



Bhutan: Water Flagship Program Sector Project

Project Name	Water Flagship Program Sector Project								
Project Number	42173-017								
Country	Bhutan								
Project Status	Proposed								
Project Type / Modality of Assistance	Grant Loan								
Source of Funding / Amount	<table><tr><td>Grant: Water Flagship Program Project</td><td></td></tr><tr><td>concessional ordinary capital resources lending / Asian Development Fund</td><td>US\$ 6.00 million</td></tr><tr><td>Loan: Water Flagship Program Sector Project</td><td></td></tr><tr><td>concessional ordinary capital resources lending / Asian Development Fund</td><td>US\$ 14.00 million</td></tr></table>	Grant: Water Flagship Program Project		concessional ordinary capital resources lending / Asian Development Fund	US\$ 6.00 million	Loan: Water Flagship Program Sector Project		concessional ordinary capital resources lending / Asian Development Fund	US\$ 14.00 million
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth								
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships								
Sector / Subsector	Agriculture, natural resources and rural development - Irrigation - Rural water supply services Water and other urban infrastructure and services - Urban water supply								
Gender Equity and Mainstreaming	Effective gender mainstreaming								
Description	The project will provide safe, sustainable and inclusive drinking water, and irrigation services to about 100,000 people who suffer from water insecurity in Thimphu and Gelephu municipalities (Thromdes) and Chhukha, Wangdue Phodrang, Zhemgang and Mongar districts (Dzongkhag) of Bhutan. It will adopt disaster- and climate-resilient designs and improve institutional and local communities' capacity for sustainable drinking water and irrigation services.								
Project Rationale and Linkage to Country/Regional Strategy	Bhutan has the highest per capita freshwater availability in South Asia. However, the country is confronted with localized and seasonal water shortages for drinking and agricultural purposes because of its topography (steep mountains and deep valleys), insufficient infrastructure, and limited capacity for sustainable service delivery. Although 97.2% of the country's population (757,042 people) is served by basic drinking water services, access to safe and reliable (safely managed) drinking water remains a challenge for most people in rural and urban areas. Water supply is mostly intermittent, often ranging from 4 to 12 hours per day, and not reliable for 18.4% of households. Only 36.2% of Bhutan's population is served by water that is reported as free from contamination. Irrigation services coverage is limited to 32% of irrigable land, mostly designed for paddy cultivation, and a third of existing irrigation systems have scarce or inadequate water supply. As a result, people in rural and urban Bhutan, especially women and the poor, sacrifice productive time collecting water and/or coping with water-borne diseases. Farmers' income is constrained by no or limited irrigation services, which lowers agricultural productivity. Water infrastructure development in Bhutan has not coped with the level of population growth (1.3% per annum between 2005 and 2017) and urbanization (37.8%), and is insufficient to fulfill the current service demand in rural villages, district towns, and city areas. Underdeveloped drinking water and irrigation infrastructure leaves pockets of rural population to rely on unreliable drinking water services (20.2% of rural households) and rainfed agriculture. Peri-urban areas of cities (e.g., in the national capital Thimphu) and towns (e.g. Bajo, Gedu, Tshimasham and Zhemgang) are still served by old community or rural water supply schemes (RWSS), which are poorly functional, unreliable, and do not have sufficient capacity to provide sustainable services to current and future population. These schemes are also characterized by poor drinking water quality because of insufficient treatment infrastructure and water and sanitation safety planning. Gelephu city and towns such as Mongar rely on water sources such as infiltration galleries or small streams, which are at risk from washing off during monsoons and drying up in winter. Nonrevenue water is estimated to be 30%-55% in urban centers due to aging infrastructure, and poor operation and maintenance (O&M) and demand management. Thimphu's core area distribution network is worn out with high physical losses water and almost no metering in certain areas. The project will (i) establish and/or rehabilitate drinking water and irrigation infrastructure and make it disaster- and climate-resilient, (ii) strengthen the capacity and awareness of institutions and local communities in safe, sustainable and resilient water management and sanitation, and (iii) establish climate smart water management system								
Impact	(i) Sustainable water achieved (Twelfth Five-Year Plan 2018-2023 - National Key Result Area 17) (ii) Food self-sufficiency and nutrition security enhanced (Twelfth Five Year Plan 2018-2023 - National Key Result Area 8)								
Outcome	Access to safe, efficient, reliable, sustainable and inclusive drinking water and irrigation services improved in the project area								
Outputs	Disaster- and climate-resilient drinking water supply and irrigation infrastructure developed and/or upgraded Capacity and awareness of institutions and local communities in safe, sustainable and climate-resilient water management and sanitation strengthened Climate smart water management system established								
Geographical Location	Nation-wide								

Safeguard Categories	
Environment	B
Involuntary Resettlement	B
Indigenous Peoples	C

Summary of Environmental and Social Aspects
Environmental Aspects

Involuntary Resettlement
Indigenous Peoples
Stakeholder Communication, Participation, and Consultation
During Project Design
During Project Implementation

Business Opportunities	
Consulting Services	A project management unit (PMU) will be established in the Department of Engineering Services (Water and Sanitation Division) of the MOWHS for overall project management and will include staff from MOAF for irrigation subprojects design and implementation. A project implementation unit in each district and municipality will conduct procurement and be responsible for subproject implementation at the local level with support from PMU.
Procurement	A project management unit (PMU) will be established in the Department of Engineering Services (Water and Sanitation Division) of the MOWHS for overall project management and will include staff from MOAF for irrigation subprojects design and implementation. A project implementation unit in each district and municipality will conduct procurement and be responsible for subproject implementation at the local level with support from PMU.

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Responsible ADB Division	Urban Development and Water Division, SARD
Executing Agencies	Department of Engineering Services (DES) Ministry of Works & Human Settlement <u>Drentoen Lam, Thimphu Bhutan</u>

Timetable	
Concept Clearance	03 Dec 2020
Fact Finding	15 Feb 2021 to 26 Feb 2021
MRM	28 May 2021
Approval	-
Last Review Mission	-
Last PDS Update	03 Dec 2020

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