INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC8424

Date ISDS Prepared/Updated: 29-Apr-2014

Date ISDS Approved/Disclosed: 13-May-2014

I. BASIC INFORMATION

A. Basic Project Data

Country:	Kazakhstan	**Project ID:**	P150402
Project Name:	Kazakhstan: Fostering Productive Innovation Project (P150402)		
Task Team Leader:	Karen Grigorian		
Estimated Appraisal Date:	16-Jun-2014	**Estimated Board Date:**	31-Oct-2014
Managing Unit:	ECSPF	**Lending Instrument:**	Investment Project Financing
Sector(s):	General industry and trade sector (100%)		
Theme(s):	Other Private Sector Development (100%)		
Financing (In USD Million)			
Total Project Cost:	120.00	Total Bank Financing:	100.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	20.00
International Bank for Reconstruction and Development	100.00
Total	120.00

Environmental Category:	B - Partial Assessment
Is this a Repeater project?	No

B. Project Objectives

The PDO is to promote high-quality, nationally relevant research and commercialization of technologies.

C. Project Description

Building on the visible achievements under the TCP project, the new operation would expand and adapt the range of instruments used in the TCP and offer new programs for financing innovation to complement similar pilot innovation programs introduced by the government in recent years.

Component 1 - Development of the Knowledge Base for Innovation ($40 million): This component will finance:

a) Grants to research teams ($30 million). Based on the TCP project, the sub-component will finance two types of grant instruments for eligible R&D ideas: one for young researchers (a continuation of the Junior Researcher Group Program) up to $0.6 million each and one for internationally recognized researchers up to $1.5 million each (a continuation of the Senior Scientist Group Program). Grantees must incorporate themselves as companies. Semiannual research progress is monitored by the ISCB through field visits. The eligibility criteria would include new features, such as emphasis on proven interest/partnership of private/corporate sector in the proposed research, researcher/company co-financing. The grant could finance laboratory equipment, workshops, visiting scholars, etc.

b) PhD training abroad in technical areas strategic for Kazakhstan's economy ($10 million). This may include expansion of the Bolashak education program supporting PhD-level training and/or a pilot higher education consortium between Kazakhstan and a relevant Western university of excellence such as London's Imperial College or the Colorado School of Mines. The Bolashak program is about providing education grants for Kazakhstani students to pursue Master's, PhD, residency and internships in foreign universities based on an approved list of priority education areas/ specialties. The project would finance support of joint international research activities for student already abroad, potentially with KZ diaspora.

Component 2 –Design of Innovation Consortia (technology platforms and engineering centers) ($35 million): This component will finance establishment of innovation consortia to promote collaboration among the existing scientific research institutes and design bureaus. Selection of suitable laboratory facilities in Kazakhstan to form a consortium will be done through open competition which mandates international collaboration and the co-funding of users and clients as prerequisites. The grants would be awarded for consortia addressing strategic problems relevant for Kazakhstan's future (related to energy, minerals, metallurgy and agriculture). The winners would receive MoES grants for upgrading to international standards. The grant conditions would allow purchase of additional equipment, renovation and, among others, would require adoption of good laboratory practices, international certification and launching and maintenance of peer reviewed journal for Senior and Junior Research Groups. It is expected that up to 10 user-driven innovation clusters would be developed between major Kazakh and global companies, including multinationals involved in oil and gas drilling in the country. The IMSC is one example of such consortium in the current project, although institutional configurations of consortia are expected to vary. A Call for Proposals could include a separate window to promote research and technology commercialization projects with the highly successful Kazakh diaspora working in the West.

Component 3 – Consolidation of the Technology Commercialization Cycle ($35million): This component would draw on the activities of the TCP, utilizing results of technology audit, technology commercialization grants program and comprehensive R&D regulatory framework review. In addition to TCP experience, this component would draw upon technology commercialization programs developed by the Ministry of Industry and New Technology (MINT) and other government agencies. It would include the following three sub-components and finance the following activities:

a) Innovation matching grants to provide early stage support for commercialization of R&D results ($20 million). This sub-component would draw on the existing grant program of NATD (National

Agency for Technology Development). The detailed design will be determined during preparation.

b) Funding program for innovative SMEs at the early stage of incubation of a firm for (i) Concept Development Grants (to support preparation and development of innovative business concepts, strategies, studies and plans in order to then attract external investment in their business by addressing key areas of risk) up to the amount of US$15,000 and (ii) for Equity Investment up to US $1 million ($13 million). This activity will finance developing a private-public venture fund for technology companies with a significant private sector contribution. It will be done in the form of a public contribution towards establishing a Venture Fund, including management team remuneration. The design options of the fund will be discussed with the client during the preparation mission.

c) Technology Acceleration Office Abroad ($2 million) to establish an office located at a recognized center of excellence in technological innovation in one of the two major markets for Kazakhstan technology commercialization (Silicon Valley, CA, Austin, TX, USA or Moscow or Skolkovo, Russia).
d) Network of Technology Transfer Offices (TTO) at major Kazakh universities ($10 mln). This sub-component will enhance capabilities of existing TTOs with an objective to reach a critical mass of technology commercialization and transfer capabilities within a coherent network of 5-6 capable TTOs. Operating in concert with innovation matching grants (sub-component 3a), this sub-component will facilitate an adequate deal flow for the venture fund (sub-component 3b). It will finance goods and services (training, study tours) to upgrade capabilities of TTOs.

Component 4 - Innovation Council ($5 million): Assure better coordination of the Innovation System between key stakeholders of National Innovation System, including mainly the Ministry of Education & Science, Ministry of Industry & New Technologies, Ministry of Agriculture, and Ministry of Oil & Gas. The Council would benefit from collaboration and advice from the International Science and Commercialization Board under TCP. This component would draw on the experience of inter-agency Innovation Councils in such countries as Chile and Finland. The component would finance TA to set up the Council and build-up its capabilities and operating costs of running the Council. This is a pilot component (it can be dropped after discussions with the counter-part).

Component 5 - Project management, monitoring and evaluation, awareness raising and capacity development ($5 million): During preparation, the team will take into consideration earlier requests of MOES regarding TCP implementation arrangements in terms of expanding institutional learning stemming from project implementation to its subsidiary organizations such as the Science Fund or Science Committee that are directly responsible for R&D quality and technology commercialization and have more flexibility and capacity in terms of implementation. For example, the team will be looking into the practicality of the MOES delegating the responsibility for implementing certain components to other entities under the auspices of the MOES (for example, the Science Fund, TCO under the TCP, IMSC).

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project is expected to cover entire country with matching grants and SME support, including equity investments for all eligible entities in Kazakhstan. The project would target work and R&D that addresses strategic problems related to key sectors such as energy, minerals, metallurgy and agriculture. Project would also include developing and providing public funds for a private-public venture fund for technology companies all around the country. The project will provide grants to

upgrade the chosen facilities (laboratories) to international standards. Some facilities might be located in buildings of high cultural value.

E. Borrowers Institutional Capacity for Safeguard Policies

While the implementation arrangements for this operation have not yet been confirmed in detail, there is the expectation that they will, to a large extent, build upon the implementation arrangements already set up for the management of the existing Technology Commercialization project (TCP). Objective of TCP is promoting high quality research, fostering industry-R&D linkages and the commercialization of promising R&D outputs. TCP is category B project and has EMF. The team will propose to the authorities that the MOES would be the implementing agency (same as for TCP) with the possibility to delegate operational management of the project to the Science Fund, a joint-stock company owned by the MOES, as the implementing entity. The current PMU of the TCP would be integrated into the MOES as a separate unit. Overall quality oversight of the project would be assured by a project steering committee led by the Vice Minister of Education and Science and comprising two Directors in the MOES and representatives from other agencies (e.g. Science Committee, Science Funds). Fiduciary and safeguards aspects of the grant would be managed by the PMU of the MOES, which has relevant staff with adequate training and WB experience, including an environmental specialist. It is envisioned that the MoES may delegate the responsibility for implementing certain components to other entities under the auspices of the MoES (for example, the Science Fund, TCO under the TCP, IMSC).

In addition, the government has expressed interest in setting up a higher level Innovation Council, so as to ensure political support for the objectives of the project. Quality assurance would be provided by an external advisory board (ISCB) as well as a stakeholder group to ensure that all actors, public and private, can express their views on the design and implementation of the project.

Although client's institutional capacity is generally weak (little experience of collaborative projects, little experience of international R&D collaboration, highly fragmented innovation system), there are important exceptions created by the current TCP project. Nevertheless, to this point TCP project has not supported any activity that would trigger the use of EMF. This implies that additional safeguards training would need to be organized for MOES, PMU and other participating agencies during project preparation and if needed during implementation.

The implementing agency safeguards capacity assessment as well as of other participating entities, will be in more detail assessed during preparation of the project. Training and capacity building plan will be part of the EMF and will be agreed to bring the MOES's/PMU's into full compliance with the World Bank requirements and improve their capacity to implement the project.

F. Environmental and Social Safeguards Specialists on the Team

Lola Ibragimova (ECSSO)

Natasa Vetma (ECSEN)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	The Environmental Management Framework will be prepared prior to appraisal and will define environmental procedures and due

		diligence for the project as a whole. The EMF will be built on existing TCP and Croatian Science and Technology Project II, which covers similar types (wide range) of research activities. For Component 1, Grants to research teams, Component 3, Innovation matching grants to provide early stage support for commercialization of R&D, and for Funding program for innovative SMEs to provide matching equity, an EMF will be developed focusing on variety of environmental impacts that come from R&D sectors. Sub-projects might range from low to high category B projects, implying possible preparation of various due diligence documents like: EIA, EMP, EMP checklist, for which criteria will be defined in EMF. Category A projects will be excluded, as well those listed on IBRD non-eligible project list. For smaller rehabilitation expected under category 1-3, EMP checklist for rehabilitation will be prepared and template will be part of the EMF. The EMF will make sure that the implementation of the project complies with both National and WB safeguards procedures.
Natural Habitats OP/BP 4.04	No	The project will not support R&D activities in protected areas or natural habitats of high value.
Forests OP/BP 4.36	No	The project will not support R&D activities in / on forests.
Pest Management OP 4.09	No	
Physical Cultural Resources OP/ BP 4.11	TBD	Project might support rehabilitation of buildings that are protected. The list of sites should be known prior the appraisal.
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	TBD	At this stage the team had preliminary discussion with the borrower where the client indicated willingness to exclude any activities that would involve land acquisition and do not meet “willing buyer/willing seller” criteria. The PMU would be responsible for confirming (as part of sub-project screening) that in any such case the seller was free to decline selling the land and also that any land purchased in this way was free of 'encumberances" that could

		include informal occupants. The team will proceed with further discussion to ensure the client understands the screening criteria as well as the provisions of OP. 4.12 and the RPF if one is to be prepared.
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 20-Jun-2013

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS:

EMF and RPF will be prepared for the project and disclosed prior to project appraisal.

IV. APPROVALS

Task Team Leader:	Name: Karen Grigorian	
Approved By:		
Regional Safeguards Coordinator:	Name: Agnes I. Kiss (RSA)	Date: 13-May-2014
Sector Manager:	Name: Paloma Anos Casero (SM)	Date: 13-May-2014

Public Disclosure Copy

[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.