



Regional: Water and Adaptation Interventions in Central and West Asia

Project Name	Water and Adaptation Interventions in Central and West Asia		
Project Number	44066-012		
Country / Economy	Regional		
Project Status	Closed		
Project Type / Modality of Assistance	Technical Assistance		
Source of Funding / Amount	TA 7532-REG: Water and Adaptation Interventions in Central and West Asia		
	Regional Cooperation and Integration Fund		US\$ 1.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth Regional integration		
Drivers of Change	Partnerships		
Sector / Subsector	Agriculture, natural resources and rural development / Land-based natural resources management - Rural water supply services - Water-based natural resources management Energy / Large hydropower generation		
Gender	No gender elements		
Description	The TA will develop and introduce measures to adapt to changing hydrological regimes. These measures will build climate resilience in target watersheds against anticipated disaster scenarios, reducing potentially adverse climate impact on energy supply, food production, and environmental sustainability. The impact of the TA will be more efficient national strategies for climate change adaptation. The outcome will be national capacity to model climate scenarios and develop adaptation strategies. The TA will have 2 phases: (i) development of a knowledge base on likely impact of climate impacts on the Amu Darya and Syr Darya river basins; (ii) development of capacity to use outputs in regional, national, and river-basin adaptation planning. These outputs will be applied to risk-management strategies at the regional, national, and river basin levels. The TA will follow approaches and methods used in similar projects for glacial-fed river systems, such as Indus or Chu and Talas rivers.		
Project Rationale and Linkage to Country/Regional Strategy	Climate change impacts on water sustainability, which is being felt accross Central Asia. The most obvious signs are the retreat of glaciers and increasin water variability in the weather and its impact on water-dependent ecosystem and infrastructure. This impact is expected to alter the hydrological regimes in the Amu Darya and Syr Darya basins. Fully aligned with the Central Asia Given the region's dependence on the Amu Darya and Syr Darya for agricultural irrigation and hydropower supply, development of technically sound knowledge base that can feed into regional planning is necessary. This		
Impact	Participating countries in Central Asia have more efficient national stratigis for climate change adaptation		
Project Outcome			
Description of Outcome	Planning agencies of participating countries acquire capacity to model climate impact scenarios and develop adaptation strategies		
Progress Toward Outcome	The TA has introduced to the national authorities and experts the results of modeling and the impacts on watershed management problems. Several important organizations are involved, which are expected to prepare national and regional strategies considering climate change. These organizations are responsible for data management and technical implementation of modeling as well as some line ministries e.g. ministries of water resources, environment, agriculture, energy, and natural hazards. The authorities have proposed strategies on how to increase climate resilience and adaptation.		
Implementation Progress			
Description of Project Outputs	Knowledge about glacial melt, hydrological modeling, climate impacts and risk analysis in the Amu Darya and Syr Darya river basins, is utilized. Hydrological models for the Amu Darya and Syr Darya basins used by government agencies. Risk assessment maps for downstream areas covering flooding and climate vulnerability used by government agencies Hydrometeorological agencies of participating countries apply improved capacity in the use and application of downscaled hydrological models		

Status of Implementation Progress (Outputs, Activities, and Issues)	<p>Completed in November 2010. The project obtained most of its field data through the regional organization ICWC SIC and was not so much dependent on national commercial datasets. The consultant assessed all the other climate change projects in the region. This project is the most comprehensive modeling effort so far in the region as it employs most modern earth observation systems and five (5) different CC projections of international scientific research institutions (related to IPCC scenarios).</p> <p>Completed in November 2010. The project obtained most of its field data through the regional organization ICWC SIC and was not so much dependent on national commercial datasets. The consultant assessed all the other climate change projects in the region. This project is the most comprehensive modeling effort so far in the region as it employs most modern earth observation systems and five (5) different CC projections of international scientific research institutions (related to IPCC scenarios).</p> <p>Completed in March 2012. The output was an essential part of the modeling results and more time was needed to run the model. The modeling results clearly indicate what will be the main natural hazards and water management problems in different parts of the region. Rather substantial reduction of river discharges will take place in summer-autumn season when volumes of mountain glaciers will diminish. Spring time floods will remain similar as today but they may be associated with landslides and mudflows which will be common in the areas of thawing permafrost (result of rising snow-line).</p> <p>Completed in March 2012. Based on CC scenarios, the project downscaled the projections and produced past and future (-2050) hydrological models for the main rivers in the region dividing the source of water to 4 components (rain, snow melt, glacial melt, base flow).</p> <p>Completed in September 2011. In all the project countries the trainees learned basics of downscaling and some of them specialized to these methods (and conducted their own downscaling project).</p> <p>Completed in March 2012. In seminars and other meetings climate change adaptation measures have been discussed together with national, regional and international experts. Most of the solutions requires international planning and agreement (as identified in Helsinki Convention). Risk management products include water deficiency maps and graphs.</p> <p>Completed in March 2012. The project has produced maps and charts describing well the future problems caused by CC. They predict the occurrence of droughts, water deficiency and floods.</p> <p>Completed in April 2012 (amended later). The models described the likelihoods for the occurrence of CC induced natural hazards in each river sections separately. The result can be used to assess the requirements for infrastructure designs (such details do not belong to the scope of the project).</p> <p>Completed in June 2012. The project involves several important organizations which are expected to prepare national and regional strategies considering CC. Earlier project activities have taken place in organizations responsible for data management and technical implementation of modeling. However, among the collaborators and trainees there are experts from e.g. ministries of water resources, environment, agriculture, energy, and natural hazards. They conducted their own projects based on the skills obtained in the regional training course.</p> <p>Completed in May 2012 (amended later). The project has introduced to the national authorities and experts the results of modeling and the impacts on watersheds management problems. Awareness raising has been conducted at the later stages of the project.</p> <p>Completed in July 2012. The results of the project will provide firm basis for the planning of the disaster and climate risk- management priorities. The development of project portfolio for appropriate projects to be financed has started (several stakeholder groups will be involved in the planning).</p> <p>A knowledge product on the outcome of the RETA is in the process of being published to inform relevant government agencies on the results of the modelling and possible adaptation strategies to ensure availability of water resources for the five Central Asian countries.</p>
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Geographical Location	Regional
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Summary of Environmental and Social Aspects

Environmental Aspects	
Involuntary Resettlement	
Indigenous Peoples	
Stakeholder Communication, Participation, and Consultation	
During Project Design	DMC endosements to be obtained.
During Project Implementation	Continued stakeholder participation and consultation during implementation.

Business Opportunities

Consulting Services	The project will be carried out by a team of international and national consultants through a firm.
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Responsible ADB Officer	Tambunan, Binsar P.
Responsible ADB Department	Central and West Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, CWRD
Executing Agencies	Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550, Philippines

Timetable

Concept Clearance	26 Oct 2009
Fact Finding	-
MRM	-
Approval	13 May 2010
Last Review Mission	-
PDS Creation Date	21 Apr 2010
Last PDS Update	27 Sep 2013

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Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
13 May 2010	-	13 May 2010	30 Jun 2012	30 Sep 2013	17 Feb 2014
Financing Plan/TA Utilization					Cumulative Disbursements

ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
1,000,000.00	0.00	250,000.00	0.00	0.00	0.00	1,250,000.00	17 Jun 2022	916,499.79

Project Page	https://www.adb.org/projects/44066-012/main
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