PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Report No.: PIDC30282

Project Name	CLIMATE ADAPTATION AND MITIGATION PROGRAM FOR ARAL SEA BASIN SOP II (P153748)
Region	EUROPE AND CENTRAL ASIA
Country	Kazakhstan
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	P153748
Borrower(s)	REPUBLIC OF KAZAKHSTAN
Implementing Agency	Ministry of Energy
Environmental Category	B-Partial Assessment
Date PID Prepared/ Updated	03-Aug-2015
Date PID Approved/ Disclosed	12-Aug-2015
Estimated Date of Appraisal Completion	
Estimated Date of Board Approval	22-Dec-2015
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Kazakhstan is the largest economy in Central Asia and has experienced sustained economic growth since independence, with its economy now twice the size of what it was in the early 90's. Two decades ago, Kazakhstan was dealing with the challenges of the breakup from the Soviet Union but the country aspires today to become one of the world's 30 most developed economies by 2050. It hopes to accomplish this through the accelerated diversification of its economy, by supporting industrialization and infrastructure development and by enhancing human capital to drive innovation and economic efficiency.

Over the past decade, the country has made impressive policy strides, absorbed large resource-based earnings responsibly, progressed towards developing a rules-driven fiscal framework, strengthened public management and the business climate, and allocated resources for improved social services and critical infrastructure to sustain growth. The population living in poverty went down from 47 percent in 2001 to about 3 percent in 2013, as measured by the national poverty line, and prosperity was shared. Most of this poverty reduction was driven by labor income growth associated with higher employment and wages.

Kazakhstan's Gross Domestic Product (GDP) growth slowed in 2014 due to weaker demand and the fall in oil prices. So far, labor market and poverty reduction outcomes do not seem to have been affected by the downturn – thanks to continued job creation, inter-sectoral and geographic mobility, and new employer "social arrangements." The same factors that slowed growth in 2014 are also clouding the outlook for the medium term. To foster economic diversification and attract investment into the non-oil economy going forward, Kazakhstan is focused on improving transport infrastructure and strengthening public and market institutions.

Diversification of the economy remains one of the main challenges for the country. The economy remains highly resource-dependent, with manufacturing accounting for 11 percent and agriculture for 5 percent of GDP. Minerals, oil, and natural gas still account for about 80 percent of exports and nearly 40 percent of GDP. Kazakhstan ranks among the top fifteen most energy-intensive economies in the world, using twice as much energy as the average across all Europe and Central Asia (ECA) countries. Mirroring its high energy intensity, the country is also among the top ten carbon-intensive countries in the world, with the carbon–intensity of its GDP nearly three times as high as the average across all ECA countries. To address the issue of heavy dependence on natural resources, Kazakhstan has developed a strategy towards a green economy - green technologies, a green GDP, and green jobs ultimately for better quality of life. Greening the economy would lower greenhouse gas emissions and also contribute amongst others to reducing the country's vulnerability to climate change risks, which are a challenge to Kazakhstan's development agenda.

Sectoral and Institutional Context

Kazakhstan, like other Central Asian countries, faces climate change challenges, increasing pressure on natural resources and assets such as water, land, biodiversity and ecosystems, with rising costs for key development sectors, such as agriculture, energy, as well as economic and population centers (through weather-related hazards and other health impacts). Climate has become much warmer over the country, with mean annual (and seasonal) temperature on the rise throughout Kazakhstan, on average at a rate of 0.28°C per decade over the last 70 years (much higher than the global average). Climate change is expected to intensify over the coming decades, with concerns regarding water availability, through impacts on the overall hydrological cycle (changes in rainfall and snowfall, glaciers' retreat, and increase in temperature pushing up evaporation and decreasing soil moisture). These climate change impacts on water provisioning will in particular reverberate in the agriculture and energy sectors.

Agriculture is considered the most vulnerable sector to climate change and almost all agricultural activities take place in areas at risk. While agriculture contributes less than 5 percent to Kazakhstan's GDP, the sector provides jobs for one-fourth of the country's work force (and a much higher share in some agriculture-oriented oblasts) and is critical for the livelihoods of rural and poor populations. Kazakhstan is a global leader in wheat production but has among the highest variation in annual yields of any major wheat-growing region globally, due to its very high climate

variability. In the north of the country, where agriculture is generally rainfed, grain production experiences a serious drought two out of every five years. Although rising temperatures in the coming decades could initially mean higher productivity, a projected shift in Spring/Summer precipitation suggests lower soil moisture during the critical growing season. Spring wheat yields could drop from current levels to as low as 63 percent by 2030, and 52 percent by 2050, unless adaptive measures are taken. Crop diversification and introduction of varieties more suited to changing climate conditions or conservation agriculture are amongst sustainable techniques and practices that could help increase resilience (and address in particular overall concentration on wheat production and exports). Livestock would also be impacted, through increasing pressure on pastures (often already subject to overgrazing and degradation) as well as health effects from higher temperatures. Inter-annual climate variability is also causing fodder availability (and affordability) issues. Pasture restoration and livestock feed conservation techniques are among possible adaptation options.

Energy, a backbone of the economy, is another sector among the most vulnerable ones. The sector already faces challenges due to its aging and inefficient power generation and transmission infrastructure. It currently relies heavily on energy generated from thermal power plants (mostly coal-fired) and, to a lower extent, hydropower. Most of these energy assets were built decades ago and are now in a poor state of repair, making them more vulnerable to climate change impacts, which could hamper energy production and transmission. While Kazakhstan relies on hydropower for only 10 percent of its electricity, the government has plans for considerable expansion beyond the five large hydro power plants now on line, including expanding smaller plants (threshold is up to 35 MW) – whose output could decrease by up to 20 percent in small, unregulated catchments. Other risks from climate change to power generation include potential climate impacts on the few large coal-fired power plants that rely on cooling water from rivers or reservoirs, as well as potential impacts from shifting Caspian Sea levels on near-shore oil facilities. On demand side, Kazakhstan's electricity consumption is largely dominated by industry, which also relies on outdated assets which are inefficient in energy use. As a result from climate change, a seasonal shift in demand is expected toward a summer peak, with higher future temperatures anticipated to lead to significant increases in summer demand for pump irrigation water, and cooling industrial equipment and buildings, whereas power demand for heating in winter is expected to decrease. There are three broad action areas to build resilience in Kazakhstan's energy sector: increasing efficiency of power generation, controlling demand across all sectors, and diversifying away from the heavy reliance on thermal generation. They are as much about reducing a key development gap as about tackling the adaptation deficit in the sector by addressing non-climatic drivers of vulnerability. In that sense, those are no-regret measures: many of these have been already identified by the Government and are being undertaken and will provide future benefits no matter the degree of future climate change. Many of these actions can also provide mitigation co-benefits. Energy efficiency is receiving priority attention from government with a number of important support measures. The principal challenges of low energy prices, substantial energy subsidies, and few incentives for energy efficiency finance are clear, and implementation of the Energy Efficiency Program-2020 (2013) and Law on Energy Efficiency introduced in 2012 and amended in January 2015 and Green Green Economy Action Plan adopted in 2013 should help. In March 2010, the President of Kazakhstan set the goal to reduce energy intensity of the national economy by 10 percent by 2015 and 25 percent by 2020 and 50 percent by 2050. To date, the Government is on track for achieving this short- and long-term objective; in 2012, the energy intensity already reduced by 13.5 percent compared to 2008. In addition, the Government recently initiated a number of important measures to support further improvements in terms of energy efficiency. The list of nearly 140 actions under the Energy

Efficiency Program activity plan (with budget lines for each) is very impressive in its specificity. By contrast, deployment of renewable energy (a possible source of diversification for the country) is lagging, while there is good potential in the country.

While Kazakhstan is making great strides on green energy and mitigation, building resilience is only gaining attention. The country has embarked on a number of strategic/policy initiatives in this regard, such as the landmark Green Economy Concept and Action Plan, which sets targets to be achieved by 2030. These targets include: (i) downsizing wasteful furrow irrigation from 80 percent to 5 percent of applied land; (ii) reducing the area of cotton and rice production by 20-30 percent (and replacing with less water-intensive vegetables, oil seeds, and other crops), and (iii) a three-fold reduction in transportation losses through irrigation system rehabilitation. The Kazakhstan Green Bridge initiative is another program to encourage the development of green energy and clean technology for sustainability of the energy sector. While these actions will contribute to building resilience (by tackling non-climatic drivers of vulnerability), there is not yet an overarching adaptation strategy/policy document (the National Concept on Adaptation to Climate Change is still in draft stage) nor any mechanism to coordinating and managing resilience actions across government, stakeholders and development partners.

Other Central Asian countries are at different stages in terms of defining and implementing their response to climate risks, such as Turkmenistan, which has shown leadership by developing the first national strategy for climate change in the region, the Kyrgyz Republic, which has set up a multi-sector ministerial-level committee, chaired by the Vice Prime Minister, for climate policy coordination in the country, or Tajikistan, which is pioneering innovative climate finance for investment and institutional capacity for resilience in hydromet, hydropower, agriculture and land management through the Pilot Program for Climate Resilience (PPCR). Uzbekistan is actively promoting agriculture diversification towards high-value, water-efficient crops, reducing state intervention in production and marketing, and improving the quality and efficiency of extension and irrigation services, and the countrycould share experience at policy and operational level on climate-smart agriculture investments in various agro-ecozones, which are common to all the countries. This diversity in experience creates a great potential for Central Asian countries to learn from each other on their common adaptation (and mitigation) priorities. The Climate Adaptation and Mitigation Program for the Aral Sea Basin (CAMP4ASB) offers the platform to accelerate the move towards more effective climate risk management and action, through better information and experience sharing to enable collaboration and investments addressing common climate challenges.

CAMP4ASB is developed in response to a call from all five Central Asian countries for a program to strengthen regional dialogue and collaboration to enhance their preparedness to the shared and common climate challenges in Central Asia. CAMP4ASB will support access to improved climate change knowledge services (e.g., data, knowledge, tools, and capacity-building for climate assessment and decision making) as well as support investments to address climate change and improve productivity and livelihoods in rural areas (e.g., introduction of drought-resilient seed varieties and agricultural practices, water saving technologies and more efficient on-farm water management practices, improved pasture and livestock management, renewable energy in off-grid rural areas). The Program will also support the systematic evaluation of these climate investments and the dissemination of lessons learnt to a broad range of stakeholders to facilitate learning, replication, and scaling-up of such climate good practices in the region.

In addition, the Program will pay particular attention to the social dimensions of climate change, in

particular its impact on vulnerable groups (e.g., poor farmers, female-headed rural households, etc.). As women in Central Asia tend to have unequal access to, and control over, resources, particularly in rural areas, this makes them more vulnerable to poverty. Climate change will exacerbate these existing problems. Gender dimensions will be carefully considered and mechanisms to ensure equitable access to Program activities will be developed. The proposed Program also recognizes the role played by civil society and the importance of feedback mechanisms and closing the feedback loops in service delivery. Specific mechanisms to support community participation and feedback, access to information and closing the feedback loop will be integrated in the design of this Program and monitored during its implementation.

Relationship to CAS

Environmental sustainability is an important pillar of the current Country Partnership Strategy (FY12-17), with several activities supporting low-emissions development through energy efficiency, reduced gas flaring, forest protection and reforestation, and support to design and operations of an Emissions Trading System. There are also a number of operations that contribute to reducing vulnerability to climate variability and change, in particular through higher efficiency in use and management of land and water resources or improved flood management.

CAMP4ASB is recorded in the Partnership Framework Agreement between Kazakhstan and the World Bank and will broaden the partnership with the country on climate change, which was so far centered on mitigation, with flagship initiatives such as the World Bank's Partnership for Market Readiness (PMR) and the Clean Technology Fund (CTF). The World Bank's Partnership for Market Readiness (PMR) provides targeted technical support to Kazakhstan in implementing its national Emission Trading System (ETS). It will strengthen the Government's capacity and knowledge needed to implement its ETS by providing estimates of the economy-wide impacts of the ETS, identifying some of the key barriers to trade and in developing emissions benchmarks for industry. The government in its commitment to reduce GHG emissions has partnered with the World Bank, the European Bank for Reconstruction and Development (EBRD) and key Kazakh stakeholders to leveraged funds from the Clean Technology Fund (CTF) to support efforts to modernize its district heating system, improve demand-side energy efficiency, and explore the potential of renewable energy. CTF financing also leverages funds from public and private sources to support transformational projects which would significantly reduce GHG emissions.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed Development Objective of this second project in the series is to support Kazakhstan's participation in CAMP4ASB for the country to benefit from enhanced, regionally-coordinated access to improved climate change knowledge services for key stakeholders (e.g., policy makers, communities, and civil society), as well as to increased investments and capacity building that, combined, will address climate challenges common to Central Asian countries.

CAMP4ASB seeks to help Central Asian countries build upon the benefits of cooperation while pursuing national priorities for climate-smart development. The Program will lay the foundation for an institutional platform for regional cooperation on climate change across a broad range of sectors. This will be the first such platform in Central Asia that will provide access to improved climate change knowledge services for climate change assessment and decision-making and to increased financing and technical assistance for climate investments in priority areas common to Central

Asian countries.

Given the scope of the Program, it is processed as an interdependent Series of Projects, or SoP, involving multiple borrowers. The split between the first and second project in SoP is mostly linked to a different pace of processing instruments and countries' own project cycles (e.g., Kazakhstan's requirement for Feasibility Study prior to completing preparation and preparing RAS support for Turkmenistan). The SoP approach provides here the framework to establish a platform for high-level policy and regulatory harmonization, cooperation, and coordination between countries aiming towards achieving benefits that will go beyond each country's boundaries. This approach is designed to allow borrowers to tackle issues shared regionally (e.g., common and shared climate change challenges, as in the present instance) and to generate positive externalities/public goods (e. g., in the case of CAMP4ASB: economies of scale through shared research and knowledge efforts, faster learning through experience-sharing for replication and scaling-up across countries of successful climate innovation, increased mobilization of resources through concerted action, scaling up through complementarity). Expected benefits from such a SoP approach (as opposed to a succession of individual national projects) include greater impact from coordination as explained above, higher visibility and attention (e.g., in terms of attracting resources), and stronger identity, creating synergy and learning across individual country operations (e.g., opportunities for building on CAMP4ASB's climate knowledge services, including lessons from the Program-financed climate investments, to develop climate-smart plans and programs). These benefits will be measured as key results from the Program.

There are three broad categories of benefits to Kazakhstan from its participation in the Program:

- Greater climate resilience for investments in critical sectors. The Program will provide grants and technical assistance to communities and villages to improve productivity and safeguard key economic sectors facing climate change risks. Evidence from similar activities implemented in comparable agro-ecozones of other Central Asian countries show such measures can yield substantial increase in agriculture productivity and income, in a very cost-effective manner and within just a few years. Finally, experience from community-driven approaches, which combine direct support for rural economic production and resilience coupled with awareness raising and capacity building activities, indicates that such approaches engender cost-effective investments, local ownership, improved operation and management skills, thereby enabling sustainability of investments and their replication and scaling-up.
- Enhanced capacity for country's long-term, climate-smart development. The Program will also ensure that national stakeholders (e.g., government agencies overseeing climate-sensitive sectors, civil society, academia) have access to improved climate knowledge services (e.g., data, information, and tools for climate assessments and decision-making) and participate in regional knowledge and experience sharing (e.g., on lessons from climate investments financed under the Program in all countries). Through this collaborative mechanism, there is potential for Kazakhstan to learn (faster) from climate-smart practices and technologies that worked well in similar context in other Central Asian countries as well as from policy and institutional frameworks (e.g., to prepare an adaptation strategy and to strengthen multi-sector coordination on adaptation).
- Increased potential to attract resources for climate action. The development partners have been closely associated with the Program's preparation and are showing increased interest for the regional platform it is building in order to scale up support for climate action in Central Asia. Given its regional ambit, the Program has high potential for attracting additional donor resources and international visibility to the region. A funding proposal for the Green Climate Fund (GCF) is

under preparation as per which about $7 million in concessional resources are envisaged for Kazakhstan, virtually all to support and scale-up climate investments.

Key Results (From PCN)

Key results will be measured following indicators in the Results Framework of the first Project in the series, with targets for Kazakhstan (expanding the reach of CAMP4ASB) to be confirmed at Appraisal:

- Proportion of users reporting satisfaction with climate knowledge services provided by Program;
- Number of country-led plans and programs that draw on Program's climate knowledge services, including lessons from climate investments;
- Cooperative action resulting in the financing of investments that require collaboration across countries. This collaborative action could be supporting action in a transboundary geographical area or could include explicit coordination actions across countries to maximize synergies to better adapt to climate change in relevant national policies; and
- Additional resources mobilized for knowledge, capacity, and investment for regional climate/green actions through increased Program-led coordination between Central Asian countries and development community.

III. Preliminary Description

Concept Description

The proposed project will support Kazakhstan's participation in CAMP4ASB and follow the technical design and component description of the first project in this series, which established the framework for this Program, with three components:

- Component 1: Regional Climate Knowledge Services, to strengthen the knowledge and capacity base for climate action and facilitate regional dialogue and coalition building for an effective climate response at scale;

- Component 2. Regional Climate Investment Facility, to provide grants/credit lines (depending on country) and technical assistance for climate investments in priority areas common to all Central Asian countries;

- Component 3: Regional and National Coordination, for oversight, coordination, and implementation support at regional and national levels through the Program's Regional Steering Committee and Regional and National Coordination Units.

COMPONENT 1: CLIMATE KNOWLEDGE SERVICES (preliminary costing: US$5 million; proposed financing: US$3 million in IBRD financing and US$2 million in government co-financing)

This component will provide technical assistance, as well as minor civil works, goods (including software and equipment), and training at both the regional and national levels, to develop a unified, integrated regional analytical platform for climate resilient and low emissions development, with improved data, information, knowledge for climate assessments, and tools for decision-support. Although this information platform will be managed at the regional level, national agencies and

other stakeholders (e.g., academia, civil society organizations) in each participating country will also have access to this system. In addition to providing an improved data and information platform, this component will also develop a mechanism to assess the results and lessons of the climate investments implemented under the Program (under Component 2) in order to ensure that these lessons and results are systematically evaluated and disseminated to support Central Asian countries in their planning processes and lead to greater scale-up of climate action in the region. This dissemination and regional capacity building will be further supported under the component via an annual climate change forum, regional training and e-learning events, as well as climate networks.

• Strengthening the Information Platform for Central Asia. This activity will facilitate access by stakeholders (e.g., government agencies, civil society, academia) to public-domain data for climate assessment and decision-making (e.g., socio-economic, greenhouse gas emissions, land use, hydromet, climate change scenarios, etc.). This platform will make available comprehensive and up-to-date data and information, linking with high-quality datasets, from global, regional, and local sources, including time series and spatial information (e.g., real-time earth observation systems). It will also provide tools and interfaces for the visualization and interpretation of data and information (e.g., mapping tools, to layer data and map hotpsots and areas at risk, screening tools, etc.). The Platform will be designed following open data practices, starting from publicly available datasets (and building on on-going initiatives such as the World Bank Spatial Agent App) and promoting further information sharing (e.g., supporting data rescue and their publication through the Platform, crowdsourcing). It will be managed by an Information Technology/Data Specialist with the Regional Coordination Unit, working in tandem with each participating country's Technical Working Group and National Coordination Unit to improve awareness of the growing collection of high-quality, global public-domain datasets relevant for climate assessments, facilitate data acquisition and curation, as well as build capacity at national level on data management and analysis.

Activities in Kazakhstan (to be managed by a focal point with the National Coordination Unit) will thus include coordination with the Information Technology/Data Specialist at the Regional Coordination Unit, assistance with collection of national data (including possible data rescue exercise), and outreach to target users (to raise their awareness on this platform and also get feedback, suggestions on improvements to the Platform). These activities will be supported by the Kazakh National Coordination Unit budget (staff time, consulting services for data rescue exercises, small budget for outreach, minimal equipment).

• Targeted upgrading of climate-related monitoring systems. This activity will provide improved monitoring systems and data series to support project activities (e.g., snow, permafrost, and glacier/cryosphere – whose improved monitoring could help anticipate glacier lake outburst as well as better understand cryoshpere dynamics and improve projections of water resources in the region under a changing climate; or agricultural and forest systems - for instance to monitor state and health of forests and pastures for informed management interventions, better emissions inventories and other reporting under international commitments, and identification of areas at risk of extreme events – such as, fires). If conclusive, such investments could then be scaled up under other national and regional investments (including the forthcoming CAWaRM Program).

In Kazakhstan, possible investments under discussion with Kazhydromet include:

- Densification of hydromet stations to improve coverage of existing network, for better weather monitoring (which, depending on the type of stations installed, can support snow cover monitoring – critical for rainfed agriculture to the north of the country, irrigation scheduling, or

index-based agriculture insurance) and weather/climate forecasting (with better data collected to inform and calibrate models, and improve forecasting capacity at different timescales, from weather hazards to climate change projections). Investments under discussion include: 50 automated agrometeorological stations (more than half in the cereal oblasts of North Kazakhstan and Kostanay), 10 automated monitoring stations (which can monitor snow cover in real time, in particular), and 10 atmospheric control stations; and

- Equipment and softwares to manage and analyze these data, including to improve modeling capacity for hydrological forecasting, in particular floods and hydrological droughts.

• Setting up a Climate Investment Assessment Mechanism. This activity will support the systematic evaluation of the climate investments under Component 2. A pool of experts, comprising national Technical Working Group members from the five Central Asian countries, Regional Coordination Unit technical experts, and additional experts, will be established. For select completed climate investments (about six to ten each year), two to three experts from this pool, including from Central Asian countries other than that of the location of the pilot, will evaluate the pilot, within 3 months of its completion, and will draw lessons based on a pre-established assessment methodology. The evaluations will be available for public dissemination, including for presentation and discussion at events such as the Annual Climate Forum. These evaluations will also be inputs to knowledge products, e.g., strategy papers or sectoral policy papers. Costs for these assessments of select climate investments will be supported by the Regional Coordination Unit (RCU).

All other climate investments will be assessed following the same template, albeit in a lighter fashion, with costs for this assessment to be covered by each country's National Coordination Unit.

• Outreach and coalition building. This activity will support outreach and coalition building, including through an annual climate forum (for engagement of Central Asia stakeholders around the Program's results and its future orientations) and fostering climate networks (notably, to leverage enthusiasm and energy of Civil Society Organizations in Central Asia for climate action). This activity will be chiefly supported by the Regional Coordination Unit, with some operational costs to be borne by the Kazakh National Coordination Unit (e.g., outreach event with Kazakh CSOs, media campaign, etc.).

COMPONENT 2. CLIMATE INVESTMENT FACILITY (preliminary costing: US$9 million; proposed financing: US$6.5 million in IBRD financing and US$2.5 million in government co-financing)

This component will provide grant financing to rural communities (including farmers and farmer groups, villages or village communities, resource user groups (e.g., water, pasture), private companies) for climate investments on a demand-driven basis, considered by participating Central Asian countries as priority for scaled-up climate action. Technical assistance and facilitation support will also be provided under the component to beneficiary communities to plan, implement, and manage climate investments supported with sub-grants. Should the funding propsoal under the Green Climate Fund be approved, these resources would be directed to this component, to scale-up financing for investments.

• Sub-component 2.1. Investment Financing: This sub-component aims to increase

productivity and address climate change by promoting the adoption of rural production, land management, and other climate-resilient and mitigation investments, by providing sub-grants to rural communities.

All territories of Kazakshtan are potentially eligible for climate investment funding under the Program (e.g., this is not restricted to the Aral Sea perimeter nor to the Aral Sea Basin per se). The selection of project areas will be made at program outset, at the intersection of the following criteria: (i) Located in climate-vulnerable areas of Kazakhstan, drawing among others on preliminary mapping of climate vulnerability in Kazakhstan (under the Joint Economic Research Program); (ii) Located in the parts of the country with the highest share of bottom 40 percent population (e.g., with the largest share of the bottom two quintiles of the population with the lowest incomes); (iii) Good coverage of the major agro-ecological systems in Central Asia (mountains, foothills, rangelands, irrigated, and arid) in order to maximize learning potential among participating countries; and (iv) Good complementarity with government- or donor-funder initiatives on the ground. For instance, preliminary mapping of climate vulnerability in Kazakhstan (under the Joint Economic Research Program) shows that the oblasts of Almaty, Kostanay, and Kyzylorda are the top three oblasts most vulnerable to climate change. They each represent different agro-ecozones (e.g., intensive rainfed crop production, cattle ranching in arid/semi-arid areas, household plot farms) and could therefore be good candidates for the sub-grant program. Selection of the project areas will be refined in the period to Appraisal, taking into account amongst others: diversity in types of vulnerability to be addressed; cost of adaptation and its adequacy with sub-grant size; number of beneficiaries and share of Bottom 40; donor complementarity. Given the amount of resources available, prioritization of project areas (and likely of eligible investments) will be critical to ensure meaningful impact of these investments - both in terms of scaled-up resilience and potential to generate lessons.

Eligible investments are expected to primarily contribute to: (a) crop diversification, climate-resilient seed varieties, and seed system support measures, (b) on-farm water resource management and efficiency improvement measures, (c) rehabilitation of degraded lands and land degradation control through agro-forestry and rangeland management measures, (d) promotion of stability and sustainability of mountain ecosystems and livelihoods, (e) conservation agriculture, (f) livestock production improvements, (g) agro-products processing, (h) energy efficiency improvements (e.g., insulation, lighting, etc.), and (i) expansion of renewable energy sources, particularly for those communities in remote rural areas. Other climate investment types could be considered at a later stage, based upon new priorities identified and commonly agreed by all participating countries. There is interest from Kazakh counterpart for pasture restoration (using positive example of the Drylands Management Project, which was financed by GEF grant) and management (as availability and affordability of fodder is an issue) as well as for off-grid renewable energy (in connection with government program, without sufficient funding). The recent Agricultural Sector Risk Assessment in Kazakhstan, other Advisory Services and Analytics reports on climate-smart agriculture in the region (e.g., Looking beyond the Horizon series), experience from specific projects (e.g., Drylands Management Project) provide a considerable knowledge base to guide design, selection/appraisal, and implementation of sub-projects.

Sub-grants will be provided meeting the following eligibility criteria: (i) proposed investment site's climate vulnerability (e.g., land and vegetation degradation, expected water shortages, and predicted increase in temperature); (ii) investment site where poorest 40 percent of the population reside; (iii) investment's gender focus and cost effectiveness; (iv) the proposed investment's sustainability and

potential for replication; as well as (v) donor complementarity. Beneficiaries will be able to receive up to 80 percent of a sub-project investment as a matching grant. Village beneficiary contributions can be in cash or in-kind, while private farmers contributions can be in the form of cash, complementary goods, or paid labor. Program financed grants for sub-project investments are expected to be up to US$100,000.

• Sub-component 2.2. Capacity Building and Community Support: This sub-component includes financing for awareness raising, participatory planning, and implementation support of climate investment plans at the community level. This "facilitation package" is expected to raise interest of potential beneficiary communities for climate investment opportunities under the Program, improve the quality of the funding proposals prepared by these communities, and enhance the likelihood of success for these investments.

Contracted Facilitating Organizations, such as Non-Governmental Organizations and other organizations, will help beneficiaries assess and understand climate threats and impacts, and factor in the potential impact of climate change on livelihoods and vulnerability to weather hazards, based on local and scientific knowledge of climate variability and its likely effects. Local knowledge will include information about trends and changes experienced by the communities themselves and strategies they have used in the past to cope with similar shocks or gradual climate changes, or to mitigate threats and impacts. The contracted organizations will then support community-level participatory appraisals and community action plans, which promote fairness, equity, and transparency. These facilitating organizations will assist beneficiaries to identify and design appropriate investment plans that show clear linkages to the findings of the climate change appraisals. These organizations will also help build the technical and organizational capacities of communities to manage and implement their investments.

COMPONENT 3: NATIONAL COORDINATION (preliminary costing: US$1 million; proposed financing: US$0.5 million in IBRD financing $0.5 million in government co-financing)

This component will support the operating costs of the National Coordination Unit (NCU), responsible for national investment oversight. Support will also be provided to the NCU for national-level coordination, procurement, financial management, reporting, safeguards oversight, and monitoring and evaluation. In addition, this component will support activities by the NCU in relation to Component 1, including participation to the Information Platform, Climate Investment Assessment Mechanism, and Outreach and Coalition Building at national level.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04	x		
Forests OP/BP 4.36	x		
Pest Management OP 4.09	x		
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10		x	

Involuntary Resettlement OP/BP 4.12		x	
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50	x		
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	15.00	Total Bank Financing:	10.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	5.00
International Bank for Reconstruction and Development	10.00
Total	15.00

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