



Draft Design and Monitoring Framework

Project Number: 36585
August 2006

Uzbekistan: Proposed Rural Renewable Energy Development Project

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

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Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <ul style="list-style-type: none"> • Rural development through provision of improved electricity supply in rural areas. • Improvement in crop irrigation, agriculture production, expansion of small and medium enterprises, and higher living standards in rural areas. • Reduction of consumption of natural gas for power generation; • Reduction of greenhouse gas (GHG) emission 	<ul style="list-style-type: none"> • Economic internal rate of return >18%. • Improve reliability of electricity supply in project areas to above 95%. • Improved crop irrigation, agriculture production, expansion of small and medium enterprises, and higher living standards in rural areas. • Reduction of consumption of 50 million m³ natural gas for power generation. • Reduce CO₂ emission of around 74,000 tons/year. 	<ul style="list-style-type: none"> • Uzbekistan Statistical Yearbook • Country economic and power sector analysis reports. • Provincial- and district statistics for socioeconomics • Project inception, progress, and completion reports. • Consultants survey reports • Certified Emission Reductions 	<p>Assumptions</p> <ul style="list-style-type: none"> • The Government will implement appropriate policies to promote renewable energy development. • Political stability and sound macroeconomic conditions in Uzbekistan. • Adequate rural infrastructure projects will be developed as planned. • Tariff set for electricity is adequate, financially and economically viable.
<p>Outcome</p> <ul style="list-style-type: none"> • Improve availability and reliability of electricity supply in rural areas from utilization of small hydropower resources. • Increased renewable energy production and consumption. • Enhanced institutional capacity to promote enhance renewable energy development in Uzbekistan 	<ul style="list-style-type: none"> • Increased Uzsuvenego rural electricity production 125 GWh per year. • Increased electricity consumption in project areas per capita by 14% from current 350 kWh/yr to 400 kWh/yr. 	<ul style="list-style-type: none"> • Uzsuvenego electricity production reports and financial statement. • Project inception and completion reports • Project performance and monitoring system 	<p>Assumptions</p> <ul style="list-style-type: none"> • The Government will maintain policy and regulations for small hydropower development. • Adequate power grid and distribution facilities are strengthened as planned. • Support and effective participation by local stakeholders. • Adequate institutional capacity <p>Risk</p> <ul style="list-style-type: none"> • Training for the executing agency staff might not be provided as envisaged.

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Outputs</p> <ol style="list-style-type: none"> 1. Construction and operation of three small-sized hydropower stations. 2. Improved policy and regulatory framework for renewable energy development 3. Project management and capacity building 	<ul style="list-style-type: none"> • Three hydropower stations with a total installed capacity of 24 MW and a total annual generation of around 125 GWh. • Government policy and regulation on CDM development and a CDM designated national authority to be established. • A financial return of around 4.8%. • Improved financial and technical operations for Uzsuvenego. 	<ul style="list-style-type: none"> • Uzsuvenego annual report, financial statement, and project account. • Project inception and completion reports. • Project Administration Memorandum. • Project progress reports. • Project review missions. • Training manuals • Audited Financial Reports. 	<p>Assumptions</p> <ul style="list-style-type: none"> • Counterpart funds are available on time. • Competent international and local consultants. <p>Risks</p> <ul style="list-style-type: none"> • Delay on approval of loan documents and procurement. • Delay on implementation of social and environmental mitigation measures. • Training for the executing agency staff might not be provided as envisaged.
<p>Activities with Milestones</p> <ol style="list-style-type: none"> 1. Project Management Unit will be established: by end of October 2006. 2. Consulting service for project implementation: commencing in March 2007. 3. Detailed design and bidding documents: completed by September 2007. 4. Resettlement implementation: completed by December 2007. 5. Turnkey contract for three hydropower stations: contract awarded by December 2007 and completed by June 2012. <ul style="list-style-type: none"> o Karkidon station, testing and commissioning by June 2010; o Shaudar station, testing and commissioning by September 2011; and o Bagishamal-2 station, testing and commissioning by June 2012. 6. Capacity building activities and training: completed by December 2009. 			<p>Inputs</p> <ul style="list-style-type: none"> • ADB loan of \$25 million • Government counterpart funds of \$6.8 million.

Source: Asian Development Bank estimates.