



Micronesia, Federated States of: Chuuk Water Supply and Sanitation Project

Project Name	Chuuk Water Supply and Sanitation Project				
Project Number	53284-002				
Country	Micronesia, Federated States of				
Project Status	Proposed				
Project Type / Modality of Assistance	Grant				
Source of Funding / Amount	<table><tr><td>Grant: Chuuk Water Supply and Sanitation 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: Chuuk Water Supply and Sanitation 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	Water and other urban infrastructure and services - Urban policy, institutional and capacity development - Urban sewerage - Urban water supply				
Gender Equity and Mainstreaming	Effective gender mainstreaming				
Description	The proposed Chuuk Water Supply and Sanitation Project (CWSSP) will improve CPUC's utility operation and customer management, expand and rehabilitate CPUC's sewage system and water supply services, reduce NRW, and increase revenue from water supply and sewerage services. The project will also raise Chuuk's community awareness on good sanitation and hygiene practices to prevent diseases and will foster water conservation.				
Project Rationale and Linkage to Country/Regional Strategy	<p>1. The latest official statistics for the Federated States of Micronesia (FSM) estimated the total national population was about 103,000, of which 47% resided in the capital area of Chuuk State. Weno is the main urban center with about 14,000 population (about 30% of Chuuk's population) and has an area of 127 square kilometers. The Chuuk State's population is projected to increase to 50,000 by 2025 with most of the growth in Weno and Tonoas islands.</p> <p>2. The FSM is highly vulnerable to natural hazards, particularly severe tropical storms and droughts, and is highly susceptible to climate change impacts. In 2015, Typhoon Maysak struck the states of Chuuk and Yap, causing four deaths and damaging houses, crops, and public infrastructure. About a third of the national population was affected, and the damage cost is estimated at 4% of the country's 2015 gross domestic product. Chuuk State experienced two major droughts during 2016-2019, which resulted in Weno's surface water sources drying up and stressing groundwater resources. Climate change projections show that temperatures will continue to rise in the FSM, as will the sea level and ocean acidification. The intensity and frequency of days of extreme rainfall are projected to increase, which exacerbates the need for infrastructure that is resilient to climate change and natural disasters.</p> <p>3. . In Chuuk State, access to public water supplies and sanitation services is limited. A household survey in June 2020 reported that less than 1% of households in Weno obtained drinking water from the public water supply systems. Other sources of household drinking water were rainwater tanks (58%), protected wells (3%), unprotected well and streams (6%), and bottled water and other sources (32%). Rainwater harvesting is not secure due to the seasonal rainfall patterns and more frequent and severe dry periods as a result of climate change. The CPUC water production is 2,900 cubic meters per day in which 95% is from deep wells and 5% from the Pou River. CPUC filters the water abstracted from the Pou River and chlorinates all the water produced. The Pou River headworks and treatment plant constructed in 1982 are dilapidated and require rehabilitation. CPUC has identified another potential surface water source in the Wichen River, which would expand its water supply, reduce the reliance on groundwater, and substantially cut pumping costs. However, the development of the new water source requires adequate funding.</p> <p>4. Access to public sanitation services is also limited. The Weno sewerage system commissioned in 1973 serves about 400 households in the northern and western side of Weno Island. Parts of the sewerage network and the sewage pumping stations are dilapidated and requires rehabilitation. CPUC has made continuous improvements of the Weno sewerage system since 2015 together with the Weno road upgrading program. However, substantial investment is required to expand coverage of the sewer network and to rehabilitate the dilapidated parts of the sewer system. Beyond the island's sewerage network area, septic tanks and pit toilets are widely used, particularly among poor communities. Septic tank and pit toilets discharge effluent directly into the shallow aquifers that underlie the island, becoming a major contributor to groundwater contamination and individual household wells. Consequently, diarrhea, particularly among infants is endemic.</p> <p>5. CPUC is mandated under the Chuuk Public Utility Corporation Act of 2006 to deliver electricity, water supply, and sewerage services to the people in Chuuk State. CPUC's performance has been improved significantly after the institutional reforms began in 2010 financed by the Asian Development Bank (ADB) and the United States Department of Interior. CPUC fully recovered its operation and maintenance, depreciation, and debt servicing cost in fiscal year 2019 with revenue generated from utility service tariffs. However, further institutional reforms of CPUC's framework for water supply and sewerage tariffs are still needed as CPUC's water supply and sewerage services are relatively underperforming and are dependent on cross-subsidies from CPUC electricity sales.</p> <p>6. CPUC's such underperformance on water supply and sewerage services is largely due to the high rate of nonrevenue water (NRW) in CPUC's water operations. CPUC delivers water services to 480 households in Weno. However, in early 2019, a detailed CPUC survey in one of the water supply zones in Weno indicated that the actual number of households connected to the CPUC water supply system was substantially higher than the CPUC records showed. This large number of undocumented consumers to the CPUC water supply network explains the high NRW in CPUC's water operations, estimated over 50%, and substantially reduces its water supply revenue. CPUC recognizes that reduction of NRW is essential to enable it to collect water supply and sewerage revenue, which will then allow CPUC to expand its water supply and sewerage customer base. To reduce NRW, CPUC plans to: (i) strengthen both its demand management capacity to optimize its water supply network operations and eliminate undocumented connections; and (ii) strengthen its water leak detection capacity to identify physical losses from the pipe network.</p>				
Impact	Sustainable development of social and economic infrastructure promoted through the provision and utilization of cost-effective, safe, reliable, and sustainable infrastructure. Chuuk State infrastructure needs towards a sustainable development met and maintained.				
Outcome	Efficiency, climate change and disaster resiliency, and sustainability of safe water and sanitation improved in Chuuk State				

Outputs	1. Water supply infrastructure and service improved Sanitation infrastructure and service improved Awareness and behaviors of hygiene and water conservation in Chuuk enhanced and sustained CPUC made financially and technically sustainable
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Geographical Location

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	

Responsible ADB Officer	Blaik, Stephen
Responsible ADB Department	Pacific Department
Responsible ADB Division	PAUW
Executing Agencies	Department of Finance and Administration PS2, Palikhir Pohnpei State Federated States of Micronesia

Timetable	
Concept Clearance	07 Apr 2020
Fact Finding	15 Jun 2020 to 19 Jun 2020
MRM	17 Aug 2020
Approval	-
Last Review Mission	-
Last PDS Update	14 Jul 2020

Project Page	https://www.adb.org/projects/53284-002/main
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