



# Appraisal Environmental and Social Review Summary

## Appraisal Stage

### **(ESRS Appraisal Stage)**

Date Prepared/Updated: 02/23/2022 | Report No: ESRSA01860



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Nepal	SOUTH ASIA	P176589	
Project Name	Water Sector Governance and Infrastructure Support Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	2/24/2022	5/19/2022
Borrower(s)	Implementing Agency(ies)		
Ministry of Finance	Department of Water Supply and Sewerage Management, Ministry of Water Supply, Department of Water Supply and Sewerage Management		

**Proposed Development Objective**

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.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>100.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The Project will support the operationalization of federalism at the local level with a specific focus on improving water supply and sanitation service delivery in participating municipalities, together with promoting an integrated urban-water and rural-water management. Federalism empowers municipalities to deliver climate resilient and inclusive WASH services under a municipality-wide/utility model in contrast to the current fragmented WSUC-dominated

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model. The project aims to demonstrate how the intergovernmental water sector architecture introduced under federalism can function in practice. The goal is to shift the current weak practices of the municipalities in planning, financing, and developing and managing water infrastructure, by equipping them to respond to their rapidly increasing infrastructure and service delivery requirements, in a context of climate change. Given the lack of basic institutional capacity, the proposed project aims to help the participating local governments to develop viable WASH institutions. This objective includes embedding a wider water security vision built upon integrated, climate resilient and low carbon water management. The project will provide a learning experience for local governments that can be replicated at national level in subsequent engagements.

**Component 1: Improving Sector Governance and Institutional Capacity, Project Management.** This component focuses on improving water sector governance and building institutional capacity of water supply and sanitation related agencies at the three levels of governance in Nepal, i.e., Federal, Provincial and Local Municipality Level, including establishing dedicated municipality WASH units and municipal utilities.

**Component 2: Access to Climate-resilient, Improved and Safe Water Supply and Sanitation.** 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 four rural 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).

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.

**Component 3: Reducing Climate Hazards impacting WSS infrastructure through IWRM and Watershed Management.** 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.

**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).



## D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project will be implemented in the Karnali and Sudurpashchim provinces, focusing on provincial capitals, strategic towns, and selected rural municipalities (palikas). National census data (2011) indicates that both provinces were the least developed, with a Human Development Index (HDI) at only 0.463 and 0.478, respectively. Communities in both provinces have the lowest coverage of basic water supply service delivery in Nepal. Approximately 54% of households in Karnali have access to safe drinking water, with 47% having access to toilet facilities. Karnali is the least populous province in Nepal, with 1,570,418 individuals in 298,359 households. Topographically, the provinces are located in the high Himalayan, Mahabharat, mid mountains, valleys, Chure, and Terai regions. Karnali province has an area of 30,211 sq. km, out of which 38% land is covered by forest. The average annual precipitation in the Karnali is 1479mm. Nepal is vulnerable to climate change impacts. The most recent Global Climate Risk Index ranks the country as the ninth most climate-impacted country during the period 1999-2018. Landslides, flash floods, and droughts are frequent and could increase as weather patterns become more erratic. Current projections show that the country will experience a three-fold increase in monsoon rainfall, resulting in frequent summer floods. The risk of flooding in the river basins of the non-Himalayan region due to higher monsoon precipitation is projected to increase by 14 to 40 percent by the year 2030. The absence of guidelines and technical standards for sound quality infrastructure compromises the resilience and climate-readiness of most urban infrastructure. The project will finance about 240 water supply schemes in rural Karnali and Sudurpashchim Provinces and support the construction and rehabilitation of urban water supply and wastewater management infrastructures in selected urban municipalities. The planning and design as well as subproject specific E&S instruments of the infrastructure subprojects will take into account the risks and other implications of climate change.

One of the urban municipalities identified is Birendranagar Municipality, Surkhet Valley. The Surkhet valley area is composed of an alluvial plain. The Bheri river, one of the main tributaries of Karnali, flows through Surkhet district before joining the Karnali River downstream, which ultimately flows into the Ganges of India. The Karnali River forms the western boundary of the Bardiya National Park in the south of the Surkhet valley. There is no National Park or protected area in the Surkhet Valley. Forests in the valley are community forests and national forests. The Bheri is a snow-fed river. The Uttar Ganga, one of the three tributaries of the Bheri river, drains Dhorpatan Valley. Rafting and fishing are also popular in the Bheri River, and its water is used for irrigation and hydropower generations at different locations.

### D. 2. Borrower's Institutional Capacity

The project implementation arrangements are three-tiered, involving public institutions at the federal, provincial and local government levels. At the federal level, the Ministry of Water Supply (MoWS) will be the project's executing agency. A Project Management Unit (PMU), under the Department of Water Supply and Sewerage Management (DWSSM) of the Ministry of Water Supply (MoWS) with a mix of skillsets, will be responsible for overall project management, financial management, and providing technical support to participating Provincial and Local Municipalities and Districts for infrastructure design, construction, supervision, and reporting. At the provincial level, an intergovernmental Project Steering Committee (PSCs) with membership from relevant public institutions will play a coordinating and advisory role and extend technical backstopping to participating municipalities and districts. The Soil Conservation and Watershed Management Office of Karnali province, for example, will provide technical support to the municipalities in watershed management and conservation activities under component 3 of the project. At the



local level, the participating municipalities and rural districts (palikas) are key implementing partners of components 2 and 3 and are the primary recipients of project funds. These municipalities will establish and operationalize Municipal Water, Sanitation and Hygiene Units (M-WASH units) under component 1 and carry out infrastructure and soft interventions under components 2 and 3 with the PMU's support.

Relative to environmental and social management, the MoWS, DWSSM, and the participating municipalities and districts will be responsible for assessing and managing the risks and impacts of the project. Nepal's Local Governance Operations Act 2017 places direct responsibility for providing water, irrigation, and disaster mitigation services in local governments with its associated financial, environmental, and social burdens. The MoWS has previous experience in implementing environmental and social safeguard policies of World Bank (WB) and other donor-funded infrastructure projects. Nonetheless, the capacity of the ministry to manage the environmental and social impacts of this project is weak, as the project is the first WB-funded project under the Bank's Environmental and Social Framework (ESF) to be implemented by MoWS. The capacity constraints at the municipalities and provinces are pronounced with limited or no staffing and resourcing to manage the environmental and social impacts of projects/ subprojects. Excepting Sharda Municipality, the participating municipalities have no prior experience with World Bank funded projects. Therefore, capacity strengthening support on the ESF and the Environmental and social standards is needed to enable the implementing partners, PMU, PIUs to identify and manage environmental and social risks and impacts throughout the various stages of the project/ subproject cycle. The institutions at the municipalities and provinces are nascent and evolving in line with the new federal structure of Nepal. As part of project preparation, environmental and social specialists (one environment, one social) have been hired and onboarded at the PMU, who oversaw the preparation of the Environmental and Social Management Framework (ESMF). In response to the weak E&S risk and impact management capacity, the project includes capacity strengthening support, including E&S specialists at PMU and PIUs and training, which will be updated, as required, during implementation as reflected in the ESCP. The E&S capacity strengthening support will be essential for preparing and implementing relevant E&S instruments, including ESMF and subproject specific Environmental and Social Impact Assessment (ESIAs) and Environmental and Social Management Plans (ESMPs). At the participating municipalities, a Special Project Vehicle/Project Implementation Unit (SPV/PIU) will be established to embed DWSSM technical assistance and handholding support in the design and construction of project infrastructure/ subproject. Based on E&S capacity assessment, additional training will be provided on ESF and technical support on E&S management throughout the project cycle. The programs for institutional reforms under component 1 will be leveraged to support staffing and training of the implementing institutions on E&S issues. As a part of the project ESMF, the MoWS conducted gap assessment on country systems for environmental and social management vis-a-vis the WB ESF and ESS requirements and proposed measures for bridging notable gaps at the operational level. The MoWS will monitor the implementation of the capacity strengthening efforts throughout the project cycle.

Nepal's Environmental Protection Act (EPA 2019) and Environmental Protection Rules, 2020 are the primary legal instruments for environmental and social management of development interventions. The framework guides EIA process and covers pollution management, protection of public health, and protection of objects and places of national heritage and areas with rare plants, wildlife, and biological diversity. Other E&S legal frameworks including the Land acquisition Act, 1977, Forest Act, 2019, Labor Act, 2017 and Wildlife Conservation Act, 1973 provide specific guidance on land acquisition, forest, labor and wildlife respectively. These legal frameworks are not sufficiently aligned with the World Bank ESF standards on issues such as stakeholder consultations/engagement, community health and safety, occupational health and safety, biodiversity impacts, cumulative impacts, etc. As there are



significant gaps in the borrower's system and Bank's ESF and ESSs requirements, the World Bank's ESSs will apply to the proposed project. In situations where certain country requirements are more stringent, they will apply.

**II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS**

**A. Environmental and Social Risk Classification (ESRC)**

Substantial

**Environmental Risk Rating**

Substantial

The environmental risks rating is 'Substantial,' considering significant adverse impacts that may result from the implementation and operation of the project and the weak institutional capacity to manage those impacts. The project will construct new water treatment plans and wastewater treatment plants; rehabilitate and replace water distribution lines; construct water reservoirs, and support integrated watershed conservation and management programs. The project will also build and rehabilitate rural water schemes and sanitation facilities in the selected municipalities. These interventions will enhance access to safe water, improve sanitation and contribute to conserving the water resource base in the project areas. The integrated watershed development will improve the water table, soil quality & fertility, and enhance agriculture production as the main livelihood activity in the project areas. However, the implementation of the activities is expected to extend adverse impacts on the environment, especially during construction. 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 potential sources of water include local springs and streams and rivers such as Bheri and Seti Rivers. Some of these water sources may also serve other purposes. Hence, the feasibility and planning of each scheme will consider various competitive uses of water, avoiding water-use conflict. The Bheri River is may be drawn to augment water supply to Birendranagar Municipality by pumping 0.56 m3/s of water from the Bheri River, which is 0.97% of the 5-year lowest flow. Withdrawal of this amount of water is unlikely to cause significant reduction in the downstream discharge of the Bheri River. The impact on other water bodies and water quality is likely to be minor. The water source for systems in Sudurpashchim province is unknown at this stage. The subproject-specific ESIA's and subproject planning and design will consider risks in reducing access to water for downstream users. The operation of water and wastewater treatment facilities will also have E&S risks, including odor and noise nuisances from equipment operations, sludge generation, treated wastewater discharge to receiving bodies, handling of chemicals, and occupational health and safety hazards. The ESMF outlines eligibility criteria, with an exclusion list, for project investments and aims to avoid, minimize, and mitigate E&S risks and impacts. Based on E&S risks screening, the ESMF, along with the RPF, will inform site-specific mitigation plans (i.e., ESIA/ESMP, Resettlement Action Plans (RAP), etc.) before contracting and commencement of works.

**Social Risk Rating**

Substantial

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While the project is expected to improve access to potable water and better WASH facilities, the implementation of critical activities presents ‘Substantial’ social risks and impacts. The construction and rehabilitation of water supply schemes, construction and operation of fecal sludge and wastewater treatment facilities, and works for watershed management and conservation in rural and urban settings would cause land acquisition, economic displacement, disruption of access to homes and shops and relocation of public utility service lines such as electricity and existing water pipelines, particularly in urban areas. 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. Nepal's constitution prohibits various forms of discrimination; yet, long-held caste systems and patriarchy are prevalent in the country and may underpin exclusion of vulnerable and marginalized groups from the planning, implementation, and operation of project investments. When considered against the weak capacity of implementing agencies, these risks can undermine the risks assessment and mitigation of the project. Despite a sound knowledge about the typology of project investments (i.e., water supply schemes, wastewater treatment facilities, etc.), the design of these investments and precise locations are not known at this stage. With this limited knowledge, the full extent of land acquisition and displacement impacts is not clear at this stage. However, due to the project's urban footprint, these impacts are expected, albeit limited to economic displacement and disruption of access to homes, shops, and services. In line with the risk mitigation hierarchy, the MoWS proposes to combine design solutions and social management plans to avoid, minimize and mitigate the project risks and impacts. For instance, the risks of project activities to restrict access to assets and resources during construction works will be minimized by phasing and scheduling project activities during night hours when population activity is less. Based on ESS1 and ESS5, the MoWS has prepared an ESMF (disclosed on January 17, 2022) and a Resettlement Policy Framework (RPF) to be disclosed by appraisal. 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. Given potential impacts on indigenous people, the MoWS has prepared an Indigenous People Planning Framework (IPPF) to guide the assessment of such impacts. In the event that CERC materializes, the ESMF and other instruments will be revised proportionately to account for emerging risks related to the CERC.

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***



This standard is relevant to the project. Overall impacts from the project will be positive, but the implementation of the proposed activities, particularly Component 2, is expected to have substantial E&S risks and impacts. Activities proposed include water withdrawal, excavation, intake works, installation of lift pump and pipe laying works in rural and urban environments, water reservoirs, sewers, and fecal sludge and wastewater treatment plants. Based on field assessments, the E&S risks and impacts during construction (including access roads and material borrow sites) may include loss and degradation of small forests, increased risk of localized landslides and soil erosions in working sites at hilly fragile slopes, dusts and noise at and around construction sites, construction vibration; and occupational hazards. Other impacts may include contamination of water due to discharge of wastes including construction spoils, generation of construction and hazardous wastes (such as oil and grease, paints and solvents), increased traffic congestion and accidents, temporary access restriction, temporary interruption on water supply and drainage during pipe replacements; and workers' and community health and safety issues. Other risks include 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 (disinfectants, alum, chlorines, etc.). The potential sources of water include local spring, streams, and rivers such as Bheri and Seti Rivers. Some of these water sources may also serve other purposes. Hence, each subproject will consider various competitive uses of water avoiding water-use conflict. Main social risks and concerns relates to the potential for land acquisition, disruption of access to homes and shops, an influx of workers to rural community settings, community health and safety issues (i.e., HIV, COVID-19), potential SEA/SH issues; and exclusion of vulnerable and disadvantaged groups from the planning process and project benefits and opportunities. Excavation works may impact tangible cultural heritage. Since the project will also involve feasibility study of water diversion, potential issues on conflict of water use may arise, and other implications of water diversion from one river to another (inter-basin transfer) must be assessed as part of the feasibility study of such operation, as well as by the respective environmental assessment. Transmission pipeline may traverse rugged terrains hence occupational safety, and health issues must also be screened and mitigated. Wastes generated from workers' camp such as sewage and solid wastes will also be included in the impact assessment as per ESMF. The operation and maintenance of the facilities, such as water treatment and sewage treatment and disposal of sludge, will impact the surrounding environment, including potential nuisance from noise, odor, and vibration; use of chemicals, and disposal of residual solids.

The project will have long-term positive impacts with the increased access to safe water and safely managed sanitation facilities and improved water quality management. Although the type of activities to be funded is broadly defined, the locations of several of the infrastructure and other activities are not precisely known at the time of project preparation. Therefore, to manage the negative impacts and enhance the benefits, the MoWS, as required by this ESS and considering the country's legal framework, has prepared and disclosed, on January 16, 2022, an Environmental and Social Management Framework (ESMF) as part of the project preparation. The ESMF has been consulted with relevant stakeholders as required by the ESF and ESSs, and the consultations with stakeholders will continue. The ESMF defines the E&S management process and procedures, including screening, implementation arrangements, and grievance management, and stipulates various requirements for managing environmental and social risks and impacts of the project activities. The ESMF provides guidance and requirements regarding preparation of the specific E&S instruments, including ESIA, ESMPs, Occupational Health and Safety plans, Community Health and Safety Plan (CHSP), etc. Following the ESMF, during implementation, borrower will prepare subproject's site-specific instruments such as Environmental and Social Impact Assessments (ESIAs), ESMPs, RAPs, OHS plans, Community Health and Safety Plan (CHSP), Cultural Heritage Plan, and Chance Finds Procedures. The preparation of this specific E&S instrument (ESIA, ESMP, RAP etc.) will be aligned with the preparation of engineering plan and Detailed Project Report of the respective subproject. The ESMF contains information regarding broad and landscape-level





environmental and social conditions, including climate and rainfall, water, forests & biodiversity, geographical terrain and physical conditions in respective provinces and districts, within the project's area and its surroundings, relevant E&S policies, regulations, and guidelines particularly on E&S assessment and WSS, and overall key potential environmental and social risks / impacts and mitigation measures. The ESMF prescribes the E&S management procedures, including implementation arrangements to comply with the WB ESF, its applicable ESSs and Nepal's environmental and social regulations to the extent that these are consistent with Bank's ESF and ESSs. In the event that CERC is activated under component 4, the ESRC along with the ESMF will be revised proportionately to account for, and mitigate the emerging risks related to the CERC activities.

The source of water for the project is the Bheri River and its tributary, which is also a source of water for other purposes including irrigation, hydropower, recreation (rafting), cultural uses, etc. Several of the subprojects are likely to be located in and around the Surkhet Valley. About 40 % of the project fund is likely to be spent within the Surkhet Valley. The concentration of subprojects in the Surkhet Valley may impact forest, land, water and watershed in the area. Combined impacts of all these activities on the water resources, forests and biodiversity, erosion and landslides etc may not be fully captured by the subproject specific ESIA. Therefore, considering the concentration of the Project activities in the Surkhet Valley, the borrower, during early stage of implementation, will assess if a Cumulative Impact Assessment (CIA) is needed, and, if justified, commission such assessments covering Surkhet Valley Watershed/ Landscape-level aspects and considering relevant existing, planned, and reasonably foreseeable development activities within the Surkhet Valley. As noted in the ESCP, a rapid overview of environmental screening/ analysis and consultation with stakeholders will be undertaken to assess the need for CIA.

### ESS10 Stakeholder Engagement and Information Disclosure

This standard is relevant and provides the guiding framework for identifying, consulting and disclosing relevant project information to key stakeholders of the project. Nepal's water and sanitation activities involve a wide range of stakeholders at federal, provincial, and local levels. They include public and private actors, local communities, consumers, and vulnerable groups. These stakeholders hold varying interests and can influence the project design and implementation of the project differently. In addition, the project would also have varying impacts on stakeholders, particularly on the local communities. Timely disclosure, proactive engagement and participation of stakeholders throughout the project cycle are critical for the successful design and implementation of the project activities. The MoWS identified and engaged with key stakeholders throughout the project preparation, including the participating municipalities and districts, water user groups, forest user groups (e.g., vulnerable Dalits women in Surkhet valley), forest authorities, media, and regulators. The risks of project activities to disrupt access to forest resources for Dalits women has been discussed with the women group, noting that such activities can co-exist with existing and proposed water infrastructure and will be maintained under this project. A detailed Stakeholder Engagement Plan (SEP) has been prepared and will be disclosed prior to appraisal. The SEP summarizes prior consultation activities as part of project preparation and outlines strategies for meaningful consultation with stakeholders during implementation and operation of the project investments. Information related to the project would be provided in local language using multiple channels (e.g., radio, TV, and social media.) As noted in the SEP, special attention will be given to women, vulnerable and disadvantaged groups including IP (i.e. physically challenged, visually-impaired individuals, Dalits, Muslims, etc.) to ensure that they are consulted meaningfully; and provided with opportunities to participate in construction-related jobs. These groups will be consulted through community focus group meetings, pictorial posters, local Right-based NGOs, and gender advocates. The SEP also articulates a grievance



redress mechanism (GRM) to ensure timely uptake and resolution of project-related grievances. The draft SEP will be disclosed prior to the appraisal to allow stakeholder comments which will form the basis for review of the plan following project effectiveness. All sub-project ESIA, ESMPs, RAPs and related plans will be consulted with stakeholders and local communities, and disclosed in line with the SEP both in-country on the World Bank's websites.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

ESS2 is considered relevant in managing labor-related risks of the project, considering the type of workers that will be involved in implementing project activities and the risks they may face. Direct workers, contracted workers, community workers, and primary supply workers will be involved in implementing the project and exposed to occupational health and safety concerns such as accidents from falls, misuse of tools and machines, and potential COVID-19 outbreak among workers and communities. Other labor-related risks and impacts include labor influx into project areas which may pose sexual exploitation, abuse and harassment (SEA/SH) risks to host communities. The MoWS has prepared a Labor Management Procedures (LMP), with estimates of the expected labor for project activities, the risks associated with deploying various types of workers, and proposed mitigation measures to address such risks. The LMP also considers key gaps between national legislation and regulation and the requirements of this ESS and proposes measures to address these gaps at the project level as well as monitoring and supervision arrangements. The LMP also expresses principles of non-discrimination, equal opportunities, worker health and safety, and security of workers for the contractors, project workers, and sub-contractors to adhere to, with measures to ensure compliance. Consistent with the LMP, contractual provisions related to OHS and prohibition against the use of child labor will be incorporated into bid documents for contractors with a requirement for contractors to translate and implement these provisions in site LMPs. As noted in the LMP, the MoWS intends to create OHS unit during works to provide orientation and training, monitor contractor compliance, maintain accident records, and conduct regular toolbox meetings on project sites. The LMPs specifies the Workers Grievance Redress Mechanism to allow workers to raise grievances for resolutions. In line with this stand and national regulations, the LMPs prohibits the use of child labor (i.e. persons below 18 years), forced labor, discrimination in wage rates, and hygiene and sanitation of labor camps will be given priority. Only legally recognized documents such as the National Identification Card, and Birth Certificate will be accepted as evidence of age before hiring workers. The World Bank will review complaints received and resolved through the labor GRM during implementation support missions. The project intends to maximize the local hiring of semi-skilled and skilled labor to ensure local participation in the employment benefits associated with the project and to reduce the risks associated with labor influx.

The LMP highlights applicable labor laws in Nepal particularly on contracted workers; and measures to ensure occupational health and safety such as safe working conditions, availability of PPEs, adequate living quarters with water supply and sanitation facilities (in workers' camp); and a grievance and redress mechanism for workers. In the case of influx of labor, worker accommodation and influx will be managed in line with ESS2. The ESMF includes generic measures to ensure OHS. These measures will be tailored and implemented in site-specific LMPs during construction and operation of water supply schemes and wastewater treatment facilities.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**



This standard will be relevant due to the expected E&S risks from (a) construction-related pollution such as dust and gaseous emissions from heavy equipment, generation of spoils, construction debris, wastewater, spills and accidents involving fuel, oil, lubricants, solvents; (b) chemical use, storage and handling such as chlorine for water treatment and disinfecting effluents; and (c) pollution associated with the operation and maintenance of the treatment facilities. Subproject specific E&S instrument, including ESIA / ESMP, will be prepared which will assess the subproject specific risks and impacts including health impacts from use of chemicals (e.g. disinfecting effluents by chlorine may lead to formation of trihalomethanes (THM) – long term consumption of which at elevated level may increase the risk of cancer. The project will also enhance the efficiency of water supply and distribution system, ensuring safe water delivery and availability to the consumers. The subproject's EMSP will include specific measures on pollution prevention to minimize impacts of air and noise pollution, water pollution, surface- and groundwater contamination, and solid and hazardous waste minimization. Energy and resource efficiency measures may be explored particularly on the re-use of treated effluents for secondary use such as irrigation and facility washing; alternative use of bio-solids from sludge produced in the treatment plant especially for soil conditioner; and on use of solar panels for operations of pumps and lighting purposes. The water efficiency measures may include minimizing water losses, water use metering, use of water-saving devices including use of low-flush toilet, using water sensors faucets, using reclaimed wastewater for non-potable uses, etc. Following the ESMF, specific E&S instrument will be prepared for each infrastructure addressing relevant issues and risks, and providing relevant and specific mitigations. The findings and recommendation from the CIA, if justified and commissioned, particularly related to water flow and sediment load, may provide important guidance inefficient use of water resources, such as findings related to sediment load/ water turbidity/ water quality at different seasons can inform more efficient planning, design and operation of infrastructure (e.g. type of treatment needed, and optimal use of chemicals). Key installations of the project, including pumping stations, water reservoirs, and waste treatment plans will be powered by hydro-electricity from the main grid, , thus helping to reduce the GHG emissions when compared to using thermal power.

#### ESS4 Community Health and Safety

The standard is relevant to the project. Project activities, and construction activities such as excavation, water pumping and storage facilities/reservoirs, and fecal sludge removal & wastewater treatment facilities/plants will have health and safety impacts on affected communities, particularly in urban areas. Risks and impacts could relate to design and safety of infrastructure, significant traffic and safety risks, particularly in urban areas, community exposure to nuisance and public health issues, labor influx and SEA/SH related issues. To some extent, the influx of migrant workers is anticipated considering the scope of construction activities. Infiltration of workers, who are not from the area, may bring in diseases, including COVID-19, and risk of increase in SEA/SH and conflict between migrant workers and host communities. SEA/SH risk assessment of the project has been conducted, suggesting moderate risks and an action plan for SEA/SH has been prepared to be disclosed prior to appraisal. Local communities will be exposed to construction hazards, such as vehicle movements, heavy equipment traffic and excavation activities. Increased movement of vehicles for transportation of materials to and from the construction sites may lead to risk of accidents. The ESMF includes requirements and procedures for assessing community health and safety risks and measures to minimize and address such risks. During implementation, the contractors will develop site-specific plans to ensure the health and safety of communities in the project areas, including a traffic management plan, labor influx management plan, and a communications plan. Some construction activities will be scheduled and phased to occur during night hours when population activities are minimal. Further, a GRM will also be implemented so that persons and groups affected by project activities can lodge their complaints for redress.



### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

Construction activities under components 2 and 3 are likely to cause land acquisition and economic displacement, resulting in loss of livelihoods and economic activities. The potential for physical displacement is limited and may involve isolated structures located within the Right of Way (RoW) of bulk distribution lines designed to follow public roads and streets. Excavation works for trenching and pipelay is also expected to cause temporary disruption of access to homes, shops, and services. The exact location and nature of interventions are not defined yet, thus limits the project's ability to determine the extent of land acquisition and displacement impacts. A combination of design solutions and resettlement measures will be used to address adverse displacement impacts that may result from the project. Field visits and consultation with local stakeholders indicate that major works (e.g., water pumps, reservoirs, bulk transmission, and network distribution lines, fecal and waste treatment facilities, etc.) to be financed by the project would occur on government-owned lands and degraded forest areas, based on technical considerations with minimal population activity and occupancy. Degraded forest areas, and public lands, are being prioritized for project use to avoid and minimize impacts on displacement and biodiversity. The risks of project activities to restrict access to assets and resources during construction works will be minimized by phasing and scheduling project activities during night hours when population movement is less. Beyond these measures, the MoWS has prepared a Resettlement Policy Framework (to be disclosed prior to appraisal) in line with this standard to guide the resettlement planning for the project. The framework provides detailed guidance for preparing and implementing Resettlement Action Plan(s) before the commencement of civil works.

### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

The standard will be applicable and relevant to the project, particularly where subprojects or their components will impact habitats, both terrestrial and aquatic. There are forest areas and potential habitats which may be affected by the subproject such as water intakes, water reservoirs, treatment plants etc, and the laying of the transmission pipelines. The presence of such habitats and the potential impacts of the project will be thoroughly assessed in the subproject's ESIA/ESMPs that will be prepared in parallel with the engineering plan and DPR. Project will be implemented in the selected municipalities in urban and rural settings. There is no protected area or other known ecologically sensitive areas within the project municipalities. Project is unlikely to affect any critical habitat and/or areas of significant biodiversity. There are community/government managed forests in and around the project municipalities. The water intakes in stream or river will be side intake, that will not have barrier across the river/stream. The side intake will be built on the one bank of the river or stream, and there will be no dam or barrage or weir covering the whole width that impede fish migration. The ESMF of the project will provide guidance on developing sub-project specific ESIA/ESMP to manage the possible risks. Before any sub-project implementation, screening of each activity will be carried out and biodiversity-related risks and impacts of the activities will be identified. The ESMF contains a list of ineligible activities debarring activities in and around the ecologically sensitive areas and other biodiversity rich areas that potentially have significant adverse impacts. Accordingly, the project will implement the mitigation hierarchy to avoid adverse impacts, including minimizing and restoring biodiversity where needed. The risks and impacts on biodiversity such as from water withdrawal and forest loss/ fragmentation/ degradation will be assessed during the preparation of subproject specific ESIA/MPs. Subproject specific biodiversity assessment and biodiversity management plan will be an integral part of the subproject specific ESIA and ESMP. As explained under Section II above, there may be a need for CIA covering Surkhet Valley Watershed/ Landscape in which potential risk to biodiversity at watershed/landscape level could be one of the themes (the VECs - Valued



Environmental Components) to consider. The ESCP include a rapid overview assessment to be carried out by the project in early stage of implementation to determine the relevance and scope of the CIA.

### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

Whilst indigenous people exist in the project areas; their presence is not typically aligned to the criteria defined under paragraph 8 of this standard. Groups such as Tharu, Magar, Newar, and Gurung are present in the project-affected communities and are recognized by the Government of Nepal (GoN) with some rights. However, preliminary assessments and field observations indicate that the population in the project-affected communities are mixed-including indigenous Magar, Tamang, Gurung, etc. and non-indigenous Chhetri, Dalits, Thakuri people - and are governed by local palikas; not typical IPs with collective attachment to land or living under distinct cultural and political institutions. Nonetheless, the standard is considered relevant for addressing risks related to potential impacts of the project on such people as specific locations for project investments are not determined yet. The limited knowledge on precise locations of investments constraints the ability of the MoWS to clearly determine the extent of impact on these groups. Thus, the project has prepared an Indigenous Peoples Planning Framework (IPPF) to guide the planning process and instruments as required under ESS7. As per the ESMF exclusion list, activities requiring physical relocation or adverse impacts on land and cultural heritage of Indigenous people are not eligible for project financing and support.

### **ESS8 Cultural Heritage**

ESS8 is determined to be relevant to the project as Karnali and Sudurpashchim Province are rich with cultural significance (tangible and intangible cultural heritage) which may be affected during construction works. UNESCO, in collaboration with the Government of Nepal maintains an inventory of cultural heritage sites of Nepal, some of which are located in the in Karnali province. The potential impacts on project activities on these cultural properties cannot be ascertained at this point since specific locations of the subprojects are still to be finalized. The inventory of sites will serve a reference point to determine location of heritage sites, their proximity to works, and potential impacts. Possible cultural heritage impacts will be further assessed through the stakeholder consultation process in collaboration with the communities. An assessment procedure including appropriate guidance for preservation of cultural heritage when designing and engineering works has been included in the project's ESMF. The subsequent ESMPs specific to activities which may involve excavation will include chance find procedures with provisions for preparing and implementing specific cultural heritage management plans where relevant. Based on this procedure, contractors must stop work, secure sites and immediately liaise with the PMU to inform the relevant authorities (i.e. Department of Archaeology, UNESCO, local Guthis, etc.) when artifacts are found during excavation works at the site. As noted in the exclusion list of the ESMF, sub-projects that would involve demolition of structures or sites that have cultural, historical, or religious value to the community are not eligible for project support.

### **ESS9 Financial Intermediaries**

ESS9 is not relevant to the project as the involvement of Financial Intermediaries is not anticipated.



**C. Legal Operational Policies that Apply**

<b>OP 7.50 Projects on International Waterways</b>	Yes
<b>OP 7.60 Projects in Disputed Areas</b>	No

**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?** No

**Areas where “Use of Borrower Framework” is being considered:**

The use of borrower framework will not be considered for this project as the relevant country laws and regulations are not sufficiently aligned with the objectives and requirements of the World Bank’s Environmental and Social Standards. Preliminary review indicates that country systems show notable shortfalls on themes such as stakeholder consultation, community health & safety, biodiversity assessment, and cumulative impacts assessments.

**IV. CONTACT POINTS**

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**Borrower/Client/Recipient**

Borrower: Ministry of Finance

**Implementing Agency(ies)**

Implementing Agency: Department of Water Supply and Sewerage Management

Implementing Agency: Ministry of Water Supply

Implementing Agency: Department of Water Supply and Sewerage Management

**V. FOR MORE INFORMATION CONTACT**

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## **VI. APPROVAL**

Task Team Leader(s):	Feriha Mukuve Mugisha
Practice Manager (ENR/Social)	Robin Mearns Cleared on 01-Feb-2022 at 12:59:45 GMT-05:00