



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 23-Feb-2022 | Report No: PIDA33012



BASIC INFORMATION

A. Basic Project Data

Country Nepal	Project ID P176589	Project Name Water Sector Governance and Infrastructure Support Project	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Appraisal Date 28-Feb-2022	Estimated Board Date 19-May-2022	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Ministry of Water Supply, Department of Water Supply and Sewerage Management	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to strengthen sector institutional capacity for service delivery under federalism and increase access to improved water supply and sanitation services in selected municipalities.

Components

- Component 1: Strengthening Sector Governance and Institutional Capacity, Project Management
- Component 2: Increasing Access to Climate-resilient, Improved and Safe Water Supply and Sanitation
- Component 3: Reducing Climate Hazards impacting WSS infrastructure through IWRM and Watershed Management
- Component 4: Contingency Emergency Response

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	100.00
Total Financing	100.00
of which IBRD/IDA	80.00
Financing Gap	0.00

DETAILS

World Bank Group Financing



International Development Association (IDA)	80.00
IDA Credit	80.00

Non-World Bank Group Financing

Counterpart Funding	20.00
Borrower/Recipient	20.00

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **Nepal is a landlocked country of about 29 million people.** Most people (80 percent) live in rural areas, although the urbanization rate (about six percent) is higher than the regional average. The poverty headcount (at the international poverty line of US\$1.90/day) was 17.4 percent in 2019, down from 30.1 percent in 2014¹. The country’s Human Development Index (HDI) is 0.602, which ranks 142nd in the world for reporting countries. The inequality-adjusted HDI is 0.446, and life expectancy is 70.8 years².

2. **Nepal’s political institutions are still in transition, following the 2015 constitution.** Nepal transitioned from a monarchy to a federal system of government in 2015, bringing a shared sense of hope and optimism after years of political instability. Two years later, in 2017, Nepal held successful elections for all three tiers (local, province, and federal) of the new state architecture defined in the 2015 constitution. At the subnational level, funds, functions, and functionaries hitherto managed by the central, district, and village authorities are moving to the seven new provinces and 753 local governments (LGs)³, while the national level is shifting focus to policy making and oversight.

3. **The COVID-19 pandemic derailed the economy, but partial recovery is underway.** GDP growth contracted by 2.1 percent in FY2020, the first economic contraction since FY1983, as a nationwide lockdown from March to July 2020 imposed to curtail the spread of the COVID-19 significantly impacted all sectors of the economy. However, medium-term projections suggest the economic growth will recover to 4.7 percent in FY2023. The forecast assumes (i) no return to nationwide lockdowns, (ii) an effective vaccination rollout to the entire eligible population by mid-April 2022, (iii) a gradual increase in international migration and tourist arrivals, and iv) the gradual resumption of economic activities.

Sectoral and Institutional Context

4. **Water plays a pivotal role in Nepal’s economy but is underutilized and affected by high climate variability.** Over 80 percent of the monsoon-driven rainfall occurs in 4 months, causing problems of excess in the wet season and scarcity

¹ Nepal Planning Commission, 2021. Multidimensional Poverty Index (MPI)-2021 Report, Kathmandu, Nepal

² <http://www.hdr.undp.org/en/countries/profiles/NPL#>

³ There are 6 metropolitan cities, 11 sub-metropolitan cities, 276 municipalities, and 460 rural municipalities. Rural municipalities are often referred to as ‘Palikas’.



in the dry-season. Out of the total 225 billion cubic meters (BCM) annually available surface water, only 15 BCM is in use. Around 96 percent of this 15 BCM is being used for agriculture, about 4 percent for domestic purposes and less than 1 percent for industrial use. Therefore, despite being rich in water resources, water security in Nepal is one of the lowest in all of Asia.⁴ For instance, the water supply in Kathmandu meets less than 19 percent of household demand in the dry season.⁵ The lack of year-round water availability for WSS has high economic costs. In 2015, the forgone output due to inadequate WSS was estimated at US\$76.8 million.⁶

5. **Access to WSS services in Nepal improved over time, but significant challenges remain for the Government to achieve the United Nations' Sustainable Development Goal (SDG) 6 on clean water and sanitation.** According to the Joint Monitoring Program (JMP) database, the country achieved the Sustainable Development Goal (SDG) 6 target for Open Defecation Free status but is behind the target for access to safely managed water supply (Actual 2021 = 21 percent, Target 2030 = 50 percent).^{7,8,9} These numbers are confirmed by the recent Multiple Indicator Cluster Surveys by the Nepal Planning Commission (MICS, 2019), showing that nationally only 19 percent of households have access to safely managed drinking water, with urban households receiving higher proportions of access (22 percent) compared to rural households (13 percent). The draft WASH Sector Development Plan (SDP) prepared by the Ministry of Water Supply in May 2019 estimates that about 16 million lack safely managed sanitation facilities.¹⁰

6. **One of the most salient challenges in water and sanitation service provision is the low functionality of the existing infrastructure.** A recent functionality study found that out of 42,039 piped water supply schemes examined, only 28 percent were described as 'well-functioning, 38 percent did not have year-round supply,¹¹ and 34 percent needed major repair, rehabilitation, reconstruction or were non-repairable. In some of the country's largest cities, it is estimated that water is supplied only on 3-6 days per week and usually for only one to four hours on those days.¹² Principal reasons for the current state of the sector include (i) inadequate revenue for O&M; (ii) water source issues, particularly due to increasing climate variability and poor watershed management; and (iii) Water Supply and Sanitation User Groups' (WSUGs) inability to undertake major repairs. For sanitation, urban households are dependent on pits and tanks that are cleaned infrequently, and sewerage coverage is sparse. As a result, the latest MICS survey data reveals that 85 percent of the nation's household tap water is contaminated with E- coli.¹³ Further, a recent sample of 737,000 national groundwater sources found that close to 10 percent have arsenic concentrations above 10 µg/L (the WHO limit),¹⁴ putting an estimated 2.6 million people at risk of high arsenic exposure.

7. **The institutional framework for water and sanitation is still transitioning to align with the 2015 constitution.** The Local Governance Operation Act 2017 transferred the responsibility of providing safe and inclusive water, sanitation, irrigation, and disaster mitigation services from the federal government to LGs (municipalities and palikas). However, the LGs lack the capacity to formulate policies and plans, implement programs, and monitor and regulate water and sanitation service provision. Outside of a few large cities that have water utilities (e.g., Kathmandu and the 26 towns served by the Nepal Water Supply Corporation), no municipalities have such utilities. Under the Act,

⁴ ADB, 2020. [Asian Water Development Outlook 2020: Advancing Water Security across Asia and the Pacific \(adb.org\)](#). Nepal has a score 6.0 for rural household water security, 9.7 for economic water security, 11.2 for urban water security, 13.1 for environmental water security, and 12.4 for climate related disaster security (out of 20 for each category)

⁵ Udmale, P., H. Ishidaira, B. Thapa, and N. Shakya. 2016. "The Status of Domestic Water Demand: Supply Deficit in the Kathmandu Valley, Nepal." *Water* 8 (5): 196.

⁶ World Bank. 2019. "Nepal Environment Sector Diagnostic: Path to Sustainable Growth Under Federalism (A Country Environmental Analysis)." Washington, DC.

⁷ 15th Periodic plan of GON (2019/020 to 023/24) pp. 252-258, pp. 586-587, p. 587

⁸ Ministry of Water Supply. 2019. Business plan of MoWS, Sept 2019. p.1

⁹ UN JMP Database, 2021.

¹⁰ Inadequate FSM remains a major challenge across the country, despite Nepal being declared Open Defecation Free (ODF) according to SDG 6.2.

¹¹ GoN. 2018b. Nationwide Coverage and Functionality Status of Water Supply and Sanitation in Nepal. [National Management Information Project](#).

¹² Udmale, P, et al., (2016). The status of domestic water demand: supply deficit in the Kathmandu Valley, Nepal. *Water* 8(5) 196.

¹³ MICS, 2019, pp.27-28.

¹⁴ Thakur, J. K., R. K. Thakur, A. L. Ramanathan, M. Kumar, and S. K. Singh. 2011. "Arsenic Contamination of Groundwater in Nepal—An Overview." *Water* 3 (1):.



municipalities are further responsible for regulating and providing technical and financial support for Nepal's more than 40,000 small-scale Water Supply and Sanitation User Committees (WSUCs). Still, the capacity to fulfill this role is lacking. Nepal has also drafted an ambitious Sector Development Plan (2016-2030), which emphasizes institutional and legal reforms for the sector under a federal system of government, capacity development, higher service levels under the government's "one-house one-tap" policy, strengthened M&E, stimulating private sector participation, environmental conservation, climate resilience, and long-term sustainability.

8. **Nepal has requested the World Bank's assistance to help strengthen local government capacity to deliver improved water and sanitation services during the transition to federalism.** The proposed project compliments the Bank's and Development Partner's ongoing engagement supporting federalism. These initiatives include the Nepal Urban Governance and Infrastructure Project (NUGIP, P163418), the Integrated Public Financial Management Reform Project (IPFMRP, P164783), the Federal Engagement Framework (FEF), and the Federal Capacity Needs Assessment (FCNA).¹⁵ It also complements other Development Partners (DPs) interventions, including the Provincial and Local Government Support Program (PLGSP). Further, the proposed Project aligns with the World Bank Group's (WBG's) FY19-23 Country Partnership Framework (CPF) for Nepal,¹⁶ Green Resilient Inclusive Development (GRID) Framework for Nepal, and the Maximizing Financing for Development approach, and the Bank's Climate Change Action Plan (CCAP).

C. Proposed Development Objective(s)

9. The Project Development Objective (PDO) is to strengthen sector institutional capacity for service delivery under federalism and increase access to improved water supply and sanitation services in selected municipalities.

D. Project Description

10. **Geographic coverage and selection rationale:** The proposed project will be implemented in selected local governments in two provinces – Karnali and Sudurpashchim (former Provinces 6 and 7), focusing on provincial capitals, strategic towns, and selected rural municipalities (palikas). Analysis based on the most recent census data (2011) shows Karnali and Sudurpashchim provinces were the least developed in terms of Human Development Index (HDI) at only 0.463 and 0.478, respectively.¹⁷ DWSSM data also indicates that Karnali and Sudurpashchim provinces have the lowest coverage of basic water supply service delivery at about 84 percent.¹⁸ The three selected urban municipalities are Birendranagar and Sharada in Karnali and Dipayal Silgadhi in Sudurpashchim, and the three rural municipalities are Bardoria, Joshipur, and Janaki Municipalities in Kailali District (Sudurpashchim).¹⁹

11. The project scope consists of four components that contribute to the PDO. Activities will be financed through an IDA credit of US\$80 million equivalent and the Government of Nepal (GoN) counterpart funding of US\$20 million.

12. **Component 1: Strengthening Sector Governance and Institutional Capacity, Project Management (US\$20 million, of which US\$12 million IDA, US\$8 million GoN).** This component will provide support at the federal, provincial, and local levels to improve climate-smart water sector governance through institutional reforms, monitoring, and reporting. Institutional reforms will be implemented in a phased manner to systematically transfer water governance and service delivery functions from the Federal Ministry of Water Supply/Department of Water Supply and Sewerage Management (MoWS/DWSSM) to the participating local municipalities.

¹⁵ World Bank. 2019. Nepal Federal Capacity Needs Assessment (FCNA) Report. I

¹⁶ Nepal CPF (FY19-23) Report No. 83148-NP; July 10, 2018 discussed at the Board on August 7, 2018.

¹⁷ Source: Journal of Management and Development Studies Vol. 28: pp. 53-68 Available online <http://nasc.org.np> ©2018 Nepal Administrative Staff College Provincial Comparison of Development Status in Nepal: An Analysis of Human Development Trend for 1996 to 2026

¹⁸ Source: NMIP/DWSSM datasheet, by end of 2019/20

¹⁹ Selected municipalities may be dropped/replaced during implementation with other municipalities in the Karnali and Sudurpashchim Provinces if they fail to adhere to the terms and conditions of the Participating Agreement, considering availability of Project resources.



13. **Component 2: Increasing Access to Climate-resilient, Improved and Safe Water Supply and Sanitation (US\$75 million, of which US\$64 million IDA, US\$11 million GoN).** The activities under this component include 3 subcomponents:

- (a) **Urban and peri-urban water supply and City-Wide Inclusive Sanitation (CWIS)**, which includes i. construction and rehabilitation of water supply schemes in two urban municipalities (i.e., Birendranagar and Dipayal Salghadi in Karnali and Sudurpashchim provinces respectively) to improve water and sanitation service delivery levels, and ii. Construction of fecal sludge and wastewater treatment facilities including both sewer systems, Fecal Sludge Treatment Plants (FSTPs) and on-site sanitation.
- (b) **Rural water supply and sanitation:** involving construction and rehabilitation of water supply schemes and sanitation facilities in selected municipalities (i.e., Sharada, Janaki, Joshipur and Bardogoriya) of Karnali and Sudurpashchim Provinces to provide adequate, reliable, and safe water supply with a year-round reliability through household connections.
- (c) **Water Quality and Monitoring Management:** involving the construction of water quality testing infrastructure, notably functioning laboratories at Provincial levels and selected municipalities to support water quality monitoring, and operationalization of a national water quality surveillance and governance system and integrated management information system (MIS).

14. Works under this component will be phased and aligned with the institutional reforms implemented under Component 1 to ensure that the responsible implementing units would acquire the capacity to undertake the infrastructure works and to manage respective WSS services sustainably.

15. **Component 3: Reducing Climate Hazards impacting WSS infrastructure through IWRM and Watershed Management (US\$4 million IDA, US\$1 million GoN).** This component will enhance resilience of WSS investments in Component 2 by supporting rural/urban watershed management and nature-based solutions to improve upstream/downstream water quality and environmental flows and provide adaptation and mitigation measures against climate-related hazards, including droughts, floods, and landslides.

16. **Component 4: Contingency Emergency Response (US\$0 million):** A provisional zero amount Contingent Emergency Response (CER) component is included, which will allow for rapid reallocation of credit proceeds from other project components in the event of an eligible disaster, including climate-related events and pandemics. This Component will finance the implementation of emergency infrastructure reconstruction, rehabilitation, and associated studies (Emergency Response Activities).

Project Beneficiaries

17. The beneficiaries of the institutional transformation promoted by the project will be the six selected municipalities²⁰, Karnali and Sudurpashchim provinces, and DWSSM at the Federal level, who will benefit from streamlining of their functions and the training and capacity building activities on financial management, procurement, WASH planning, O&M, M&E, climate resilience, and climate mitigation and integrated water management. The municipal utilities to be established in the participating municipalities, local community water supply, and sanitation user committees (WSUCs), WASH service providers, and local WASH technicians will also benefit from capacity building training on sustainable WASH service delivery bookkeeping/financial management, network planning, watershed management, regular O&M amongst others. The construction and rehabilitation of water and sanitation infrastructure are expected to directly benefit over 413,000 people, predominantly from districts with low access to water and sanitation services, higher poverty incidence, and climate vulnerability. Women and children will benefit significantly from project interventions. They bear the burden of securing the daily drinking water needs of the family and

²⁰ Birendranagar in Karnali and Dipayal Silgadihi in Sudurpashchim [urban], Sharada Municipality (Karnali), and Bardogoria, Joshipur, and Janaki Municipalities in Kailali District (Sudurpashchim) [rural]



disproportionately suffer the consequences of illnesses associated with poor access to water and sanitation. Women will also gain employment opportunities and skills training in the WASH sector.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

18. **Overall, the environmental and social risks of the project is rated ‘Substantial’** considering the potential for significant adverse impacts on the environment and host communities of project installation. Excavation and earthworks for pipe works, sourcing and transporting materials, and maintenance of workers' camps and materials stockyards will have substantial environmental concerns in the form of loss and degradation of vegetation, increased risks for localized landslides, soil erosions around fragile hilly slopes, dust and noise at and around construction sites, vibration during construction; exposure of workers to occupational hazards and incidents; and contamination of water due to the discharge of wastes generated by the project activities. Other risks include increased traffic congestion and accidents, temporary restriction of access, odor and noise from operations of water and wastewater treatment facilities/ equipment, sludge production and disposal, as well as occupational health and safety hazards, including from handlings of chemicals and risks to infrastructure from flash-floods. The source of water for the proposed water treatment facilities is the Bheri River and its tributary, which incidentally serves other purposes including irrigation, hydropower, recreation (rafting), and cultural uses. The river joins the Karnali River downstream which ultimately flows into the Ganges of India and could trigger cross-border concerns on water access and pollution, although this risk is insignificant. On social risks and impacts, Components 1 and 2 involves civil works in urban and rural settings and are likely to induce instances of land acquisition, economic displacement, and temporary relocation of public and private assets particularly in urban areas, temporary disruption of access to homes and shops and relocation of public utility service lines. Other social risks that may arise during construction include community health and safety, potential impacts on tangible cultural heritage due to excavation, traffic congestion during construction, labor influx into localized settings and its effects on SEA/SH, and workers' and communities' exposure to COVID-19 and other infectious diseases. There is also potential for excluding vulnerable and marginalized groups from the planning process, stakeholder engagements, opportunities and benefits offered by the project. These impacts coupled with concerns for weak and nascent institutional capacity at the provincial and local levels present an overall substantial-risk rating relative to the environmental and social aspects of the project.

19. As the locations of the infrastructure and other activities are not-precisely known at this concept stage, the Borrower has prepared, consulted with stakeholders, and disclosed an Environmental and Social Management Framework (ESMF) and Resettlement Frameworks (RPF). The frameworks define the procedures for screening, assessing, and managing E&S risks and impacts of project operations; and outline procedures for uptake and resolution of project-related grievances and complaints. The RPF provides guidance for the preparation of site-specific Resettlement Action Plans (RAPs) during implementation. The ESMF complements the RPF, and provides guidance for screening, and classifying impacts at sub-project level and capacity building program for implementing agencies to



manage risks and impacts. The ESMF includes ‘chance find’ procedure to manage potential impacts on tangible cultural heritage. Labor Management Procedures (LMP) have also been prepared to address labor-related risks. Contractors will be required to develop and implement contractor LMPs, including worker CoCs to address issues related to OHS, SEA/SH, community health and safety, stakeholder communication, and grievance redress mechanism (GRM). SEA/SH risk of the project is moderate and will be addressed through SEA/SH plan. The ESMF also includes principles and procedures for assessing and managing the risks and impacts of subprojects when designs and specific site information are determined. A Stakeholder Engagement Plan (SEP) has been prepared and will be disclosed before the project appraisal. The SEP outlines strategies for meaningful consultation with stakeholders, including the vulnerable and disadvantaged groups.

E. Implementation

20. The Ministry of Water Supply (MoWS) will be responsible for the overall policy direction, coordination and management of the project. A Project Steering Committee (PSC) will be set up at the MoWS to implement overall direction and policy decisions and ensure collaboration and coordination between the three tiers of government and other key stakeholders. A Project Management Unit (PMU) under the Department of Water Supply and Sewerage Management (DWSSM), supported by a Federal Project Support Team (PST) to be engaged by the project, will be responsible for overall Project management and implementation of Components 1 and 3. Provincial level Project Steering Committees (PSCs) will be established at the provincial level with representation from federal, provincial, and all participating local governments. Municipalities will formally establish a dedicated Municipality Water, Sanitation and Hygiene Unit (M WASH Unit), per the Constitutional provision and devolved mandate by the Local Governance Operation Act. The Municipality WASH units will be responsible for implementing Component 2, coordinating with local-level actors; and updating and maintaining Project data in the NWASH MIS app.

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APPROVAL

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