



# Draft Design and Monitoring Framework

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Project Number: 37049  
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## Indonesia: Integrated Citarum Water Resources Management Investment Program

A design and monitoring framework is an active document, progressively updated and revised as necessary, particularly following any changes in project design and implementation. In accordance with ADB's public communications policy (2005), it is disclosed before appraisal of the project or program. This draft framework may change during processing of the project or program, and the revised version will be disclosed as an appendix to the report and recommendation of the President.

**Asian Development Bank**

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Target / Indicators	Data Sources / Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b></p> <p>By the year 2021, poverty, health and living standards in the Citarum River Basin improved</p>	<p>To achieve a 5% point decrease in poverty levels in the basin's communities currently below national average poverty levels by the end of the project (2023)</p> <p>To have GDP growth in the basin at least maintained at 2007 levels without further degradation of environmental status to the year 2023.</p> <p>By 2023 to have achieved significant improvements in water quality in the rivers and reservoirs of the basin, and specifically in the Bandung sub-basin (one score card point average).</p>	<p>Review of annual statistics on poverty as published by the Bureau of Statistics</p> <p>Review of annual economic statistics as published by the Bureau of Statistics</p> <p>Review of "state of the basin" report (to be prepared)</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Improvements in water resource management will directly lead to increase in standard of living and health in communities in the basin, and hence contribute significantly to the alleviation of poverty</li> <li>• The government (at national, provincial and district levels) maintain a strong commitment to implementing integrated water resource management in the basin</li> </ul>
<p><b>Outcome</b></p> <p>Improved and integrated water resource management in place, with government and the community working in partnership to achieve a shared vision</p>	<p>To have appropriate and effective institutional arrangements in place for integrated water resource management in the basin (min scorecard level 3 by 2015)</p> <p>To have effective partnerships between government agencies at national, provincial and district level in place to implement planned water and land management activities to be funded under the Investment Program (effective RCMU by 2010)</p> <p>To have the community empowered and capable to play a vital role in the management of water and land resources (2012 self-assessed)</p> <p>To have water control infrastructure in place to manage the water</p>	<p>Legislation and policy documents released by GOI</p> <p>Minutes of meetings of the Citarum Basin Council and other key organizations in the management of the water resource of the CRB</p> <p>Progress and final reports of individual projects funded under the loan</p> <p>Survey of communities meant to benefit from activities funded under the loan</p> <p>Published information on available databases related to water, land and related resources</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Institutional arrangements to be put in place under new legislation provides a robust framework for IWRM and clearly separates resource management and development/ operational responsibilities</li> <li>• The government agencies at national, provincial and district level have the resolve to involve the community meaningfully in all stages of water resource planning and management</li> <li>• The community is willing to participate effectively in all stages of water resource planning and</li> </ul>

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	<p>resource in such a way as to provide equitable access to good quality water by all authorized water users (min scorecard level 3 by 2012)</p> <p>To have comprehensive and accessible databases in place to provide decision-makers, water managers and technical experts with the best information to undertake their responsibilities for water resource management (by 2012)</p>	<p>Review of “state of the basin” report (to be prepared)</p>	<p>management</p> <ul style="list-style-type: none"> <li>• Agencies are truly willing to share information for the benefit of all valid users</li> </ul>
<p><b>Outputs</b></p> <p><b>1. Institutions and Planning for IWRM</b></p> <p>Prepare a Strategic Planning Framework for the CRB (Pola)</p> <p>Prepare a Basin Water Resources Management Plan (Rencana) for the CRB; and</p> <p>Establish and operationalize an effective multi-stakeholder River Basin Council</p>	<p>Implementing agencies and other relevant stakeholders well informed about Roadmap program progress (effective PCMU by 2008)</p> <p>Implementing agencies and other relevant stakeholders participating effectively in setting the direction of the program and its projects (effective RCMU by 2009)</p> <p>Pola ratified by December 2009; Rencana by December 2010</p> <p>All monitoring and reporting undertaken in accordance with agreed procedures (full implementation of PPMS by 2008)</p>	<p>Minutes of meetings and workshops with executing agencies and other relevant stakeholders</p> <p>Program status reports</p> <p>Minutes of periodic coordination workshops</p> <p>Final reports of studies</p> <p>Reports produced</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• GOI continues to support the execution of the projects and facilitates stakeholder support for their preparation</li> <li>• There is a willingness by those involved in each of the component projects under this tranche to cooperate and share information</li> <li>• Stakeholders provide sufficient information to identify priority knowledge gaps</li> <li>• Local organizations can be found to undertake the studies effectively</li> </ul>
<p><b>2. Water Resource Development and Management</b></p> <p>Project planning, including “master planning” (that is, planning that focuses on development of infrastructure, and distinct from broader basin planning);</p> <p>Construction of infrastructure for</p>	<p>To have new or improved sources of water for domestic, irrigation, industry, hydropower, aquaculture, leisure and other uses developed, consistent with water availability and sustainability (Program implemented in line with Roadmap)</p> <p>For all people in the basin to have</p>	<p>Implementation progress report and loan review missions</p> <p>Quarterly progress reports</p> <p>Contracts with consulting services</p> <p>Quality control and quality assurance reports</p>	<ul style="list-style-type: none"> <li>• Counterpart funds for operation and maintenance of infrastructure made available</li> <li>• Approval of rights-of-way and land acquisition is not obtained in a timely manner</li> <li>• Delays in procurement and</li> </ul>

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<p>storing and delivering water (including reservoirs, canals and pipeline systems);</p> <p>Operation and maintenance of infrastructure;</p>	<p>access to adequate water supply and sanitation (by 2023).</p> <p>To have all water supply infrastructure capable of operating at design capacity (2 years after rehabilitation).</p>		<p>recruitment of consultant and/or contractors</p>
<p><b>3. Water Sharing</b></p> <p>Establishment and protecting water rights and allocating water among competing uses and users, as well as setting priorities for water entitlement during times of shortage</p>	<p>By 2010, to have an equitable water sharing arrangement endorsed by Water Council among the upper and the lower basin and transboundary water resources.</p> <p>To have clearly defined water utilization rights for all authorized water users (by 2023).</p> <p>All conflicts over utilization of basin water resources resolved quickly and satisfactorily (by 2023).</p>	<p>Minutes of meetings and workshops with relevant stakeholders</p> <p>Program status reports</p> <p>Annual basin performance reports</p>	<ul style="list-style-type: none"> <li>• Water Council established and functions efficiently and effectively with multi-stakeholder representation</li> </ul>
<p><b>4. Environmental Protection</b></p> <p>Environmental protection and enhancement normally by a combination of structural and non-structural measures that may include infrastructure (for instance, wastewater treatment plants), improved institutional (regulatory) arrangements, community participation.</p>	<p>To have comprehensive land use plans in place, and adhered to, in order to minimize the impacts of human activities on the environment (by 2023).</p> <p>To have minimal pollution from domestic, industrial and agricultural sources entering the waterways of the basin (minimal score card level 2 by 2023).</p> <p>To maintain and, where possible, enhance biodiversity, without further degradation (by 2012)</p>	<p>Annual basin performance reports</p> <p>Program status report</p> <p>Minutes of periodic coordination workshops</p>	
<p><b>5. Disaster Management</b></p> <p>Planning and construction of structural measures to control flood and mud flows, such as levees</p>	<p>To have effective disaster preparedness plans in place for floods and mud flow events (by 2010).</p>	<p>Implementation progress report and loan review missions</p> <p>Quarterly progress reports</p> <p>Contracts with consulting services</p>	<ul style="list-style-type: none"> <li>• Communities are receptive to awareness raising activities</li> <li>• Counterpart funds for operation and maintenance of infrastructure</li> </ul>

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<p>(dikes), flood control reservoirs and so on;</p> <p>Development and implementation of disaster preparedness plans; and</p> <p>Development and implementation of drought management plans</p>	<p>To have appropriate works in place to minimize the physical impacts of floods and mud flow events (by 2023).</p> <p>To have effective drought management plans in place where available water falls seasonally below design expectations (by 2010).</p>	<p>Quality control and quality assurance reports</p> <p>Minutes of meetings and workshops with relevant stakeholders</p>	<p>made available</p> <ul style="list-style-type: none"> <li>• Approval of rights-of-way and land acquisition is not obtained in a timely manner</li> <li>• Delays in procurement and recruitment of consultant and/or contractors</li> </ul>
<p><b>6. Community Empowerment</b></p> <p>Education and awareness raising (capacity building) of communities and individuals on water management issues</p> <p>Activities aimed at providing information to all that need it on water resource management and related activities</p> <p>Implementing measures to facilitate participation of the community in water planning and management</p> <p>Developing community-based “self-help” programs and specific projects to provide local improvement in water supply, the environment, water quality and so on.</p>	<p>To have a high level of awareness of local communities about conservation, utilization and protection of natural resources (including their rights and responsibilities) in the basin (by 2014).</p> <p>Local communities to have the opportunity and forum to participate meaningfully in the planning and management of the water resources of the basin.</p> <p>To have the enabling conditions (institutional, financial and capacity) in place for local community involvement in provision of local water supply and sanitation services, watershed management and waste management (by 2023).</p>	<p>Project documentation</p> <p>Post-project survey of the community</p> <p>IEAS and action plan completed</p> <p>Routine MIS and DSS reporting</p> <p>Minutes of meetings and workshops with executing agencies and other relevant stakeholders</p> <p>Minutes of periodic coordination workshops</p>	<ul style="list-style-type: none"> <li>• Communities are receptive to awareness raising activities</li> <li>• Media (newspapers, radio, TV) support awareness-raising activities</li> <li>• Education authorities agree to modify curricula to include teaching of water and environment related principles</li> <li>• Stakeholder unwilling to share data</li> <li>• Policy makers fail to make sufficient use of MIS and DSS</li> </ul>
<p><b>7. Data and Information</b></p> <p>Data collection, archiving and management, including: surface and groundwater quantity and quality; other natural resources data, such as soils, geology, land cover, ecosystems;</p>	<p>To have a comprehensive database on land and water resources in place and in a form that is accessible to all that need it to facilitate sustainable management of the basin’s water resources (by 2012).</p> <p>To use community participatory methods where ever applicable for</p>	<p>Final reports of studies</p> <p>Reports produced</p>	<ul style="list-style-type: none"> <li>• Stakeholder unwilling to share data</li> <li>• Policy makers fail to make sufficient use of MIS and DSS</li> </ul>

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<p>Data sharing and dissemination among government agencies, research establishments and so on, and providing public access to data</p> <p>Research to increase knowledge in such fields as catchment processes, demography, and so on, as well as the development of new technologies for water conservation and environmental protection; and</p> <p>Development and implementation of decision support tools, including GIS systems, hydrologic and hydraulic models, and other analytical tools</p>	<p>data collection and verification.</p> <p>To have effective arrangements in place for “custodianship” of the different water and catchment related dataset</p> <p>To have effective data sharing arrangements in place among agencies within the basin and with central agencies.</p> <p>To have suitable models and decision support tools developed and operational to assist rational decision making about water resource management.</p>		
<p><b>Activities with Milestones</b></p> <p>A.1 Recruitment of Investment Program Project 1 main design and program management consultants by June 2008</p> <p>A.2 Establishment of Water Council by June 2009</p> <p>A.3 Roadmap Coordination and Management Unit established January 2008</p> <p>A.4 Confirmation of Strategic Water Resources Management Plan (Pola) for Citarum River Basin December 2009</p> <p>A.5 First State of Basin Report end 2008, followed by routine annual reports</p> <p>A.6 Confirmation of Basin Water Resources Management Plan (Rencana) for Citarum River Basin, December 2010.</p> <p>A.7 Tranche PFR 2/3/4 released in timely manner</p>		<p><b>Inputs</b></p> <ul style="list-style-type: none"> <li>• Consultant services for project preparation, Roadmap and program management, detailed engineering design and construction supervision, financial management, fiduciary oversight and ADB policies and procedures.</li> <li>• Civil works and equipment</li> <li>• ADB:\$500 million</li> <li>• Government: \$395 million</li> <li>• GEF \$3.8 million</li> <li>• Technical Assistance Grant \$8.0 million</li> <li>• Beneficiaries \$10 million</li> </ul>	

ADB = Asian Development Bank, ADF = Asian Development Fund, BPS = Central Bureau of Statistics, MDG = Millennium Development Goal.

Note: Pre-project benchmarks refer to BPS village potentials survey reports, which document poverty and infrastructure in the individual villages. Pre-intervention benchmarks refer to the primary data collected in preparing the infrastructure rehabilitation and improvement plans.