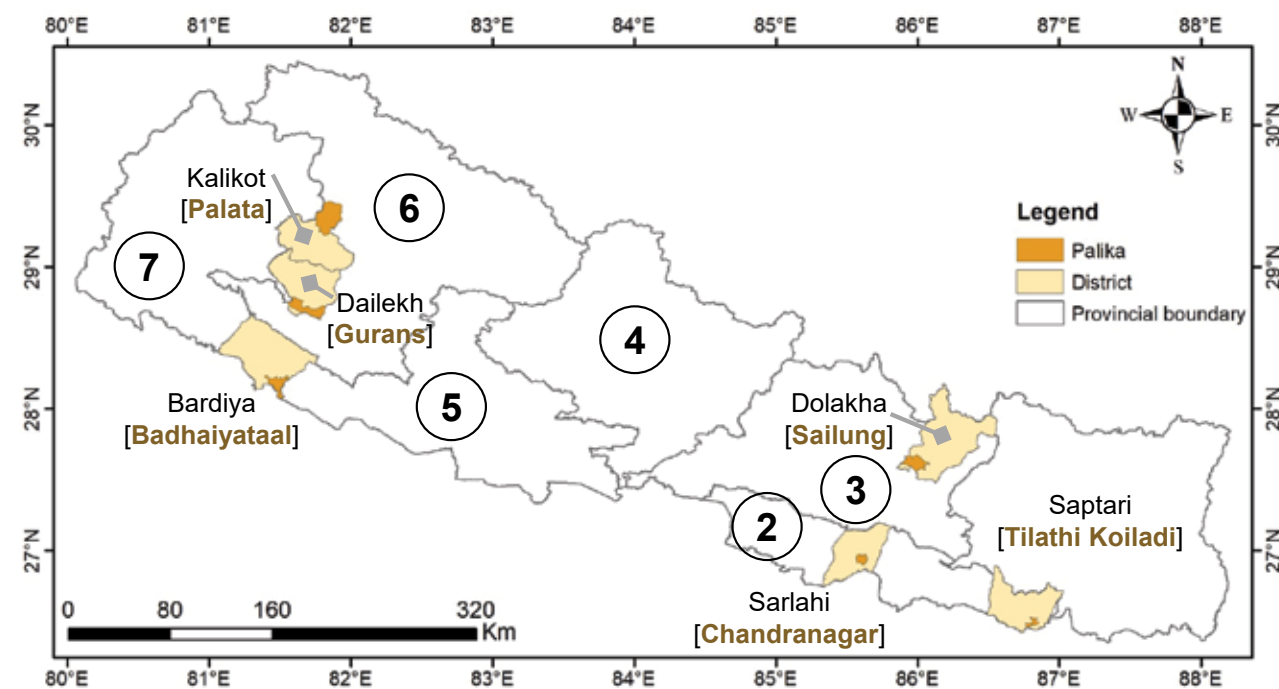
- i. Policy frameworks: Constitutional provisions along with WSS policies created after the rollout of federalism.
- ii. Sharing of state powers and functions for WASH: Jurisdictions, power, and functions of the three levels of government on WASH.
- iii. Actors, roles, and financing: Organizational restructuring and the role of public sector institutions and financial resources for delivering WSS services under the federal system.
- iv. WASH status and services: Status of WASH access, and people's satisfaction with public services under federalism.

- v. WASH coordination, monitoring and data: Role of WASH stakeholders related to the coordination, monitoring, and institutionalization of data.
- vi. GESI in WASH services and decision-making: Inclusivity in local water user and sanitation committees (WUSCs), WASH decision-making, and GESI provisions in policies, finance, and WSS services access.

The study applied both quantitative and qualitative methods for collecting and analyzing primary and secondary data relating to the six dimensions of human rights and transformative approaches to WASH under federalism.

## Study Area

The authors selected six rural municipalities (Figure 1), three in east Nepal and three in the west, as case study areas based on the prior experience of WaterAid and the International Water Management Institute (IWMI) within the study area, and the diversity of rural municipalities in terms of the level of development and socioeconomic contexts. The characteristics of the rural municipalities and districts selected for this study are shown in Tables 1 and 2, and their locations in Figure 1.



The selected *palikas* represent three agro-ecological zones with great diversity in terms of livelihoods, accessibility, and socio-economic related hardships. Saptari and Sarlahi in the Madhesh Province and Bardiya in the Lumbini Province lie in the plains (Terai region), while Dolakha in the Bagmati Province, Dailekh, and Kalikot in the Karnali Province are high-mountain and mid-hill regions.

**Table 1.** Characteristics of rural municipalities.

| Details  | Badhaiyatal  | Gurans  | Palata  | Sailung  | Chandranagar  | Tilathi Kailadi   |
|--|--|---|---|--|---|---|
| District   | Bardiya  | Dailekh   | Kailkot   | Dolakha  | Sarlahi   | Saptari   |
| Area (km <sup>2</sup> )                            | 115.2  | 164.8   | 318.8   | 128.7 <sup>a</sup>   | 47.5 <sup>b</sup>   | 32.9 <sup>c</sup>   |
| Topography (masl)                                  | 143–157 <sup>d</sup>   | 547–2,739   | 954–4,433 <sup>e</sup>                                  | 760–3,063a   | 60–120b   | 50–78 <sup>c</sup>  |
| Households   | 10,333   | 4,096   | 2,421h  | 5,788 <sup>a</sup>   | 5,850 <sup>b</sup>  | 7,133 <sup>c</sup>  |
| Population   | 47,948f  | 22,033 <sup>g</sup>   | 15,303h   | 28,841 <sup>a</sup>  | 36,031 <sup>b</sup>   | 38,365 <sup>c</sup>   |
| Literacy rate (%)                                  | 66f  | 67 <sup>g</sup>   | 49h   | 79 <sup>a</sup>  | 53b   | 91c   |
| Tmin-Tmax (° C)                                    | 7.7–42.2   | 25.0–35.0   | -6.0–17.1 <sup>i</sup>                                  | 8.0–19.0 <sup>a</sup>  | 20–31 <sup>k</sup>  | 15.0–37.0 <sup>c</sup>  |
| Annual rainfall (mm), spatial average <sup>i</sup> | 1,410  | 1,488   | 653   | 1,701  | 1,550   | 1,612   |
| Major caste and ethnic groups                      | Terai Janajati<br>Dalits<br>Badi<br>Hill Brahmin and<br>Chhetri                    | Hill Brahmin and<br>Chhetri<br>Dalits<br>Janajati<br>Raute (highly<br>marginalized groups)  | Dalits,<br>Hill Brahmin, and<br>Chhetri, Thakuri        | Janajati<br>Hill Brahmin and<br>Chhetri<br>Dalits                                | Terai Brahmin and<br>Chhetri<br>Dalits<br>Muslims   | Terai Brahmin and<br>Chhetri Dalits,<br>Muslims   |
| Livelihood sources <sup>j</sup>                    | Agriculture<br>Migration<br>Tourism<br>Jobs<br>Small and medium enterprises (SMEs) | Agriculture<br>Migration, Jobs<br>SMEs (vegetables,<br>non-timber forest<br>products NTFPs) | Agriculture<br>Migration,<br>Wage labor<br>SMEs (shops) | Agriculture<br>Migration,<br>Wage labor,<br>Tourism, SMEs<br>(vegetables, NTFPs) | Agriculture<br>Fishery<br>Migration,<br>Wage labor,<br>Jobs, SMEs<br>(cereals, legumes,<br>vegetables, shops) | Agriculture<br>Migration,<br>Wage labor<br>Jobs, SMEs<br>(cereals, legumes,<br>vegetables, shops) |

Source: Secondary data.

Notes:

<sup>a</sup> SRMO 2075. Municipal Profile of Sailung Rural Municipality 2075. Sailung Rural Municipality Office (SRMO), Sailung, Dolakha.

<sup>b</sup> CRMO 2075. Municipal Profile of Chandranagar Rural Municipality 2018. Chandranagar Rural Municipality Office (CRMO), Chandranagar, Sarlahi.

<sup>c</sup> TKRMO 2075. Municipal Profile of Tilathi Kailadi Rural Municipality 2075. Tilathi Kailadi Rural Municipality Office (TKRMO), Tilathi, Saptari.

<sup>d</sup> BRMO 2075. Rural Municipality Profile of Bardiya Taal Rural Municipality 2075, Bardiya Taal Rural Municipality Office (BRMO), Maina Pokhari, Bardiya.

<sup>e</sup> Derived based on Aster-GDEM of 30 m horizontal resolution taken from NASA JPL (2009). Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER)

Global Digital Elevation Model Version 2 (GDEM V2) [Dataset]. United States National Aeronautics and Space Administration, Jet Propulsion Laboratory (NASA JPL).

<sup>f</sup> doi:10.5067/ASTER/ASTGTM.002. (accessed on March 27, 2013).

<sup>g</sup> <http://nationaldata.gov.np/LocalLevel/Index/51208>

<sup>h</sup> <http://nationaldata.gov.np/LocalLevel/Index/60611>

<sup>i</sup> <http://nationaldata.gov.np/LocalLevel/Index/60501>

<sup>j</sup> Extracted based on annual rainfall surface raster of Nepal from Department of Hydrology and Meteorology, Government of Nepal.

<sup>k</sup> CBS 2072. District Profile Sarlahi 2072. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Mahottari.

<sup>l</sup> Average monthly temperature of Kailkot is taken as representative for Palata.

**Table 2.** Characteristics of study districts.

| Details   | Bardiya   | Dailekh   | Kailikot  | Dolakha   | Sarlahi   | Saptari   |
|---|---|---|---|---|---|---|
| Agro-ecological zone                              | Terai   | Mid-Hill  | Mid-Hill  | High Mountain   | Terai   | Terai   |
| Area (km <sup>2</sup> )                           | 2,025 <sup>a</sup>  | 1,50 <sup>b</sup>   | 1,741 <sup>c</sup>  | 2,191 <sup>d</sup>  | 1,259 <sup>e</sup>  | 1,363 <sup>f</sup>  |
| Topography (masl)                                 | 138-1279 <sup>a</sup>   | 544-4168 <sup>b</sup>   | 738-4790 <sup>c</sup>   | 762-7134 <sup>d</sup>   | 60-659 <sup>e</sup>   | 61-305 <sup>f</sup>   |
| Households (No.) <sup>g</sup>                     | 83,147  | 48,915  | 23,008  | 45,688  | 132,844   | 121,098   |
| Population (No.) <sup>g</sup>                     | 426,576   | 261,770   | 136,948   | 186,557   | 769,729   | 639,284   |
| Literacy rate (%) Women <sup>g</sup>              | 58  | 53  | 46  | 54  | 37  | 43  |
| Literacy rate (%) Men <sup>g</sup>                | 73  | 73  | 68  | 73  | 56  | 67  |
| Tmin-Tmax (° C)                                   | 7.7-42.2  | 25.0-35.0   |   | 8-19 <sup>d</sup>   | 20-31 <sup>e</sup>  | 10-40 <sup>f</sup>  |
| Average annual rainfall (mm) <sup>h</sup>         | 1,466 <sup>a</sup>  | 1,219 <sup>b</sup>  | 831 <sup>c</sup>  | 1,553 <sup>d</sup>  | 1,473 <sup>e</sup>  | 1,402 <sup>f</sup>  |
| Socio-cultural diversity                          |   |   |   |   |   |   |
| Gender and social discrimination forms            | Patriarchy<br>Caste and ethnicity<br>Class<br>Bonded labor<br>Village leader (male) | Patriarchy<br>Caste and ethnicity<br>Class<br>Village leader (male) | Patriarchy<br>Caste and ethnicity<br>Class<br>Village leader (male) | Patriarchy<br>Caste and ethnicity<br>Class<br>Village leader (male) | Patriarchy<br>Caste and ethnicity<br>Class<br>Religion<br>Language<br>Village leader (male) | Patriarchy<br>Caste and ethnicity<br>Class<br>Religion<br>Language<br>Village leader (male) |
| HDI <sup>i</sup>                                  | 0.466   | 0.422   | 0.374   | 0.459   | 0.402   | 0.437   |
| Multidimensional Poverty Index (MPI) <sup>j</sup> | 0.133   | 0.230   | 0.230   | 0.051   | 0.217   | 0.217   |
| Study rural municipalities                        | Badhaiya TaaI   | Gurans  | Palata  | Sailung   | Tilathi Kolladi   | Chandranagar  |
| Sample wards of study rural municipality          | 5, 6, 8, 9  | 5, 6, 7, 8  | 1, 2, 7, 8  | 3, 4, 6, 7  | 1, 2, 4, 8  | 2, 3, 6, 7  |

Source: Secondary data.

Notes: <sup>a</sup> CBS 2075. District Banke 2075. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Banke.

<sup>b</sup> CBS 2075. District Dailekh 2075. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Surkhet.

<sup>c</sup> CBS 2075. District Kailikot 2075. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Surkhet.

<sup>d</sup> DDCO 2072. District Profile of Dolakha 2072. District Development Committee Office (DDCO), Information Department, Dolakha.

<sup>e</sup> CBS 2072. District Profile Sarlahi 2072. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Mahottari.

<sup>f</sup> CBS 2075. District Profile Saptari 2075. National Planning Commission Secretariat, Central Bureau of Statistics, Office of Statistics, Saptari.

<sup>g</sup> CBS 2011.

<sup>h</sup> DHM 2017.

<sup>i</sup> NPC and UNDP 2014.

<sup>j</sup> NPC and OPHI 2018.

## Data and Sources

The study gathered primary and secondary data as described below.

**Desk review:** The study team reviewed several policy frameworks, including the Constitution of Nepal (2015), the Local Government Operation Act (LGOA) (2017), the 15th National Plan Approach Paper (2019–2023), WASH policies and programs of federal and subnational governments of the study areas, research reports, and impact studies by WASH development partners. In addition, the team reviewed scientific and research literature on human rights, governance, and the equity and gender dimensions of WASH.

**Key informant interviews:** The study team gathered information and insights on WASH service delivery systems using key informant interviews with 12 locally elected representatives, five social workers, five teachers, three health workers, two youth club members, 10 representatives of Water User Associations and WUSCs, two WASH technical staff in each of the six *palikas*, and one information officer with the Federal Water Supply and Sewerage Management Project of the Karnali Province.

**Perception surveys:** The researchers surveyed perceptions and satisfaction with WASH services among 486 households selected randomly from four wards of each study *palika*. Over 56% (274) of the survey respondents were men and 43.6% (212) were women. By caste and ethnicity, the respondents represented Brahmin, Chhetri and Thakuri (36.6%), Janajatis (32.7%), Dalits (15.6%), and other (15%).

Four wards were selected in consultation with elected representatives and WASH focal persons at the municipality office. Out of the four wards, two represented wards with functional water supply systems and the other two with nonfunctional systems. The questionnaires were pre-tested. There were 12 local social mobilizers, including six women, who were trained to conduct the survey and enter data directly into the data tab using a mobile application. The age of the social mobilizers varied from 21 to 38 years and their ethnicities were Janajati, Madhesi Brahmin, Madhesi Other, Khas, and Tharu. The responses were analyzed using descriptive methods.

**Limitations of the study:** The COVID-19 pandemic affected the study. The researchers were unable to make second visits to the Madhesh Province and Karnali Province as originally planned. As a result, they were unable to validate the primary data collected during the first visits. The perception survey was conducted through in-depth qualitative interviews and informal interactions with subnational policymakers, WASH sector officials and project staff. The data included information discussed in radio dialogues and webinars on WASH planning, budgeting, and policymaking at the local level. These events were organized by stakeholders during the lockdown. The study transcribed three webinars on WASH issues (financing, governance, WASH and COVID-19, the role of *palikas* on WASH services during the pandemic and the challenges of practicing decentralized WASH). In addition, the study used three radio dialogues on citizen participation in annual planning and budgeting by local governments, to understand the perspectives of people and officials regarding opportunities and challenges related to inclusive WASH practices in rural areas. The radio dialogues (Mutual Accountability: Sajha Boli) were broadcast on Sagarmatha FM 102.4 on Mondays at 7:30 AM. Field data were verified based on the review of policies and programs from the provincial water supply divisions and associated ministries.

## Global and National WASH Policy Frameworks

This chapter analyzes global frameworks as well as constitutional and sectoral policy provisions in Nepal regarding WASH using human rights and transformational change perspectives.

### Global Policy Frameworks: WASH Rights

In 2002, the Committee on the International Covenant on Economic, Social, and Cultural Rights adopted General Comment No. 15 on the human right to water. Comment No. 15 defines the human right to water as the right of everyone, without discrimination, to adequate, safe, accessible, and affordable water for personal and domestic uses (Roaf et al. 2014). On July 28th 2010, the United Nations General Assembly reaffirmed that clean drinking water and sanitation are essential to the realization of all human rights. Other international frameworks ratified by the Government of Nepal guarantee WASH rights for women, girls, indigenous nationalities, and people with disabilities. These include the Convention on the Elimination of All Forms of Discrimination against Women (1979), the Convention on the Rights of Persons with Disabilities (2006), ILO Convention No. 169, the UN Declaration on the Rights of Indigenous Peoples, and the Sendai Framework (2015–2030).

The most recent human rights resolution on water was passed by the UN General Assembly in November 2019 and further recognizes the need for states to be gender responsive, socially inclusive, and accountable to ensure access to WSS or all women and girls in public and private spaces (United Nations 2019). It calls for the state to promote women's leadership and their meaningful and equal participation in decision-making on water and sanitation management, and to ensure that a gender-based approach is adopted by WASH programs (**Article 5-g**). In addition, the resolution calls upon "non-state actors, including business enterprises, both transnational and others, to comply with their responsibility to respect human rights, including the human right to safe drinking water and sanitation" (Article 7). As a signatory of these covenants, treaties, and conventions, Nepal is expected to ensure that its policy instruments, laws, and guidelines comply with these global frameworks.

## Constitutional Provisions for WASH: Toward Transformational Change

The Constitution of Nepal (2015) established the significance of inclusive WSS for people's health, prosperity, and the environment. It recognizes access to WSS as a fundamental right of every citizen. This right is articulated through several constitutional provisions, including Article 30, which guarantees the right of individuals to live in a healthy and clean environment, and Article 35, which ensures the right to access clean water and sanitation. The principles of gender equality, inclusion, transparency, accountability, participation, and nondiscrimination are articulated in Article 18 (right to equality), Article 24 (protection against discrimination), Article 38 (rights of women), Article 40 (rights of Dalits), Article 42 (right to social justice and inclusion), Article 44 (rights of consumers) and Article 50 (directive principles).

The Constitution is genuinely progressive in terms of seeking to achieve gender and socially inclusive WSS by implementing the fundamental rights of people to WSS services. It also ensures the rights of women; people who identify as lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ); people with disabilities and historically excluded groups to participate in all state structures and bodies. It calls for a proportional representation of women and underrepresented groups in state governance structures while ensuring their fundamental rights to participate in, and benefit from its interventions which are reflected in Articles 18, 38, 40, and 42. Article 51 (**Clause-j**) focuses on the policies related to social justice and inclusion for ensuring the socioeconomic development of people who are marginalized based on different social identities (e.g. class, caste, ethnicity, age, ability, region, sexual and gender minorities, religion, and occupation). These provisions, therefore, recognize the need for ensuring inclusion, social justice, and gender equality in WSS policymaking, decision-making, planning, and implementation processes.

According to the Constitution, the state shall pursue policies relating to different dimensions of development (Article 51). Out of 13 policies, four are related to: the political and governance systems of the state (Clause b-4); development (Clause f-1); and natural resources conservation, management, and use (Clause g-1); and basic needs (Clause h-13), which are associated with inclusive, fair, and sustainable WSS services and outcomes. The Constitution calls for an equitable distribution of benefits generated from natural resources by giving local people preferential rights, while prioritizing national investments in water resources based on people's participation and multi-use development. It also emphasizes the need for conservation and the sustainable management and use of natural resources, including water, land, and biodiversity (Article 51, Clause-g), which are key resources for human and environmental health.

These constitutional provisions offer Nepal's WASH sector opportunities to transform policies, programs, projects, institutional practices, and behaviors at all levels. The provisions recognize women, people with disabilities, LGBTIQ, and historically marginalized groups as important stakeholders who can and should contribute to improvements in the governance, sustainability, and functionality of WSS services provided by all levels of government.

However, translating these constitutional frameworks into sectoral policies tends to be a process burdened with governance agendas (Suhardiman et al. 2017; De Stefano and Hernandez-Mora 2018) and will take time to materialize. The following sections analyze the major constitutional amendments that drive changes in policy processes and the emergence of new policy frameworks to guide WSS interventions in the federal context.

## Major Governance Changes and Implications for WASH Services

Federalism in Nepal has led to significant changes in policymaking, planning, budgeting, staffing and between the relationships of community water institutions to the public sector's WASH institutions. As shown in Table 3, federalism has changed WASH governance from a centralized system to one of shared governance in which policymaking, decision-making, budgeting, planning, and implementation related to WASH development can take place at each level of government.

Local governments, with their constitutionally assigned exclusive and concurrent powers, have the mandate to independently choose their priorities and spend financial resources, which is a historic shift (Acharya 2018). As an

example, in FY 2018–2019, 15% of the total national budget was allocated to the local government as fiscal equalization and conditional grants (WaterAid 2018), which was not possible in the previous system. In FY 2023–2024, NPR 1.3 billion (~ USD 9.43 million), was the federal fiscal transfer to local governments under a conditional grant (WaterAid 2023). There is also a big shift in the sharing of total government revenue among the different tiers of government. In the previous system, local governments used to receive around 5–6% of total government revenue, while they received 40% under the federal arrangement in FY 2018–2019 (Bhurtel 2020). This fiscal decentralization provides an opportunity for local governments to address the challenges they face in ensuring safe and reliable WSS services in their constituencies.

Likewise, the public sector’s recruitment processes have been devolved to the Provincial Public Service Commission, a new structure under the federal system, that has a mandate to conduct examinations for civil service positions required by subnational government agencies (FIARCC 2016). The establishment of a new constitutional body, the National Natural Resource and Fiscal Commission (NNRFC), has facilitated the allocation of revenue from natural resources among three levels of government. In addition, local governments also have the power to develop and implement policies and standards for tax collection, distribution, and the regulation of natural resource enterprises. The revenue generated by local governments can be used for local WSS services. However, conflicts may likely arise while sharing natural resources and revenue between upstream and downstream governments (Poudel and Khatri 2019). There is also a dire need for strengthening policy and institutional capacity of local governments on fiscal management and formulating essential legislation and standards to implement their exclusive powers—including fiscal authority—granted under federalism (Acharya 2018).

**Table 3.** Key governance changes in the WASH sector and implications for WSS services under federalism.

| Attributes  | Before 2015  | After 2015  | Implications   |
|---|--|---|--|
| Policies, laws, and standards related to drinking water supply, sanitation, and hygiene | Development: national level<br><br>Implementation: subnational level | <ul style="list-style-type: none"> <li>Development and implementation: all levels of government.</li> </ul>   | <ul style="list-style-type: none"> <li>High level of horizontal and vertical coordination is needed for water supply and sanitation (WSS) policymaking.</li> <li>Intergovernmental and cross-sectoral contestation on water sources, allocation and uses, unless a strong institutional mechanism is in place.</li> </ul>  |
| Policies, laws, and standards on natural resources revenues and benefits sharing        | Development: national level<br><br>Implementation: subnational level | <ul style="list-style-type: none"> <li>Development and implementation: National Natural Resource and Fiscal Commission (NNRFC).</li> <li>Development and implementation of policies and standards for tax collection, distribution, and regulation of natural resources management-based enterprise: local governments.</li> <li>The need for ensuring people’s participation in policymaking, planning and investments in water resources infrastructure development.</li> </ul> | <ul style="list-style-type: none"> <li>Disputes between and among three levels of government in natural resources benefit sharing unless a strong water cooperation framework is established.</li> <li>Effective water governance mechanisms and civic engagement are critical to ensuring that those affected by water insecurity, have a voice as well as access to, and control over water management, water resource revenue, and water supply system functionality and sustainability.</li> </ul> |

USD 1 = NPR 136 (June 2025)

Continued >>>

Continued

| Attributes  | Before 2015   | After 2015   | Implications  |
|---|---|--|---|
| Staffing  | National Public Service Commission used to recruit for the public sector at all levels.   | <ul style="list-style-type: none"> <li>• Federal staff are to be hired by the National Level Public Service Commission.</li> <li>• Provincial and local staff are to be hired by the respective government in coordination with the Provincial Public Service Commission.</li> </ul>         | <ul style="list-style-type: none"> <li>• Engineers in Divisional Water Supply Offices work under the provincial level Ministry of Physical Infrastructure Development.</li> <li>• Engineers in <i>palikas</i> are responsible for water supply infrastructure projects.</li> <li>• Ensuring GESI in the new recruitment of WASH projects, as current staffing in the water sector is predominately dominated by men and advantaged groups.</li> </ul>   |
| WASH planning and implementation (Budget)   | Line ministries (i.e., water supply, health, environment, education).   | <ul style="list-style-type: none"> <li>• levels of government can plan and implement programs on WASH.</li> </ul>  | Sectoral agencies of each level may not give priority to WASH and water governance, as they focus on infrastructure (e.g., constructing drinking water infrastructure).   |
| WUSC relationships with the government for water supply and sanitation systems and services | Registration and operation of WUSCs by the District Water Supply and Sanitation Office (DWSSO).   | <ul style="list-style-type: none"> <li>• levels of government can register WUSCs depending on the scale of projects (large, medium, and small scale), but policy mechanisms for defining the processes are yet to take place.</li> </ul>   | <ul style="list-style-type: none"> <li>• More likely to register one WUSC in three levels of government, when line agencies of each level implement WSS projects in the same village.</li> <li>• Effective linkages between WUAs and local governments for addressing water stress and promoting sustainable, affordable, quality, and equitable WASH services delivery would be possible through the institutionalization of a WASH coordination unit at <i>palika</i> level.</li> </ul>   |
| Water Supply Management Board (WSMB)  | Supply of drinking water services in municipalities, including Kathmandu Valley – coordinated and managed by Kathmandu Upatyakya Khanepani Limited.   | <ul style="list-style-type: none"> <li>• WSMB can implement supply projects in collaboration with subnational governments, given new legislation in the WSS specifies the roles of WASH service providers without overlapping the roles among them.</li> </ul>                               | <ul style="list-style-type: none"> <li>• Establishing multistakeholder based WSMB at the subnational level would support in devising and implementing guidelines, standards and plans for water security, water quality, and the monitoring of water supply and sanitation service systems.</li> <li>• The multistakeholders WSMB can promote transparency and participatory need identification on water management and WSS when the platform includes civil society, the private sector, and representatives of right-holders.</li> </ul> |
| Nepal Water Supply Corporation (NWSC)   | Supply of drinking water services in 22 municipalities and one rural municipality. Overlapping of roles between NWSC with the Department of Water Supply and Sewerage (DWSS) and WSMB in some cities. | <ul style="list-style-type: none"> <li>• NWSC can implement water supply projects in collaboration with subnational governments, given new legislation in the WSS would specify the roles of the NWSC, and other WASH service providers without overlapping the roles among them.</li> </ul> | <ul style="list-style-type: none"> <li>• Limited coordination between NWSC, subnational governments, WUSCs and WSMBs</li> <li>• Establishing a WASH unit in local governments would provide support for water security while planning and implementing WASH programs in coordination with WUSCs, the private sector and sectoral line agencies.</li> </ul>  |

Source: Adapted from GoN 2015, FIARCC 2016 and MoWSS 2016.

Constitutional changes offer a unique opportunity for decentralized policymaking, planning, and development (Sharma 2020). Implementation will require technical, financial, and human resources along with political will and enforcement mechanisms to achieve inclusive outcomes in the WASH sector.

## Federal Government Policy Frameworks for WASH

After the 2017 elections, all levels of government have been exercising their power in making policies in the WASH sector. Some policies prepared prior to federalism are now being revised. As institutional arrangements, roles, and jurisdictions over public WASH service delivery have been distributed among all levels of government and different line ministries, the process of amending or making new policy frameworks on WASH is taking root. As presented in Table 4, the WASH sector has new policy frameworks. Furthermore, the regulations such as the Local Government Operation Act (2017), the 15th National Plan (2019-2023), the 16th National Plan (2024-2028), and the National Water Resources Policy (2020) also guide WASH interventions (Table 4).

**Table 4.** Federal legal and policy frameworks on WASH before and after federalism.

| Subsectors of WASH                    | Policy Frameworks Before 2015  | Policy Frameworks After 2015  |
|---------------------------------------|--|---|
| Water supply                          | <ul style="list-style-type: none"> <li>• Water Supply Rule (1998)</li> <li>• Water Resource Act, (1992)</li> <li>• Water Resource Rule, (1993)</li> <li>• Water Supply Management Board Act, (2006)</li> <li>• Nepal Water Supply Corporation Act (1989)</li> <li>• National Water Plan, (2005–2027)</li> </ul>  | <ul style="list-style-type: none"> <li>• Water Supply and Sanitation Act (2022)</li> <li>• Water Resources Bill, (2020) (draft)</li> <li>• National Water Resources Policy, (2020)</li> <li>• Nepal WASH Sector Development Plan, 2024-2043 (draft)</li> <li>• National Water Supply Quality Standard (2023)</li> <li>• Water Supply and Sanitation Rule, (2025)</li> <li>• National Water Supply, Sanitation and Hygiene (WASH) Policy (2023)</li> </ul> |
| Sanitation and hygiene                | <ul style="list-style-type: none"> <li>• Environment Protection Act, (1997)</li> <li>• Environment Protection Rule, (1997)</li> <li>• Rural Water Supply and Sanitation Policy, (2004)</li> <li>• Urban Water Supply and Sanitation Policy, (2009)</li> <li>• Sanitation and Hygiene Master Plan, (2011)</li> <li>• National Sanitation Policy (1994)</li> <li>• National Sanitation Master Plan (2011)</li> </ul> | <ul style="list-style-type: none"> <li>• Environment Protection Act, (2019)</li> <li>• Environment Protection Rule, (2019)</li> <li>• National Health Policy, (2019)</li> <li>• Public Health Service Act, (2018)</li> <li>• Public Health Service Rule, (2020)</li> <li>• National Standards for Domestic Wastewater Effluent, (2023)</li> <li>• Total Sanitation Guideline, (2017)</li> </ul>   |
| WASH at local level                   | <ul style="list-style-type: none"> <li>• Local Self Governance Act, (1998)</li> </ul>  | <ul style="list-style-type: none"> <li>• Local Government Operation Act, (2017)</li> </ul>  |
| WASH in the National Development Plan | <ul style="list-style-type: none"> <li>• Initiated from the 5<sup>th</sup> Five-Year Plan, (1975–1980)</li> </ul>  | <ul style="list-style-type: none"> <li>• 15<sup>th</sup> National Plan (2019–2023), 2019</li> <li>• 16<sup>th</sup> National Plan (2024- 2028), 2024</li> </ul>   |

Source: Government of Nepal websites.

The Constitution of Nepal aims to achieve inclusive development through devolving administrative, fiscal, judicial, and legislative functions, promoting GESI and effective governance practices in the state's structures, policies, and development projects. This section analyzes the extent to which the new WASH policy frameworks operationalize human rights, GESI, and transformational paths to WASH.

## More Power and Responsibilities for WASH Services Devolved to Local Level

Local governments are powerful frontline actors in the federal system to design, implement, monitor, evaluate, and regulate policies, laws, plans, and standards related to local drinking water, basic health and sanitation, solid waste management, environmental conservation, and micro-hydropower, alternative energy, local irrigation, and local services management (FIARCC 2016). They can determine water tariffs, manage water supply, sanitation, and sewerage at the *palika* level. The Constitution grants them these powers and responsibilities and the Local Government Operation Act (LGOA) that came into effect on October 15, 2017 operationalizes these powers.

The LGOA clearly defines the functions, duties, rights of local governments and their wards (the government entity closest to the people) and, the District Coordination Committee (DCC). It has a provision for proportionate representation in committees, subcommittees, and working groups that a local government would establish (Article 111). The Act also focuses on the need for GESI during the local planning process, collection of gender-disaggregated data, dealing with harmful practices, and making the transport sector friendly for women and people with disabilities.

The Act, however, is silent on provisions to ensure equity and inclusion while prioritizing WASH projects. The Act has neither explicit provisions on gender-responsive budgeting nor commitments to promoting inclusion and diversity in leadership roles, and, decision-making of sectoral portfolios, including WASH. In other words, the LGOA is gender aware but has made limited efforts to operationalize justice, gender equality, and inclusion principles laid out in the Constitution. As it stands, the law will contribute to reinforcing pre-existing gender inequalities unless specific WASH policies, plans, and programs of the local governments recognize the root causes of poverty, exclusion, and marginalization, and define action plans to address systemic barriers in the WASH sector. At the federal level, new policy frameworks largely focus on technical and hardware elements of WSS while neglecting the operationalization of human rights and GESI principles laid out in the Constitution.

## Federal WASH Policy Frameworks: Technical Perspectives Dominate

The major policy instruments formulated after federalism that shape investment and programs on WSS are the: Water Supply and Sanitation Rule (2025); the National Water Supply, Sanitation, and Hygiene Policy (2023); the Water Supply and Sanitation Act (2022); the draft Water Resources Bill (2020); the Water Resources Policy (2020); the Environmental Act (2019); and the draft WASH Sector Development Plan (2024-2043) (Table 5). These instruments show that the government recognizes the role of water resources in national socioeconomic development and environmental conservation, and the need to protect the fundamental rights of citizens to access safe, affordable, reliable, and equitable WSS services. However, the policies are predominantly influenced by technical perspectives with limited measures to operationalize rights, GESI, and recognize or capitalize on potential transformations through improved water governance, bottom-up and inclusive water management, and the WSS service system within the federal structure. The following sections present the key features of new WASH policies from human rights and transformational change perspectives.

### Case 1. Water Supply and Sanitation Rule (2025)

This Water Supply and Sanitation Rule (2025) (2081 B.S.) is designed to support the implementation of the Water and Sanitation Act (2022) (GoN 2025). As an umbrella WSS rule, it clearly defines the roles and responsibilities of the three levels of government on WSS services. The Rule mandates that the federal government handles larger-scale projects with an investment above NPR 500 million, the provincial government takes responsibility for medium-sized projects requiring an investment between NPR 150 to 500 million, and local governments are responsible for smaller projects that need less than NPR 150 million. Although there are no GESI provisions for WSS services and decision-making, the Rule commits to ensure equitable WSS services. It has a provision for exempting permissions related to the survey, design, construction, and operation of small-scale supply and sanitation schemes serving up to 500 people or a scheme with a budget of up to NPR 10 million. These schemes should target the extreme poor, Dalits, and marginalized communities (Article 15.1). By prioritizing domestic water supply, the rule ensures that essential human needs are met before supplying drinking water for institutions and industries.

### Case 2. National Water Supply, Sanitation, and Hygiene (WASH) Policy (2023)

This policy aims to ensure universal access to safe drinking water and sanitation services by 2100 B.S. The policy outlines five key objectives (MoWS 2023, 4). None of the objectives are specific to achieve equitable and GESI informative WASH programs, institutional processes and learning. Among its 23 strategies, the policy includes a commitment to include GESI principles in the design and implementation of WASH plans, programs, and budgets (Strategy 5.6.16).

However the action strategies supporting the GESI approach primarily focus on promoting decision-making roles for poor and marginalized groups through capacity development, and the identification and targeting of poor households for specific programs in collaboration with the local level. The policy understands GESI as a micro-level issue which is a thinking barrier resulting in positive development outcomes (Khadka et al. 2024). The policy undermines transformative approaches to address systemic barriers that limit access to, and control over WASH services by women, people with disabilities, and marginalized groups (Khadka et. al 2023). While it commits to providing user-friendly toilets for children, the elderly, people with disabilities, and different genders, it lacks measures to ensure that the design, construction, and monitoring of these toilet facilities meet the diverse needs of these groups.

### **Case 3. Water Supply and Sanitation Act (2022)**

This Act emphasizes the need to respect, protect, and fulfill the fundamental right of every citizen to WSS by providing accessible, clean, and quality services including the effective management of sewerage and sewage (GoN 2022). It upholds the rights of all to reliable and safe drinking water and quality sanitation services while ensuring nondiscrimination in service delivery. The Act recognizes the preferential rights of individuals and communities to water sources they have used for domestic purposes since time immemorial (Article 4.2) and prioritizes the domestic use of water over other uses.

The Act includes a provision that holds all levels of government accountable for respecting protecting, promoting and fulfilling people's rights to WSS through coordinated efforts. Another provision includes equity considerations where individuals or households identified by the government as poor or marginalized would be exempted from water tariffs (Article 33.4). Likewise, Article 35 allows each level of government to waive drinking water fees for marginalized groups or individuals who live in difficult situations. The Act has a provision for the inclusion of one woman on the board of the Tariff Commission, three local women representatives (out of seven) on the Intergovernmental Coordination Committee (ICC), and one woman expert (out of three) as a member in the ICC. Although it states that the composition of the ICC shall be based on the principles of inclusion, it does not go beyond reserving seats for women. Such token efforts do not guarantee the practice or promotion of equitable, inclusive, and accessible WSS services and infrastructure, including menstrual hygiene management and decision-making. The important roles of civil society organizations (CSOs), nongovernmental organizations (NGOs), and WUSCs in achieving WSS outcomes are also not discussed (Table 5).

### **Case 4. National Water Resources Policy (2020)**

The new Water Resources Policy (2020) (MoEWRI 2020) serves as the umbrella framework guiding all levels of government in developing and implementing policies, regulations, plans, strategies, and programs on conservation, management, and the sustainable use of water-resources. It supports multiple water uses—including domestic, productive, and environmental purposes—in coordinated ways. It envisions contributing to economic prosperity and social transformation through equitable and sustainable development aligned with the Constitution of Nepal (2015) and the subsequent national vision of prosperity and happiness. The policy has seven strategic objectives and 11 associated strategies, each with a few sets of operational policies. It focuses on: i) water resources for addressing multiple needs, including irrigation, energy, domestic use, and aquatic biodiversity conservation; ii) water-induced disaster and climate resilient water resources management; iii) the development of water resources for ensuring water services are affordable, reliable, and equitable; iv) coordination and institutional development for water, benefit-sharing, and uses and; v) institutionalization of data, evidence, and research-based water management, and monitoring. While the policy is comprehensive in terms of visualizing the role of water in socioeconomic development, none of the seven strategic objectives, 11 strategies, and 104 operational policies have provisions for operationalizing rights-based approaches and GESI in water resources management, or water institutions at scale (Table 5). The policy is guided by a technical rather than a transformative perspective of water resources management. This could limit actions for inclusive development outcomes in the WASH and water sectors (Khadka et al. 2021).

### **Case 5: Draft Water Resources Bill (2020)**

The draft Water Resources Bill (2020) (MoEWRI 2020) aims at sustainable development and the use of water resources for humanity, climate resilience, biodiversity conservation, and the equitable sharing of water benefits among stakeholders. It focuses on the multipurpose uses of water, including irrigation, domestic use, hydropower, and the conservation of rivers and aquatic biodiversity. It has provisions on risk management and building the resilience of watersheds and ecosystems to the impacts of climate change. The bill ensures rights to water for all and calls for nondiscrimination in accessing safe and adequate water for drinking and domestic uses (Article 4). Article 10 recognizes community-based water management and benefit sharing. However, the bill undermines provisions to make state and non-state actors accountable for the implementation of human rights, community-led water management, and GESI

approaches when managing water resources for multiple purposes, including WASH. Critics point out that the bill tends to focus less on protecting the rights of highly marginalized communities and resource-poor farmers to access water and undermines their participation in sustainable water management (FMIST 2020). In 2024, the bill was discussed with multiple stakeholders through transparent consultations (KC and Onta 2024) and is currently undergoing the approval process. However, the extent to which it incorporates feedback from these consultations requires further analysis.

## Case 6. Draft Sector WASH Development Plan (2024-2043)

The draft WASH Sector Development Plan (WASH SDP) developed in 2016 has been updated in 2024 after taking into account the outcomes of the Joint Sector Review (JSR) of the WASH sector. The 20 year WASH SDP (2024-2043) (draft) is a comprehensive strategic road map for strengthening policies, interventions, and capacities aimed at achieving universal access to WASH for all (MoWS 2024). GESI is one of the seven strategic themes aimed at ensuring accessibility and inclusivity, particularly for vulnerable and marginalized groups. In alignment with the principle of 'leaving no one behind', the plan has dedicated objectives, expected outcomes, and strategies targeting rural communities, indigenous groups, woman and children, persons with disabilities, and individuals living in poverty. As presented in Table 5, the SDP is responsible for ensuring WASH services, capacity building, and decision-making by the identifies target groups. The plan also commits to address menstrual hygiene and estimates NPR 4272.23 billion as the required funding to implement all the thematic programs, including GESI. However the budget allocated to the GESI theme is very low—0.17% of the total budget—amounting to NPR 7438.54 million over the two decades. While the plan is committed to addressing GESI issues at the grassroots level, it lacks strategic measure and perspectives to tackle institutional barriers and unequal gendered power dynamics within WASH governance. These shortcomings disempower target groups to participate meaningfully in and benefit from WASH sector's programs and investment. It is interesting to note that although the SDP is GESI responsive, recent WASH legislation does not reflect GESI provisions or perspectives. Furthermore, the sectoral legislations in the water, energy and food sectors are gender unaware, although the Constitution of Nepal and national development frameworks commit to inclusive development outcomes in these sectors (Khadka et al. 2024).

## Case 7. Draft WASH Sector Development Plan (2016-2030)

The draft WASH Sector Development Plan (WASH SDP) is a comprehensive strategic document. It analyzes WASH issues in sectoral policies, strategies, roles and functions of government actors involved in provisioning WASH services in rural and urban areas, and the role of people in WSS service systems. It recognizes the need for improving three dimensions of WASH governance (participation, citizen responsibility to make political leaders, the state and WSS service providers accountable, as well as the responsiveness of WASH sector actors for addressing the needs and rights of people) (MoWSS 2019, 27). The plan has a section on the GESI framework that recognizes the need to understand WASH as a technical solution and a complex system in which power dynamics and informal institutions interact with the processes of WASH priority and deliberations. The framework recognizes that elements such as gender, caste, ethnicity, religion, minority, remoteness, and poverty influence people's access to WASH services and management. Within a broad framework of rights, equity, and empowerment, the GESI approach recognizes the need for policies that would ensure access to WASH services by women, girls, and poor and excluded groups (Table 5). As stated earlier, this WASH SDP has now been revised in line with the federal system and related institutional arrangements, providing strategic roadmaps on how the sector can contribute to achieving national objectives related to WASH. The extent to which the GESI provisions of the WASH SDP has been implemented requires further analysis.

**Table 5.** Provisions of human rights and transformational approaches to WASH in water policies in Nepal prepared after federalism.

| Goal/Objective  | Thematic intervention  | Accountability  | Participation and transparency   | Rights to water access   | Justice, and nondiscrimination  | Gender equality & social inclusion |
|---|--|---|--|--|---|------------------------------------|
| <b>Water Supply and Sanitation Rule (2025) (2081 B.S.)</b>    |  |   |  |  |   |                                    |
| Aims to implement the Water Supply and Sanitation Act (2022). | Regulate, monitor and manage drinking water supply and sanitation services. It specifies the roles and responsibilities of the three tiers of government on drinking water supply and sanitation services (Article 3). It categorizes WSS projects into small, medium, and large, each with a specification in terms of investment and beneficiaries. The federal, provincial, and local level government has responsibilities for these small, medium, and large scale WSS projects respectively. | Service providers need to coordinate with the local government when providing and managing drinking water and sanitation services (Article 27). | Community institutions or user groups that aim to develop and implement WSS systems for community benefit should be registered with the local government (Article 19.1). | Service providers should first prioritize supplying water for domestic use (Article 33.1).<br><br>Nonetheless, service providers should consider providing water to those communities affected by natural disasters such as fires, landslides, pandemics, and earthquakes. | Exemption from permissions for services related to the survey, design, construction, and operation of a small-scale water supply and sanitation scheme serving up to 500 people or with a budget of approximately NPR 10 million. This scheme should target the extreme poor, Dalits, and marginalized communities (Article 15.1).<br><br>Article 51.1 provides for up to an 80% exemption on the costs of installing water supply taps, toilets, and sewerage facilities for identified poor individuals or households, and allows for the exemption of service fees based on the economic situation of users. | No GESI provision                  |

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| Goal/Objective   | Thematic intervention   | Accountability   | Participation and transparency   | Rights to water access  | Justice, and nondiscrimination   | Gender equality & social inclusion  |
|--|---|--|--|---|--|---|
| <b>National Water Supply, Sanitation and Hygiene Policy 2023 (2080 B.S.)</b>   |   |  |  |   |  |   |
| Provide safe drinking water and sanitation services for all by 2100 B.S. while achieving sector-specific Sustainable Development Goals (SDGs). | <p>Ensure sustainable availability of water for drinking, sanitation, and hygiene purposes.</p> <p>Provide equitable access to adequate and safe drinking water, sanitation, and hygiene services for all.</p> <p>Prevent water pollution and promote environmental sanitation.</p> <p>Promote good sectoral governance.</p> <p>Create a conducive environment for achieving sectoral goals and related investment.</p> | <p>Ensure WASH service development, management, and delivery is transparent and accountable.</p> <p>Sectoral organizations will be made transparent and accountable in the development, management, and delivery of drinking water and sanitation services.</p> <p>Promote transparency and accountability through the 'citizen reporting card' and 'public audit' tool respectively.</p> <p>Establish a good governance help desk in each province.</p> | <p>Partnerships with media to promote transparency and accountability.</p> <p>Participation of individuals living in poverty in decision-making through capacity-building initiatives.</p> <p>Inclusion of a WASH unit in the local government's organizational structure.</p> | <p>Not specific, although the provisions related to water source protection, groundwater recharge, and watershed conservation are presented in the policy (Strategy 5.6.2).</p> | <p>One of the guiding principles of the policy is to deliver equitable services, including the protection and promotion of human rights, gender equality, and social justice (p. 3).</p> <p>Priority should be given to communities without access to clean drinking water when preparing municipal-level WASH plans (Strategy 5.6.4).</p> <p>Ensure equitable access to, and benefits from safely managed WASH services and facilities.</p> | <p>The policy commits to equity and inclusion in the WASH sector through the explicit inclusion of justice as one of its 13 principles. Policy actions related to sanitation and hygiene commit to ensuring that institutional and public toilets are user-friendly for all genders, children, senior citizens and people with disabilities (Strategy 5.6.6).</p> |

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| Goal/Objective   | Thematic intervention  | Accountability   | Participation and transparency  | Rights to water access   | Justice, and nondiscrimination   | Gender equality & social inclusion   |
|--|--|--|---|--|--|--|
| <b>Water Supply and Sanitation Act (2022)</b>  |  |  |   |  |  |  |
| Provide accessible, clean and quality drinking water and sanitation services, and manage and sewerage and wastewater by respecting, protecting, and fulfilling citizens' fundamental right to clean and quality water and sanitation services. | Water supply, Fecal Sludge Management (FSM), sanitation, and environmental conservation. | All levels of government are responsible to protect, promote, respect, fulfill, and implement rights of citizens to safe WSS (Article 3.3).<br><br>Citizens are responsible for the conservation and sustainable use of water sources (Article 6).<br><br>Priority is given to the domestic use of water, followed by water supply for public, industrial, business, and institutional purposes. | Participation of service providers (e.g., water user groups, private sector, entities) in providing water services. | The right of every citizen to safe WSS services (Articles 3.1, 3.2) such as the: (i) right to access a clean water supply; (ii) right to obtain adequate, clean, quality water supply regularly; and (iii) right to access quality sanitation services.<br><br>No discrimination shall be made when providing WSS services through community organizations, or the private and corporate sector (Article 18.3).<br><br>Recognizes the preferential rights of individuals and communities to water sources that they have used for domestic purposes since time immemorial (Article 4.2). | Provision that allows licensed service providers to offer prescribed concessions on charges and tariffs for tap connections, toilet construction, and sewerage connections to poor families and individuals identified by the Government of Nepal (Article 33-4)<br><br>Each level of government can reduce or waive the water supply tariff for the poor marginalized communities or users affected by natural calamities (Article 35). | Inclusion of at least one woman during the selection of a president or members in the Tariff Commission (Article 28.3).<br><br>The mayor or deputy mayor selected at the local level to represent the province in the Intergovernmental Coordination Committee (ICC) should include at least three women.<br><br>Selection of all seven representatives should be based on the principles of inclusion (Article 55.1.5).<br><br>At least one woman expert to be elected as a member in the ICC (Article 55.1.6). |

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| Goal/Objective   | Thematic intervention  | Accountability  | Participation and transparency  | Rights to water access   | Justice, and nondiscrimination  | Gender equality & social inclusion  |
|--|--|---|---|--|---|---|
| <b>Water Resources Policy (2020)</b>   |  |   |   |  |   |   |
| To contribute to economic prosperity and social transformation through promotion, conservation, multipurpose development, and the sustainable use of water resources available in the country. | The use of water to meet multiple needs including irrigation, energy, domestic use, and aquatic biodiversity conservation. Water-induced disaster and climate resilient water resources management. Develop water resources for the provision of water services in affordable, reliable, and equitable ways. Strengthen coordination and institutional frameworks for water development, benefit sharing, and uses. Institutionalize data, evidence, and research-based water management and monitoring. | While all levels of government are responsible for managing water resources, there are no specific provisions that hold them accountable for upholding rights, inclusion, and gender equality in water governance and service delivery. | Promote participation of the private sector and related stakeholders in water resources conservation and development (Strategy 4).<br><br>Improve public awareness of water use, conservation and regulation through training, seminars, workshops, and dialogues (Strategy 6.3). | Protection of communities affected by water projects and induced disasters (Strategy 8).<br><br>Ensure accessible, equitable, and affordable water for drinking, irrigation, and energy to meet the basic needs of people when developing water resources projects (Strategy 9). | The term equity is mentioned in strategies for water resource use and management, but not specified in GESI. Focus on multiple uses of water while the recognizing social, cultural, and environmental values of water resources. | No mention except for the provision of an equity principle in the policy. |

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| Goal/Objective   | Thematic intervention   | Accountability  | Participation and transparency  | Rights to water access   | Justice, and nondiscrimination  | Gender equality & social inclusion   |
|--|---|---|---|--|---|--|
| <b>Draft Water Resources Bill (2020)</b>   |   |   |   |  |   |  |
| Sustainable development and use of water for humanity, climate resilience, biodiversity conservation, and equitable sharing of water benefits. | Multipurpose uses of water resources, including livestock, irrigation, domestic use, and hydropower. Water-induced disaster risk reduction. | All levels of government are responsible for ensuring access to water for both the current and future generations through the management and conservation of water resources.   | Section 10 calls for community participation and the use of indigenous knowledge and skills in the following activities: (i) using and sharing water benefits of rainwater harvesting; (ii) watershed and environmental protection; (iii) surface and groundwater source conservation and management; and (iv) participatory irrigation system development and operation. | Right to water: No one can be prevented from access to safe and adequate water for drinking and domestic uses (Article 4.1). | Right to water by all, community participation provisions, but without specific measures to ensure the representation of women and marginalized groups in decision-making and benefit sharing | No mention with the exception for the provision of right to water for all principle. |
| Rivers and aquatic biodiversity conservation. Climate change adaptation. Watersheds and ecosystem conservation.                                |   | Focuses on ensuring multipurpose uses of water, including water access for drinking. Priority is given to drinking water and domestic use; livestock, fisheries, irrigation, hydropower, mines and industries; waterways; conservation; cultural, environmental, and aesthetic uses; and others (Article 15.1). |   |  |   |  |

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| Goal/Objective   | Thematic intervention   | Accountability  | Participation and transparency  | Rights to water access  | Justice, and nondiscrimination  | Gender equality & social inclusion  |
|--|---|---|---|---|---|---|
| <b>Draft WASH Sector Development Plan (2024-2043)</b>  |   |   |   |   |   |   |
| By 2100 B.S., secure universal access to safe water supply and sanitation for all, while contributing to achieve the SDGs. | Seven thematic areas as the foundations for achieving the "safely managed" status in the WASH sector. These include: improving access and quality to WASH services; data-driven decision-making, planning, monitoring, and evaluation; capacity-building, policy and institutional frameworks for effective WASH service management and delivery; integrating gender equality, diversity and social inclusion principles to promote equitable access to WASH services for all members of society; climate resilient WASH and disaster risks management; and sector financing. | Data-driven planning, policy, and governance aims to promote accountability in the WASH sector. | The plan focuses on transparency, participation, and multistakeholder-driven WASH services and interventions. It commits to empowering women and marginalized groups while guaranteeing their equal participation in decision-making processes and equitable access to WASH services. | The plan aims to achieve universal access to safe and clean water sources for all households, schools, healthcare facilities, and public spaces by 2043. The plan commits to menstrual hygiene management, ensuring that women and girls have access to clean and private facilities in schools, healthcare centers, and public spaces. | Equity, inclusion, and discrimination issues have been acknowledged, with ten diverse social groups identified as target populations—including women, girls, persons with disabilities, the poor, socially excluded communities, and those in geographically hard-to-reach areas. | Gender Equality, Disability, and Social Inclusion (GEDSI) is one of the five objectives of the SPP. The Plan includes a dedicated theme on GESI, featuring a problem analysis and strategic actions. This theme aims to address disparities and ensure equitable access to WASH services by 2043, with a focus on vulnerable and marginalized groups. Eight GESI outcomes and five strategic approaches are presented in the Plan to achieve this goal. However the Plan includes limited measures to address unequal power dynamics affecting access to and decision-making in WASH services at broader levels. Interventions required for institutional transformation and to achieve expected GESI outcomes are not explicitly stated in the Plan. |

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| Goal/Objective   | Thematic intervention   | Accountability  | Participation and transparency   | Rights to water access  | Justice, and nondiscrimination  | Gender equality & social inclusion  |
|--|---|---|--|---|---|---|
| Draft WASH Sector Development Plan (2017-2030)   |   |   |  |   |   |   |
| Improve public health and living standards of the people of Nepal through safe, sufficient, accessible, acceptable, and affordable water, hygiene services | WASH services access.<br>Functionality of WASH services and institutions.<br>Innovation, research, development, and Watershed | Accountability as a governance principle in the plan.                                 | Participation as a governance principle in the plan.   | Rights to WASH analyzed with some provisions to implement these rights.                   | Equity and discrimination issues realized, and unreached women, poor and excluded groups are considered as target groups.                           | A dedicated section on GESI with problem analysis and strategic actions.<br>The GESI focus is limited to the provision of WASH services, not in the decision-making and planning processes. |
| at any time, for anyone, anywhere.   | conservation and water productivity.  |   |  |   |   |   |
|  | WASH governance.  |   |  |   |   |   |
|  | Diversity and inclusion.  |   |  |   |   |   |
|  | Multistakeholder dialogues.   |   |  |   |   |   |
|  | Resilient WASH. Financing.  |   |  |   |   |   |
| Environmental Protection Act (2019)  |   |   |  |   |   |   |
| To ensure citizens' fundamental right to live in a clean and healthy environment.  | Conservation and development.<br>Climate resilient development.<br>Environmental studies and impacts.                         | All levels of government should be responsible for the protection of the environment. | Participation of the local community in protecting environmentally sensitive areas (Article 30.7). | Protect the fundamental right of each citizen to live in a clean and healthy environment. | Provide the environmental victim with compensation by the polluter for any damage resulting from environmental pollution or degradation (Preamble). | Women, people with disabilities, children, to aging poor, and populations to be included while preparing adaptation plans (Article 24.2).   |

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| Goal/Objective | Thematic intervention   | Accountability | Participation and transparency  | Rights to water access | Justice, and nondiscrimination | Gender equality & social inclusion |
|----------------|---|----------------|---|------------------------|--------------------------------|------------------------------------|
|                | Local adaptation plans through local governments and local communities. |                | Local governments and communities can prepare and implement adaptation plans to address the impacts of climate change (Article 24.1). |                        |                                |                                    |

## Case 8. Environment Protection Act (2019) and Environment Protection Rule (2019)

The Environment Protection Act of (2019) (GoN 2019) aims to ensure each citizen's fundamental right to live in a clean and healthy environment. It focuses on making development interventions environmentally friendly, including water and WSS infrastructure. It focuses on reducing environmental impacts on biodiversity, climate resilient development, and the need to undertake environmental feasibility and impact studies in which water resources should be considered (Table 5). The Act provides an opportunity for bottom-up and GESI responsive adaptation practices as it specifies the role of local governments in making adaptation plans and indigenous practices in environmental protection plans (Article 24.2, Article 38.2-3).

Unlike the Drinking Water and Sanitation Act and the Water Resources Bill, the Environmental Protection Act (2019) clearly states women, people with disabilities, children, the elderly, the poor, and climate-vulnerable populations as priority social groups to be considered while developing and implementing adaptation plans (Article 24.2). How this provision would be implemented is an area for future research. The Act also has a provision for the inclusion of three women professionals among the 17 members of the high-level National Environmental Council established under the leadership of the Prime Minister with representatives from provincial and federal ministries.

The Council has roles relating to policy coordination, review and guidance on environmental conservation, and climate change programs. Article 3 of the Environment Protection Rule (2019) (GoN 2020) calls for the need to commission a study of any program or project that would have impacts on the environment. Article 7(5) specifies three types of environmental study reports. These include a Brief Environmental Study, an Initial Environmental Examination (IEE), and an Environmental Impact Assessment (EIA). Annexes 1, 2 and 3 in the Environment Protection Rule (2019) define the criteria for preparing these reports in different sectoral projects, including water supply projects (see Annex 2 for criteria prescribed for IEE and EIA for drinking water supply and sanitation projects).

## Summary: Federal WASH Policy Frameworks Have Limited Understanding of Gender Equity, Inclusion, and Governance Principles

All the new federal policies related to WASH acknowledge people's fundamental rights to water, sanitation, and hygiene. They also acknowledge the responsibility of all levels of government to ensure access to water, WSS, and a clean environment. However, the policy frameworks lack an orientation toward operationalizing human rights, inclusion, and transformative perspectives laid out in the Constitution of Nepal 2015, as they relate to water management and WASH. As presented in Table 6, the level of understanding of the policies and legal instruments in the WASH and water sectors varies, particularly in how they articulate rights, gender equity, inclusion, and governance issues related to water management and WASH access, services and decision-making. While these policy instruments are oriented towards protecting the fundamental rights of all and commits to promoting equity, inclusion, and menstrual hygiene in both service delivery and local level decision-making, other WASH and water policies largely fail to recognize or address the structural GESI issues embedded in the sector. The WASH and water policy frameworks developed after federalism has limited orientation toward tackling the root causes of exclusion, gender inequality, and inequities in access to and control over water resources as well as benefits from WSS services. These are linked to social and gender norms, power relations, and traditional mindsets (Joshi 2011; Leach et al. 2016). The WASH sector has had several policies since the 1990s, but there is no specific policy to improve access for marginalized groups (Sarwar and Mason 2017). At a federal level, the WASH sector demonstrates legislative advancement through alignment with constitutional provisions on WASH service management and delivery. However, the WASH Act of 2022 and the WASH Rule of 2025 remain limited in operationalizing principles of equity, inclusion, gender equality, and human rights within water governance and WASH services (see Table 5).

Table 6. Rights, inclusion and governance provisions in federal WASH policy frameworks prepared after 2017.

| Indicators for rights and transformative paths to water and WASH  | Water Supply and Sanitation, Rule 2025 (2081 B.S.) | Draft WASH SDP 2024-2043 Act 2022 (2081 B.S.) | National WASH Policy 2023 (2080 B.S.) | Water Supply and Sanitation Act 2022 (2079 B.S.) | Water Resources Bill 2020 (draft) (2079 B.S.) | National Water Resources Policy 2020 (2077 B.S.) | Environment Protection Act 2019 (2076 B.S.) | Draft WASH SDP 2017-2030 (2074 B.S.) |
|---|--|---|---------------------------------------|--|---|--|---|--------------------------------------|
| Ensure rights to water, sanitation, and hygiene for all citizens and provide implementation measures.   | Aware  | Responsive                                    | Aware                                 | Aware  | Aware   | Aware  | Aware                                       | Responsive                           |
| Analyze and address structural causes or systemic barriers for women and marginalized groups to water and WASH access and introduce strategic actions in the policy. <sup>a</sup> | Unaware  | Responsive                                    | Aware                                 | Aware  | Unaware                                       | Unaware  | Aware                                       | Responsive                           |
| Include accountability measures to implement human rights and GESI in water, sanitation, and hygiene.   | Unaware  | Aware   | Aware                                 | Aware  | Aware   | Unaware  | Unaware                                     | Aware                                |
| Analyze and include equity issues and measures in water and sanitation tariff.  | Aware  | Responsive                                    | Aware                                 | Aware  | Aware   | Aware  | Aware                                       | Aware                                |
| Introduce menstrual health management issues and measures.  | Unaware  | Aware   | Unaware                               | Unaware  | Unaware                                       | Unaware  | Unaware                                     | Aware                                |
| Introduce gender-responsive budgeting.  | Unaware  | Aware   | Unaware                               | Unaware  | Unaware                                       | Unaware  | Unaware                                     | Aware                                |
| Measures for inclusion and decision-making roles by women and marginalized groups in Water User Associations (WUA), and sectoral governance of the water, WASH, and environment.  | Unaware  | Aware   | Unaware                               | Unaware  | Unaware                                       | Unaware  | Unaware                                     | Aware                                |
| Community-led WASH, water management, and environmental protection linked to sustainability.  | Aware  | Responsive                                    | Aware                                 | Aware  | Aware   | Unaware  | Aware                                       | Aware                                |

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|   |  |   |                                       |  |   |  |   |                                      |
|---|--|---|---------------------------------------|--|---|--|---|--------------------------------------|
| Indicators for rights and transformative paths to water and WASH  | Water Supply and Sanitation, Rule 2025 (2081 B.S.) | Draft WASH SDP 2024–2043 Act 2022 (2081 B.S.) | National WASH Policy 2023 (2080 B.S.) | Water Supply and Sanitation Act 2022 (2079 B.S.) | Water Resources Bill 2020 (draft) (2079 B.S.) | National Water Resources Policy 2020 (2077 B.S.) | Environment Protection Act 2019 (2076 B.S.) | Draft WASH SDP 2017–2030 (2074 B.S.) |
| Measures for engaging civil society organizations and local NGOs for implementing human rights to water and WASH. | Unaware  | Aware   | Unaware                               | Unaware  | Unaware                                       | Unaware  | Unaware                                     | Aware                                |

Source: Scale adapted from Mullinax et al. 2017.

Note: <sup>a</sup> Systemic barriers are related to formal and informal institutions such as laws, policies (formal) and social norms, gender stereotypes, power relations, social discrimination based on gender, caste, ethnicity, ability, language and regional identities (informal institutions) that deny women and men with weak socioeconomic and political networks, and minorities the right to participate in or benefit from development interventions, while advantaged social groups influence the processes of and benefit from those interventions (adapted from IDPG 2017).

In Table 6:

- ‘Unaware’ refers to a policy that has no provision for gender or social inclusion perspectives or measures in the indicator.
- ‘Aware’ refers to a policy that recognizes rights, GESI, governance issues related to water, WASH, and environmental conservation and includes limited actions to address them.
- ‘Responsive’ refers to a policy that acknowledges rights, GESI, governance issues of water, WASH, and environmental conservation, and includes some measures to address them, but the measures focus on an instrumental approach to the participation of women and marginalized groups (e.g., 30% quotas in WUAs, without explicit provisions to enable women and marginalized groups to participate in decision-making, WASH planning, implementation and benefit sharing).
- ‘Transformative’ refers to a policy that analyzes structural and power relations issues, gender inequality, exclusion, and marginalization. It introduces principles, objectives, and specific actions to achieve gender equality, inclusive development outcomes, and empower women and marginalized groups in the WASH sector.

## WASH Policy Frameworks of Subnational Governments

While federal level WASH policies, plans, and legislation are in place, WASH policymaking at the subnational level is progressing slowly. For instance the Karnali Province government in Western Nepal identified the preparation of a water resource master plan—covering irrigation, drinking water, and electricity—as a priority initiative in its Policy and Program for the fiscal year 2021–2022. In addition, the province enacted the Disaster Risk Reduction and Management Rule in 2020 and, more recently, has drafted the WASH Bill (2024) (2080 B.S.). Compared to other provinces, such as Madhesh, which has yet to demonstrate similar legislative progress, the Karnali Province draft bill is relatively progressive, particularly in its incorporation of equity and inclusion principles (MoWRED 2024). The draft bill includes provisions ensuring 50% representation of women, Dalits, individuals with disabilities and marginalized groups in municipality level WASH Coordination Committees (Article 12). It also mandates the construction of user-friendly toilets, accommodating the elderly, children, people with disabilities, and also ensuring menstrual hygiene. Additionally, the bill prioritizes WASH projects in areas predominantly occupied by the poor, Dalit, and indigenous communities as well as people with disabilities (Article 20). Furthermore, Article 17 guarantees 50% representation of women, people with disabilities, and marginalized groups in the executive committee of the Water Supply and Sanitation User Group.

The Madhesh Province government does not have any policies or plans related to WASH. A review of the 30 meeting minutes for one year (2018) illustrates the marginalization of the WASH agenda in policymaking. Although provincial governments are implementing WSS projects—both those handed over from the federal government and those financed through annual provincial budgets—the focus of these initiatives remains largely limited to the design and execution of water supply infrastructure, with limited or no attention given to governance, gender equity, or social inclusion from a sustainability perspective (Khadka et. al 2023).

The rural municipalities studied are at different stages for developing WASH policy frameworks. Sailung Palika has developed the Local Health and Sanitation Act (2017) (Swyasthya.cdr), while Palata Palika has prepared the Water User

and Sanitation Committee Management Guideline (2019) (Palata RM Webpage). Badhaiyatal Palika has developed the Biodiversity and Natural Resources Conservation Act (2023) (Badhaiyatal RM Webpage). Tilathikoilathi and Chandranagar Palikas don't have WASH policies, guidelines, or plans. The main reason, as stated by respondents, is due to a lack of technical and human resources.

## Jurisdiction and Institutional Structures for WASH Service Delivery and Management under Federalism

### Jurisdictions for WASH Among Three Levels of Government

The Constitution of Nepal (2015) and the subsequent unbundling report (2016) have mandated all levels of government by provisioning their exclusive and concurrent rights for water resources, water supply, sanitation, and hygiene. As shown in Table 7, the federal government is mandated to develop national policies, laws, and standards for conservation and multiple uses of water resources, implement large projects, and deal with transboundary water and international treaties and agreements. The provincial governments are mandated to develop and implement policies, laws, standards, plans, and programs on WASH within their jurisdictions. Drinking water, basic health and sanitation, irrigation, alternative energy, conservation of the environment, watersheds, and biodiversity fall under the exclusive mandate of local governments. Those WASH services of an inter-provincial nature are under the authority of the federal government, while inter-municipal WASH services are expected to be managed by the provincial governments.

**Table 7.** Exclusive and concurrent rights of different levels of government for WASH services.

| Level of rights   | Schedule Number / Jurisdiction             | Serial number and theme, or responsibility of each level of government  |
|-------------------|--|---|
| Exclusive rights  | 5 / Federal government                     | 7. International treaties and agreements, and transboundary rivers.<br>11. Policy and standards related to conservation and multi-purpose uses of water resources.<br>14. Large federal projects on electricity, irrigation, and others<br>16. Health policy, health service, health standard, quality and regulation, national hospital, ayurvedic service, and transmitted disease control. |
|                   | 6 / Provincial government                  | 7. Provincial water supply services.<br>9. Health services.<br>19. Province level water use, forest, and environment management.  |
|                   | 8 / Local government                       | 5. Local services management.<br>7. Local development programs and projects.<br>9. Basic health and sanitation.<br>10. Environment conservation and biodiversity.<br>11. Local roads, rural roads, agricultural roads and irrigation<br>19. Drinking water and alternative energy.<br>20. Disaster management.<br>21. Conservation of watersheds.   |
| Concurrent rights | 7 / Federal & provincial government        | 13. Environment protection and biodiversity.<br>17. Disaster management.<br>18. Drinking water and sanitation.<br>23. Inter-provincial water uses.  |
|                   | 9 / Federal, provincial & local government | 5. Water supply services.<br>6. Service fees, charges, penalties, and royalties from natural resources.<br>7. Water use, environment, and biodiversity.<br>9. Disaster management.  |

Source: Adapted from the GoN 2015.

The sharing of roles among the three levels of government in the Constitution indicates an opportunity for undertaking bottom-up, inclusive, and transformative practices in WASH services management and delivery by establishing synergies and collaboration among governments and sectors. A conflict occurs when multiple actors claim rights over natural resources, when power influences access to, and control over resources, and when resource needs and use practices are perceived differently (Ahlborg and Nightingale 2012; Suhardiman et al. 2017; Sultana and Loftus 2020). In Nepal's federal context, managing and delivering WASH services is a complex process as the jurisdictions for water access, use, and management are shared by three levels of government. Establishing and operating a multi-actor institutional WASH mechanism at the provincial and local government levels requires considerable effort to ensure WASH interventions in a coordinated, harmonized, and transparent manner (Khadka et al. 2023).

Local governments have exclusive power over local services management, including water supply, irrigation, renewable energy, and basic health and sanitation. Operationalizing these powers requires developing the policy and institutional capacity of local governments, enabling them to better understand and implement sustainable water management for inclusive WASH outcomes. As these local authorities are new entities, they have gaps in knowledge, processes, and systems to fulfill the roles and mandates assigned by federalism (Tillett et al. 2019; Khadka et al. 2023). There is space for civil society organizations to engage with these new entities for WASH implementation (Tillett et al. 2019). The federal system can support the practice of bottom-up and inclusive WASH (White and Haapala 2018).

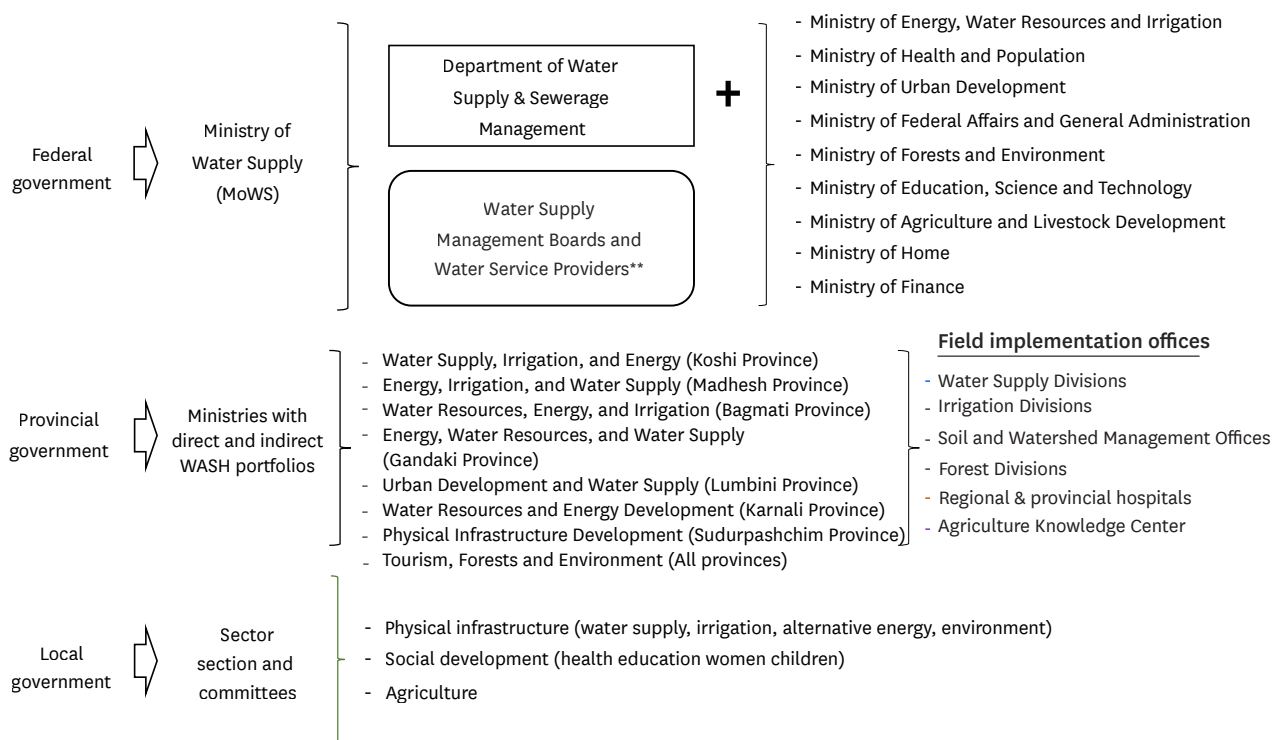
## Public Sector Institutional Structures Related to WASH Services in Federalism

Different institutional arrangements for operationalizing the jurisdictions of different levels of government have been recreated. These arrangements are complex and require a collaborative effort for harmonized WASH programming and implementation at the local level. The government's institutional structures recreated for the WASH sector in the federal system are presented in Figure 2. At the federal level, the Ministry of Water Supply (MoWS) and the Department of Water Supply and Sewerage Management (DWSSM) are the key institutions dealing with drinking water and sewerage management. In addition, nine other ministries have direct and indirect roles related to water conservation, water storage, climate resilient water infrastructure, sanitation, hygiene, water safety, and social and governance aspects of WASH. The Ministry of Finance makes resources available to WASH programs. The National Planning Commission (NPC), a constitutional body, plays a role in setting the national agenda and priorities for development, including WASH. It is also the federal agency responsible for monitoring progress on the SDGs.

Prior to federalism, different national entities were active in providing water supply services such as the Nepal Water Supply Corporation (NWSC), the Water Supply Management Boards (WSMB), the Rural Water Supply Fund Board, and private sector actors such as Kathmandu Upatasya Khanepani Limited. They had been providing services under existing legal frameworks such as the Nepal Water Supply Corporation Act (1989), the Water Supply Management Board Act (2006), and the Company Act (2006). Mandates and institutional arrangements within these institutions, however, need to be restructured to align their engagement with WASH services in the context of federalism.

At the provincial level, four ministries and their division offices are responsible for the delivery of WASH services. The main roles of WASH have been assigned to two ministries, the Ministry of Physical Infrastructure Development (MoPID) and the Ministry of Social Development (MoSD). Twenty-nine water supply divisions at the provincial level provide technical support on water supply infrastructure design and implementation. The regional and provincial hospitals are part of the MoSD structure. Two provincial ministries—the Ministry of Industry, Tourism, Forest, and Environment, and the Ministry of Land Management, Agriculture, and Cooperatives—are responsible for various water-related functions. The former, along with its two divisional offices (Forest, and Soil and Watershed Management), plays a role in watershed conservation and water supply. The latter, together with its Agricultural Knowledge Center, is involved in water, climate-resilient water infrastructure, and nutrition security programs.

At the local government level, sectoral units such as physical infrastructure, social development, and agriculture are expected to provide WASH services by planning and implementing budgets and programs on water infrastructure, primary health and sanitation, solid waste management, environmental conservation, climate change, and disaster risk management. Local water, forest, and natural resources institutions such as WUSCs, WUAs, Forest User Groups (FUGs) and their allied federations at local, provincial, and national levels are involved in water sources conservation and water supply infrastructure construction and management for domestic and productive uses, including policy advocacy for protecting community rights to water and natural resources.



\*\* Nepal Water Supply Corporation (NWSC), Kathmandu Upatyaka Khanepani Limited (KUKL), Melamchi Water Supply Development Board, etc.

**Figure 2.** Public sector institutional arrangements for WASH services delivery under federalism.

Source: Adapted from Khadka 2020.

Private sector actors are also engaged in providing services related to the construction of water infrastructure, water supply in cities, and the operation and maintenance of water supply infrastructure in coordination with the sectoral line ministries and departments at the national, provincial and municipal levels.

The new institutional arrangements offer opportunities for decentralized and inclusive WASH while supporting local governments as they carry on with their roles and responsibilities for WASH policymaking, programming, monitoring, and learning. However, it would require a coordinated effort in the WASH sector to define and implement the sectoral vision of WASH as per the aspiration of the Constitution of Nepal (2015), as an overlapping of roles across line agencies and layers of government is apparent (Sharma and Adhikary 2020). There is also a mismatch between the roles and functions among the governments in the sense that federal ministries are mostly engaged at the implementation level, but less in policy where they are supposed to engage (World Bank and UNDP 2019a). The Water Supply and Sanitation Act (2022) assigns WASH roles and responsibilities among three levels of government. Critics point out that the federal government’s role should be at the policy level and support effective WSS service delivery through local governments in collaboration with service providers (e.g., WUSCs, WUAs, and other stakeholders) and the provincial governments (World Bank 2020). There is a high likelihood of duplication and conflict among different levels of government and departments when an institutional mechanism for multi-actor dialogues, coordination, and cooperation are not developed at each level.

## Coordination Mechanisms and Emerging Challenges

As the responsibilities of WSS remain with all levels of the government owing to their exclusive and concurrent powers, they can realize these powers only when there is a functioning coordination mechanism. This section presents constitutional and other policy provisions which influence the effective implementation of fundamental rights related to water and sanitation. It also addresses interconnected rights such as the right to equality, protection against untouchability and discrimination, and the right to social justice.

**District Coordination Committee (DCC):** The Constitution of Nepal (2015) (Article 220) has a provision for a District Assembly and DCC to ensure coordination between local governments within a district. The District Assembly consists of all the chairpersons and vice-chairpersons of rural municipalities as well as mayors and deputy mayors of municipalities. The District Assembly elects the DCC, which has up to nine members with at least three women and one Dalit or minority member. The main functions of the DCC include coordinating between local governments within the district, between

the district offices of the federal, provincial and local governments in the district, and monitoring development and construction works to ensure a balance between the performance of other functions as per the provincial law. During pre-federal days, the DCC had relatively more power and authority for public services than under federalism, which has mainly coordination and monitoring roles (Dahal 2021).

Based on the constitutional provision (Article 220 Subclause 7) on the roles of the District Assembly, the Local Government Operation Act (2017) (LGOA) made provisions for additional functions, duties, and rights of the assembly. Some of the roles linked to the WASH sector in the LGOA are to:

- i. Carry out necessary coordination between local governments at the district level to identify and manage issues related to water supply infrastructure construction.
- ii. Create a database of development projects being implemented by the Government of Nepal, monitor them, and provide necessary guidelines and recommendations.
- iii. Work in coordination with the federal and provincial government for capacity development of local governments.
- iv. Coordinate between federal or provincial governments, and local governments within the district.
- v. Coordinate and facilitate any disputes among local governments within the district.
- vi. Coordinate plans and programs relating to natural calamities and disaster management.
- vii. Coordinate with NGOs and the private sector to maintain a balance between development and construction interventions.
- viii. Organize at least one annual review program by inviting members of parliament represented in the federal and provincial assembly and receive a recommendation from them for the effective implementation of construction and development work within the district.

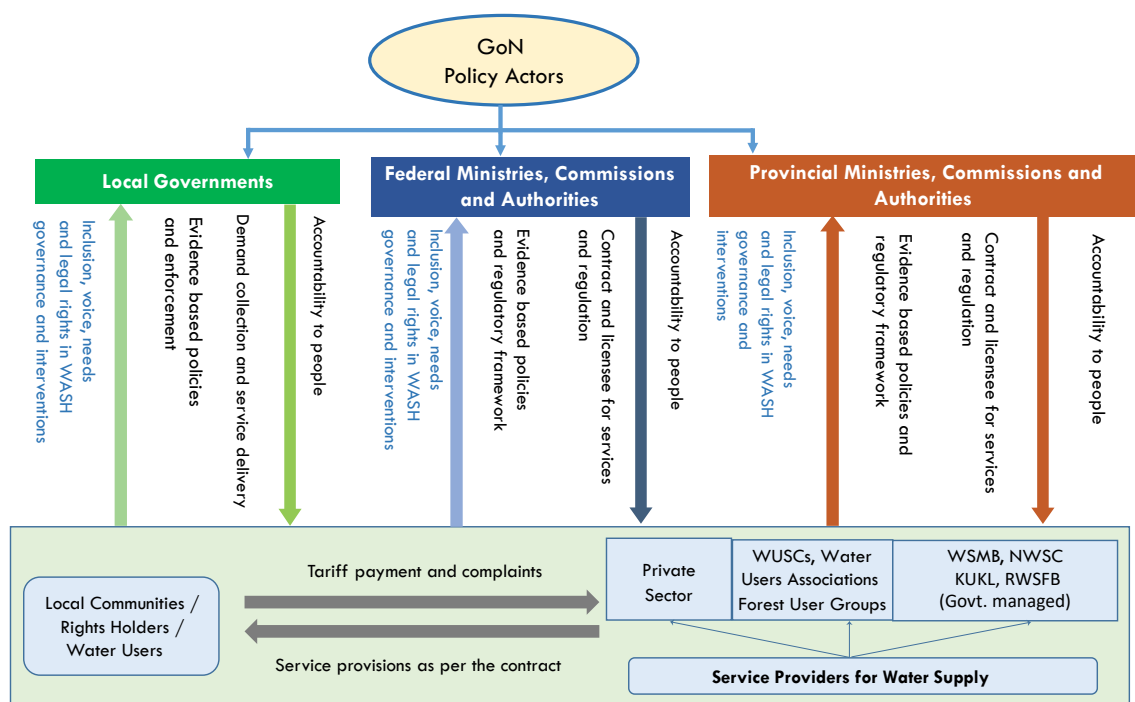
**Role of governments to coordinate with non-state actors at the local level:** The LGOA (2017) envisioned a coordinating role for local governments with the federal and provincial governments. One of the major roles of local governments is to coordinate, facilitate, and assist in federal and provincial project implementation (Article 11, Subsection G-8). The Act also designated local governments to coordinate, facilitate, and partner with private and NGO actors for managing waste produced by sanitation and health sectors (Article 11, Subsection I-10). Article 25.1 states that national and international NGOs, WUSCs, cooperatives, and other community organizations should work in coordination with *palikas* on development interventions. The LGOA provides local governments with the authority to halt the implementation of activities by non-state actors that bypass them in terms of coordination. This indicates a possibility for bottom-up local development when a coordination mechanism operates smoothly and *palikas* provide an environment for the private sector and NGOs to plan and implement WASH programs.

**Coordination and partnership between local governments in WASH programs and project implementation:**

Section 26 of the LGOA (2017) calls for inter-municipal coordination at the local level. A *palika* can establish a partnership with other *palikas* to minimize costs and optimize the use of resources and effective service delivery on issues such as solid waste management (e.g., dumping sites and treatment plant development and operation). However, clear provisions for forming WUSCs and implementing projects through them, which were provisioned in the Local Self Governance Act (1999), are missing in the LGOA (2017). Although the Water Supply and Sanitation Act (2022) has provisions for licensing where some roles of community organizations in providing water services are mentioned, it is confusing as the private sector, WUSCs, and other water service providers are categorized as a single group.

The provisions clearly indicate that a multistakeholder coordination mechanism at local, provincial, and federal levels is essential to plan, implement, and monitor WASH programs in a coordinated manner. The role of the local government is crucial for ensuring WASH rights and service delivery, as they are the closest entities to people under the federal structure (Raut and Rajouria 2020; Khadka et al. 2023). Even though the implementation of federalism in the WASH sector is evolving, community organizations such as WUSCs and *palika* level water supply management boards have noted the lack of a coordination mechanism to get information and services related to WASH. There has been no effort to establish links between WASH community organizations and local governments (Smart WASH Solutions 2020).

This concern was confirmed during interviews in the study *palikas*. The WSS projects being managed by federal departments (e.g., DWSS) have Project Support Units (PSUs) at the provincial level, but there is no coordination among the provincial water supply divisions, *palikas*, and the PSU that implements WSS schemes in the same villages.



**Figure 3.** Accountability and regulatory framework of WASH services.

Despite the change to a federated governance system, centralized and top-down development mindsets and practices continue to influence the development process (Adhikari 2019a, 2019b; Smart WASH Solutions 2020). Limited to no collaboration between WUGs and *palikas* was observed by local communities (IWMI 2021).

## Accountability and Regulation of WASH Services

Based on the scale of interventions, all levels of government are responsible for regulating WSS services. Each level is accountable to the people for the services provided. The accountability and regulatory framework can be described using Figure 3, where the relationship among the policy actors of the Government of Nepal, service providers and community users is two-way.

In the federal system, a collaborative relationship between the state, non-state actors, and people needs to be established because the rights holders, and duty bearers have responsibilities which hold them accountable for making WSS services and systems sustainable, inclusive, and functional. As there are three levels of government, each with different magnitudes of power and roles for providing WSS services to people and local communities, a system of transparency, accountability, participation, and inclusion is required within broader accountability and regulatory frameworks as they evolve.

## WASH Sector Financing

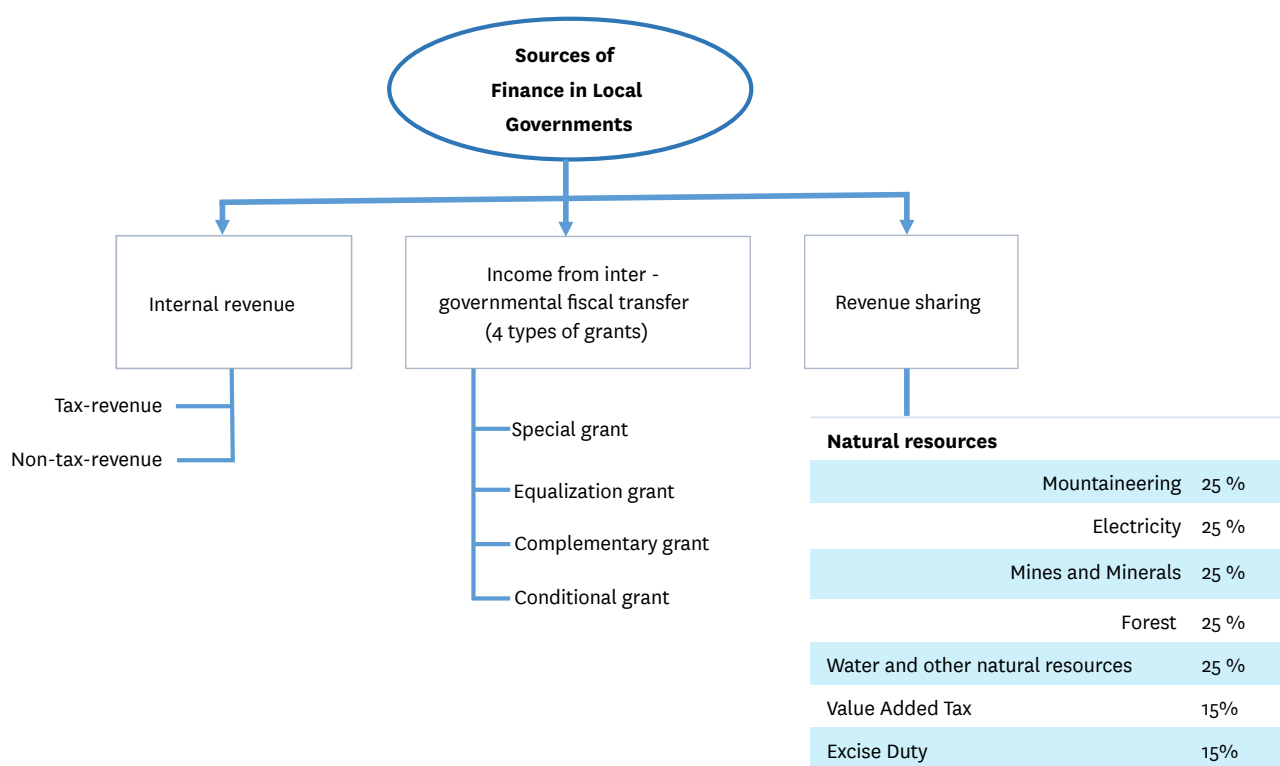
### Fiscal Power and Responsibility for Ensuring Natural Resource Benefits for Local Communities

The Constitution of Nepal (2015) granted fiscal powers to different layers of government. Article 59 (1) states that federal, provincial, and local government levels shall make laws, annual budgets, necessary decisions, and formulate and implement policies and plans in relation to financial power within their jurisdictions. Sub-Article 59 (4) requires all levels of government to arrange for the equitable distribution of benefits derived from the use or development of natural resources. A certain portion of such benefits should be distributed, pursuant to law, in the form of royalties, services, or goods to project-affected regions and local communities. All levels of government can impose taxes on subjects within their fiscal jurisdiction and collect revenue from such sources (Article 60, Subclause 1). The amount of a fiscal transfer receivable by provincial and local level governments shall be as recommended by the National Natural Resources and Fiscal Commissions (Article 60, Subclause 3).

The federal government distributes fiscal equalization grants to provinces and local governments based on expenditures and revenue capacity (Article 60, Subclause 4). Similarly, a province can also distribute the fiscal equalization grants received from the Government of Nepal and revenues collected from its sources to local governments in the province (Article 60 Subclause 5). Apart from this, provisions for the distribution of conditional grants, complementary grants, or special grants to be provided by the Government of Nepal from the Federal Divisible Fund (FDF) should be made as per federal laws.

The Intergovernmental Fiscal Management Act (2017) specifies the revenue-sharing mechanism among three levels of government. While Chapter 3, Section 6 (1) of the Act has provisions for establishing the FDF to deposit value-added tax and excise duty collected from domestic products, Section 6 (2) has a provision for sharing the amount credited to the fund among federal, provincial, and local levels in the following proportions: 70%, 15% and 15%, respectively. The Act also specifies sharing the revenue from natural resources management across the federal, provincial, and local levels by 50%, 25%, and 25%, respectively (NLC 2017).

Intergovernmental fiscal transfers are a major source of revenue for subnational governments (Chhetry 2018). Based on the LGOA (2017) and the Intergovernmental Fiscal Management Act (2017), there are three main sources of finance for the local government. Figure 4 shows the finance flow mechanism at the local level.



**Figure 4.** Source of financing of local governments.

Each local government is entitled to receive 25% of the total annual revenue from each of the natural resources listed in Figure 4, while the provincial and federal level governments receive 25% and 50%. Likewise, a local government is entitled to receive its share of national revenue gathered through the value added tax (VAT) and excise duty, which make up 25% and 15% of the total annual revenue, respectively.

## Budget for WASH Sector is Inequitable and Low

Public and private sector investments in WSS services are a critical need. While investments from the private sector are around 0.8%, which is NPR 8.1 billion against the projected NPR 1,155 billion financing requirement for the WASH SDGs (NPC 2018), annual budget allocations by the government to the WASH sector have been persistently low, or less than 3% of the total annual budget. In 2020–2021, the government allocated NPR 43.1 billion for the WASH sector, which is 2.92% of the total national budget (WaterAid 2020). The WASH budget for 2023–2024 has been reduced by 3.2%, amounting to NPR 42.8 billion (WaterAid 2024), compared to NPR 44.23 billion in 2019–2020. Allocation by geographical region is

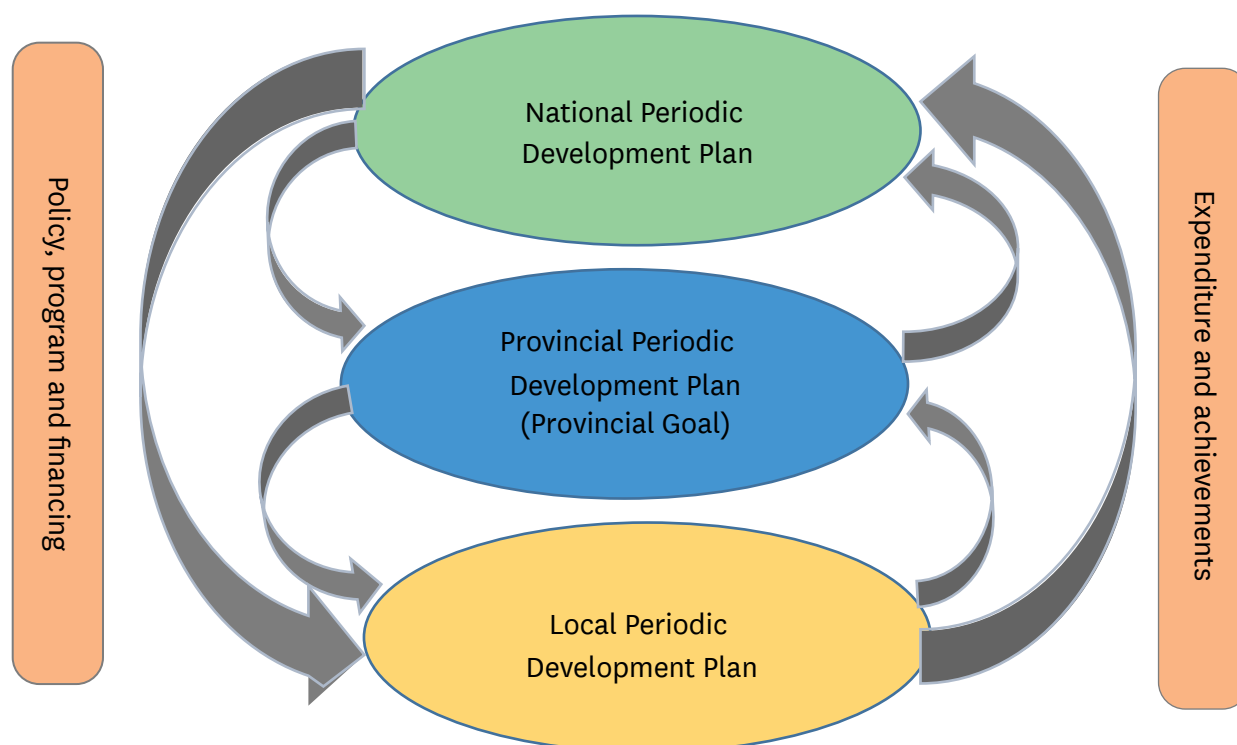
also disproportionately shared. While a large amount of the WASH budget (59%) is allocated to urban projects, 31% is targeted to urban and rural WASH projects, and only 10% has been targeted to rural WASH projects in the budget of 2020-2021 (WaterAid 2020). Of the 59% budget allocated to urban projects, 31% is for projects in Kathmandu Valley.

Thapa et al. (2019) show that approximately 43% of the total national WASH budget was spent on three official projects, all serving Kathmandu Valley. Disaggregated WASH subsector data for financing is lacking. Practicing inclusive budgeting is essential to improve health and for addressing the physical and psychosocial challenges faced by women and girls who have primary roles in arranging water for drinking, cooking, sanitation, and homestead farming (van Koppen 2002). Annual budgeting of the WASH sector lacks targeted programs in dealing with water governance, gender, exclusion, inclusion, and strengthening the institutional capacity of the WASH sector for ensuring inclusive outcomes and water system functionality. The estimated investment for GESI in the WASH sector for the SDG period is extremely low (less than 0.05% of NPR 1,155 billion) (MoWSS 2016). The draft WASH Sector Development Plan (2024-2043) has estimated NPR 7,438.54 million for GESI, which is 0.17% of the total budget of NPR 4,272.23 billion (MoWS 2024).

## WASH Sector Planning, Monitoring, Evaluation, and Learning Under Federalism

### Planning Process

The National Planning Commission (NPC), which is the lead agency at the federal level on development policy and planning guidance, has three plans depending on the scope and level of government. These are: i) a National Periodic Development Plan led by the federal government; ii) a Provincial Periodic Development Plan led by the provincial government; and iii) a Local Level Periodic Development Plan for the *palikas*. The plans are categorized as long-term (> 5 years) and medium-term plans, (<5 years). Figure 5 shows an example of the potential interrelations between periodic plans at the national, provincial, and local levels.



**Figure 5.** Interrelation between periodic plans at national, provincial, and local levels.  
Source: Directive on local level planning, model directive. Adapted from NPC 2018, p. 6.

The main objective of the periodic plans is to ensure socioeconomic development in the country, thereby achieving the national vision of a “Prosperous Nepal, Happy Nepali”. These plans need to be prepared considering the different legal and policy instruments based on the model directive provided by the NPC.

## Basis for Development Planning at Each Level of Government

The Model Directive on Local Planning developed by the NPC (2018) provides guidance for each *palika* to consider priorities reflected in the national policy frameworks and local contexts while preparing development programs and plans. These include, for example, the Constitution of Nepal (2015), current laws and rules, existing national and provincial policies, long-term vision, periodic plans of all levels of government, SDGs, guidelines of the federal and provincial governments, development problems, challenges, the potential of local governments, and the election manifestos of political parties.

## Processes for Annual Planning of Local Governments

Article 24 (1) of the LGOA (2017) under the Develop and Implement Plan, describes the guiding measures to be followed by *palikas* when preparing and implementing development plans and programs. Each *palika* can develop and implement periodic, annual, strategic, and thematic mid-term and long-term plans for local development. Article 24 (3) provides points that each *palika* should consider when preparing a plan. Some priority programs include those that contribute to: economic development and poverty reduction; increase income, employment, and livelihoods, support climate change adaptation and environmental conservation; promote GESI; and focus on the optimum use of local resources and skills.

In principle, *palikas* need to start an annual planning process at the settlement or community level. Next steps involve the ward level, thematic or sectional committees, and a *palika* assembly. The assembly approves the plans, budgets, policies, and bills of local governments. The government planning cycle starts on July 16 and ends on July 15 of the following year. This constitutes a fiscal year. The following three steps are the key processes in planning for a fiscal year:

- i. Plans and programs should be chosen from those proposed at the community level.
- ii. The ward committee of the *palika* then prioritizes plans and programs.
- iii. The Budget and Program Formulation Committee led by the deputy mayor/ vice-chairperson at the *palika* level categorizes and prioritizes the plans and programs submitted by the ward committee on a sectoral basis. The former submits the draft plans and programs through the mayor or chairperson to the *palika* executive by Asadh 5 (June 19/20). While submitting the budget and program, the following documents should also be attached: finance act, fiscal arrangement act, policy, program, and budget speech.

The plans and programs finalized by the *palika* will be presented to, discussed in, and approved by the *palika* assembly. Before federalism, the normative planning processes of a local body (Village Development Committee or municipality) had to follow a 14-step process (Bahl et al. 2019). The selection of annual plans and programs of a local body used to begin at the Community Awareness Center (CAC) at the community level, the Ward Citizens Forum (WCFs) at the ward level, and Integrated Planning Committees at the Village Development Committee and municipality level. The CACs and WCFs were the citizens' platforms for deliberative governance, serving as an informal space where women, as well as the poorest and most excluded groups could discuss local development challenges and priorities for annual program planning, budgets, and monitoring (Webster et al. 2018).

Under federalism, the 14-step planning process has been replaced by a ten-step process (Figure 6) developed by the government, based on the Constitution and other prevailing laws, guidelines, and policies. The elected representatives are on the frontline of development planning and connect with their constituents in the process. The CACs and WCFs established through the Local Governance and Community Development Program (LGCDP) need to be revamped, especially by connecting them with the new local governments under the federal structure as an approach for strengthening participatory and representative democratic processes at the local level (Webster et al. 2018).

## Monitoring, Evaluation, and Learning

The Constitution of Nepal (2015) articulated a provision for monitoring the implementation of the state's principles, policies, and responsibilities (PART 4). Article 54 has a provision for establishing a committee in the federal parliament to monitor and evaluate whether or not the directed principles, policies, and responsibilities have been implemented progressively.

Similarly, Article 220 (7b) has assigned responsibility to the District Assembly to monitor development and construction works and ensure balanced development within the district. Under the shared power between the federal and provincial levels i.e., Schedule 7 (2), the Constitution also specifies roles such as supply distribution, price control, and quality and monitoring of essential goods and services. In the same schedule (22), provisions for scientific research, science and technology, and human resource development are mentioned, which also provides an opportunity for learning and reflection on WSS development among researchers, policymakers, and practitioners.



**Figure 6.** Ten-step planning process of palikas under the federal structure.

Source: Guideline for annual planning and budget of local level (model) 2018, NPC 2018 (npc.gov.np).

Notes: Asar: June–July, Baisakh: April–May, Jestha: May–June, Poush: December–January, Shrawan: July–August.

The LGOA (2017) has assigned ward committees the role of formulating, implementing, and monitoring development plans within the wards. The Act defines the role of a vice-chairperson or deputy mayor to regulate the work of NGOs, monitor plans and programs, and report to the executive meetings of the *palika*. The Act also has provisions for the implementation of internal control systems (Article 78-1). To enhance the effectiveness, consistency, and efficiency of their work—and to ensure trustworthy financial reporting in compliance with prevailing laws—*palikas* should integrate key elements such as risk identification, mitigation strategies, information flow, monitoring, and evaluation into their systems.

According to the LGOA (2017) (Article 78.4), either the mayor or chairperson of a *palika*, the Coordinator of a DCC, or an official designated by the former, is responsible for monitoring. As in the pre-federal system, each *palika* is expected to conduct public auditing, social auditing, and public hearings to make its public service delivery transparent, responsible, and accountable (Article 78.5).

The Water Supply and Sanitation Act (2022) has a dedicated section (8) and Articles 39, 40 and 41 for WASH service monitoring and supervision. It assigns the role of monitoring the implementation of the standards and the quality of drinking water and sanitation services to an inspector at the federal ministry. The inspector can collect samples of the drinking water supplied or the wastewater managed by a licensed organization to test or analyze it along with other relevant data, and provide necessary directions.

The NPC developed the National Monitoring and Evaluation Directive (2018) to harmonize development planning, monitoring and evaluation at the local level in alignment with the national development vision and the SDGs. This directive provides the formats for reporting plans and programs from all levels of government. The projects implemented with conditional, complementary, and special grants from federal and provincial governments should be monitored and evaluated. The directive also provides national and global indicators for SDGs.

To conclude, the government has established good policy frameworks and guidelines on monitoring, evaluation, and learning. Important aspects to assess in the future are to what extent these tools will be implemented at the three government levels, and how local governments and citizens are involved in the participatory monitoring, evaluation, and learning process for measuring WSS development progress and aligning SDG targets.

## Status of WASH Services Delivery

WASH services are necessary for better health, hygiene, and prosperity (GoN and UNICEF 2018). The lack of access to WASH facilities such as: safe, affordable, and adequate water; functional toilets; safe food behavior; handwashing facilities; and waste (including sludge management) poses significant risks to people's health. This chapter analyses the status of WASH service delivery in the study *palikas*, including the challenges they face in terms of the capacity and resources for delivering services.

### Status of Water Supply

According to the government's water supply status report, 88% of the population has access to a water supply (DWSSM 2019). However, providing improved and equitable access to safe and sustainable drinking water for people in poor and excluded groups remains challenging. We assessed the availability of water, distance of water sources from living areas, issues related to water sources and their protection, quality of water, water access and use.

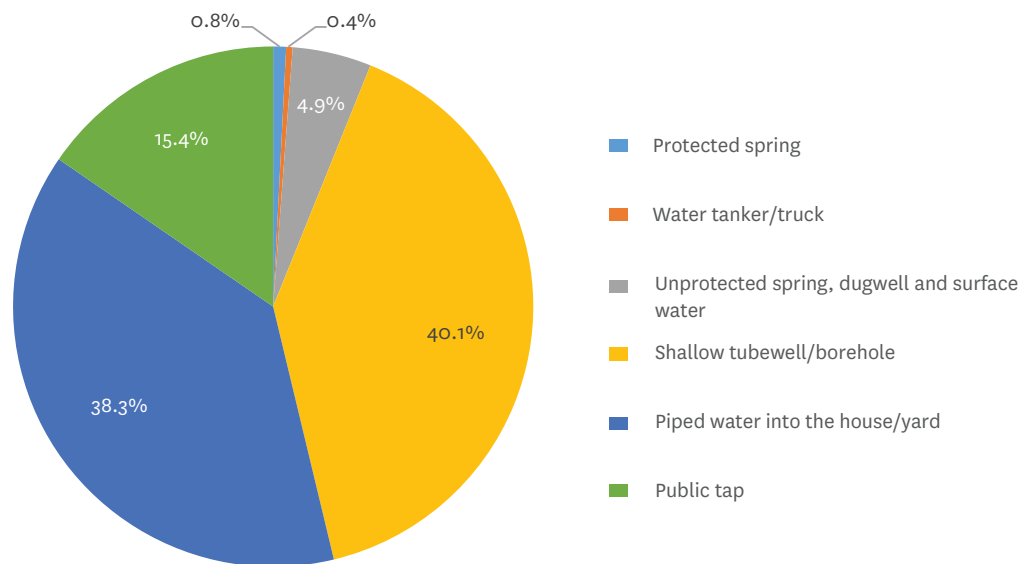
### Water Sources and Availability

With variations in the main source of water supply across the geographical regions of Nepal (SNV Netherlands Development Organisation and CBM Australia 2019), rural people mostly rely on shallow tube wells, springs, streams, rivers, rainwater, and private water suppliers (e.g., water tanker trucks) for drinking water. In the study areas, shallow tube wells, piped water into the house or yard, and public taps were found to be the major sources of drinking water. Overall, 40% of households surveyed depended on shallow tube wells, 38% on piped water into the house or yard, 15% on public taps, and the remaining 6% accessed water from sources like rainwater, unprotected springs, protected springs, water tanker trucks, and unprotected dug wells (Figure 7).

Water sources differ between the Hills and Terai regions. Residents in the Terai depend on shallow tube wells (81%) followed by a piped water supply (16%) and public taps (3%) as their main sources of water. In the Hill region, most households rely on piped water (60%) followed by public taps (28%) and rainwater harvesting (6%) as illustrated in

Annex 3. Households in advantaged social groups depend on public taps and piped water into the house or yard and less on shallow tube wells and other sources of water, whereas ethnic groups like the Janajati and marginalized groups were more dependent on shallow tube wells for regular water supply as demonstrated in Annex 4.<sup>1</sup> Power relations based on caste, ethnicity, gender, class, and other identities influence access to, and control over water supply (Joshi 2011; Sarwar and Mason 2017). This dynamic could also be a factor in the study areas and needs further investigation.

Around 74% of the surveyed households had a water supply on the premises of their house whereas 16% had to travel less than 30 minutes to collect water. The remaining 10% had to spend more than 30 minutes collecting water (go, queue, collect, and come back).



**Figure 7.** Proportion of respondents using different types of water sources for drinking water.

The proximity of main water sources varied by region. In the Terai, over 90% of the respondents said a water source was within or near their home whereas in the Hills, around 57% said they needed to walk some distance to a water source. The amount of time people spent fetching water varied. Around 9% of the respondents in the Terai walk less than 30 minutes to collect water against 32% in the Hills who walk over 30 minutes.

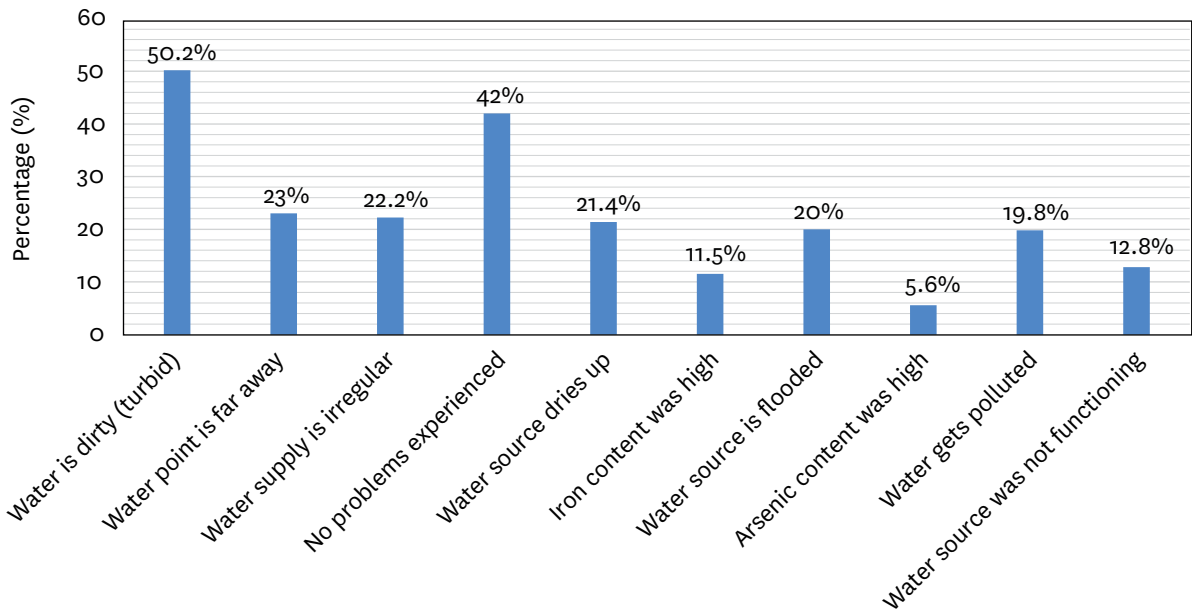
## Water Source Issues and Protection

Water purification at the source was not practiced in most water supply schemes in the study areas. Irregularity of water supply, turbid water, polluted water sources, and high iron and arsenic content were the major problems. Natural calamities like flooding and the drying out of water sources were also experienced (Figure 8).

In the Terai region, the main water points had problems like turbidity (34%), high iron content (22%), flooding of source (18%), and high arsenic content (9%). In the Hill region, turbidity (67%) was the main issue followed by the water source being far from home (43%). Major issues experienced in the last year by respondents in the Hills were the irregularity of the water supply (43%), drying of the water source (41%), water source getting flooded (22%), pollution of water (33%), and nonfunctioning of the water source (19%) (Annex 3).

Water source protection and the supply of safe water for drinking and sanitation have not been a priority in programs and budgets of the *palikas* in the study areas. The Sailung Rural Municipality, constructed eight water recharge ponds within a water catchment area and the Chandranagar Rural Municipality allocated funds for protecting lakes, including Nadilake. The Tilathi Koiladi Rural Municipality was protected ponds and wells as a source of water while the Palata Rural Municipality reconstructed water sources and built ponds for irrigation with a partner organization (refer to Figure 1 for locations). Besides these initiatives, no dedicated funds were allocated for water source protection. Though the provision of water source protection has been incorporated into water supply planning, WUSC members were unaware of its importance. Although, fencing around water sources was being done, it was for the protection of the water supply system infrastructure.

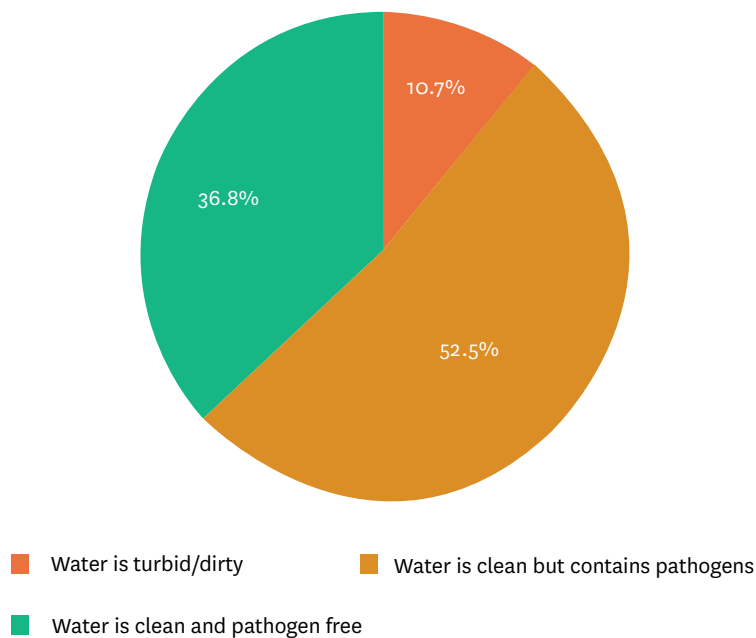
<sup>1</sup> In Nepal, there are groups with high HDI and social status. Advantaged social groups in this study refer to Khas Arya (Brahmin, Chhetri, Thakuri and Dashnami).



**Figure 8.** Types of water source issues perceived by the respondents.

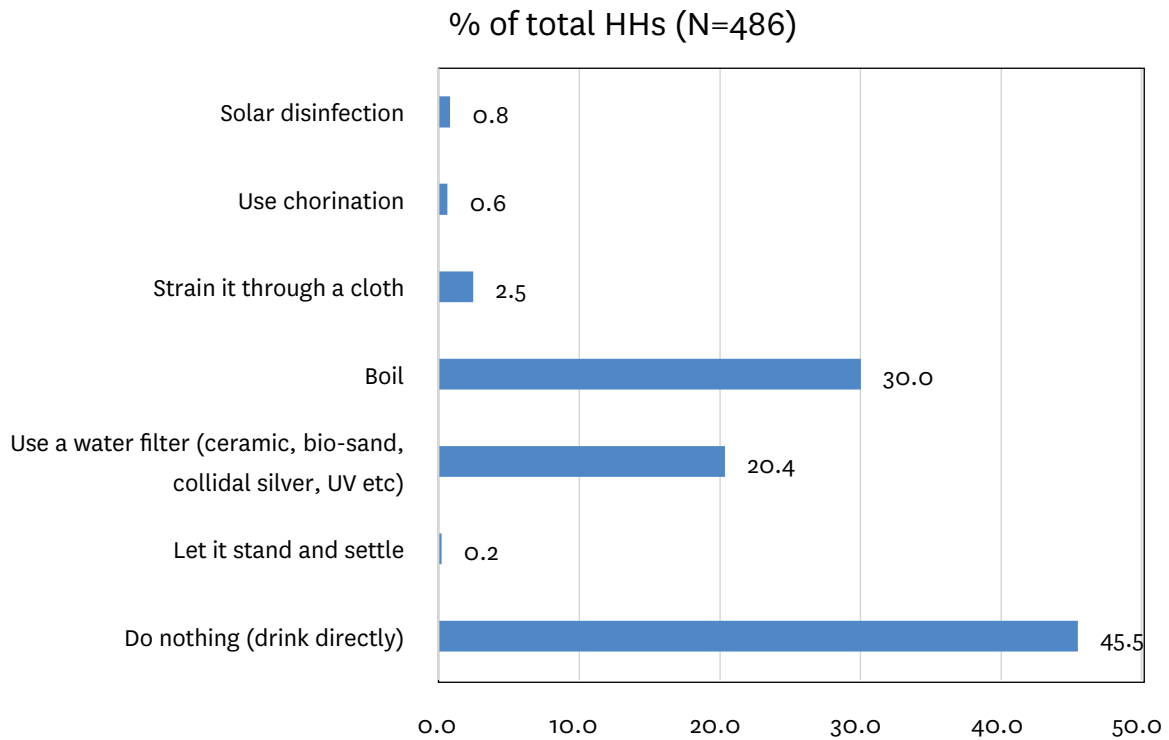
## Water Quality

WASH projects implemented by development agencies conducted drinking water quality tests. Only some parameters like E-coli, water pH, iron, and arsenic were tested, but citizens are not well informed about the results. Only 37% of the respondents from six districts perceived the quality of drinking water to be clean and pathogen free, whereas 5% said drinking water is clean but could contain pathogens. The remaining 11% perceived their drinking water to be turbid or 'dirty' (Figure 9).



**Figure 9.** Perceptions of water quality at the source.

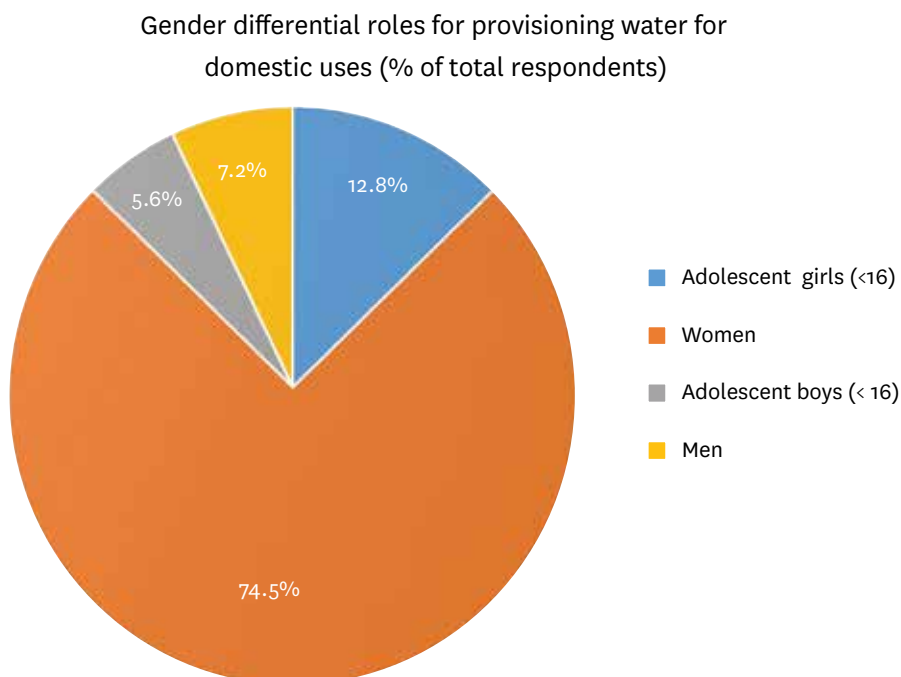
Although people were aware of the importance of drinking water purification, during the key informant interviews it was found that few are purifying water. They were using water directly from sources as practiced since time immemorial. Over 45% of the respondents drank water directly from the main source without purification, around 20% used filtration methods, 30% boiled water before consumption, and the remaining used methods like straining with a cloth,



**Figure 10.** Household water purification methods.

### Water Access and Use

In 87% of the households interviewed, women and girls were responsible for collecting water, while men and boys performed this role only in 13% of the households (Figure 11). This confirms earlier findings on traditional gender roles and is one of the systemic barriers preventing women and girls from taking part in community leadership functions compared to men and boys (Graham et al. 2016; Gautam et al. 2018). More households (92%) in the Hills than in the Terai (82%) depend on women as labor for collecting water from main sources for domestic uses (Annex 3).

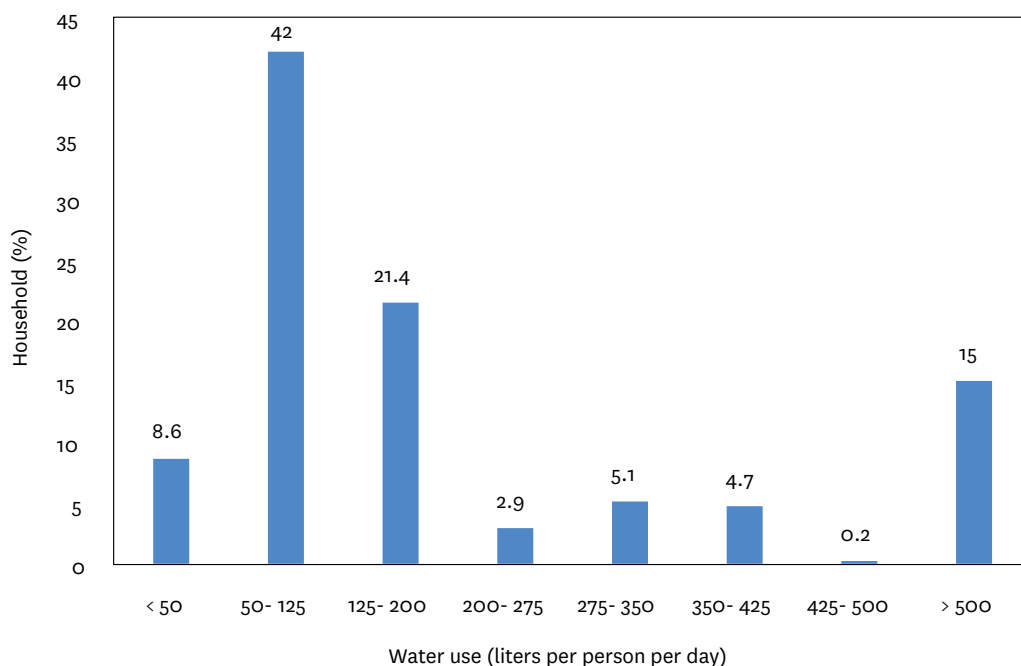


**Figure 11.** Gendered responsibility for water collection in households.

chlorination, and solar disinfection (Figure 10). Respondents who treated water to make it safe for drinking made up 38% in the Terai and 71% in the Hill region. More details on the priority of different methods of water treatment used across regions are presented in Annex 5.

Water at the household level is used for multiple purposes (drinking, bathing, cooking, washing, cleaning, homestead irrigation, and animal husbandry). The amount of water required depends on the number of family members, climatic conditions, people’s culture, and the number of livestock. The majority (42%) of households used on average 50–125 liters/day/family, while 21% used 125–200 liters/day/family, and 15% use more than 500 liters/day/family (Figure 12).

Access to a reliable, affordable, and safe water supply is a persistent challenge in Nepal, especially in rural areas and among the most disadvantaged groups (WaterAid 2010; SNV Netherlands Development Organisation and CBM Australia 2019). Our study also shows that most people in the study areas relied on unprotected water sources for drinking and other domestic uses, and less than 50% of the respondents used water for drinking without any treatment. Women and girls continue to be responsible for fetching water in 87% of the surveyed households. Improved water access would enhance women’s health and income and liberate them from the daily drudgery of fetching water (van Koppen 2001). The responsibility placed on women to secure water for domestic needs reinforces the existing unequal gender division of labor for unpaid care work in households. This limits women’s involvement in productive activities that would enable them to earn an income and gain information and knowledge. In addition, water source protection and quality water supply issues have not been a priority of rural municipality programs.



**Figure 12.** Average use of water from main water sources.

People in the study areas were yet to be informed and made capable of using alternative water sources like rainwater harvesting, as they mostly relied on surface and groundwater. Rainwater harvesting technology should be encouraged to cope with water insecurity in the mid-hills where water sources are rapidly drying up (Dixit 2019). Awareness of the importance of water treatment should be provided at the household level and people should be encouraged to use water treatment methods. WUSCs and water distributors should focus on source protection and the treatment of water at the source.

## Status of Sanitation and Hygiene

Globally, improving water, sanitation, and hygiene has the potential to prevent at least 9% of diseases (Prüss-Üstün et al. 2008, 10). Behavioral change toward good hygiene practices, especially handwashing with soap, is required to prevent the spread of water-borne diseases and viruses like COVID-19. The Government of Nepal declared the country Open Defecation Free on September 30, 2019. The Total Sanitation Guideline (2017) envisions sanitation for all by 2030 and has

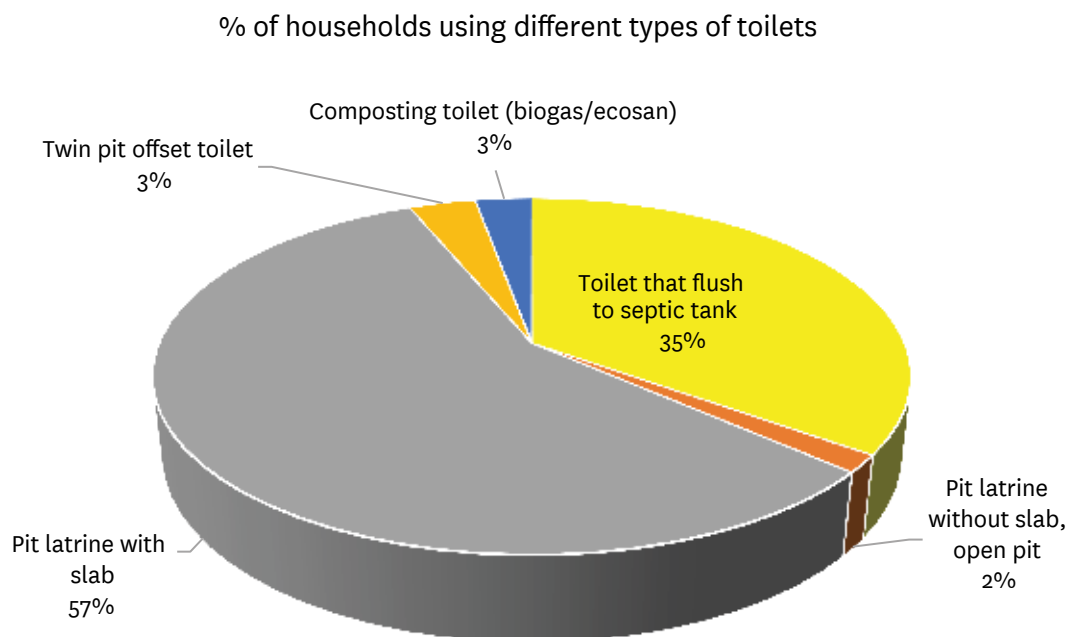
provisioned that any area can be declared a 'clean and hygienic area' if it fulfills seven criteria. These include: developed and managed WASH plans; proper use of toilets; personal sanitation; access to safe water and usage; use of safe food, household, and institutional sanitation, and environmental sanitation (MoWSS 2017).

To understand how effectively the guideline has been implemented in the study areas, we assessed aspects like regular use of toilets, sludge management, the availability of handwashing facilities, and the practice of handwashing with soap. The results are presented in the following sections.

## Toilet Use

In the study areas, a majority (92%) of households interviewed used a toilet regularly, while a small portion (8%) still practiced open defecation. In the Terai districts, Sarlahi had more households (16%) that practiced open defecation followed by Bardiya (5%) and Saptari (3%). Chandranagar is a remote and highly underdeveloped rural municipality in the Sarlahi District. According to the respondents, access to WASH services provided by government and nongovernment service providers was limited. The percentage of households with open defecation in the *palikas* in the Terai and Hill regions was 7.9% and 8.2%, respectively (Annex 6). This indicates that large populations in the study areas tended to be aware of sanitation and had invested resources for the construction of permanent structures and used toilets. Factors contributing to a reduction in open defecation include disseminating information about the importance of sanitation and hygiene through broadcast media, newspapers, development projects, schools, social mobilizers, and political leaders along with regular monitoring from local WASH coordination committees and municipality staff on toilet usage, and mandatory requirements to build toilets during earthquake reconstruction in affected districts (e.g., Dolakha). Comparatively, open defecation was more prevalent in Dalit households followed by Janajati and 'others' (18%, 9% and 8%, respectively) whereas it was practiced in only 3% of Brahmin, Chhetri, and Thakuri households (Annex 7).

Out of 92% of the households surveyed and among those using toilets, 58% had a pit latrine with a slab, 2% had a pit latrine without a slab, and 35% had a toilet that flushed to a septic tank. The remaining 3% had twin-pit offset toilets and 3% had composting toilets (Figure 13).



**Figure 13.** Type of toilet used.

The survey did not find any issues related to the denial of access to toilets by menstruating women as over 98% of the households surveyed allowed them to use the same toilet as other family members during menstruation. However, harmful practices such as *Chaupadi* (the need for women and adolescent girls to live separately in unhealthy huts during their periods), patriarchy, and son-preferences practiced in Mid- and Far-Western Nepal might contribute to the denial of their access to use toilets (Amatya et al. 2018). This needs further investigation.

## Sludge Management

At the time of this study, 72% of the households surveyed had not emptied their toilet pit or septic tank (7% of households had a newly constructed pit, and 65% had an old pit but had never emptied it). The main reasons were: i) recently constructed, ii) small family size, and iii) the toilet was not used regularly. Among the households that had emptied their toilet pit or septic tank, 2% did not know when they had it emptied, 11% had emptied it within the last five years, and 5% more than five years ago.

The proportions of households using different methods of sludge management are presented in Figure 14. Among the households that had emptied their toilet pit/septic tank, 56% had emptied it without external support (53% buried their sludge in a covered pit around their house whereas 3% either disposed of sludge in uncovered pits, on open ground, in a water body, or elsewhere). A total of 43% of the households received support from service providers to manage sludge, out of which sludge from 17% was taken to a treatment plant by a service provider while 9% of the households buried sludge in a covered pit. The households (17%) supported by service providers to transport their sludge are unaware of the place of final disposal.

% of the households applying different strategies for sludge management

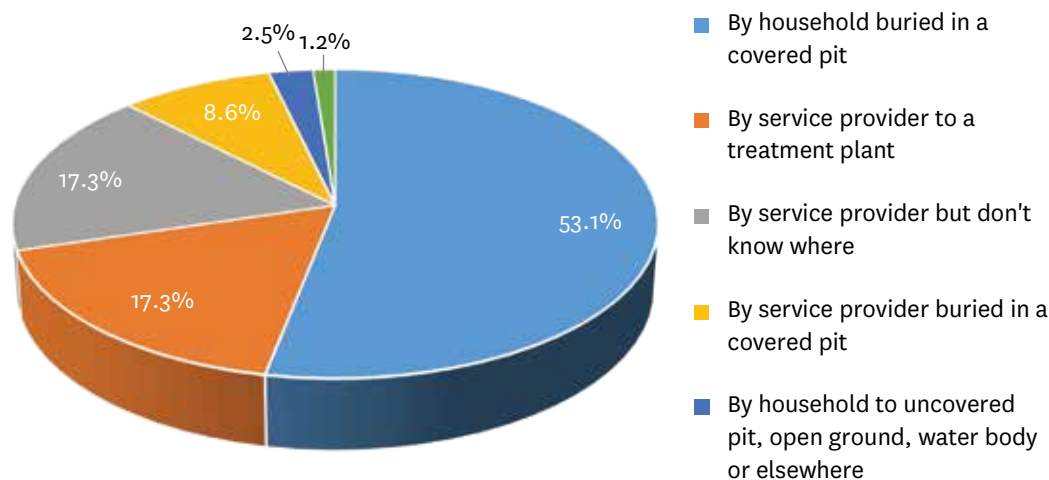


Figure 14. Methods for sludge management.

Of the households surveyed in the six districts, 48% had children below five years of age. In 54% of the households, child feces were managed safely as children used a toilet with a septic tank. Children in 34% of the households defecated outside the toilet and feces were then put into a toilet. Around 8% of households did not manage child feces and simply threw it in the garbage or outside their home, followed by 5% who drained it into public places (Figure 15).

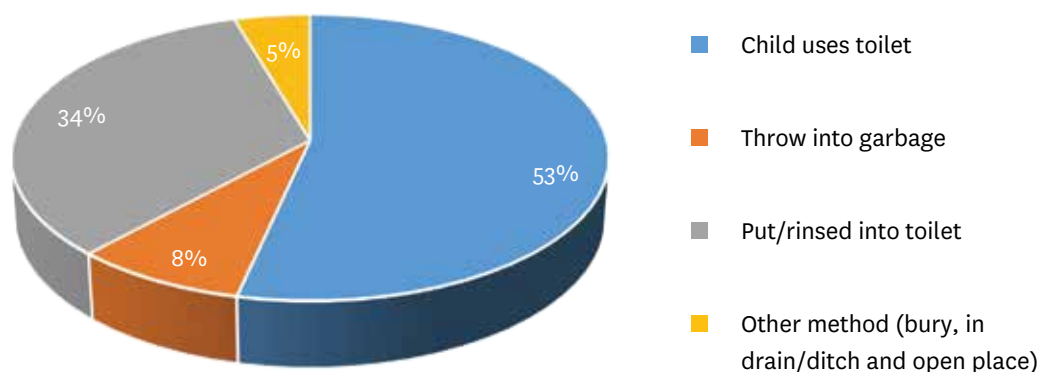
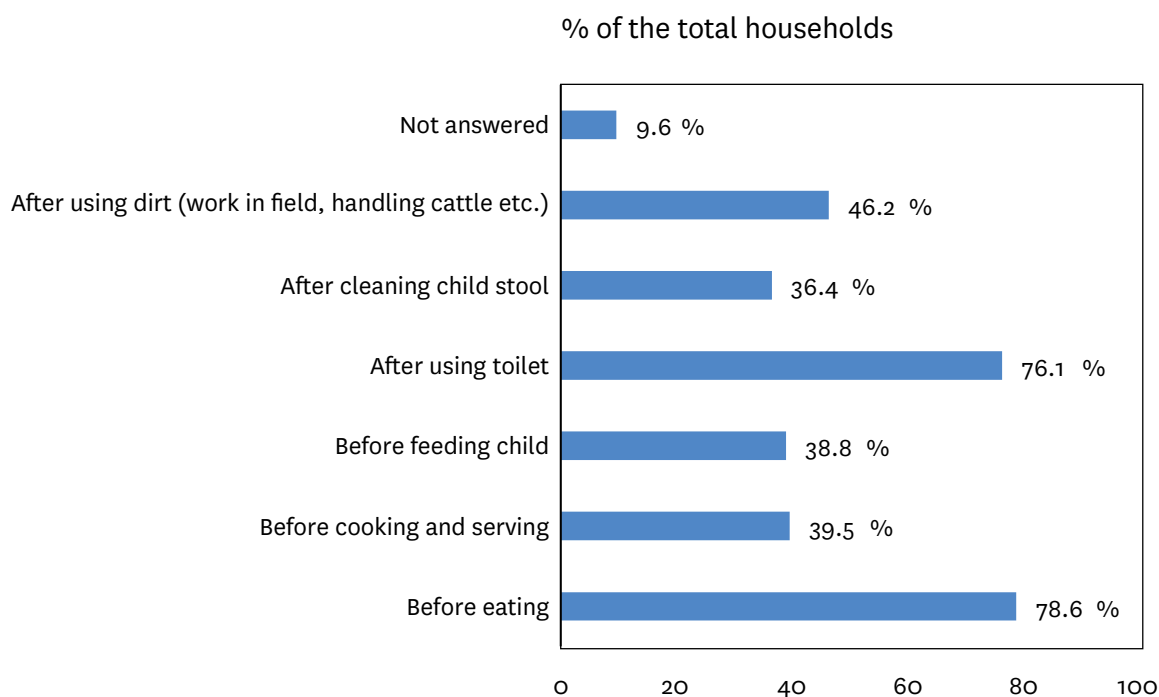


Figure 15. Methods of child feces management.

### Hygiene: Handwashing with Soap

Among the surveyed households, 82% had a hand-washing corner (26% with a permanent structure and 56% had no permanent structure) and the remaining 18% did not have a handwashing corner in their house. Among the households with a handwashing corner, 68% had both soap and water available in the washing corner. While 12% of the households had only water without soap, 5% had only soap and no water, and the remaining 15% had neither water nor soap. This finding suggests that people in the study areas had greater public awareness of sanitation and hygiene.

Handwashing with soap reduces the risk of the leading causes of child mortality (diarrhea and acute respiratory infections) (Vujcic and Ram 2013) and is a universally prescribed prevention measure against COVID-19 infection. Along with the presence of a handwashing corner at home, it is necessary to know the critical time for handwashing. In the study areas, 92% of the respondents were aware of the critical time for handwashing with soap. Most were aware they should wash their hands with soap before eating (79%) and after using the toilet (76%) (Figure 16). Respondents were also aware of other critical times for hand washing i.e., after working in the soil (46%), before cooking and serving (40%), before feeding a child (39%), and after cleaning a child’s stool (36%).



**Figure 16.** Households and critical times for handwashing.

Overall, most households surveyed are aware of sanitation and use toilets to defecate, while 8% are practicing open defecation. Although there is no significant difference between the Hill and the Terai regions in terms of the percentage of households defecating in the open, the remote and underdeveloped rural municipalities (e.g., Chandranagar, in Sarlahi District) had a higher percentage of households that practiced open defecation.

Inadequate sludge management seems to be a challenge and needs the attention of local governments in their budgets and plans. The majority (65%) of households interviewed had old pits that were never emptied. Some households still throw child feces outside or drain it into public places. Due to a lack of standards and guidelines on waste management, local people, and service providers are managing sludge in their own way. People are aware of the importance of handwashing with soap and the critical times, but only 68% managed to provide a handwashing corner with both soap and water. Fecal sludge management is a persistent challenge in Nepal (ENPHO 2019). This shows that behavioral change is necessary for safe and sustainable sanitation and hygiene practices.

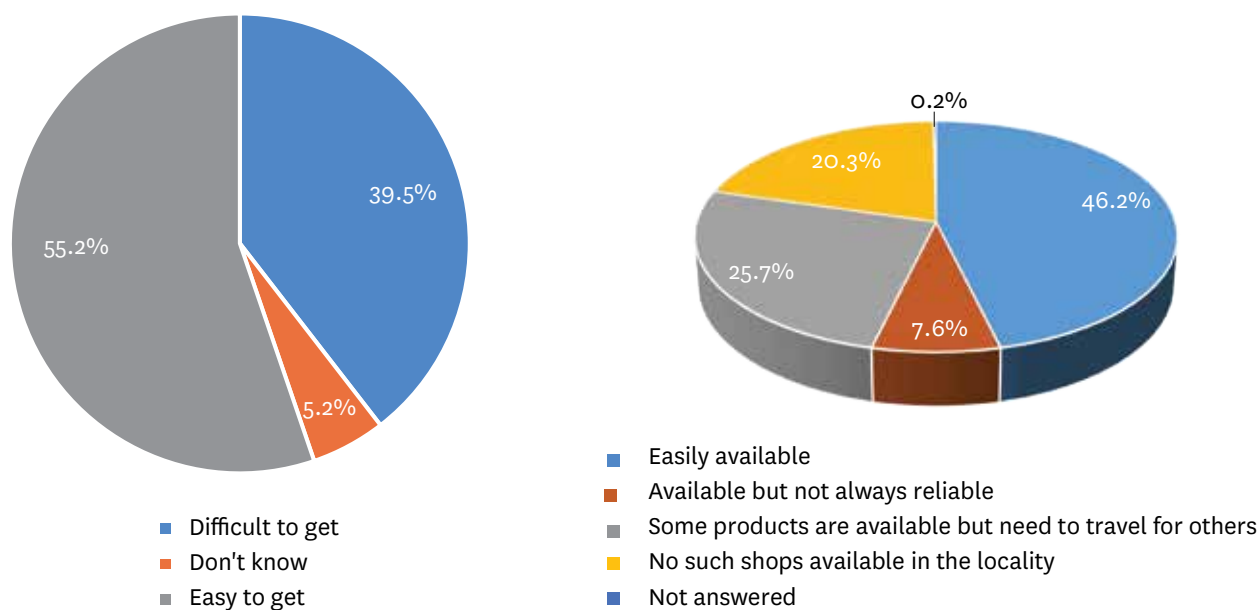
## Access to WASH Services

Local governments have been given the autonomy, responsibility, and powers for managing local services, including WASH. WASH services should be easily accessible to all social groups at affordable prices for sustainability. To identify the accessibility of WASH services in the study of rural municipalities, the research team analyzed aspects such as the market of WASH services, WASH service providers, cost of WASH services (drinking water, water treatment products, sanitation and hygiene), and mechanisms to address WASH issues.

## Availability of WASH Services

Market distance for buying WASH materials is one factor that defines the accessibility to WASH supply chains. A market at a distance means costlier products or services as more time and cost is required to get there. The cost of transporting materials can sometimes be unaffordable and inaccessible to people in marginalized groups, especially poor, single women-headed households, and people with disabilities.

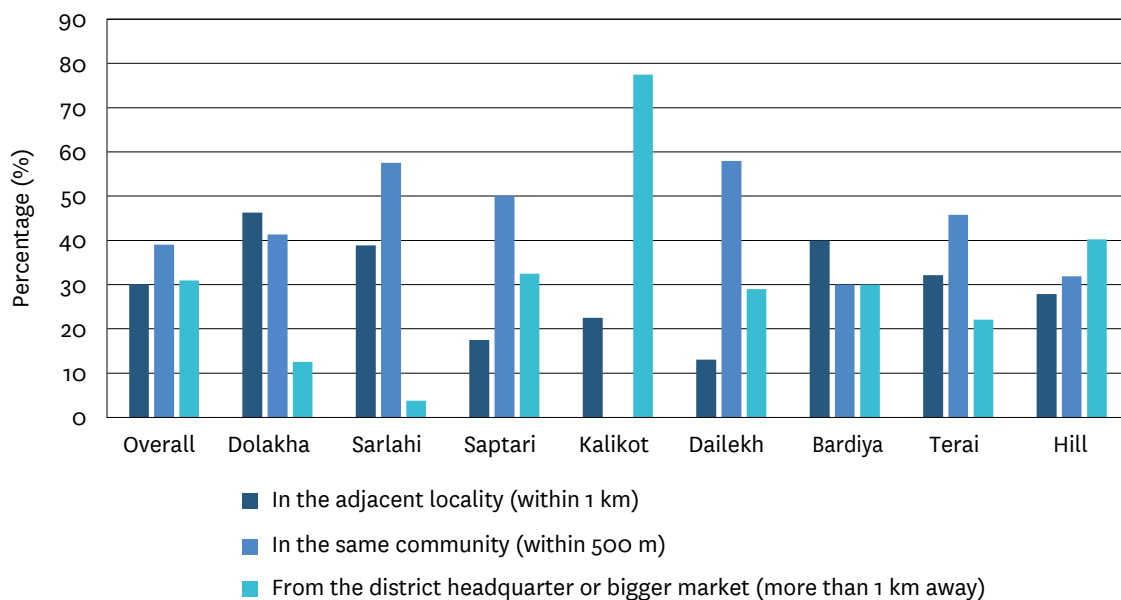
More than half (55%) of the households surveyed were getting water treatment products easily at nearby markets, whereas 40% faced some difficulty due to the lack of nearby markets. Around 5% of the respondents did not know about it. Similarly, sanitation and hygiene products such as Harpic, brushes, sanitary pads, and soap are easily available in local markets for 46% of the households interviewed, whereas for 26%, some products were available but only at a distance (Figure 17). For 8% of the households interviewed, sanitation and hygiene materials were available but were not always reliable, while 20% said sanitation and hygiene products were unavailable in the local market.



**Figure 17.** Availability of water treatment products (left) and sanitation and hygiene products (right).

In terms of access to a market for WASH construction materials, 39% of the respondents obtained materials from local markets which were available within 500 m, whereas 30% had to travel to markets located in the adjacent area (within 1 km). For another 31%, the market was located more than 1 km from home (Figure 18).

By region, residents of the Terai districts had 46% better access to local markets for WASH services compared to the Hills (30%) (Annex 7).



**Figure 18.** Market distance to buy materials for construction/rehabilitation.

Ensuring a sustainable supply of water for domestic uses remains a persistent challenge in Nepal, as only 28% of over 42,039 piped water supply systems are functioning well (DWSSM 2019). The sustainable functioning of a water supply system is essential to regularly supply water from a source to users (WHO and UNICEF 2017) and to address the water and sanitation needs of women and girls who bear the disproportionate burden of inadequate WASH facilities in Nepal (Gautam et al. 2018).

In the study areas, water for domestic uses was supplied from four main sources. The private sector was the main water supplier for 30% of the households interviewed, while 25% had water supplied by the local WUSC. Private sector actors provided services to the government by building water supply systems. Public agencies provided water supply to only 25% of all households and the remaining 20% fetched water from natural sources (Figure 19). *Palikas* should champion the cause of engaging water service providers to provide water services at the local level as they are closest to the communities and have the power for policymaking, planning, budgeting, and monitoring including water supply.

## Cost of WASH Services

The cost of WASH services was analyzed by disaggregating the cost of drinking water, water treatment products, and sanitation and hygiene products. In the case of drinking water, only 19% of surveyed households paid a tariff for the water they accessed from a main source, whereas the remaining 81% were getting water for free. Most residents (98%) in the Terai region used drinking water for free because they extracted groundwater using hand pumps, whereas that proportion was only 64% in the Hills. On average, a household paid NPR 197.20/month, which ranges from a minimum of NPR 10 per month to a maximum of NPR 500/month. Approximately 33% of households paid NPR 50–125/month, another 33% paid NPR 125–200, and 15% paid more than NPR 500/month for drinking water (Figure 20).

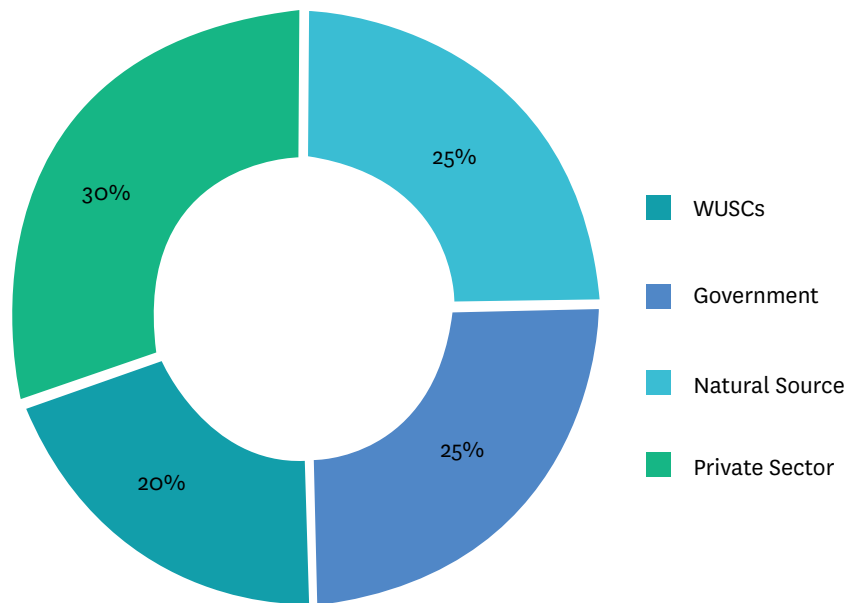


Figure 19. Suppliers of main water systems.

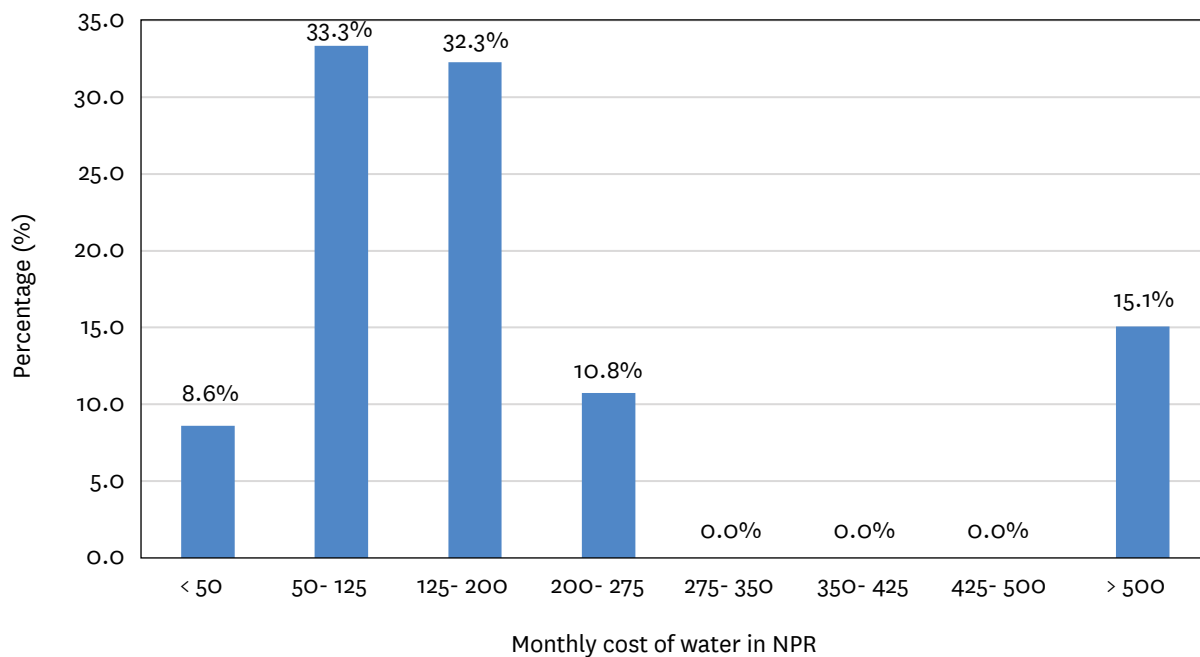
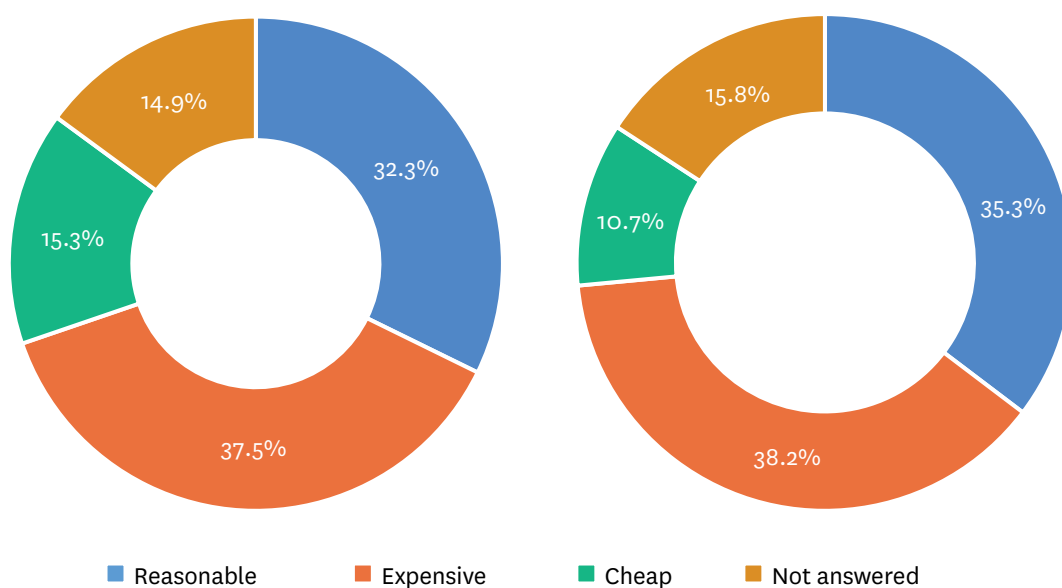


Figure 20. Average monthly cost of drinking water.

Most respondents (55%) perceived the water tariff as ‘reasonable’, 29% considered it ‘expensive’, and 16% felt it was ‘cheap’. More than half (63%) of the respondents expressed their willingness to pay more for better water services. This suggests that most households in the study areas realize the importance of a regular and safe water supply for domestic uses and can afford the cost. Those who viewed the tariff as expensive would face challenges to access water unless *palikas* and WUSCs increase sensitivity to equity and local power relations, and make WASH policies and guidelines in favor of poor and marginalized groups.

Likewise, 38% of the respondents felt that the cost of water treatment products was expensive and unaffordable, 32% found it reasonable in terms of service and quantity, 15% found it to be cheap, and 15% did not respond. Similarly, 38% found the cost of sanitation and hygiene products ‘expensive’, while 35% considered it ‘reasonable’, 11% found it to be ‘cheap’, and 16% did not respond (Figure 21).



**Figure 21.** Perceptions of the cost of water treatment products (left) and sanitation and hygiene products (right).

These findings suggest that WASH service systems at the local level should be guided by equity and social justice perspectives when supporting local communities through tariffs for WASH services. Social power relations influence water supply systems and water access. It is often people with little or no voice that suffer from water tariffs and water allocation systems when the systems are not designed to support these people (Grady et al. 2018; Joshi et al. 2011; Leder et al. 2019). Therefore, if not centered on inclusive outcomes, WASH interventions under federalism may reinforce existing inequalities and exclusion present across all sectors of Nepal. Greater emphasis must be placed on applying GESI principles in WASH investments, monitoring, and evidence-based policy and learning.

## Responding to WASH Issues

The Rural Municipality Water Sanitation and Hygiene Coordination Committee (WASH-CC) was active in all the study areas until the declaration of the rural municipality as an Open Defecation-Free zone in 2019. With the WASH sector becoming a low priority in local development, the WASH-CCs were functioning passively in all *palikas*.

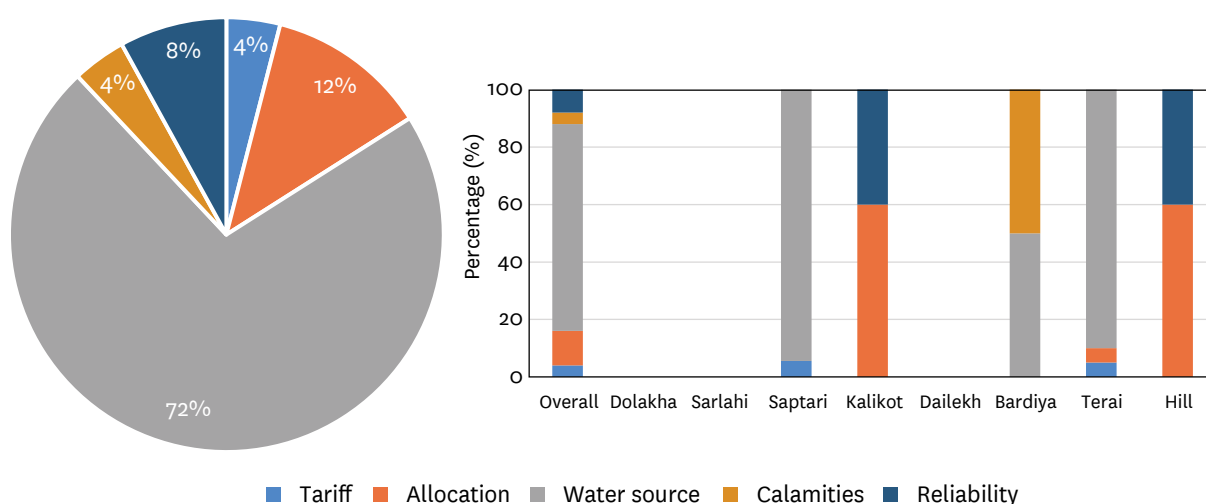
The Sailung Rural Municipality WASH-CC in Dolakha District was active but meetings were called in an ad hoc manner. Chandranagar Rural Municipality WASH-CC in Sarlahi District was not functional. The Tilathi Koiladi Rural Municipality WASH-CC in the Saptari District was active and focused on regulating open defecation status and awareness programs with regular home visits to sensitize household members about sanitation and hygiene, and to call on them to stop open defecation. A WASH-CC and Ward-WASH-CC had been formed in the Palata Rural Municipality (Kalikot District), Gurans Rural Municipality (Dailekh District) and Badhaiyatal Rural Municipality (Bardiya District) but were not active except for convening meetings whenever necessary.

A sectoral department related to physical infrastructure or social development in each *palika* is supposed to help undertake WASH activities, including identifying and prioritizing program needs and gaps, and coordinating with different sectoral offices and partner organizations for implementation. However, due to the lack of dedicated staff in rural municipalities, the WASH desk is effectively not functioning. Among the six rural municipalities studied, a separate WASH desk was established only in Tilathi Koiladi.

Tilathi Koiladi assigned a WASH focal person to coordinate and implement the Accelerating Sanitation and Water for All project (ASHWA-II) supported by UK Aid through UNICEF. The WASH desk was also responsible for implementing total sanitation, disaster response, surveys, regular WASH assistance, and public awareness on handwashing with soap. Similarly, in Sailung, no separate WASH desk was in operation. Chandranagar did not have a separate WASH desk, but an officer served as the focal person for WASH in addition to other responsibilities. Palata also did not have a separate WASH desk. Gurans was in the process of establishing a WASH desk with help from the SNV Netherlands Development Organisation. Similarly, Badaiyatal did not have a separate WASH desk but a social unit was handling WASH issues.

Either the ward or *palika* level WASH committee is expected to receive and deal with complaints related to WASH services. However, most respondents were unaware of where to register complaints about the services they were using. Only 16% of the respondents were aware of a mechanism to register complaints at the local level. According to the survey, 46% visited the WUSC, 38% the ward office, 9% the *palika* office, 4% the WASH-CC at the *palika*, and 3% the Divisional Water Supply Office to register complaints.

In 2019, only 5% of the respondents had filed complaints related to WASH services. A majority (72%) had filed complaints on water sources, 12% on the allocation of WASH services, 8% on the reliability of WASH services, 4% were unsatisfied with the tariff charged for WASH service delivery, and the remaining 4% had issues arising from natural calamities on WASH services (Figure 22). As illustrated in Annex 8, respondents interviewed in the Dolakha and Sarlahi districts did not register any complaints regarding WASH services in 2019. In the Terai, the majority of complaints related to WASH services (90%) were about water sources, mainly source contamination during floods and contamination of arsenic and iron, whereas in the Hills, a large number of complaints (60%) were about the allocation of WASH services such as the uneven distribution of water, the location of WASH infrastructure and WASH service providers.



**Figure 22.** Type of complaints registered (left) disaggregated by study rural municipality (right).

This study analyzed the accessibility and affordability of WASH services and the local government’s response to make services inclusive. Not all respondents had equal or easy access to WASH materials. The respondents in the Terai had better access to WASH construction, operation, and maintenance materials compared to their counterparts in the Hills as more markets are connected by roads. People mostly relied on private service providers, WUSCs, and natural water sources for water supply. The government’s water supply system was limited to only 25% of the total respondents. Therefore, it is necessary to develop markets at appropriate centers so that people can have easy access to WASH materials. Although most respondents in the Terai region obtained water for free from tube wells on their premises, there was a willingness to pay more for clean and safe water across all study areas.

Communities were unaware of the right place to file complaints related to WASH facilities hence, WUSCs should make water users aware of the service providers and processes to register complaints, and work together to rectify those complaints. During a pandemic like COVID-19, the WASH-CCs should be activated to ensure a regular supply of clean water and other WASH services to households, camps, isolation wards, and health care units.

## Inclusiveness in WASH Services

### WASH Stakeholders' Understanding of Inclusiveness

During the key informant interviews with WASH stakeholders (elected members, WUSCs, school head teachers, health workers, youth club representatives and development staff), it was clear that they were aware of the need for inclusion in WASH services. Local WUSCs were trying to be inclusive by ensuring at least 33% of women's representation in their committees. However, the inclusion of marginalized and remote communities is still not a priority. Also, women on water committees do not have a voice or influence on water decisions (Leder et al. 2019). At the *palika* level, it is mostly the elected men who influence decisions (White and Haapala 2018; Khadka et al. 2023; Rai 2019).

### Marginalized Groups: Access to WASH Services

When asked about people's access to public services under the new system, most respondents said that federalism supported bringing the state closer to the people, which they thought would be an opportunity for easy access to public services. However, they also pointed out some governance challenges in making public services inclusive such as: i) the identification of WASH schemes is not consultative; ii) the schemes are not a priority in Dalit communities; and iii) the design reports of water supply schemes are guided by hardware and technical perspectives as engineers are generally involved in the design. Social issues receive low priority (Udas 2014). Ongoing research on the gendered power dynamics of water supply shows that most marginalized groups (e.g., Dalits, single women) and elected women representatives in *palikas* are often bypassed in water decision-making and in accessing information on water supply services (Khadka et al. 2023; Raut and Rajouria 2020). WASH services for people with disabilities are even more challenging (SNV Netherlands Development Organisation and CBM Australia 2019). This situation reinforces exclusion and discrimination issues in WASH services identified prior to federalism. Therefore, support to make WASH governance inclusive is essential to the implementation of federalism in the WASH sector.

### Initiatives for Making WASH Services Inclusive

The Water Resources Act (1992) (2049 B.S.) has provisions for the formation of WUAs when a group of individuals wishes to make use of a water source for collective benefit. WUAs must be registered, which provides the government with a mechanism to regulate the collective use of drinking water. Article 3 of the Drinking Water Rule 1998 (2055 B.S.) mentions that while establishing a consumer organization (Drinking Water Users Association), the executive committee of the consumer organization to be established shall have nine persons with at least two women as members. As discussed in chapter 3, the 2015 Constitution of Nepal, the draft WASH Sector Development Plan (2016-2030) and the 15th National Plan recognize the need to make all services, including WASH, both gender and socially inclusive. However, the key informant interviews clearly showed that these policies were implemented only in technocratic ways. For example, five out of six *palikas* studied did not have GESI-specific budgets or activities on WASH. While women made up 33% of the WUSCs membership, marginalized groups (e.g., Dalit, Janajati, and people with disabilities) were often underrepresented. There are limited mechanisms for the effective implementation and monitoring of GESI activities in provincial and local government programs (World Bank and UNDP 2019b). As discussed in earlier sections, the WASH policy frameworks developed after federalism are GESI-aware, with provisions aimed at ensuring the equitable delivery of WASH services. However, the extent to which these provisions are implemented with adequate capacity and resources requires further research.

### Inclusiveness of WASH Committees

Although WUSCs are inclusive of women in the formal structure, ensuring their meaningful participation in real decision-making is still challenging since men continue to play decision-making roles. The mechanisms for organizing meetings such as information flow, time of meeting, and venue are also challenging as they are not gender sensitive. In the current administrative division, some rural municipalities have wards covering large geographic areas making it difficult to plan meetings and ensure the participation of individuals living in remote areas.

Respondents in the study *palikas* identified the challenges for making WUSCs inclusive (Figure 23). Over 36% of the respondents said that during decision-making not everyone was consulted by the committees and 27% thought that the voices of socially excluded groups were not heard. Similarly, 26% felt that male members dominated the meeting and decisions, whereas 11% thought that socially excluded groups were not part of the decision-making process.

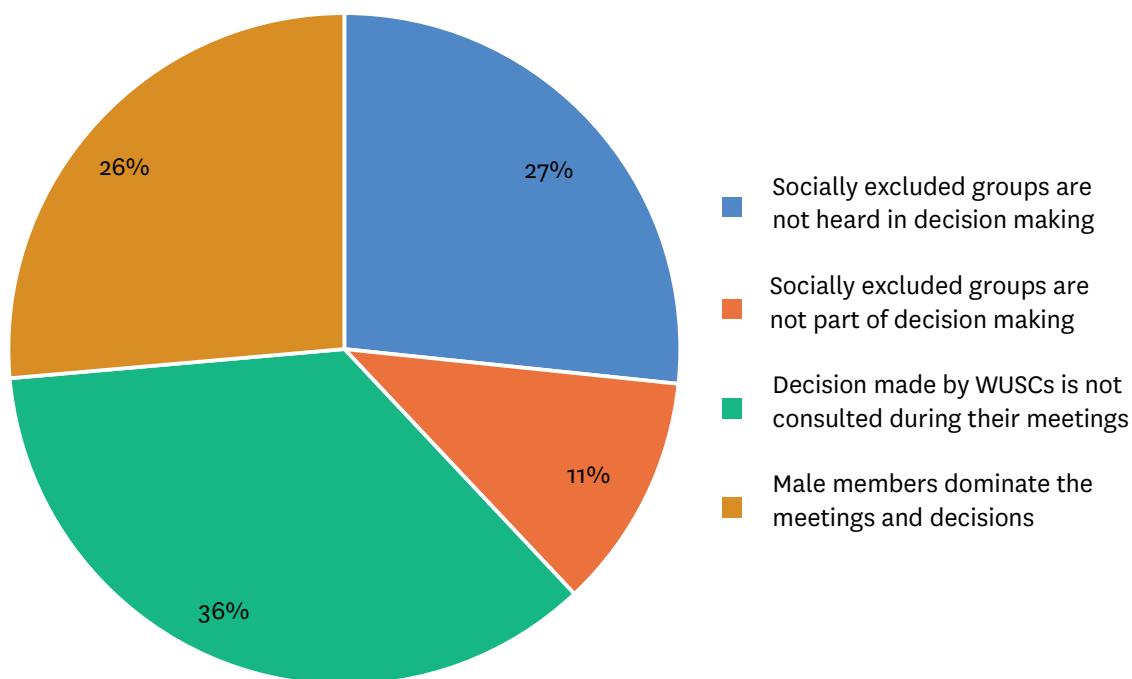


Figure 23. Perceptions of inclusiveness in WUSC decision-making practices.

## People’s Participation During WASH Planning at the Local Level

During the key informant interviews, it was clear that planning in all the *palikas* started from the village/community level and continued to the ward level. Locally elected representatives and community leaders facilitate the planning meetings. The ward committees, which are comprised of five elected officials (two women) prioritize the needs and issues collected from community meetings. Respondents provided some insights about the participation in the ward planning meeting organized by the *palikas*. It was apparent that most households were not invited to the meetings and the representatives attending the meeting were mostly men. One reason for not having all household members at a planning meeting could be a lack of information about the meeting, as most households had not received any information. In addition, deeply rooted patriarchal beliefs, norms and behaviors institutionalized in Nepali society continue to be a barrier to ensuring the participation of women, people with disabilities, and excluded groups in local planning and decision-making (Gautam et al. 2018; Leder et al. 2017).

The study found that WUSCs have been trying to implement the national policy of inclusion. While the WUSCs had women representatives, they lacked inclusion of other social groups such as Dalits, people with disabilities, and marginalized ethnic groups. Women’s representation also tended to be tokenistic and their voices were not heard as men dominated the decision-making. Likewise, the voice of socially excluded groups was not heard during the planning of meetings coordinated and convened by ward committees of local governments. These findings are similar to other studies that say local planning and priority setting related to WASH are influenced by men and powerful social groups (Gautam et al. 2018; Leder et al. 2017). Hence, it is necessary to develop a system where equal participation of all can be practiced to ensure an equal opportunity to put forward views about planning and decision-making.

## WASH in Local Budgeting and Programming

Budgets for WASH programs are incorporated into the annual budgets and plans of *palikas*. Some *palikas* have identified specific activities to be implemented in a fiscal year whereas others have allocated fixed sums and have handed this over to the ward committees for activity identification. During the planning phase, all the studied *palikas* practiced the recommended ten-step planning process and the chairpersons had a good understanding about it (Annex 9). Generally, programs are identified at the ward level which are discussed in sectoral committees at the *palika* level, and then prioritized and decided on by the annual council assembly.

## Budget Allocation and Breakdown

The allocations of an annual budget to WASH activities vary by *palika* depending on the amount of external support. WASH budgets range from 0.14% to 12.24% of the total annual budget in the six rural municipalities studied. As an example, the WASH budget and activities for FY 2019–2020 are presented in Table 8.

Palata had the largest WASH programs compared to other *palikas* because it is implementing water supply projects in partnership with national and international NGOs. In Chandranagar, a WASH budget of NPR 7 million had been allocated to all seven wards (each with NPR 1 million). According to the locally elected representatives interviewed, all wards had given priority to irrigation and overhead tank construction along with deep well boring programs.

**Table 8.** WASH budget and activities of rural municipalities, FY 2019–2020.

| Local Governments/<br>Districts                 | Total<br>Budget<br>(million<br>NPR) | Total<br>Budget<br>(million<br>US dollars) | Budget<br>Allocated to<br>WASH<br>(million NPR) | % of total<br>Allocated<br>to WASH | Main WASH Activities  |
|---|-------------------------------------|--|---|------------------------------------|---|
| Sailung Rural<br>Municipality,<br>Dolakha       | 383.444                             | 3.2  | 9.500   | 2.48                               | Water supply projects, public awareness on sanitation, recharge pond construction, gender, children, and disabled toilets construction in public schools. |
| Tilathi Koiladi, Rural<br>Municipality, Saptari | 366.883                             | 3.06                                       | 0.510   | 0.14                               | Overhead tanks (deep boring), tube wells.   |
| Chandranagar Rural<br>Municipality, Sarlahi     | 366.985                             | 3.06                                       | 8.500   | 2.32                               | Overhead tanks (deep boring), tube wells and sanitation.  |
| Badhaiyatal Rural<br>Municipality, Bardiya      | 609.373                             | 5.08                                       | 6.400   | 1.05                               | Overhead tanks (deep boring) and WASH plan.   |
| Gurans Rural<br>Municipality, Dailekh           | 405.703                             | 5.2  | 11.065  | 2.73                               | Operation and maintenance of existing systems, new systems construction, and mobilization of technicians to support WUSCs.                                |
| Palata Rural<br>Municipality, Kalikot           | 624.215                             | 5.2  | 76.418  | 12.24                              | New water supply systems for communities and schools with support from INGOs and projects.  |

Only Sailung does gender-responsive budgeting. The budget allocated to different WASH activities was not specified to promote inclusivity in the interventions. The rural municipality implemented WASH programs supported by the District Level Project Implementation Unit (Education) of the National Reconstruction Authority. The project allocated a budget for WASH infrastructure at schools with a focus on making the infrastructure accessible to both genders and people with disabilities.

Since infrastructure-focused development received high priority in annual planning—preparing guidelines, policies, and institutional development specific to WASH water management—has not been on the development agenda. After the COVID-19 outbreak, rural municipalities in the study area were actively involved in pandemic responses but had not increased their budgets for water supply. The national budget for water supply and sanitation decreased from NPR 43.46 billion in FY 2019–2020 to NPR 43.1 billion in FY 2020–2021, which is around 3% of the total annual budget (WaterAid 2020).

All the rural municipalities studied were willing to collaborate with development organizations to implement activities. Programs and budgets of development partners are incorporated into the annual planning of *palikas* and participation

in development projects is ensured during the planning phase. The *palikas* allocate matching funds to establish collaboration and partnerships with development and other relevant support agencies.

Annual WASH budgets and activities vary across the *palikas* and range from 0.14 % to 12.24% of the total annual budget. The allocation depended on external support for WASH projects. Only two out of six rural municipalities had included WASH activities in their five-year plans. Activities mainly focused on the technical and hardware part of WASH (e.g., maintaining an Open Defecation Free status, and water supply schemes). Social dimensions of WASH (e.g., institutional strengthening of WUSCs or ward committees, *palikas* on water governance, water resources management, and GESI) had not been prioritized in planning.

The institutional mechanisms, including budgeting for participatory and inclusive WASH planning processes, had not been developed at the *palika* level. The limited technical capacity of subnational governments to implement the principles and mechanism of federalism might continue to reinforce the pre-existing technocratic approach to WASH planning and service delivery at the local level if not addressed through interventions in WASH governance (Udas et al. 2014; World Bank and UNDP 2019a). By realizing what capacity gaps need to be filled to function effectively and manage development programs, local governments have been welcoming partner organizations for WASH support and have set aside matching funds to collaborate. Their active engagement in responding to the COVID-19 pandemic is hope for locally-led and inclusive WASH service delivery practices by enhancing the capacity of elected women representatives to exercise their political roles and rights.

## Perceptions of WASH Service Delivery

In a democratic system, people's perceptions of the state, its governance and service delivery systems are critical, and they should provide important insights for the government to frame its reform initiatives (NASC 2018). This chapter will present perceptions of duty bearers and rights holders, and their roles and responsibilities for WASH services. It also analyzes people's views of federalism, the transformational potential in terms of access to public services in general, and WASH services as measures for mapping satisfaction with federalism.

## Rights and Responsibilities

The Constitution of Nepal (2015) ensured the fundamental right of people to access clean drinking water and sanitation. While rights holders have a duty to assert their rights, duty bearers have a responsibility to ensure those rights and are accountable to the people they serve (HRW 2019). For this to work, it is necessary to improve knowledge and awareness of the fundamental rights of people to clean and safe drinking water and sanitation, and the responsibilities of local government leaders, sectoral officials, and stakeholders.

## Awareness of Locally Elected Representatives About Rights to WASH

The study found that leaders in all rural municipalities, especially chairpersons, were aware of the fundamental rights to clean drinking water and sanitation ensured in the Constitution. They understood that implementing rights at the local level required technical and financial resources. Almost all elected representatives said that inadequate funds and a lack of human resources were major challenges to promoting inclusivity and equity in WSS systems and services (Annex 10). However, local government planning and budgeting focused on physical infrastructure development instead of projects that aim at transformative change (Bhurtel, 2020).

## People's Awareness of Rights to WASH

Only 29% of the respondents interviewed were aware of the constitutional provisions on fundamental rights to WASH. Among them, 54% did not remember the article describing the rights related to WASH, 2% thought it was Article 30 whereas 44% thought it was Article 35. Over 45% of the respondents were aware that access to safe drinking water and sanitation was their fundamental right, while 55% were unaware of the provision. Around 68% were aware that SDG Goal 6 is related to WASH, while 31% were not. A small proportion of respondents said that WASH should be related to other SDGs (Annex 11).

During the key informant interviews, it was clear that communities had a basic awareness of their rights to WASH, but not all members of the community were equally aware. Some members of WUSCs were aware of the right to drinking

water but had a limited understanding of the constitutional provision on fundamental rights to clean water, sanitation, and hygiene (Articles 30 and 35). Other stakeholders had limited knowledge of the constitutional provisions (health professionals, teachers, youth club representatives, community leaders, and women’s groups). While regular water supply was considered a fundamental right, respondents also had an understanding that people had a responsibility to support the functionality of WASH services in their community.

### Understanding People’s Role in Improving WASH Services

Most respondents pointed out that people, as responsible citizens, have a role to play in improving local WASH services. Most (65%) agreed that it is the people's responsibility to improve WASH services, while 24% strongly agreed and only 1% disagreed (Figure 24; Annex 12).

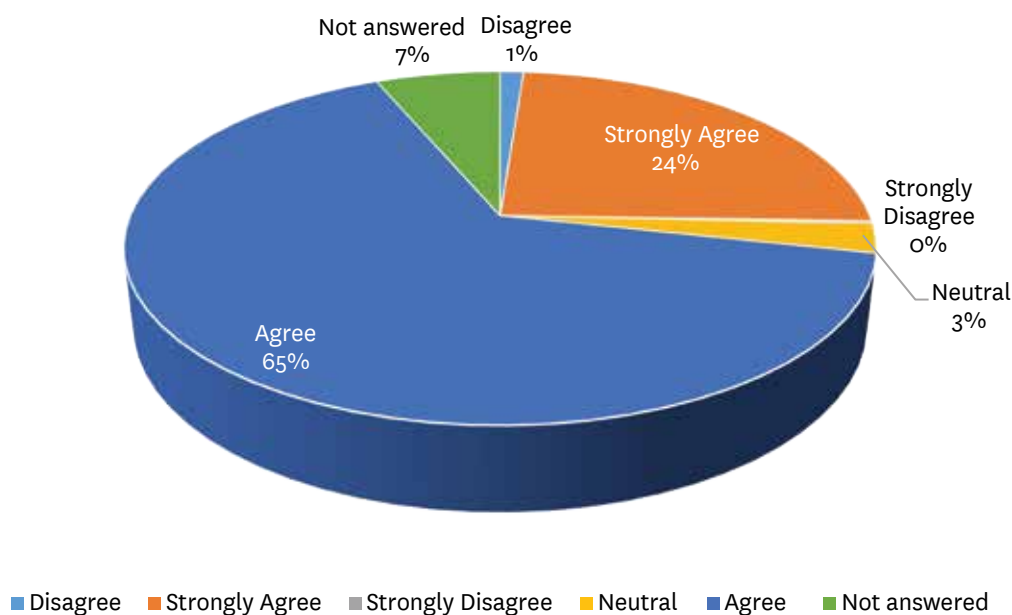
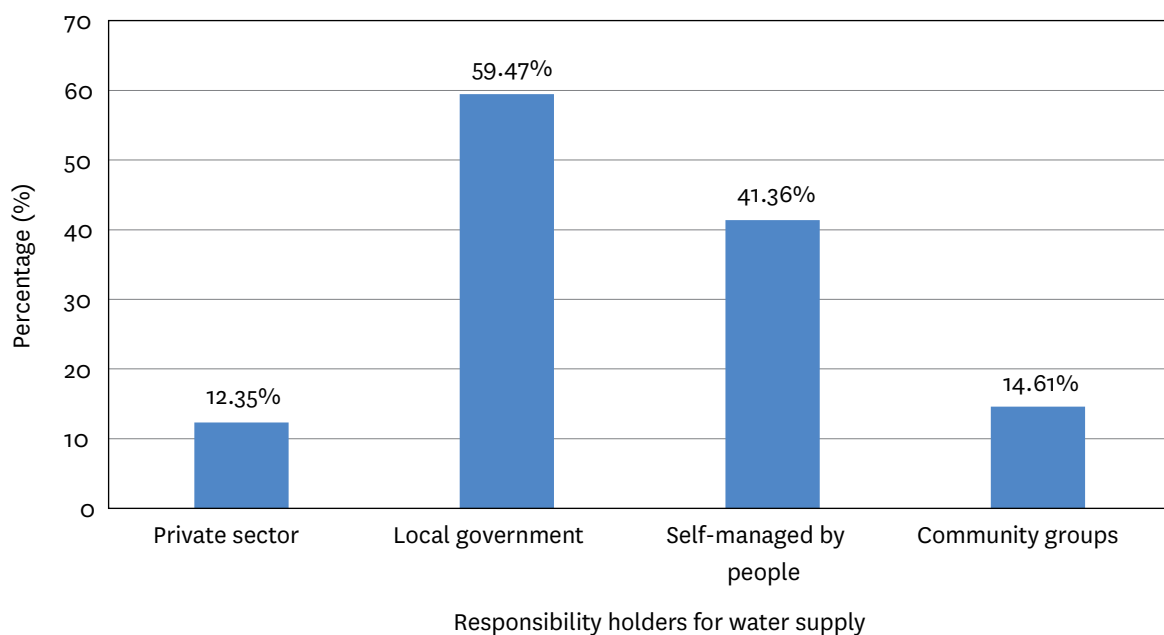


Figure 24. Role of people in improving community WASH services.

### Water Supply Responsibility

The respondents provided divergent views about who should be responsible for regular water supply. For example, 59% said that the local government should be responsible for providing water supply, 12% considered it to be the responsibility of the private sector, 15% said community institutions (e.g., WUSCs) should take care of water supply, and 41% believed that individual households and users should be responsible for regular water supply (Figure 25).



**Figure 25.** Perceptions of water supply responsibility.

Most respondents in the Terai considered that individual households (54%) should be responsible for managing water supply whereas in the Hills, only 29% had this opinion. In the Terai, self-supply is the main source of water. Alternatively, a large percentage of respondents in the Hills (83%) said that water supply was the responsibility of local governments. In the Terai, this opinion was shared by 36% of the respondents (Annex 13). Qualitative interviews revealed that people hoped that the effective implementation of federalism would facilitate public services provided by local governments. This finding complemented the findings of others (White and Haapala 2018; Khadka et al. 2023).

## Challenges for Easy and Affordable WASH Services Access

The perceived challenges for easy and affordable access to WSS services are depicted in Figures 26 and 27. The new Constitution guaranteed access to clean drinking water as a fundamental right, yet the residents of many villages and cities still have poor access to safe drinking water and sanitation (WaterAid 2017). Many factors influence access to affordable water services in the study areas. Around 27% of households said they lacked access to any water services, while for 22% of households, WASH materials were not available in local markets and they had to travel a long way to get them. Most respondents (68%) said that they could not afford WASH services due to their limited income. Similarly, 68% said their water service provider was not reliable, 48% said that water sources and other infrastructure tended to be vulnerable to calamities, and 4% felt that they were discriminated against accessing water services. Over 22% of the respondents said that the local government had given less priority to WASH services.

For the sustainability and reliability of sanitation facilities, access to sanitation services at an affordable cost in nearby places is necessary (Fonseca et al. 2014). Among the respondents, 74% said that sanitation materials were not easily available at their place of residence and 48% found sanitation materials to be expensive. Over 15% of respondents said that although their area had been declared as an Open Defecation Free zone some of their family members preferred to defecate in open spaces, and 34% said it was difficult to clean the toilet due to the limited water supply. Discrimination in access to sanitation services was experienced by 7% of the respondents whereas 18% said that the local government was not prioritizing the sanitation sector after declaring the area an Open Defecation Free zone. The investment in low-cost sanitation technologies and behavior change results in better and more sustainable services, especially for the most disadvantaged groups (Fonseca et al. 2014). The government should prioritize WASH as a part of decentralized and inclusive development.

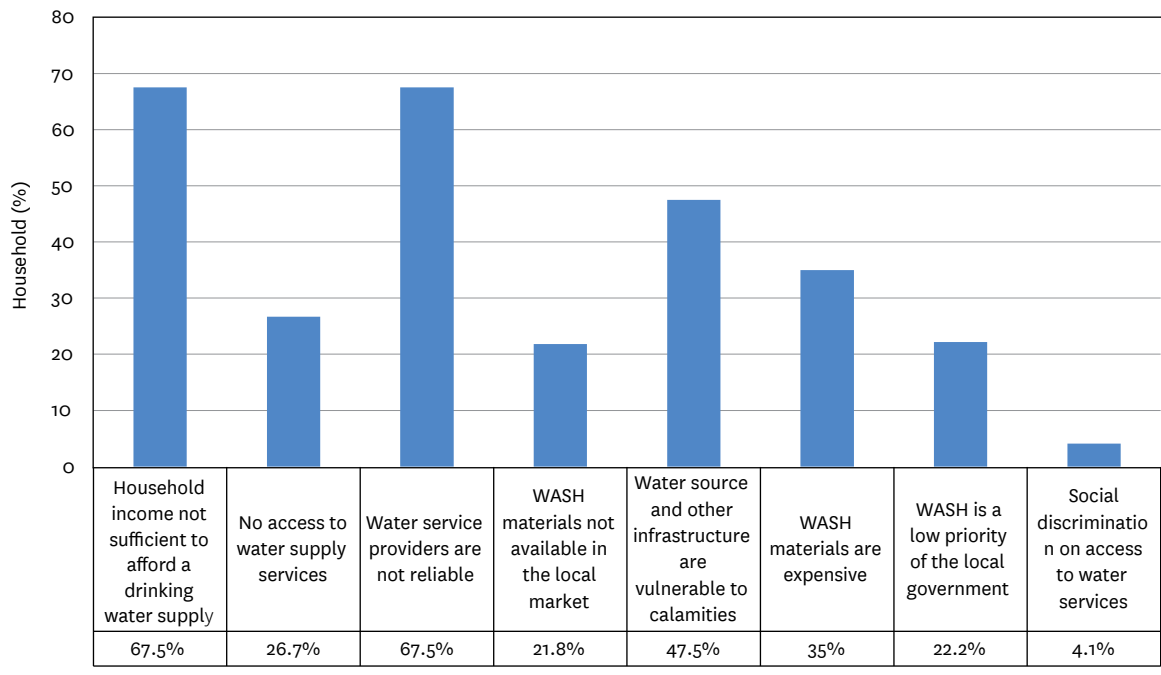


Figure 26. Challenges for easy and affordable access to water services.

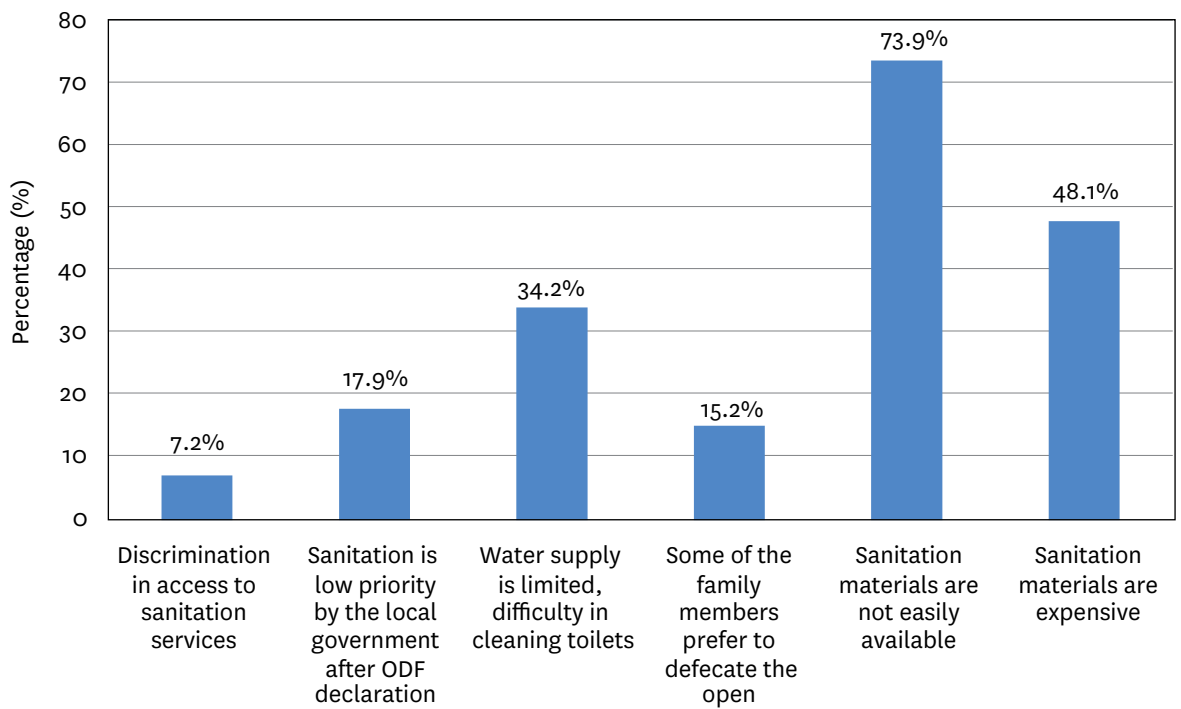


Figure 27. Challenges to easy and affordable access to sanitation services.

## Potential Solutions for Better WASH Services

Respondents offered suggestions for improving WASH services. These include promoting water lifting systems, searching for new water sources, protecting existing sources, establishing a maintenance fund in each scheme, improving equity-sensitive water tariff practices, institutional development for water cooperation, availability of clean and safe water an affordable cost, regular water quality checking, and support for the installation of hand pumps in public places. People also suggested that *palikas* should prioritize better WASH services as a development priority and promote equity, inclusion, and stakeholder participation in WASH planning and implementation.

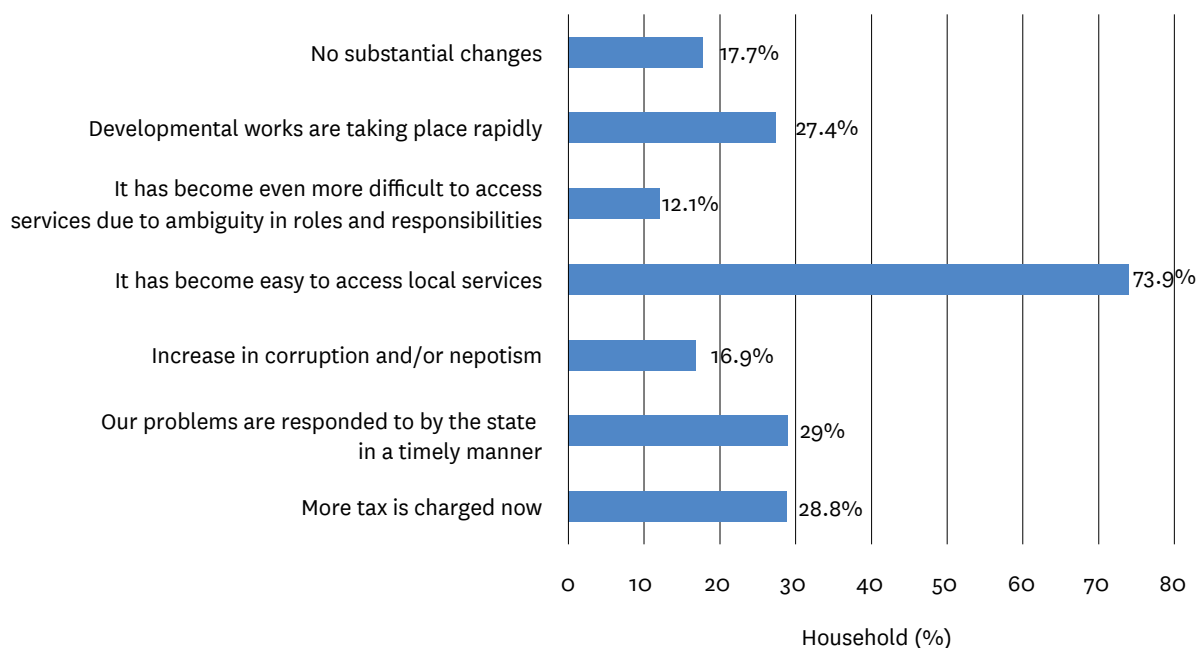
Most rights holders interviewed (over 55%) were unaware of their rights and the SDGs. In the study areas, 27% lacked access to water supply. Over two-thirds of the respondents could not afford to use their limited income for WASH services. While people said that *palikas* had a responsibility to ensure safe, affordable, and reliable WSS services, they were also equally aware of the fact that they, as individuals, also had a role to play in improving WASH services in the community.

## Federalism and Local Governments

Our study assessed people's perceptions of federalism, the changes they had observed in public service delivery by local governments, and their satisfaction with services. The findings are elaborated in the following sections.

### Changes Observed in Public Services

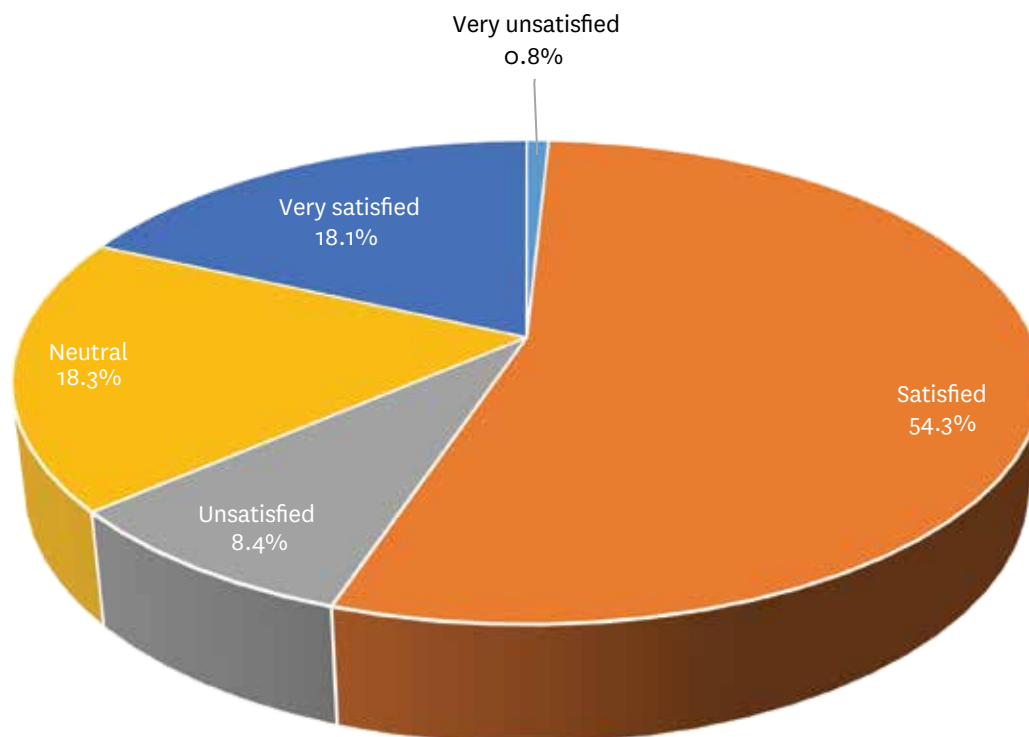
Most respondents (74%) found that the federal system was easy for accessing public services. Additionally, 27% believed that development works were progressing rapidly, while 29% reported that the state had addressed their problems in a timely manner. Only 18% said they did not experience any substantial change in access to public services in the federal system, and 12% found it even harder to access services due to confusion in the roles and responsibilities among WASH stakeholders (Figure 28). Similarly, 17% of respondents said that corruption and nepotism have increased in the new system. Rent-seeking behavior and social and public service delivery systems based on political connections have also been federalized under the new system (Wagle 2020), as each level of government practices these pre-existing informal norms. The strong ties between political leadership and bureaucrats are one of the main factors promoting corruption, even in the newly established local governments (CIAA 2020).



**Figure 28.** Visible changes in accessing public services from the government under the new system.

## Satisfaction with Services

People's satisfaction with easy access to services provided by *palikas* could be one indicator to measure the success of federalism. Over 18% of the respondents were 'very satisfied' with the services provided by their *palikas* and 54% were 'satisfied' (Figure 29). Over 9% expressed dissatisfaction with the services provided by *palikas*.



**Figure 29.** Satisfaction with public services from local governments.

Over 90% of the people surveyed were satisfied with local government services, especially in obtaining recommendation letters, vital registrations, tax facilities, and support for citizenship card preparation (CIAA 2020). With the service provided by local governments, 85% of the respondents from Brahmin, Chhetri, and Thakuri castes said they were 'satisfied' or 'very satisfied', while only 55% of Janajati respondents shared this feeling. This figure stood at 75% among the Dalit respondents (Annex 14). Relatively more respondents among Dalits and Janajatis remained neutral in responding to this satisfaction question.

While most respondents seemed optimistic about federalism, issues like corruption, nepotism, and increases in taxation were reported as institutional challenges that need to be addressed through effective governance at all levels. People's satisfaction with access to public services delivered through *palikas* is relatively high, however, the level of satisfaction is particularly high among advantaged groups followed by a lesser conviction among Dalits and Janajatis. This finding confirms similar observations made in other studies (NASC 2018). Generally, people were hopeful about changes after federalism but also said that access to public services, such as getting utility connections (including water supply) or transferring land ownership were the most difficult (ibid).

## Emerging Opportunities and Challenges

Based on the analysis in the preceding chapters on the federalization of the WASH sector, people's perceptions on the accessibility and affordability of WASH services, and public services delivery under federalism, this chapter synthesizes the opportunities and challenges for promoting rights and transformative paths to WASH. The chapter ends with a conclusion outlining potential pathways for the WASH sector in order to improve socioeconomic development and environmental sustainability in Nepal.

## Opportunities of Federalism in the WASH Sector

- **WASH is a fundamental right:** The Constitution of Nepal (2015) has guaranteed the right of every citizen to access safe water, sanitation, and a clean environment. This principle should create an opportunity for rights holders to participate in, and benefit from WASH interventions and WASH governance if implemented through inclusive legal, institutional, and service delivery mechanisms of state and non-state actors.
- **Enabling policies for inclusive WASH:** The Constitution and subsequent legal and policy frameworks such as the LGOA (2017) and the 15th National Plan, (2019-2023) call for inclusive governance and development. The 16th National Plan (2024-2028), commits to promoting good governance, social justice, and prosperity (NPC 2024). The Water Supply and Sanitation Act (2022) recognizes individual rights to drinking water and sanitation services, nondiscrimination, and the accountability of the state and people to water conservation and uses. Genuine commitment and action at the level of elected representatives and WASH sector service providers are essential to implement these policy frameworks.
- **Devolution of powers, functions, and responsibilities for WASH services:** Local governments in the federal system have been granted executive, judicial, and legislative functions. They have power and responsibility for developing and implementing policies, standards, guidelines, and programs related to local services—including water supply, basic health, sanitation, and watershed conservation. Respondents said that federalism has created a feeling of people being closer to the state and they hope that access to public services will be easier when local governments are held accountable to the people. This confirms findings by others (e.g., Khadka et al. 2021; Raut and Rajouria 2020) that local governments are the most accessible for public services, that institutional capacity should be strengthened for inclusive WASH services delivery and monitoring. Over 50% of the respondents said that local governments should be responsible for providing easy and affordable WASH services, but there are challenges to making these services transparent, equitable, and accountable. These findings indicate that there is an opportunity for governments, development partners, the private sector, and civil society organizations to support bottom-up gender and socially responsive WASH policies and practices.
- **Structural changes in public institutions:** Change within the institutional structure of public agencies in the WASH sector after federalism is complex, but could offer opportunities for bottom-up, inclusive, and multistakeholder collaboration and investments for delivering sustainable and equitable WASH services. Functions and functionaries related to WASH are under the jurisdiction of all three levels of government, several sectoral ministries, its departments, and para-state entities at federal and subnational levels. Designing and implementing WASH sector laws, policies, and programs under the federal system thus demands cooperation and coordination among multiple actors. All the rural municipalities studied had limited resources, knowledge, and technical capacity which limits their ability to practice WASH beyond infrastructure projects. They expressed their willingness to collaborate with diverse actors for developing their policy and service delivery capacities on WASH. This provides an opportunity for WASH sector stakeholders to promote multistakeholder collaboration and investment for making WASH services accessible to all.
- **The gap in public WASH financing is an investment opportunity:** Annual financing for WSS is less than 3% at the country level. At the *palika* level, the allocation of funds to WASH activities ranges from 0.14% to 12.24%. Those *palikas* with external support had higher WASH budgets. Only one out of the six rural municipalities had allocated funds for toilet construction at schools that considered access to people with disabilities and different genders.
- **GESI action plans and guidelines:** The absence of data and GESI action plans and guidelines for WASH at the local level offers an opportunity to create an environment for practicing rights and transformational WASH services in local governments. This gap provides an opportunity for conceptualizing and implementing WASH holistically to ensure that multi-use water systems as well as, technical, institutional, inclusive, financial, and environmental aspects of WASH are considered.

## Challenges for Promoting Rights and Transformational Paths to WASH

### Streamlining Policies

- **Policy and institutional capacity gaps to implement federalism in the WASH sector.** Policymaking systems, roles, functions, and functionaries have changed under federalism (*Shrestha 2019*). Federal WASH legislation and policy have been in place that are instrumental in shaping WASH policies at a sub-national level as well as development programs in the WASH sector. The draft WASH Sector Development Plan (2024-2043) provides the

WSS vision to implement WASH programs at the federal level. However, there is a need to develop ownership, institutional capacity, and evidence-based planning and investment in response to multiple drivers such as federalism, climate change, and deeply entrenched gender and social inequality. Local governments lack WASH policies, plans, and guidelines to accommodate the constitutional aspirations of inclusive development, and to achieve SDG targets.

- **Holistically promoting WASH is not a priority of local development.** While federalism has brought hope for changes in governance and public service delivery, respondents said that WASH continues to receive low priority. The annual budgets of the rural municipalities for WASH in the study areas mostly focused on the construction of WSS infrastructure. Missing from the WASH agenda are water security, water resources management, menstrual hygiene, conserving and using water for multiple uses, and promoting GESI through WASH interventions.
- **Low budget allocations for WASH.** The national annual budget of the WASH sector in 2020–2021 was NPR 43.1 billion (USD 364.64 million), which is almost equal to the budget allocated in FY 2019–2020 of NPR 43.46 billion (USD 367.68 million) (WaterAid 2020). The budget was reduced by 3.23% in FY 2023–2024 (WaterAid 2023). Within WASH, subsectors such as sanitation and water supply receive 7% and 72% of the total WASH budget respectively, while the combined water supply and sanitation projects and others account for 19% and 3%, respectively (ibid). By geographic location, large urban projects received high priority.
- **Limited GESI budget in the WASH sector.** There was no gender-disaggregated budget data available. The WASH sector's financing projection for attaining the SDGs in Nepal has allocated less than 0.05% of the total projected WASH budget of NPR 1,155 billion (USD 9.7 billion) for gender and inclusion programs. The draft WASH Sector Development Plan, 2024–2043 envisions less than 0.2% of the total projected WASH budget of NPR 4272.323 billion (USD 31.4 billion) for the two decades of GESI activities in the WASH sector.
- **Limited coordinated and harmonized practices.** There is limited coordination and cooperation among the sectoral agencies at each level of government for WASH activities. While the provincial water supply offices and the federal water supply agencies coordinate with DCCs and community WUSCs, their coordination and collaboration with rural municipalities when implementing water supply projects is weak. The relationships between WUSCs and rural municipalities are yet to be established institutionally (Smart WASH Solutions 2020). This situation could contribute to overlapping WASH interventions at federal and provincial levels in the same *palika* while reducing their policy roles within WASH. Limited or no coordination between *palikas* could create challenges to assessing and disseminating progress on SDGs on WASH and associated targets at the local level, while undermining the constitutional functions of local development.
- **Lack of disaggregated data and GESI actions.** The rural municipalities studied did not have disaggregated data for WSS program targeted at rights holders. There is a lack of area-specific subsector disaggregated data on the WASH financing status in the country (Shrestha 2020). Moreover, there is no systematic data on the composition of the WUSCs, particularly in marginalized areas. Data is also lacking on the proportion and attributes of marginalized populations in rural areas (Sarwar and Mason 2017). The development vision of elected representatives at the local level is limited to physical infrastructure development, and priority is given to road and water infrastructure (NASC 2018). There have been limited efforts towards understanding the WASH sector from a socioeconomic, political, and environmental perspective at the local level. More studies are required to assess how inclusive WASH development is at all levels of government. Studies co-created with government stakeholders are needed to assess the efforts of all levels of government in strengthening inclusive WASH development practices and to generate evidence-based recommendations for closing identified gaps.

## Delivering Inclusive WASH Services

- **People's access to WASH services.** Access to WASH services is key to the health and livelihoods of people (Gautam et al. 2018). Less than 40% of the households surveyed had access to a piped water supply and most people in the study areas relied on unsafe water for domestic uses. While advantaged groups had access to a public tap and piped water, ethnic groups and poor people mostly relied on shallow tube wells and streams. Only around 37% had access to clean and pathogen-free water, while 63% relied on turbid and contaminated water for drinking, sanitation, and livestock. A small percentage of the population still practices open defecation. In the Terai, it is predominantly Dalit and Janajatis, and in the Hills, Brahmin, Chhetri, and Thakuri.
- **Providers of WASH services and people's willingness to pay.** The main sources of water for domestic uses are the private sector, followed by WUSCs, the government, and self-management. Relatively, more people (46%) in

the Terai had better access to local markets for WASH materials compared to the Hills (30%). Good road access in the former facilitated supply chains. Over 55% of the respondents perceived water tariffs as 'reasonable', however, 29% considered them 'expensive'. Nonetheless, over 60% were willing to pay more for reliable and safe water. Only 2% of the people interviewed in the Terai paid water tariffs as water from tube wells is free and around 36% paid a tariff.

## **Inclusive Water Management Practices and Water Politics**

- **Inclusion in WUSCs.** Community institutions such as WUSCs were ranked second after the private sector for drinking water supply. WUSCs have women representatives but lack inclusion of other social groups such as Dalits, people with disabilities, and marginalized ethnic groups. In addition, women's representation seemed to be tokenistic as they often did not have a voice and were not heard during the meeting because men dominate decision-making processes. Likewise, the voice of socially excluded groups was not heard during the planning of meetings coordinated and convened by the ward committees of the *palikas*. These findings confirm exclusionary WASH governance and that planning and priority setting related to WASH are influenced by men and powerful social groups, which earlier studies have also identified (WaterAid 2009; Gautam et al. 2018; White and Haapala 2018). It is more likely that pre-existing inequalities and exclusion will be reinforced if WASH sector interventions, including policies and plans under federalism marginalize governance, human rights, and GESI perspectives and actions.
- **Gender roles in household water security.** Women and girls continue to be responsible for managing water for domestic uses in 87% of the households interviewed. This finding complements the national survey on the situation of women and children in Nepal (CBS 2020) that shows a skewed gender division of labor for provisioning water at the household level. This gender-skewed role for household water security prevents women from taking part in leadership roles in community water institutions, while impacting girls' education, mainly in the Hills.
- **Absence of a transformative agenda in local WASH planning and decisions.** Agendas such as: water source protection; water resources management; menstrual hygiene, safe, equitable, and adequate water supply for all; and the inclusion of gender issues in WASH were not prioritized in the budgets and programs of the *palikas* studied. Achieving gender and socially inclusive WASH outcomes within the federal system will be challenging unless social, environmental, and economic issues of WASH are integrated into the planning, budgeting, implementation, and monitoring of local WASH governance.

## Conclusion and Recommendations

Federalism has devolved legislative, judicial, and executive functions for WASH, giving more power and responsibility for policymaking, planning, budgeting, and implementation to local governments. The federal WASH legislation and National WASH Policy are in place, although the legislation focuses on technical aspects of WASH, missing opportunities for transformational change through the WASH sector's intervention. Having these policy frameworks at the national level is an opportunity for subnational levels to develop and implement WASH laws, policies, strategies, and plans in their jurisdictions. However, limited financial resources, technical capacities, disaggregated data and knowledge, are challenges for translating rights-based, inclusive, and transformative approaches in the WASH sector.

These barriers can be addressed by:

*Strengthening financing, institutional and policy capacities within the WASH sector, with a greater focus on enabling subnational governments and cross-sectional cooperation to understand and practice human rights, inclusion, and transformative approaches and practices as per the constitutional provisions and aspirations of federalism on inclusive development.*

The Water Supply and Sanitation Act (2022), the National WASH Policy 2023, and the National Water Resources Policy (2020) acknowledge the need for equitable access to WASH and the multipurpose uses of water resources, which include community approaches to water management. Enabling elected officials for inclusive WASH policymaking is critical. These officials require sensitization to view WASH interventions not merely as water infrastructure projects, but as complex socio-institutional, hydrological, and political processes that underpin water conservation, management, and use. Such an understanding is essential for delivering equitable WASH services and for addressing issues of inequality, exclusion, benefit sharing, and participatory decision-making.

This can be addressed by:

*Increased sensitization through social media, research, and evidence-based multistakeholder policy dialogues for empowering people to claim their rights and making the government accountable for transparent, participatory, and inclusive budgeting, implementation, monitoring and evaluation, and water sources conservation and management.*

To prioritize the delivery of equitable, transparent, and sustainable WASH services, local governments need support to develop their policy and institutional capacity for practicing rights and inclusion approaches for WASH. Locally elected representatives are aware of the need for inclusive WASH planning and the implementation of targeted programs for improving affordable and safe water supply. However, WASH budgeting and programming at the local level is not inclusive.

Addressing this challenge would require:

*Strengthening governance and institutional capacity of local governments through evidence-based policy, state-citizen science dialogues, and learning practices.*

*Conceptualizing and operationalizing WASH to build resilience within communities and the environment to prepare for climatic changes and shocks such as pandemics.*

*WASH interventions should focus on capitalizing the potential role of youth, women, and marginalized groups in improving WASH governance and the economy through WASH enterprises.*

*Actions identifying and addressing the needs of women and girls across different social groups and promoting inclusion and leadership of women and historically excluded groups in WASH governance.*

Although local governments are the state entities closest to the people and have the power and responsibilities for serving people, their decision-making, budgeting, and service delivery systems are guided by technocratic and infrastructure development perspectives. Social justice and gender lenses are underdeveloped. These issues can be addressed by:

*Improving the knowledge of elected women and men representatives on water security, inclusive WASH policymaking, and practices responsive to the needs of people, especially those with no voice and influence and who do not have bureaucratic and political connections. This can be done through a collective action of transdisciplinary research on WASH and evidence-based policy dialogues in the WASH sector.*

*Engaging water research partners in the design and implementation of WASH projects as knowledge partners.*

Some measures to address governance challenges and limited investment from the public sector for equitable and inclusive WASH services are:

*Strengthening the institutional capacity of water user committees on WASH as a solution to economic, health, and social empowerment, and engaging civil society in policy advocacy for inclusive WASH in the federal system.*

*Generating dialogue on WASH not only as water supply infrastructure interventions but as political approaches to water management and engaging women, youth, people with disabilities, sexual and gender minorities, and marginalized groups for the sustainability and functionality of WSS systems and outcomes.*

*Engaging men, boys, and people in privileged positions in the discussion of rights, inclusion, and equity issues of WASH.*

*Promoting partnerships with networks of women, youth, and marginalized groups in WASH project implementation.*

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# Annex 1. Criteria and Indicators for Ensuring Human Rights to WASH.

| Criteria              | Indicators   |
|-----------------------|--|
| Availability          | <ul style="list-style-type: none"> <li>• Enough for personal and domestic use.</li> <li>• According to WHO, 50 to 100 liters per person per day is an adequate quantity of water to meet health requirements.</li> <li>• Enough sanitation facilities must be available.</li> </ul>  |
| Quality               | <ul style="list-style-type: none"> <li>• Water must be safe for consumption and other uses and not threaten human health.</li> <li>• Sanitation facilities must be hygienically and technically safe to use, which means that they must effectively prevent human, animal and insect contact with human excreta.</li> <li>• To ensure hygiene, access to water for cleansing and handwashing after use is essential.</li> </ul>  |
| Acceptability         | <ul style="list-style-type: none"> <li>• Water and sanitation facilities and services must be culturally and socially acceptable.</li> <li>• Depending on the culture, acceptability can often require privacy, as well as separate facilities for women and men in public places, and girls and boys in schools.</li> <li>• Facilities will need to accommodate common hygiene practices in specific cultures, such as anal and genital cleansing.</li> <li>• Women's toilets need to accommodate menstrual hygiene needs.</li> <li>• In addition to safety, water should be of an acceptable color, odor and taste.</li> </ul>   |
| Accessibility         | <ul style="list-style-type: none"> <li>• Water and sanitation services must be accessible to everyone in the household or its vicinity continuously, as well as in schools, health care facilities and other public institutions and places.</li> <li>• Physical security must not be threatened during access to facilities.</li> <li>• There is no physical access when you must travel a distance of more than 1 km or when it takes more than 30 minutes on a return trip (WHO).</li> </ul>  |
| Affordability         | <ul style="list-style-type: none"> <li>• Access to sanitation and water facilities and services must be done at a price that is affordable for all people.</li> <li>• Access to sanitation and water must not compromise the ability to pay for other necessities guaranteed by human rights, such as food, housing, and health care.</li> <li>• That water must be affordable does not mean that water should be free, but that no person can be deprived of the right to water for economic reasons.</li> <li>• UNDP proposes that household spending on water does not exceed 3% of family income.</li> </ul>   |
| Nondiscrimination     | <ul style="list-style-type: none"> <li>• Discrimination is prohibited on grounds including race, color, sex, age, language, religion, political or other opinions, national or social origin, property ownership, birth, physical or mental disability, health status or any other civil, political, social or other status.</li> <li>• To address existing discrimination, positive targeted measures may have to be adopted.</li> <li>• Priority must be given to the most marginalized and vulnerable to overcome exclusion and discrimination.</li> <li>• Services must be technically safe and consider the safety needs of people with disabilities and children.</li> </ul> |
| Access to information | <ul style="list-style-type: none"> <li>• This includes the right to seek, receive and impart information concerning water issues.</li> <li>• To reach people and provide accessible information, multiple channels of information that consider cultural communication preferences must be used.</li> <li>• Capacity development and training may be required because only when existing legislation and policies are understood can they be applied, challenged, or transformed.</li> </ul>   |

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| Criteria       | Indicators   |
|----------------|--|
| Participation  | <ul style="list-style-type: none"><li>• Processes related to planning, design, construction, maintenance and monitoring of sanitation and water services should be participatory.</li><li>• This requires a genuine opportunity to freely express needs and concerns and influence decisions.</li><li>• It is crucial to include representatives of all concerned individuals, groups, and communities in participatory processes.</li><li>• Poor people and members of marginalized groups are frequently excluded from decision-making regarding water and sanitation, and hence their needs are seldom prioritized. Community participation in the planning and design of water and sanitation programs is also essential to ensure that water and sanitation services are relevant and appropriate, and thus ultimately sustainable.</li></ul> |
| Accountability | <ul style="list-style-type: none"><li>• The realization of human rights requires responsive and accountable institutions, a clear designation of responsibilities and coordination between different entities involved.</li><li>• States should be held accountable for meeting these obligations and ensuring that non-state actors respect them.</li><li>• Persons or groups denied their human rights to WASH services should have access to effective judicial or other appropriate remedies, like courts, national ombudspersons, or human right commissions.</li></ul>   |
| Sustainability | <ul style="list-style-type: none"><li>• The human rights obligations related to water and sanitation must be met in a sustainable manner.</li><li>• This means practices must be economically and environmentally and socially sustainable so that future generations can also enjoy the right.</li><li>• The achieved impact must be continuous and long-lasting.</li></ul>   |

Source: WaterLex 2019.

## Annex 2. Criteria for Executing IEE and EIA in the Drinking Water Supply and Sanitation-related Projects.

| Criteria for IEE  | Criteria for EIA   |
|---|--|
| Rainwater harvesting within 100–500 hectare areas, including the use of water resources in the same area                        | Rainwater harvesting on more than 500 hectares and the use of water resources in the same area   |
| Safe yield of more than 100 liters per second and 50% to 75% supply of water in the dry season                                  | Safe yield of more than 500 liters per second and more than 75% supply of water in the dry season  |
| Water purification of more than 100 liters per second   | Drinking water related multipurpose project that uses more than 500 liters per second of the water source                                |
| 50% to 75% aquifer recharge for groundwater resource development  | More than 75% aquifer recharge for groundwater resource management   |
| A water infrastructure project that requires the construction of a tunnel between 1-3 km to supply water for drinking purposes. | A water infrastructure project that requires the construction of a tunnel which is more than 3 km to supply water for drinking purposes. |
| A drinking water project that displaces between 25 and 100 people   | A drinking water project that displaces more than 100 people   |
| A project for settling up to 500 people upstream of water sources   | A project for settling more than 500 people upstream of water sources  |
| Drinking water supply with a reach of 50,000 to 100,000 people  | Drinking water supply with a reach of over 200,000 people  |
| Addition of new sources to supply drinking water to 50,000 to 200,000 people  | Addition of new sources to supply drinking water to more than 200,000 people   |
| Project relating to diversion of more than 1 km   | Resource with the risk of biological and chemical pollution and use of groundwater with a chance to be affected from pollution           |
| Operate drinking water projects with the provision for sewerage management system and its treatment                             | Proposal relating to a major source for public drinking water supply   |
| A project that targets sewerage and waste management and sanitation benefiting up to 50,000 people                              | A project that targets sewerage and waste management and sanitation benefiting over 50,000 people  |
| Sewerage management project with the capacity of 5 minimal liquid discharge (MLD)   | Sewerage management project with the capacity of more than 5 minimal liquid discharge (MLD)  |
| A drainage management, sanitation or waste management project that supports 50,000 people                                       | A drainage management, sanitation or waste management project that supports more than 50,000 people                                      |
| A water resource development project that displaces between 25 and 100 local residents  | A water resource development project that displaces more than 100 local residents  |

Source: GoN 2020.

## Annex 3. Main Source of Drinking Water.

|  | Overall | Dolakha<br>(N=80) | Sarlahi<br>(N=80) | Saptari<br>(N=80) | Kalikot<br>(N=80) | Dailekh<br>(N=84) | Bardiya<br>(N=82) | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari)<br>(N=242) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kalikot)<br>(N=244) |
|--|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---|--|
|  | Value   | %                 | %                 | %                 | %                 | %                 | %                 | %   | %  |
| What is the main/primary source of drinking water used by members of your household? |         | (N=486)           | (N=80)            | (N=80)            | (N=80)            | (N=84)            | (N=82)            | (N=242)   | (N=244)  |
| Rainwater collection   | 15      | 3.1               | 0                 | 0                 | 0                 | 17.9              | 0                 | 0   | 6.1  |
| Unprotected dug well   | 2       | 0.4               | 0                 | 0                 | 0                 | 2.4               | 0                 | 0   | 0.8  |
| Surface water (river, pond, canal)   | 1       | 0.2               | 0                 | 1.2               | 0                 | 0                 | 0                 | 0.4   | 0  |
| Protected spring   | 4       | 0.8               | 0                 | 0                 | 0                 | 4.8               | 0                 | 0   | 1.6  |
| Water tanker/ truck  | 2       | 0.4               | 0                 | 0                 | 0                 | 2.4               | 0                 | 0   | 0.8  |
| Unprotected spring   | 6       | 1.2               | 0                 | 0                 | 0                 | 7.1               | 0                 | 0   | 2.5  |
| Shallow tube well  | 195     | 40.1              | 0                 | 97.5              | 50                | 0                 | 93.9              | 80.6  | 0  |
| Piped water to house/yard  | 186     | 38.3              | 92.5              | 0                 | 46.3              | 38.1              | 2.4               | 16.1  | 60.2   |
| Public tap   | 75      | 15.4              | 7.5               | 2.5               | 2.5               | 27.4              | 3.7               | 2.9   | 27.9   |
| Location of main source of drinking water  |         | (N=486)           | (N=80)            | (N=80)            | (N=80)            | (N=84)            | (N=82)            | (N=242)   | (N=244)  |
|  | Value   | %                 | %                 | %                 | %                 | %                 | %                 | %   | %  |
| Water located on the premises  | 73.9    | 68.7              | 77.5              | 97.5              | 31.3              | 71.4              | 96.3              | 90.5  | 57.4   |
| Less than 30 minutes   | 16.2    | 15                | 22.5              | 2.5               | 5                 | 11.9              | 2.4               | 9.1   | 10.7   |
| More than 30 minutes   | 9.9     | 16.3              | 0                 | 0                 | 63.7              | 16.7              | 0                 | 0   | 32   |
| Not answered   | 0       | 0                 | 0                 | 0                 | 0                 | 0                 | 1.2               | 0.4   | 0  |

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|  | Overall |              |                   |                   |                   |                   |                   |                   |   |  |
|--|---------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---|--|
|  | Value   | %<br>(N=486) | Dolakha<br>(N=80) | Sarlahi<br>(N=80) | Saptari<br>(N=80) | Kalikot<br>(N=80) | Dailekh<br>(N=84) | Bardiya<br>(N=82) | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari)<br>(N=242) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kalikot)<br>(N=244) |
| Who usually from your family goes to this point to collect the water for your household? |         |              |                   |                   |                   |                   |                   |                   |   |  |
| Female adolescent (under 16)   | 62      | 12.8         | 7.5               | 48.8              | 7.5               | 3.7               | 7.1               | 2.4               | 19.4  | 6.1  |
| Adult female   | 362     | 74.5         | 85                | 46.3              | 46.3              | 95                | 78.6              | 95.1              | 62.8  | 86.1   |
| Male adolescent (under 16)   | 27      | 5.6          | 1.3               | 2.5               | 26.3              | 0                 | 3.6               | 0                 | 9.5   | 1.6  |
| Adult male   | 35      | 7.2          | 6.2               | 2.5               | 20                | 1.3               | 10.7              | 2.4               | 8.3   | 6.1  |
| Problem experienced with a main water point in the past one year                         | Value   | %<br>(N=486) | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=84)       | %<br>(N=82)       | %<br>(N=242)  | %<br>(N=244)   |
| Water is dirty (turbid)  | 244     | 50.2         | 56.3              | 55                | 36.3              | 87.5              | 57.1              | 9.8               | 33.5  | 66.8   |
| Water point is far away  | 112     | 23.0         | 18.8              | 6.25              | 1.3               | 86.3              | 23.8              | 2.4               | 3.3   | 42.6   |
| Water supply is irregular  | 108     | 22.2         | 13.8              | 2.5               | 1.3               | 91.3              | 25                | 0                 | 1.2   | 43   |
| No problems experienced  | 204     | 42.0         | 30                | 43.75             | 35                | 36.3              | 31                | 75.6              | 51.7  | 32.4   |
| Water source dries up  | 104     | 21.4         | 37.5              | 2.5               | 0                 | 77.5              | 10.7              | 1.2               | 1.2   | 41.4   |
| Iron content was high  | 56      | 11.5         | 0                 | 23.75             | 42.5              | 3.8               | 0                 | 0                 | 21.9  | 1.2  |
| Water source is flooded  | 97      | 20.0         | 8.8               | 1.25              | 45                | 52.5              | 6                 | 7.3               | 17.8  | 22.1   |
| Arsenic content was high   | 27      | 5.6          | 0                 | 0                 | 3.8               | 6.3               | 0                 | 23.2              | 9.1   | 2  |
| Water gets polluted  | 96      | 19.8         | 40                | 2.5               | 10                | 53.8              | 7.1               | 6.1               | 6.2   | 33.2   |
| Water source was not functioning   | 62      | 12.8         | 6.3               | 0                 | 17.5              | 47.5              | 3.6               | 1.2               | 6.6   | 18.9   |
| Use of water point by women during menstruation  | Value   | %<br>(N=486) | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=84)       | %<br>(N=82)       | %<br>(N=242)  | %<br>(N=244)   |
| Yes  |         |              |                   |                   |                   |                   |                   |                   |   |  |
| Yes  | 91.0    | 91.0         | 96.3              | 81.3              | 97.5              | 73.8              | 97.6              | 96.3              | 91.7  | 89.3   |
| No   | 6.0     | 6.0          | 1.2               | 18.7              | 2.5               | 13.7              | 1.2               | 0                 | 7   | 5.3  |
| Not answered   | 3.0     | 3.0          | 2.5               | 0.0               | 0                 | 12.5              | 1.2               | 3.7               | 1.2   | 5.3  |

## Annex 4. Caste and Ethnicity Drinking Water and Sanitation Status.

|  | BCT<br>%<br>(N=177) | Dalit<br>%<br>(N=78) | Janajati<br>%<br>(N=159) | Others<br>%<br>(N=72) |
|--|---------------------|----------------------|--------------------------|-----------------------|
| What is the main/ source of drinking water used by members of your household?        |                     |                      |                          |                       |
| Rainwater collection   | 6.8                 | 2.6                  | 0.6                      | 0                     |
| Unprotected dug well   | 0.6                 | 1.3                  | 0.0                      | 0                     |
| Surface water (river, pond, canal)   | 0                   | 0                    | 0.6                      | 0                     |
| Protected spring   | 2.3                 | 0                    | 0.0                      | 0                     |
| Water tanker truck   | 1.1                 | 0                    | 0.0                      | 0                     |
| Unprotected spring   | 3.4                 | 0                    | 0.0                      | 0                     |
| Shallow tube well  | 6.8                 | 30.8                 | 58.8                     | 91.7                  |
| Piped water into the house/yard  | 53.7                | 37.2                 | 35.8                     | 6.9                   |
| Public tap   | 25.4                | 28.2                 | 4.4                      | 1.4                   |
| Who usually from your family goes to this point to collect water for your household? |                     |                      |                          |                       |
| Female adolescent (under 16)   | 6.8                 | 10.3                 | 8.2                      | 40.3                  |
| Adult female   | 80.8                | 80.8                 | 79.9                     | 40.3                  |
| Male adolescent (under 16)   | 4                   | 6.4                  | 4.4                      | 11.1                  |
| Adult male   | 8.5                 | 2.6                  | 7.5                      | 8.3                   |
| On average, how much water do you consume from your main water point? (In liters)    |                     |                      |                          |                       |
| < 50   | 14.7                | 6.4                  | 6.3                      | 1.4                   |
| 50-25  | 51.4                | 47.4                 | 37.1                     | 23.6                  |
| 125-200  | 24.9                | 16.7                 | 15.1                     | 31.9                  |
| 200-275  | 2.8                 | 2.6                  | 3.8                      | 1.4                   |
| 275-350  | 1.7                 | 5.1                  | 10.1                     | 2.8                   |
| 350-425  | 0.6                 | 10.3                 | 5.7                      | 6.9                   |
| 425-500  | 0                   | 0.0                  | 0.6                      | 0.0                   |
| >500   | 4                   | 11.5                 | 21.4                     | 31.9                  |

Continued >>>

Continued

| Do you use a toilet for defecation? | %<br>(N=177) | %<br>(N=78) | %<br>(N=159) | %<br>(N=72) |
|-------------------------------------|--------------|-------------|--------------|-------------|
| Yes                                 | 97.2         | 82.1        | 91.2         | 91.7        |
| No                                  | 2.8          | 17.9        | 8.8          | 8.3         |

Notes: BCT: Brahmin, Chhetri and Thakuri.

## Annex 5. Methods Used for Purifying Drinking Water.

|  | Overall      | Dolakha     | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kailkot) |
|--|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---|
| Value  | %<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                     | %<br>(N=244)                                    |
| Do nothing (drink directly)  | 221          | 17.5        | 95          | 28.8        | 47.5        | 23.8        | 61          | 61.6   | 29.5  |
| Let it stand and settle  | 1            | 0           | 0           | 0           | 0           | 0           | 1.2         | 0.4  | 0   |
| Use a water filter (ceramic, bio-sand, colloidal silver, ultraviolet light etc.) | 99           | 15          | 1.3         | 52.5        | 0           | 21.4        | 31.7        | 28.5   | 12.3  |
| Boil   | 146          | 61.3        | 1.2         | 11.3        | 47.5        | 52.4        | 6.1         | 6.2  | 53.7  |
| Strain it through a cloth  | 12           | 1.3         | 2.5         | 6.3         | 3.7         | 1.2         | 0           | 2.9  | 2   |
| Use chlorination   | 3            | 0           | 0           | 1.3         | 1.3         | 1.2         | 0           | 0.4  | 0.8   |
| Solar disinfection   | 4            | 5           | 0           | 0           | 0           | 0           | 0           | 0  | 1.6   |

## Annex 6. Use of Toilets.

|   | Overall | Dolakha      | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kalikot) |
|---|---------|--------------|-------------|-------------|-------------|-------------|-------------|--|---|
|   | Value   | %<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                     | %<br>(N=244)                                    |
| Use of toilet for defecation  |         |              |             |             |             |             |             |  |   |
| Yes   | 447     | 92           | 91.3        | 97.5        | 91.3        | 92.9        | 95.1        | 92.1   | 91.8  |
| No  | 39      | 8            | 8.7         | 2.5         | 8.7         | 7.1         | 4.9         | 7.9  | 8.2   |
| Type of toilet facility used for defecation                                     |         |              |             |             |             |             |             |  |   |
| Toilet that flushes to septic tank  | 155     | 35           | 97.3        | 1.5         | 45.2        | 0           | 5.1         | 22.9   | 46.4  |
| Pit latrine without slab, open pit  | 7       | 1.6          | 0           | 4.5         | 0           | 1.3         | 2.6         | 2.7  | 0.4   |
| Pit latrine with slab   | 257     | 57.5         | 1.4         | 94          | 54.8        | 97.4        | 62.8        | 62.8   | 52.2  |
| Twin-pit offset toilet  | 15      | 3.4          | 0           | 3.8         | 0           | 1.3         | 14.1        | 6.3  | 0.4   |
| Composting toilet (biogas/ecosan)   | 13      | 2.9          | 1.4         | 0           | 0           | 0           | 15.4        | 5.4  | 0.4   |
| Sharing of toilet with other who is not family member                           |         |              |             |             |             |             |             |  |   |
| Yes   |         |              |             |             |             |             |             |  |   |
| No  |         |              |             |             |             |             |             |  |   |
| Are women in your household allowed to use the same toilet during menstruation? |         |              |             |             |             |             |             |  |   |
| Yes   | 442     | 98.9         | 97.3        | 100         | 97.3        | 100         | 98.7        | 99.6   | 98.2  |
| Not applicable  | 2       | 0.4          | 0           | 0           | 1.4         | 0           | 1.3         | 0.4  | 0.4   |
| No  | 3       | 0.7          | 2.7         | 0           | 1.4         | 0           | 0           | 0  | 1.3   |

## Annex 7. Market Access of WASH Services.

|  | Overall<br>(N=486) | Dolakha<br>(N=80) | Sarlahi<br>(N=80) | Saptari<br>(N=80) | Kalikot<br>(N=80) | Dailekh<br>(N=84) | Bardiya<br>(N=82) | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kalikot) |
|--|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|---|
| Market distance to buy construction material                     | %<br>(N=486)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=84)       | %<br>(N=82)       | %<br>(N=242)                                     | %<br>(N=244)                                    |
| In the adjacent locality (within 1 km)                           | 29                 | 46.3              | 38.9              | 17.5              | 22.5              | 10.7              | 39                | 31.8   | 26.2  |
| Construct from locally available materials                       | 3.5                | 0                 | 0                 | 0                 | 0                 | 17.9              | 2.4               | 0.8  | 6.1   |
| In the same community (within 500 m)                             | 37.7               | 41.3              | 57.5              | 50                | 0                 | 47.6              | 29.3              | 45.5   | 29.9  |
| From the district headquarters or bigger market (more than 1 km) | 29.8               | 12.5              | 3.7               | 32.5              | 77.5              | 23.8              | 29.3              | 21.9   | 37.7  |
| Who is supplying your main water system? %                       | %<br>(N=486)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=80)       | %<br>(N=84)       | %<br>(N=82)       | %<br>(N=242)                                     | %<br>(N=244)                                    |
| WUSCs  | 24.9               | 60                | 15                | 46.3              | 2.5               | 25                | 1.2               | 20.7   | 29.1  |
| Government   | 24.7               | 23.7              | 22.5              | 2.5               | 97.5              | 3.6               | 0                 | 8.3  | 41  |
| Natural source   | 20.2               | 2.5               | 2.5               | 46.3              | 0                 | 21.4              | 47.6              | 32.2   | 8.2   |
| Private sector   | 30.2               | 13.7              | 60                | 5                 | 0                 | 50                | 51.2              | 38.8   | 21.7  |

## Annex 8. Managing WASH Issues.

|  | Overall          | Dolakha     | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi<br>and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh<br>and<br>Kalikot) |
|--|------------------|-------------|-------------|-------------|-------------|-------------|-------------|--|---|
| Knowledge about institutions to manage WASH issues                   | Value<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                     | %<br>(N=244)                                    |
| No   | 410              | 84.4        | 15          | 100         | 93.7        | 96.4        | 91.5        | 76.9   | 91.8  |
| Yes  | 76               | 15.6        | 85          | 0           | 6.3         | 3.6         | 8.5         | 23.1   | 8.2   |
| Where do you usually go to the Municipality Office                   | Value<br>7       | 9.2         | 33.3        | 0           | 40          | 0           | 0           | 1.8  | 30  |
| Water Users and Sanitation Committee (WUSC)                          | 35               | 46.1        | 8.3         | 0           | 20          | 0           | 42.9        | 58.9   | 10  |
| Ward Office  | 29               | 38.2        | 58.3        | 0           | 20          | 66.7        | 14.3        | 33.9   | 50  |
| Ward WASH Coordination Committee                                     | 3                | 3.9         | 0           | 0           | 0           | 33.3        | 28.6        | 3.6  | 5   |
| Divisional Water Supply Office                                       | 2                | 2.6         | 0           | 0           | 20          | 0           | 14.3        | 1.8  | 5   |
| Registration of complaint regarding your WASH services the past year | Value<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                     | %<br>(N=244)                                    |
| No   | 461              | 94.9        | 100         | 100         | 93.7        | 100         | 97.6        | 91.7   | 98  |
| Yes  | 25               | 5.1         | 0           | 0           | 6.3         | 0           | 2.4         | 8.3  | 2   |
| What was the complaint about?  | Value<br>(N=25)  | %<br>(N=0)  | %<br>(N=0)  | %<br>(N=18) | %<br>(N=5)  | %<br>(N=0)  | %<br>(N=2)  | %<br>(N=20)                                      | %<br>(N=5)                                      |
| Tariff   | 1                | 4           | 0           | 0           | 5.6         | 0           | 0           | 5  | 0   |
| Allocation   | 3                | 12          | 0           | 0           | 0           | 0           | 0           | 5  | 60  |
| Water source   | 18               | 72          | 0           | 0           | 94.4        | 0           | 50          | 90   | 0   |
| Calamities   | 1                | 4           | 0           | 0           | 0           | 0           | 50          | 0  | 0   |
| Reliability  | 2                | 8           | 0           | 0           | 0           | 0           | 0           | 0  | 40  |

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| Rectification of complaint by the concerned authorities | Value | % (N=25) | % (N=0) | % (N=0) | % (N=18) | % (N=5) | % (N=0) | % (N=2) | % (N=20) | % (N=5) |
|---|-------|----------|---------|---------|----------|---------|---------|---------|----------|---------|
| Yes, they were rectified in a timely manner             | 20    | 80       | 0       | 0       | 100      | 20      | 0       | 50      | 95       | 20      |
| No, they said they would but have not done anything yet | 4     | 16       | 0       | 0       | 0        | 80      | 0       | 0       | 0        | 80      |
| No, have not heard anything from them                   | 1     | 4        | 0       | 0       | 0        | 0       | 0       | 50      | 5        | 0       |

## Annex 9. Ten-step Planning Process in WASH Budgeting in Study Rural Municipalities.

|   | Sailung Rural Municipality, Dolakha   | Chandranagar Rural Municipality, Sarlahi   | Tilathi Koiladi Rural Municipality Saptari   | Palata Rural Municipality, Kalikot   | Gurans Rural Municipality, Dailekh  | Badaiya Taal Rural Municipality, Bardiya   |
|---|---|--|--|--|---|--|
| Process for WASH budgeting (ten-step planning process or something else). | Rural municipality chairperson has a good knowledge of the ten-step planning process and is following it while finalizing projects and budgets.   | Rural municipality chairperson was aware of the ten steps of planning but did not have a clear idea about the steps. | Rural municipality chairperson was aware of the ten steps of planning and follow these steps while planning. | Ten-step planning process is followed quite well by the rural municipality.  | Ten-step planning process is followed well but many local leaders and WUSC members believe the rural municipality only prioritizes activities based on political influence. | Rural municipality chairperson was aware of the ten steps of planning and follow these steps while planning. |
| Explore understanding and following ten-step process.                     | Generally, projects and activities are identified at the local level by people (gatherings at the ward level is organized for the identification of programs and activities) and then ideas will be discussed in ward committee meetings and prioritized by a sectoral committee at the municipality level. | As noted by the Chief Administrative Officer Mr. Ashok Shah, “they follow the procedure while planning.”             | A plan is selected at the ward level and discussed at the municipality level before finalization.            | Generally projects and activities are identified at a local level by local communities (i.e. gathering at a ward level is organized for the identification of programs and activities). The ideas and activities will then be discussed in ward committee meetings, and eventually prioritized by a sectoral committee at the municipal level. | Plans are selected at the ward level and discussed at rural municipality level before finalization.   |  |

Continued >>>

## Annex 10. Perceptions of Rights and Responsibilities.

|  | Sailing Rural Municipality, Dolakha  | Chandranagar Rural Municipality, Sarlahi  | Tilathi Koiladi Rural Municipality Saptari   | Palata Rural Municipality, Kalikot   | Gurans Rural Municipality, Dailekh   | Badaiya Taal Rural Municipality, Bardiya  |
|--|--|---|--|--|--|---|
| Awareness of fundamental rights in the 2015 Constitution | <p>Rural municipality chairperson is aware of the fundamental rights on safe water and hygiene.</p> <p>Rural municipality members and teachers were aware of the fundamental rights but do not have in-depth knowledge.</p> <p>Members of WUSCs were not aware of the fundamental rights. No training or awareness program regarding fundamental rights has been provided. Female community health volunteers and health professionals are aware of the fundamental rights related to WASH and are sharing information about these rights with people through school health programs and community sessions.</p> | <p>Rural municipality chairperson, vice-chairperson, and health professionals know little about the fundamental rights to WASH in the 2015 Constitution. WUSC members know about these fundamental rights and that everyone should be provided with safe water.</p> | <p>Rural municipality chairperson was aware of the fundamental rights whereas the Ward Chairperson and rural municipality members knew about the fundamental rights but were not aware about what exactly it addresses.</p> <p>School teachers and health post staff were aware of the fundamental rights.</p> | <p>Elected members and other community leaders are aware of constitutional rights; few know the articles of the 2015 Constitution.</p> | <p>Rural municipality chairperson was aware of constitutional rights but does not know exactly what is written in the Constitution.</p> <p>Headmasters and WUSC members also know about constitutional rights but do not know about separate rights under the right to health.</p> <p>Most still believe it is under the right to live in a clean environment.</p> | <p>Rural municipality chairperson was aware of the right but does not know what is exactly written in the Constitution.</p> |

Continued

|   |  |  |   |   |  |   |
|---|--|--|---|---|--|---|
| <p>Perception of fundamental rights of people on safe water and hygiene</p> | <p>Persons who are aware of the fundamental rights think that every citizen should be made aware and the rural municipality should work to achieve it.</p> <p>Due to the lack of resources (human and financial), necessary support has not been provided to people.</p> | <p>Rural municipality representatives are aware of the need for safe and clean water distribution along with sanitation facilities but due to a lack of funds and resources, they are not able to ensure fundamental rights.</p> | <p>Ensuring rights to safe and clean water as a fundamental right is good but the government should be able to ensure that every citizen will get their rights. Enough funds should be deployed in the Terai region to ensure safe water during floods.</p> | <p>Few community leaders or WUSC members are aware of the meaning of 'fundamental right'</p> <p>Few clearly know about WASH rights.</p> | <p>Rural municipality chairperson and other social leaders are aware that WASH is a fundamental right, but their understanding of fundamental rights is different.</p> | <p>Chairperson is aware of WASH fundamental rights, but other members are not as clear about these rights as the chairperson.</p> <p>fundamental rights</p> |
|---|--|--|---|---|--|---|

# Annex 11. Awareness of Local Governments on WASH Legal and Policy Frameworks.

|   | Overall      | Dolakha     | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh and<br>Kalikot) |
|---|--------------|-------------|-------------|-------------|-------------|-------------|-------------|---|--|
| Do you know about the provision of rights related to water and sanitation in the Constitution of Nepal? | %<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                  | %<br>(N=244)                                 |
| Yes   | 29.4         | 6.3         | 17.5        | 65          | 35.0        | 22.6        | 30.5        | 37.6  | 21.3   |
| No  | 70.6         | 93.7        | 82.5        | 35          | 65.0        | 77.4        | 69.5        | 62.4  | 78.7   |
| Do you know access to safe water and sanitation is considered a human right of everyone?                |              |             |             |             |             |             |             |   |  |
| Yes   | 45.1         | 17.5        | 77.5        | 55          | 42.5        | 38.1        | 40.2        | 57.4  | 32.8   |
| No  | 54.9         | 82.5        | 22.5        | 45          | 57.5        | 61.9        | 59.8        | 42.6  | 67.2   |
| Do you know about Sustainable Development Goals (SDGs)?   |              |             |             |             |             |             |             |   |  |
| Yes   | 19.8         | 6.3         | 0           | 26.3        | 31.3        | 27.4        | 26.8        | 17.8  | 21.7   |
| No  | 80.2         | 93.7        | 100         | 73.8        | 68.7        | 72.6        | 73.2        | 82.2  | 78.3   |
| Can you remember which article in the Constitution mentions the right to water, and sanitation?         | %<br>(N=143) | %<br>(N=5)  | %<br>(N=14) | %<br>(N=52) | %<br>(N=28) | %<br>(N=19) | %<br>(N=25) | %<br>(N=91)                                   | %<br>(N=52)                                  |
| Article 35  | 44.1         | 0           | 0           | 3.8         | 89.3        | 84.2        | 80          | 24.2  | 78.8   |
| Article 30  | 2.1          | 0           | 0           | 0           | 10.7        | 0           | 0           | 0   | 5.8  |
| No, I don't remember  | 53.8         | 100         | 100         | 96.2        | 0           | 15.8        | 20          | 75.8  | 15.4   |
| Can you remember which goal is related to WASH?   | %<br>(N=5)   | %<br>(N=96) | %<br>(N=0)  | %<br>(N=21) | %<br>(N=25) | %<br>(N=23) | %<br>(N=22) | %<br>(N=43)                                   | %<br>(N=53)                                  |
| Goal 6  | 67.7         | 40          | 0           | 4.8         | 96          | 73.9        | 95.5        | 51.2  | 81.1   |
| Don't know  | 31.2         | 60          | 0           | 95.2        | 0           | 26.1        | 4.5         | 48.8  | 17   |
| Any other goal  | 1            | 0           | 0           | 0           | 4           | 0           | 0           | 0   | 1.9  |

## Annex 12. Perceptions of the Role of Citizens in Improving WASH Services in the Community.

|                   | Overall      | Dolakha     | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi and<br>Saptari) | Hill<br>(Dolakha,<br>Dailekh and<br>Kalikot) |
|-------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|---|--|
|                   | %<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                  | %<br>(N=244)                                 |
| Disagree          | 1.2          | 2.5         | 0           | 2.5         | 0           | 0           | 2.4         | 1.7   | 0.8  |
| Strongly agree    | 24.3         | 1.2         | 8.7         | 52.5        | 51.2        | 28.6        | 3.7         | 21.5  | 27   |
| Strongly disagree | 0.2          | 0           | 1.3         | 0           | 0           | 0           | 0           | 0.4   | 0  |
| Neutral           | 2.7          | 1.3         | 0           | 1.3         | 0           | 2.4         | 11          | 4.1   | 1.2  |
| Agree             | 65.2         | 95          | 86.3        | 41.2        | 48.8        | 61.9        | 58.5        | 62  | 68.4   |
| Not answered      | 6.4          | 0           | 3.7         | 2.5         | 0           | 7.1         | 24.4        | 10.3  | 2.5  |

## Annex 13. Perceptions of the Responsible Institution for Providing Water Supply.

|   | Overall      | Dolakha     | Sarlahi     | Saptari     | Kalikot     | Dailekh     | Bardiya     | Terai<br>(Bardiya,<br>Sarlahi and<br>Saptari) | Hills<br>(Dolakha,<br>Dailekh and<br>Kalikot) |
|---|--------------|-------------|-------------|-------------|-------------|-------------|-------------|---|---|
| Responsibility to provide water supply for household uses | %<br>(N=486) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=80) | %<br>(N=84) | %<br>(N=82) | %<br>(N=242)                                  | %<br>(N=244)                                  |
| Private sector  | 12.3         | 43.8        | 7.5         | 11.3        | 0           | 6           | 6.1         | 8.3   | 16.4  |
| Local government  | 59.5         | 98.8        | 66.3        | 42.5        | 95          | 56          | 0           | 36.0  | 82.8  |
| Own household   | 41.4         | 46.3        | 33.8        | 47.5        | 5           | 34.5        | 80.5        | 54.1  | 28.7  |
| Community groups  | 14.6         | 46.3        | 1.3         | 21.3        | 1.3         | 4.8         | 13.4        | 12.0  | 17.2  |

## Annex 14. Satisfaction with the Service Received from the Local Government by Caste and Ethnic Groups.

| Satisfaction with the services received from the local government? | BCT          | Dalit       | Janajati     | Others      |
|--|--------------|-------------|--------------|-------------|
|  | %<br>(N=177) | %<br>(N=78) | %<br>(N=159) | %<br>(N=72) |
| Very satisfied   | 26           | 26.9        | 9.4          | 8.3         |
| Satisfied  | 56.5         | 48.7        | 45.9         | 73.6        |
| Unsatisfied  | 10.2         | 7.7         | 5.7          | 11.1        |
| Neutral  | 7.3          | 15.4        | 37.7         | 5.6         |
| Very unsatisfied   | 0            | 1.3         | 1.3          | 1.4         |

Notes: BCT: Brahmin, Chhetri and Thakuri.





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**International Water Management Institute (IWM)**  
**Headquarters**  
127 Sunil Mawatha, Pelawatta  
Battaramulla, Sri Lanka

**Mailing address:**  
P. O. Box 2075  
Colombo, Sri Lanka  
Tel: +94 11 2880000  
Fax: +94 11 2786854  
Email: [iwmi@cgiar.org](mailto:iwmi@cgiar.org)  
[www.iwmi.org](http://www.iwmi.org)