

**PROGRAM INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: AB5939

Project Name	Central Asia Hydrometeorology Modernization Program
Region	EUROPE AND CENTRAL ASIA
Sector	Flood protection (100%)
Project ID	P120788
Borrower(s)	TAJIKISTAN, KYRGYZ REPUBLIC
Implementing Agency	Tajikhydromet, Kyrgyzhydromet, IFAS/Regional Hydrology Centre
Environment Category	<input type="checkbox"/> A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined)
Date PID Prepared	September 10, 2010
Estimated Date of Appraisal Authorization	December 7, 2010
Estimated Date of Board Approval	March 17, 2011

1. Key development issues and rationale for Bank involvement

This concept note outlines support for the Regional Program to Improve the Delivery of Weather, Climate and Hydrological Services (hereafter, Regional Program) in the Central Asia region. This Regional Program will be implemented as a framework program supporting in various forms national and regional hydrometeorology modernization activities funded by the governments, International Financial Institutions (IFIs) and donors. This Program Concept Note describes activities which will be supported by the World Bank through the Central Asia Hydrometeorology Modernization Program (CAHMP). This modernization program aims to rebuild the infrastructure and human capacity to reduce disaster risks, manage the consequences of climate variability and underpin the economic development of the agricultural, water resources, energy and transportation sectors. The CAHMP will help hydromet services in the Kyrgyz Republic and Tajikistan improve physical infrastructure required to observe and forecast changes in the environment; increase the capacity and capabilities of the workforce; and develop new business practices to sustain these services. In addition, the CAHMP will support facilitation of regional cooperation in hydrometeorology, including through sharing of related information. The Regional Hydrology Center (RHC), which is part of the International Fund to Save the Aral Sea (IFAS), is expected to coordinate regional cooperation activities.

Economic Development Context. The Central Asia region (CAR) consists of the middle-income countries of Kazakhstan and Turkmenistan, and the lower income developing economies of the Kyrgyz Republic, Republic of Tajikistan, and Uzbekistan. In 2008, CAR had 14 percent of the Europe and Central Asia (ECA) region's population but contributed to only 5 percent of the region's gross domestic product (GDP). Per capita gross national income (GNI) varies considerably in the region: GNI per capita in Kazakhstan is closest to the average income across the whole of the ECA region (\$6,160) whereas the per capita gross national income of the Kyrgyz Republic, Republic of Tajikistan and Turkmenistan are \$780, \$600 and \$2,840, respectively. GNI per capita in Uzbekistan, with about half of the population of Central Asia, is about \$910.

World Bank Engagement. Together with international, regional and national partners, the World Bank initiated a regional hydromet strengthening program in September 2008, which was endorsed by the CAREC countries under a broader Central Asia and Caucasus Disaster Risk Management Initiative (CAC DRMI). The Regional Program was further developed during 2009, notably drawing upon the findings of assessments carried out in 2008-2009 in the Kyrgyz Republic, Republic of Tajikistan and Turkmenistan. Further meetings in Tashkent and Almaty, coordinated with the help of the World Bank, have helped develop a prioritized set of regional and national level activities that can help modernize hydromet services in Central Asia. Bank-supported partnership strategies for both Tajikistan and Kyrgyz Republic have outlined IDA support for strengthening the NMHSs in these countries and the CAHMP is being developed for that purpose.

2. Proposed objective(s)

The main objectives of the CAHMP are to (i) strengthen the hydromet service delivery in Kyrgyz Republic and Tajikistan and (ii) to improve coordination and information sharing between NMHSs of the 5 Central Asian countries.

The long term outcomes of the program will be measured in terms of the following:

- Better quality and more varied information products presented in a user friendly, client-oriented format; and
- Improvement of regional data and information exchange, particularly on hazards. This indicator will show progress registered in efforts to increase coordination between CA hydromet services.

3. Preliminary description

The proposed CAHMP will focus on two specific areas. First, it will provide technical assistance and equipment to help build the capacity of hydromet services in Kyrgyz Republic and Tajikistan. The hydromet services in these two countries are particularly weak and are unable to comply with the World Meteorological Organization (WMO) standards and regulations for obtaining, processing and storage of all types of hydrometeorological data and development of forecasts. Second, the proposed CAHMP will support the implementation of regional-level activities that the NMHSs of Central Asia agree constitute the priority areas to be addressed with respect to modernization of hydrometeorological service delivery to the various socio-economic sectors in the states of Central Asia. Specifically, the World Bank proposes support for the IFAS/RHC as it takes on the role of coordinating the implementation of regional-level activities that have been agreed between the 5 NMHSs.

Following governments' requests, the Bank is preparing national projects to improve hydromet service delivery in Tajikistan and the Kyrgyz Republic where the needs and challenges are the greatest and resources are extremely limited. These national programs include refurbishing and developing observation, communication, and forecasting systems, as well as improving the delivery of services. A critical investment is building the capacity and capabilities of the workforce of the NMHSs to produce and deliver the level of weather, climate and hydrological services expected by their users. In addition to national-level activities, the CAHMP will support regional-level activities. Under the CAHMP, the RHC would receive assistance to help

strengthen its capacity to coordinate the framework Regional Program and to ensure sharing of important hydrometeorological information between the different CA NMHSs. Other donors have expressed support for these regional activities. Concrete expressions of support have come from Finland, World Meteorological Organization (WMO), United Nations International Strategy for Disaster Reduction (UN ISDR), and the United Nations Development Programme (UNDP). More such support, particularly from bilateral donors, is expected as discussions related to ASBP-3 are concluded towards the end of 2010.

**Summary of Proposed National Project of Tajikhydromet Modernization
(US\$13 million)***

Institutional strengthening of the National Hydrometeorological Service (NMHS), improving personnel and financial sustainability of the NMHS

- A1 Technical Design of the system of hydrometeorological monitoring
- A2 Institutional strengthening
- A3 Improving personnel and financial sustainability of the NMHS

Improving the hydrometeorological monitoring system to provide timely warnings on dangerous hydrometeorological events and support water management

- B1 Re-equipment of the observation networks
- B2 Strengthening of the information-technology base of the service

Strengthening of the service delivery system

- C1 Improving a system of provision of hydrometeorological services for the consumers
- C2 Improvement of the forecasting, warning, operational response and early warning system of the Committee for Emergency Situations

Project Management

Does not include USD 1 million support pledged by the Government.

**Summary of Proposed National Project of Kyrgyzhydromet Modernization
(US\$7.4 million)**

Technical design of the system

- A1 Drafting a concept of Kyrgyzhydromet modernization
- A2 Technical design of the system of hydrometeorological monitoring
- A3 Technical design of the system of data collection and information dissemination including telecommunications

Improving the hydrometeorological monitoring system to provide timely warnings on dangerous hydrometeorological events and support water management

- B1 Re-equipment of the observation networks
- B2 Strengthening of the information-technology base of the service

Institutional strengthening and capacity building

- C1 Strengthening the system of service delivery
- C2 Training and Capacity Building

Safeguard policies that might apply

CAHMP's low-risk activities qualify the CAHMP as a category "C" program. This category reflects that (i) no physical environmental impacts are expected and (ii) the planned activities will have indirect environmental benefits by creating information, guidance, concepts and institutional structures that may affect environmental conditions in the region in multiple ways. No safeguards policy is triggered. The operations manuals for the CAHMP's constituent activities will include a section on environmental safeguards to ensure guidance on mitigation measures for potential adverse impacts, if any.

4. Tentative financing

Source:	(\$m.)
BORROWER/RECIPIENT	1
International Development Association (IDA)	15
Recipient-executed Trust Funds	8.4
Total	24.4

5. Contact point

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