

**RISK ASSESSMENT AND RISK MANAGEMENT PLAN**

<b>Risk Description</b>	<b>Risk Assessment</b>	<b>Mitigation Measures or Risk Management Plan</b>
<b>Sustainability</b> Inappropriate designs, poor-quality construction, inadequate O&M funding, or deficient O&M practices may lead to premature asset deterioration and thus reduce benefits.	Low	LICs will provide guidance and advice on engineering design, especially for dams and reservoirs. They will also provide guidance and oversight during construction. A significant effort will be placed on ensuring sustainable O&M of irrigation and drainage facilities, including capacity building and the adoption of institutional structures developed by earlier successful ADB projects. Moreover, participating provinces have committed to provide adequate O&M funding for the IDMCs. The financial analysis found that these commitments are affordable. The government has recently made a significant commitment to improve the sustainability of irrigation schemes. Under Decree 115/2008/ND-CP, funding is now guaranteed for the IDMCs responsible for carrying out the O&M down to the secondary canal level. <sup>a</sup> Prior to this decree coming into effect, costs were shared by government and water users. This proved to have high transaction costs to collect and administer fees with uncertain levels of payee responsibilities, which in turn meant that inadequate resources were available for timely O&M. The provincial governments provide the initial financing to the IDMCs, which are in turn reimbursed directly from the central budget. Road improvements will be designed to have low maintenance by using concrete. The improved roads will be assigned to the relevant road management authority.
<b>Climate</b> Catastrophic climatic events interrupt implementation or damage infrastructure.	Low	Careful attention will be paid to the planning, timing, and sequencing of implementation activities, to match with seasonal and weather considerations. The use of robust designs and good construction quality control will reduce the vulnerability of the PRI to climatic events, in particular by strengthening the structural integrity of the reservoirs. In addition, soil and water conservation measures will be included in subproject design to stabilize the local environment.
<b>Technical capacity</b> Implementation capacities in the provinces are insufficient to meet all ADB and project requirements.	Low	ADB will review the experience and qualifications of candidates for key positions. LICs will provide support, capacity building, training and technical review, while monitoring consultants will ensure project quality in terms of technical and safeguard requirements. The implementation will be phased, rewarding better-performing provinces in the third phase with additional resources. This will be an incentive for good performance and delivery.
<b>Governance.</b> Limited public financial management and procurement capacity may undermine implementation efficiency and allow corrupt practices to develop.	Low	Advance action will be carried out up to loan effectiveness. Thereafter startup consultants will be mobilized to provide training in ADB procurement procedures and requirements, and to ensure establishment of a sound financial management system. The proposed financial management system has been reviewed and found to be acceptable. It will be the same as the APMB uses in ongoing projects. To deter corrupt practices, implementation procedures encourage maximum transparency, including consultation with and monitoring by intended beneficiaries.
<b>Overall</b>	<b>Low</b>	

ADB = Asian Development Bank, APMB = Agriculture Project Management Board, IDMC = irrigation and drainage management company, LIC = loan implementation consultant, O&M = operation and maintenance, PRI = productive rural infrastructure

<sup>a</sup> The decree to waive an irrigation service fee was promulgated by the Ministry of Finance in 2008.

Source: Asian Development Bank estimates.