

## RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risks 1–5 will be mitigated through the introduction of appropriate project design elements and/or loan covenants. Risks 6-7 are of more uncertain likelihood and will be managed by the state through measures outside the program.

Risk Description	Risk Assessment	Mitigation Measures or Risk Management Plan
1. Beneficiaries do not connect to the sewerage system	Medium	The design of the MFF considers the following elements: (i) information and communication campaigns, including hygiene and sanitation to change behavior; and (ii) provision of toilet programs for economically disadvantaged households, including connections to sewers.
2. Beneficiaries do not connect to the water system	Low	Areas targeted under the MFF are generally in water scarce areas where connections to water networks are coveted, as reflected in willingness to pay surveys. Alternative sources are generally not available or are unreliable. The service tariffs are also affordable, even for poor and disadvantaged households.
3. Insufficient demand for recycled treated effluent	Low	Demand for recycled treated effluent for industrial purposes remains to be ascertained. Treated effluent demand for agricultural purposes is nonetheless high and systematically incorporated in design.
4. ULBs are slower at adopting pre-project reforms as described in the town selection process	Medium	ULB incentive fund resources will be made available to prospective ULBs upon the signing of the reform commitment MOU. The PMID consultant will assist and guide ULBs in the process of procuring services and will monitor the results.
5. Tariff set at insufficient levels	Medium	In 2011 the government of Karnataka issued an order making sewerage tariffs and volumetric tariffs compulsory. Although O&M recovery will initially be covered from a combination of tariffs, other ULBs (e.g., through a property tax), and state resources (e.g., grants), tariffs will be progressively increased to reach necessary levels of full O&M recovery.  In parallel, the MFF will prepare through the KMRC modules for volumetric tariff modeling for ULBs.
6. IWRM reforms implemented on schedule	Low	The state is committed to implementing reforms through ADB's assistance under the proposed Karnataka Integrated and Sustainable Water Resources Management Investment Program.
7. Water resources may deteriorate because of upstream states' abstraction and/or pollution	Medium	Water allocations across states are predetermined. IWRM–Advance Center, with assistance from the Karnataka Integrated and Sustainable Water Resources Management Investment Program, will model river basin hydrology in selected sub-basins to project sustainable levels of abstraction. The Karnataka SPCB has regulations pertaining to industrial discharge and a monitoring program on river quality.
<b>Overall</b>	<b>Medium</b>	

IWRM = integrated water resources management, KMRC = Karnataka Municipal Reform Cell, MFF = multitranche financing facility, MOU = memorandum of understanding, O&M = operation and maintenance, PMID = program management and institutional development, SPCB = State Pollution Control Board, ULB = urban local body.

Source: Asian Development Bank.