PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC9627

Project Name	Climate Adaptation & Mitigation Program for Central Asia (CAMP4CA) (P151363)
Region	EUROPE AND CENTRAL ASIA
Country	Central Asia
Sector(s)	Central government administration (40%), Public administration-Information and communications (30%), General agriculture, fishing a nd forestry sector (15%), Forestry (15%)
Theme(s)	Natural disaster management (25%), Environmental policies and institutions (25%), Other social protection and risk management (25%), Climate change (25%)
Lending Instrument	Investment Project Financing
Project ID	P151363
Borrower(s)	Government of Kazakhstan, Government of Tajikistan, Central Bank of Uzbekistan, Government of Kyrgyz Republic
Implementing Agency	TBD
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	16-Aug-2014
Date PID Approved/ Disclosed	19-Aug-2014
Estimated Date of Appraisal Completion	16-Jan-2015
Estimated Date of Board Approval	26-Mar-2015
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

1. The five Central Asian countries, which are among the Europe and Central Asia region's most vulnerable to climate change, face common climate challenges, affecting key resources and sectors such as water, land, biodiversity and ecosystems, agriculture, energy, and human health. Average annual temperatures across the entire region have increased by 0.5°C in the south to 1.6°C in the north and impacts are already being observed, from melting glaciers in upland areas to droughts and floods in the lowlands. Current greenhouse gas trajectories imply that climate change is expected to intensify over the coming decades, leading to more variability and instability in the region's water

resources and rising costs for development sectors. In particular, while in the coming decades enhanced glacier melt may increase river runoff and flooding, by 2030 this effect is expected to be counterbalanced by increasing evaporation rates, and by the second half of the 21st century runoff rates in mountainous areas are likely to decline substantially. Reduced runoff coupled with increasing temperatures and heat extremes will exacerbate agricultural crops' heat stress in the region, decreasing crop yields. Building resilience to climate change is a priority in Central Asia, including by tackling the non-climatic drivers of vulnerability in the region, such as inefficient infrastructure, unsustainable land and water management, rural poverty, and low adaptive capacity to ongoing and future changes.

2. Climate impacts in Central Asia extend across national borders due to the inter-connectivity of the land and water systems in the region, as well as social and economic interactions (e.g., migratory flows, food and energy markets). For example, the Syr Darya River, one of the two largest rivers in Central Asia, originates in the mountains of Kyrgyz Republic and is mainly fed by glacier and snow melt. The river then flows through Uzbekistan, Tajikistan and Kazakhstan where it is utilized for large-scale irrigated agriculture, particularly cotton and wheat production and it ends in the Aral Sea. While the water flow could increase in the short term (as a consequence of glacier melt), the hydrologic changes in the long run (from changes in snow accumulation and snowmelt, enhanced evaporation and crop water requirements, and uncertain precipitation changes) could have dramatically adverse social, economic, and environmental consequences on irrigation-dependent agriculture across Central Asia. The story is similar for the other major Central Asian river – the Amu Darya River that originates in the mountains of Tajikistan and Afghanistan. The region's vulnerability will be further exacerbated by inefficient water use, lack of infrastructure, limited enforcement of regulations, as well as environmental degradation.

Sectoral and Institutional Context

3. Many of the key development sectors in Central Asia are vulnerable to climate change. For example, in agriculture, which is critical for the largely rural livelihoods in the region, cropping system productivity (including in both rainfed and irrigated systems) is sensitive to variations in rainfall, hydrologic flows modulated by snow accumulation and melt, system storage, and system evapo-transpiration. Energy systems are sensitive to hydrologic changes (e.g., in the case of hydropower), demand changes (e.g., in warmer areas in summer, and due to power interconnections as in CASA-1000), as well as sensitive to mitigation actions (e.g., in the case of fossil fuels).

4. However, the fundamental information, institutional, and investment infrastructure required to manage these existing and evolving climate risks effectively are inadequate from a regional perspective, especially in the post-soviet era. On Information, this includes a need for: improved climate and water resource monitoring systems (that are often outdated) and public domain access to such information (which is currently limited), improved integration of a variety of earth observation data, improved analytical tools, and improved generation of public-domain knowledge products and services. On Institutions, this includes a need to strengthen the capacity of critical institutions managing climate and water monitoring and analysis and sectoral planning and operations, improved regional networking and awareness-building, improved research on targeted knowledge gaps, and improved consideration of climate issues in sectoral and regional planning. On Investments, this includes a need to prepare "climate-smart" investments related to key sectors, and pilot innovative investments in climate resilience.

5. The emerging climate change impacts in Central Asia are becoming increasingly

recognized and the countries are focusing on reducing vulnerability and moving towards climate-resilient development. For example, there is a Bank-financed activity underway to initiate modernization of the region's hydromet program. Kazakhstan has initiated a transition to a green, resource-efficient, and environment-friendly economy, notably with support from the Clean Technology Fund as well as from the Partnership for Market Readiness on an innovative Carbon trading program. In addition, Tajikistan has developed a Strategic Program for Climate Resilience, with five investment and capacity-building activities funded under the Pilot Program for Climate Resilience (PPCR) that are piloting innovative approaches to improving climate resilience in vulnerable sectors and facilitating transition towards a sustainable and climate-resilient economy. However, even with these important measures, the issue does not yet receive sufficient priority in terms of designing critical measures - both at the national and regional levels. Hence, a coordinated and integrated approach toward climate resilience and poverty reduction is needed. This will help improve the effectiveness of national climate actions, as well as maximize synergies across the sectors and countries. In particular, a coordinated approach will enhance (i) complementarities (e.g., agricultural trade, regional power markets, insurance mechanisms, etc.); (ii) economies of scale (e. g., shared research and knowledge efforts); (iii) strategic planning and financing (e.g., access to climate finance, collaboration with development partners); and (iv) innovation and experience-sharing (e.g., replication and scaling-up across countries of successful pilots).

Relationship to CAS

6. As the proposed program is aimed at strengthening regional and national institutions in managing climate change impacts, this initiative is aligned with the climate change priorities of the Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan Country Program Strategies (CPSs). All four country strategies stress the importance of climate change preparedness in key sectors including water, energy and agriculture. Some of the CPSs also emphasize the importance of regional integration, including tackling transboundary challenges and better managing natural resources. In addition, the WBG, in close consultation with the Government of Turkmenistan, has developed a new Interim Strategy Note that will serve as a platform for expanded cooperation covering a two year period (FY14 - 15).

7. The proposed program is also well aligned with ECA's updated Strategic Framework, which identifies climate action as a key direction under its Sustainability Pillar in moving towards reducing poverty and boosting shared prosperity, and with IDA's growing emphasis on climate resilience, where climate-related commitments were introduced in IDA-16 and have been further strengthened in IDA-17, as well as on gender equality, to alleviate constraints on economic and social development. The program, more broadly, also supports IDA-17's overarching theme of maximizing development impact, by seeking joint approaches with IFC, strengthening public sector institutions, and facilitating knowledge exchange between countries.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

8. The objective of the Climate Adaptation and Mitigation Program for Central Asia (CAMP4CA) is to support the integrated development of climate-smart information, institutions, and investment capacities throughout the countries of Central Asia. This is expected to be achieved through strengthened coordination mechanisms; improved information gathering, sharing, and analysis for decision support; and incubation of innovative climate-smart action for potential scale up.

Key Results (From PCN)

9. Progress towards achieving the PDO will be measured using the following indicators and end of program targets:

- Regional climate strategy developed to facilitate regional climate action
- Government sectoral specialists and broad set of NGO stakeholders participate in regional climate coordination mechanisms
- Improved regional climate information and knowledge services to support national and regional activities
- At least three countries develop national/sectoral climate action plans as a result of increased national capacity for cross-sectoral coordination
- Climate-responsive instruments/investment models are developed and demonstrated
- Greater awareness on climate risks and climate action options at all levels
- Beneficiary Feedback Mechanisms developed for each activity supported by the program to foster more responsive and accountable local institutions for climate resilience.

III. Preliminary Description

Concept Description

10. The program will finance a set of national and regional activities, structured around the following three pillars: (i) Information – for datasets, information systems, tools, and knowledge for climate-smart decision making; (ii) Institutions – for capacity and coordination at national and regional levels around climate action; and (iii) Innovation – for pilot investments in key vulnerable sectors, that can be easily replicated to scale-up resilience. An initial menu of options is presented below, that draws on an early scoping exercise by the Central Asia Technical Working Group on Climate Change, finalized in May 2014. The list of activities (and their sequencing) supported by the project will be further refined during project preparation, depending on each country's priorities and needs as well as related World Bank and other development partners projects and programs, with a view to maximizing synergies at a national and regional scale in a region where countries and development partners are quite active on the climate front. In particular, it is expected that the program will build on lessons from climate resilient pilots in the region, such as Tajikistan's PPCR- and GEF-supported investments in natural resource management, agriculture, and water resource management, and seek opportunities to coordinate with these and other donor initiatives to inspire scaled up national and regional actions.

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Component 1: Information for climate-smart decision making

11. Activities under this component seek to monitor, integrate, and share data, knowledge, and tools for a better understanding of climate change vulnerabilities and climate-smart options, as well as for the promotion of risk-management as a core tenet of resilience. Together these activities will contribute to developing a unified regional analytical framework for better managing climate change. Given economies of scale in knowledge production, there are strong incentives for regional collaboration and the activities under consideration could be implemented by a network of existing regional and national research and academic institutes that would form a virtual Regional Center for Integrated Climate Change Assessment.

Monitoring systems and data portal for climate and earth systems in Central Asia

- Establishment of an Integrated Central Asia Climate Data Portal to facilitate public-domain collection, sharing, and maintenance of data relevant for climate-smart assessment. The Portal would also offer interfaces and tools for data visualization, contextualization and interpretation (e.

g., GIS to layer data and map risks and hotspots, screening tools) and include feedback mechanisms for ensuring some type of citizen participation.

- Development of a centralized forest and land monitoring system, based on the interpretation of satellite imagery and limited ground truthing, to monitor state and health of forests and pastures for informed management interventions, better emissions inventories and other reporting under international commitments (e.g., under FAO), and identification of areas at risk of extreme events.
- Upgrading, modernization, and expansion of climate and water resources systems, including glacier/cryosphere monitoring, through ground monitoring, surveys, and remote sensing systems, to help anticipate glacier lake outburst and improve projections of water resources in the region under a changing climate. This would contribute towards building broader regional and collaborative water resources information systems.

Models and tools for climate-smart decisions

- Capacity and infrastructure for integrated climate modeling and assessment, to develop/adapt, maintain, and link climate, sectoral, and economic models (e.g., water and climate change, agriculture and economy) for analyses/projections to support decisions at appropriate regional/ national scales.

Building the evidence base

- Setting up a regional repository of knowledge and lessons from the region, which would house a library of reports/studies on climate change assessment and climate-smart lessons and solutions and cater to the needs of different stakeholders (e.g., decision-makers, entrepreneurs, students, citizens). This repository could also build and maintain a roster of experts (international and regional),which would be on call for specific advice or more thorough analysis, and launch as required new analyses and assessments.
- Establishing a range of public-domain knowledge products to support awareness-building on climate variability, climate change, and sectoral implications and options. This includes knowledge products such as hardcopy and interactive Atlases, mobile Apps (that also draw upon the Central Asia Climate Change Data Portal), synoptic reports, and interactive toolkits that all become part of the regional repository.

Component 2: Institutional capacity building for climate action

12. Activities under in this component aim to support institutional capacity development and broader stakeholder engagement, at both regional and national levels, for increased adaptive capacity and mainstreaming of climate change considerations into policy, investment, and lifestyle decisions.

Regional Climate Change Coordination Center

- Such a Center would establish a permanent entity to enhance dialogue and regional collaboration in Central Asia. The Center would facilitate climate change knowledge and learning activities, catering to the needs of stakeholders from all countries in the region (e.g., a repository of knowledge and climate-smart lessons, maintaining a roster of experts, leading awareness raising and outreach, offering training, facilitating knowledge and experience sharing through events like the Climate Change Forum, working with academia and universities on curricula, and commissioning new studies).

Institutional capacity development to strengthen national responses to climate change

These activities would deploy a combination of capacity building and technical assistance services to central government entities, including:

- Improved capacity to access and visualize climate-related data and services, including support for Operational Data Centers at national level where information from ground and satellite-based services (including from the regional centers) can be visualized along with forecasting and analysis products, and modeling outputs to facilitate multi-sectoral decisions;
- Mainstream resilience (both to disasters and climate change) in national/sectoral plans and programs based on methodologies/approaches and tools developed under Component 1. This would include capacity building efforts (nationally or for several countries simultaneously to allow discussion among practitioners from different countries) to review/develop plans (e.g., identify risks, cost options, mobilize resources);
- Provide advice on enabling institutional frameworks to improve cross-sectoral coordination and decision-making for design and implementation of climate-smart policies and programs;
- Undertake climate change public expenditure reviews (PERs) to assess resources supporting climate action, their alignment with strategic climate objectives, and tools to prioritize mainstreaming climate change in national budgets, and monitor results;
- Facilitate access to climate finance and national implementing entity (NIE) accreditation.

Targeted capacity building towards non-central government entities (e.g., in the agricultural value chain)

- Building the capacity of the research and extension services to provide needed technologies and advice to agricultural sector on how to improve climate resilience at farm and agribusiness (as applicable) level;
- Provision of training and advice to extension agents, farmers and other stakeholders (e.g., water user associations) on climate-smart agricultural practices as required, with a focus on designing and strengthening extension services to female farmers and women working on farms;
- Provision of training and capacity building to local governments and authorities, local institutions in charge of climate risks assessment and planning on the social dimensions of climate change (vulnerability assessment, monitoring social impact, citizen engagement for better service delivery);
- Building the capacity of community-based organizations and other civil society groups working in relevant sectors and with target communities, on key climate change issues, engaging in policy dialogue, to enable them to serve as interlocutors between communities (with attention to reaching groups susceptible to marginalization) and policy makers. A special effort will be made to reach out to youth with appropriate outreach efforts to engage the next generation into climate innovations (e. g., using “hackathons” or other such competitions).

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Component 3: Innovation in resilience investments

13. Activities under this component would comprise pilots to test new and innovative approaches and generate new lessons to accelerate climate action in Central Asia. These could include pilots funded through competitive innovation grants, with such criteria as implementation in several countries or private sector co-financing. Possible pilot investments could include:

- Identification and preparation of a range of “climate-smart” innovative solutions in the region. These could include appropriate scoping, preparation assessments, surveys, and related consultation activities, as well as an exploration of past, ongoing, and proposed activities that show potential for scaling-up.

- Pilot payments for environmental services to support re-vegetation and restoration of forests and their services (including reduced exposure to hazards like landslides and mudflows, reduced siltation in reservoirs, reduced land degradation). Supporting countries/communities in preparing for future carbon markets could also be explored;
- Community-based and participatory models of natural resource management including community forestry and pasture management, and participatory landscape planning for equitable and improved use of natural shared resources. In particular, there is an opportunity through the program to support the development of different models of community-based resource management which can serve as best practice for different conditions and for further rollout and replication in the participating countries and information to broader land and forest management policy;
- CSO and local institutions market place for climate resilience innovation: a small grant competitive program will be established to encourage innovation from Civil Society and local institutions regarding climate resilience. The small fund will support pilot community resilience small-scale investments to ensure local ownership, territorial responses to climate risks and produce successful local responses examples to foster a regional community of practice on community based resilience;
- Replicate/roll-out weather alert systems for farmers (currently planned in Kyrgyz Republic and Tajikistan) to other countries in the region, for effectiveness and efficiency. Other activities dealing with risks in agriculture could include introduction of a regional risk-sharing facility for the agricultural sector (such as an agricultural insurance scheme), to be informed notably by the National Agricultural Sector Risk Assessment (being carried-out in Kazakhstan, Kyrgyz Republic, and Tajikistan), expected by June 2015.

Component 4: Project Management

14. This component will support the operating costs of implementing CAMP4CA at both regional and national levels, including support for procurement, financial management, coordination, reporting, and monitoring and evaluation.

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IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	×		
Natural Habitats OP/BP 4.04	×		
Forests OP/BP 4.36	×		
Pest Management OP 4.09	×		
Physical Cultural Resources OP/BP 4.11		×	
Indigenous Peoples OP/BP 4.10		×	
Involuntary Resettlement OP/BP 4.12			×
Safety of Dams OP/BP 4.37		×	
Projects on International Waterways OP/BP 7.50		×	
Projects in Disputed Areas OP/BP 7.60		×	

V. Financing (in USD Million)

Total Project Cost:	60.00	Total Bank Financing:	60.00
Financing Gap:	0.00		

Financing Source	**Amount**
BORROWER/RECIPIENT	0.00
International Development Association (IDA)	60.00
Total	60.00

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