

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
A. Political Nepal adopts a federal structure that fails to recognize water as a state responsibility.	High	Development partners will maintain close dialogue with the government and other stakeholders to ensure that water resources remain a state subject. If not successful, the project adopts IWRM approach for subbasins rather than the whole basin as currently practiced in India and other federal states.
Parliament is not in place for adoption of necessary policy, legal, and institutional reforms including RBO establishment.	Medium	MOUD, the executing agency, with support from ADB, requests approval of RBO status through presidential ordinance. The project provides technical assistance for WECS to prepare the necessary policy and legislature.
B. Institutional and Legal A noticeable and sustained improvement in the upper Bagmati River environment will not be realized unless the Kathmandu Valley Wastewater Management Project (KVVMP) is implemented in parallel and agreed effluent treatment quality at new Gokharna and Gueshori treatment plants during design is implemented.	Medium	MOUD, the executing agency for the KVVMP, will be the executing agency for the project. The project director of each subproject is made members in the steering committee of their counterpart project. Effluent quality, agreed at the design stage, is a loan covenant. ADB review mission will regularly monitored effluent quality.
The environmental flow generated for improved water quality in the Bagmati River is captured for other uses.	Medium	The project provides technical and legal support to amend the Water Act and a new regulation to regulate environmental flows into the Bagmati River. The preparation of a new water act and specific regulation for the Bagmati River environment is a loan covenant. ADB review missions will regularly review progress. The ADB-financed Melamchi Water Supply Project should support most water supply requirements of the valley by 2016.
C. Environmental and Social Stakeholders object to the construction of the water storage reservoir in the Shivapuri Nagarjun National Park and delay construction works.	Medium	The environmental impact assessment was prepared for the project included consultations with stakeholders and environmentalists. Stakeholder consultation will continue during implementation through the project communication strategy. Provisions are made in the project cost to ensure independent monitoring of implementation of the environment management plan.
Lack of stakeholder participation compromises the quality of the consultation and	Medium	A communication strategy was prepared to ensure stakeholders remain engaged.

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consensus building on RBO formation.		Consultant and NGO resources are provided to support the consultation process. Training and exposure visit are provided to stimulate stakeholder interest and understanding of IWRM.
Climate change can affect the performance of infrastructure and river quality improvement.	Medium	Disaster- and climate change-related risk reduction measures are incorporated into the design criteria.
D. Project Management		
The lack of HPCIDBC experience with implementing an externally aided project may lead to implementation delays.	Medium	The project director and key PCMU staff will have previous experience with implementation of externally aided project. PCMU staff will be supported with experienced project management consultants and will receive specific training in ADB procurement and disbursement procedures.
Tension rise between the PIUs and the PCMU and the project is delayed due to dysfunctional coordination.	Medium	The project director will assess the performance of all PIU heads for annual performance reviews. The DOI PIU will be located in HPCIDBC offices together with the PCMU.
Delayed payment to the consultants and contractors	Medium	Standard operating procedures (time and responsibilities of payment, interest on delayed payment) will be agreed to expedite processing of contractor claims. Adequate provisions will be included in the bidding documents. Payments to the contractors and consultants by ADB's direct payment method have been agreed with the PID. ADB will monitor payments to the contractors and facilitate direct payments, when required.
Unsatisfactory financial management	Medium	PCMU and PIU accounting staff will receive training in ADB procedures. Internal auditing procedure will be strengthened and staff will be trained. Computerized accounting will be adopted and staff will be trained.
Corruption	Medium	Transparency will be increased through the project communication strategy. The number of contracts will be reduced. Procurement consultant expertise will be provided
E. Technical		
Government has limited experience with dam construction, which may lead to procurement and construction delays, cost increases, and quality assurance problems.	Medium	DOI selected as the implementing agency of this component as it is the most experience with construction of large hydraulic infrastructure including dams. An international consultant for dam design and construction supervision is provided.
Overall	Medium	

ADB = Asian Development Bank, DOI = Department of Irrigation, HPCIDBC = High Powered Committee for Integrated Development of the Bagmati Civilization, IWRM = integrated water resources management, KVVMP = Kathmandu Valley Wastewater Management Project, MOUD = Ministry of Urban Development, NGO = nongovernment organization, PCMU = project coordination and management unit, PID = project implementation directorate, PIU = project implementation unit, RBO = river basin organization, WECS = Water and Energy Commission Secretariat.
Source: Asian Development Bank.