



# Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

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Appraisal Stage | Date Prepared/Updated: 11-Jan-2018 | Report No: PIDISDSA23165



**BASIC INFORMATION**

**A. Basic Project Data**

Country Central Asia	Project ID P164780	Project Name Central Asia Hydrometeorology Modernization Project (CAHMP) Additional Financing	Parent Project ID (if any) P120788
Parent Project Name Central Asia Hydrometeorology Modernization Project	Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date 08-Jan-2018	Estimated Board Date 30-Apr-2018
Practice Area (Lead) Social, Urban, Rural and Resilience Global Practice	Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance, Ministry of Finance, Executive Committee of the International Fund for Saving the Aral Sea (EC- IFAS)	Implementing Agency Tajikhydromet, Kyrgyzhydromet

Proposed Development Objective(s) Parent

The objective of the Central Asia Hydrometeorology Modernization Project (CAHMP) is to improve the accuracy and timeliness of hydromet services in Central Asia, with particular focus on Kyrgyz Republic and Republic of Tajikistan.

Components

- Component A: Strengthening regional coordination, information sharing and services.
- Component B: Strengthening of Hydromet Services in Kyrgyz Republic.
- Component C: Strengthening of Hydromet Services in Republic of Tajikistan.

Financing (in US\$, millions)

**SUMMARY**

<b>Total Project Cost</b>	11.50
<b>Total Financing</b>	11.50
<b>Financing Gap</b>	0.00

**DETAILS**



<b>Total World Bank Group Financing</b>	11.50
World Bank Lending	11.50

Environmental Assessment Category

Not Required (C)

Decision

The review did authorize the preparation to continue

Other Decision (as needed)

## B. Introduction and Context

### Country Context

Reducing Central Asia’s vulnerability to extreme weather events and natural hazards continues to be a priority for the region’s economic development. Central Asia is highly vulnerable to weather-related disasters including floods, landslides, mudflows, frosts, droughts, high winds, hailstorms, and avalanches - a situation which is exacerbated by the countries’ lack of adaptive capacity to anticipate or respond to frequent shocks. Central Asian countries are among the most climate vulnerable countries in Europe and Central Asia (ECA), with Tajikistan ranking first and Kyrgyz Republic third out of the 24 countries in the region. While disaster impacts and in-country capacities to cope with catastrophes vary across Central Asia, vulnerabilities to natural hazards have increased throughout the region in the last few decades due to growing exposure of population and economic activities, rapid urbanization, aging infrastructure, lack of financial resources, and weak institutional capacities for implementing preventive measures and managing climate uncertainty.

Improved services associated with weather, climate and water information are essential for sustainable and risk-informed socio-economic development.<sup>1</sup> The cross-sectorial and cross-national character of weather-related hazards means that regional cooperation is integral to quality hydrometeorological service delivery. Moreover, climate change is increasing weather uncertainty which must be better understood and quantified to enhance the resilience and sustainability of investments. Analysis indicates that improved weather, water and climate information services deliver significant benefits by reducing disaster losses, and even greater ones through optimization of production in weather-sensitive sectors.<sup>2</sup> Central Asia needs better quality weather, water, and climate information, especially to improve early warning, disaster risk reduction, emergency response and climate adaptation particularly in the agriculture, food security, transport, water resources management, energy and public health sectors.

<sup>1</sup> World Bank (2013). *Building Resilience: Integrating Climate and Disaster Risk into Development*. World Bank, Washington, D.C.

<sup>2</sup> Hallegatte, S. (2012). *A Cost-Effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-Meteorological Services, Early Warning, and Evacuation*. Policy Research Working Paper; No. 6058. World Bank, Washington, DC.



### Sectoral and Institutional Context

*Sectoral Context.* Many critical sectors are highly sensitive to weather and climate extremes and uncertainty, the optimization of which requires robust hydrometeorological services. Central Asian countries are highly agrarian<sup>3</sup>, with 60% of the population living in rural areas and agriculture accounting for over 45% of total employment and nearly 25% of GDP on average.<sup>4</sup> Regional temperature and precipitation are highly variable, which when combined with projected reductions in surface water due to climate change, are likely to increase aridity, accelerate desertification and significantly raise weather-related risk to agricultural production. For instance, in some regions of Tajikistan, climate change projections indicate that by 2100 agricultural yields could drop by as much as 30 percent. The semi-arid climate of the region leads to the concentration of settlements and economic activities in more fertile but riskier areas, such as floodplains and alluvial fans. As both a domestic need and a resource for export, energy is critical to long-term economic development, with the mountainous regions of Central Asia rich in hydropower potential. When mixed with other energy sources, this offers an opportunity to meet electricity needs on a seasonal basis, taking advantage of abundant low-cost hydropower in the summer, and the reliability of thermal resources in winter. However, climate change is expected to further challenge the energy sector in Central Asia by reducing hydropower output (due to reduced water availability), increasing demand, and threatening existing infrastructure. To optimize such mixed energy production, robust short- and long-term weather and climate forecasts are needed.

*Institutional Context.* National Meteorological and Hydrological Services (NMHSs) play a key role in disaster preparedness and hazard monitoring. NMHSs provide Government agencies and the public with timely weather and river forecasts and early warnings to help prepare for severe weather events. However consistent underfunding of hydrometeorological services for over three decades, combined with growing demand for more reliable and sophisticated information services, means that even with the advances afforded by CAHMP and other partner investments, Central Asian NMHSs are challenged to fully satisfy societal needs. CAHMP and other Bank and partner operations have produced a range of lessons learned and good practices to modernize hydrometeorological services, which are reflected in the design of this proposed additional financing.

To be effective, hydrometeorological services need to be nested in broader disaster risk management strategies, which are currently not fully institutionalized in Central Asia. Governments across the region continue to focus on disaster response with the shift to a more proactive disaster management approach challenged by variable political will and statutory authority, as well as limited institutional resources and capacity. Coordination mechanisms between existing governmental agencies, both horizontal and vertical, are not fully developed. At a regional level, due to limited cross-border cooperation, both extreme transboundary weather and regular events such as seasonal snowmelt often cause significant negative socioeconomic impacts. The agenda for strengthening weather and climate services at a regional level has and continues to gain traction, and the Bank can play a catalytic role in these efforts at the national and regional levels. Recognizing the risks posed by trans-boundary weather on key economic activities and people's lives and livelihoods, Central Asian countries engage and collaborate on regional climate risk management through multiple fora, including EC-IFAS and the Central Asia Regional Economic Cooperation (CAREC) Program.

Central Asian mountains present significant challenges for weather and climate-related hazard monitoring, forecasting and early warning. Rapid onset hazards such as storms, flash floods, mudflows, landslides and avalanches are widespread in the mountainous areas of Central Asia, while longer-term river flooding and droughts are common occurrences across the region. Monitoring stations in mountainous areas are particularly difficult to maintain, due to remote locations and

<sup>3</sup> Kazakhstan, with its strong energy sector, is less agrarian than the average Central Asian country, with agriculture accounting for only 8% of GDP (but still 33% of total employment).

<sup>4</sup> S.C. Babu and S. Djalalov, eds. (2006), *Policy Reform and Agriculture Development in Central Asia*, Springer, New York



extreme conditions. Operationalization of early warning and risk assessment of weather-related hazards, including translating observations and forecasts into actionable information products, needs to be highly efficient to respond to intense rapid-onset events. Better understanding of these hazards will contribute to climate change adaptation and reduce the region's vulnerability to weather-related hazards.

### **C. Proposed Development Objective(s)**

#### Original PDO

The objective of the Central Asia Hydrometeorology Modernization Project (CAHMP) is to improve the accuracy and timeliness of hydromet services in Central Asia, with particular focus on Kyrgyz Republic and Republic of Tajikistan.

#### Current PDO

same as original

### **D. Project Description**

The proposed additional financing would allow for: (i) completion of activities previously constrained by cost overruns; (ii) scaling up of activities, particularly procurement of hydrometeorological equipment; and (iii) implementation of new activities, enabling CAHMP to fully achieve the expected Project Development Objective (PDO) and enhance its impact. The recipients of the additional financing will be the Kyrgyz Republic (US\$5.0 million), the Republic of Tajikistan (US\$3.0 million) and the Executive Committee of the International Fund for Saving the Aral Sea (EC IFAS – US\$3.5 million), based on requests from the Government of Tajikistan, from the Government of the Kyrgyz Republic, and from EC-IFAS. An extension of the Project closing date from June 30, 2018, to March 31, 2021, to complete current and new activities under the project, is also sought.

Additional financing will ensure that the expected objectives of the Project are fully achieved, impacts are broadened, and results are more sustainable. The proposed additional financing will offset cost overruns due to SDR/USD exchange rate fluctuations, scale up several project activities, and add new activities that have emerged as critical for broader Project impact. Activities supported under additional financing will continue to (1) strengthen regional-level coordination, information-sharing and collaborative services that support Central Asian NMHSs; (2) facilitate procurement and installation of modern hydrometeorological infrastructure; and (3) strengthen national capacity in monitoring, forecasting, service delivery (for example production of user-centric early warnings) and institutional management of the NMHSs. Considering increased domestic commitments for operational budget for both KyrgyzHydromet and TajikHydromet, the additional financing aims to solidify the foundation for continued national ownership and sustainability.

### **E. Implementation**

#### Institutional and Implementation Arrangements

Project implementation arrangements will not change. The Executive Committee of the International Fund for Saving the Aral Sea (EC-IFAS), through its Almaty-based Regional Center of Hydrology (RCH), will continue to implement Component A, with a dedicated Project Management Unit (PMU) already in place. EC-IFAS will be the recipient of IDA regional grant funds, consistent with the six eligibility criteria established for regional institutions under the IDA Regional Grant Pilot.<sup>5</sup>

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<sup>5</sup> Eligibility Criteria for Access to IDA Grants by Regional Institutions:



While EC-IFAS members include IBRD borrowers, EC-IFAS was identified as the only venue able to provide the regional level of coordination for the Project to have its intended impact, and the involved IBRD borrowers will not directly benefit from IDA financing, but will rather continue to host regional functions from which they indirectly benefit. The proposed regional activities constitute an essential part of regional and national institutional development and capacity building and are indispensable for the operation of integrated regional networks. Overall implementation responsibility for country-based programs will continue to rest with KyrgyzHydromet (Component B) and TajikHydromet (Component C), with dedicated Project Implementation Units (PIUs) already in place. The PIUs will continue to work under the overall guidance of the Project Management Committees (PMC) established in the Republic of Tajikistan and the Kyrgyz Republic. The project operation manuals (one for each component) will be updated to align with the Bank's New Procurement Framework and Regulations for Projects (effective 1 July, 2016) and changes to Project dates, financing and activity details.

#### **F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

CAHMP activities will primarily be carried out in the Kyrgyz Republic and Republic of Tajikistan. In addition, regional activities such as training and capacitybuilding will take place in all participating countries including Kazakhstan and Uzbekistan.

#### **G. Environmental and Social Safeguards Specialists on the Team**

Kristine Schwebach, Social Safeguards Specialist  
Rustam Arstanov, Environmental Safeguards Specialist

1. Recipient is a bona fide regional organization that has the legal status and fiduciary capacity to receive grant funding and the legal authority to carry out the activities financed.
2. Recipient does not meet eligibility requirements to take on an IDA credit.
3. The costs and benefits of the activity to be financed with an IDA grant are not easily allocated to national programs.
4. The activities to be financed with an IDA grant are related to regional infrastructure development, institutional cooperation for economic integration, and coordinated interventions to provide regional public goods.
5. Grant co-financing for the activity is not readily available from other development partners
6. The regional entity is associated with an IDA-funded regional operation or otherwise supports the strategic objectives of IDA on regional integration.



**SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	No	Despite of the minor environmental and health and safety risks described in the previous section, it is suggested that the safeguards category remains unchanged ("C") due to a low probability and low severity of risks
Natural Habitats OP/BP 4.04	No	All work will be conducted within the premises of exiting offices and stations outside the NH areas.
Forests OP/BP 4.36	No	No purchase of timber or works in the forest areas will be involved in the project
Pest Management OP 4.09	No	No agricultural activities or purchase of pesticides are planned
Physical Cultural Resources OP/BP 4.11	No	Proposed activities will be conducted at the existing building/ premises, none of which may have any PCR
Indigenous Peoples OP/BP 4.10	No	N/A for Central Asia
Involuntary Resettlement OP/BP 4.12	No	Project activities will not lead to involuntary resettlement. Proposed landslide/mudflow modules under Component A will provide real-time early warning advisories, not hazard mapping, such that they will not lead to preventive resettlement.
Safety of Dams OP/BP 4.37	No	No project activities may have impact on or are dependent on existing or planned dams
Projects on International Waterways OP/BP 7.50	No	Installation of the small scale hydromet equipment have no practical or theoretical potential of impacting quality or quantity of water in the rivers
Projects in Disputed Areas OP/BP 7.60	No	N/A for Central Asia

**KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT**

**A. Summary of Key Safeguard Issues**

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The project will not finance any equipment whose operation, breakage or malfunction would cause adverse impact on environment or human health. The project will not finance any renovation/ rehabilitation civil works that could cause damage to environment and people including roof replacement, reinforcement of structures, replacement of partitions, multiple replacements of doors and windows. The works might include as follows:

Purchase and installation of equipment including:

- Data centers including air conditioning units- to be installed in the existing buildings. Minor repair works might be expected: wall plastering and painting, installation of the access floors (cable floors).



- Purchase of Computers- no civil works expected
  - Measuring equipment such as thermometers (non-mercury), level- meters- might involve minor civil works such as installation of equipment in the river beds, small concrete works.
  - Educational meteorological stations- works in the existing footprint, minor concrete works
2. Disposal of old equipment and outdated materials:
- Old mercury thermometers
  - Old metal works, metal scrap
  - Small amount of construction waste from renovation works

Associated environmental risks include minor occupational health and safety risks (dust, noise, vibration, traffic disturbance, handling of heavy loads, works at height), temporary small scale siltation of river streams (in case of the installation of equipment at the river beds). There are also risks related to the disposal of a few old mercury thermometers.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

No physical environmental impacts are expected and planned activities will have indirect environmental benefits. The installation of new monitoring equipment may include minor temporary disruptions along streambanks, or other sites to be defined, but not of a scale of measurable environmental impacts which would require specific mitigation measures. Old outdated mercury thermometers will be utilized by a company specialized in hazardous waste. Such provision will be a part of the financial agreement with the Borrower.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

N.A.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Operational Manuals for the three components will have a section to address minor environmental issues arising from placement of monitoring equipment and disposal/installation of equipment or implementation of civil works mentioned above. The Borrower will use an Environmental Management Plan Checklist, a standard template developed by the World Bank Environmental and Social safeguards specialists specifically for minor construction/renovation works, as a primary measure to monitor and account for associated risks. The World Bank team will monitor EMP checklists regularly during the supervision missions.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

As this is Category C program, there is no requirement for consultation/disclosure of the environment section of the OM. Implementing agencies are being made aware of the Bank's safeguards policies and their relationship to Project implementation.

**B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)**





**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

**The World Bank Policy on Disclosure of Information**

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

**All Safeguard Policies**

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Have costs related to safeguard policy measures been included in the project cost?

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

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**Borrower/Client/Recipient**

Ministry of Finance

Ministry of Finance



Executive Committee of the International Fund for Saving the Aral Sea (EC-IFAS)

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**APPROVAL**

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**Approved By**

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