Program Information Document (PID)

Concept Stage | Date Prepared/Updated: 22-Jan-2020 | Report No:

BASIC INFORMATION

A. Basic Program Data

Country	Project ID	Parent Project ID (if any)	Program Name
Kazakhstan	P170270		Kazakhstan Smart Cities and Artificial Intelligence (SCAI) Program
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Does this operation have an IPF component?**
EUROPE AND CENTRAL ASIA	19-Oct-2020	15-Dec-2020	No
Financing Instrument	**Borrower(s)**	**Implementing Agency**	**Practice Area (Lead)**
Program-for-Results Financing	Ministry of Digital Development, Innovations and Aerospace Industry	Nazarbayev University	Digital Development

Proposed Program Development Objective(s)

The Program Development Objective is to improve the accessibility and quality of data-driven public and private service delivery in Kazakhstan, including in selected cities.

Achievement of the PDO will rely on the development of a conducive data and AI enabling environment, data infrastructure, digital skills and private investment.

The long-term impact that the Program intends to achieve includes leveraging data and AI for inclusive and innovative growth, enhanced transparency and quality of public services, increased private sector investment, and improved urban livability.

COST & FINANCING

SUMMARY (USD Millions)

Government program Cost	1,198.70
Total Operation Cost	650.00
Total Program Cost	650.00
Total Financing	650.00
Financing Gap	0.00

FINANCING (USD Millions)

Total World Bank Group Financing	500.00
World Bank Lending	500.00
Total Government Contribution	150.00

Concept Review Decision

The review did authorize the preparation to continue

B. Introduction and Context

Country Context

1. **The global Coronavirus pandemic (COVID-19) is affecting Kazakhstan disproportionately, even though so far, the health impact has been less severe than in China or Western Europe**. Like other economies, the reduction of trade, travel and social contacts will shock Kazakhstan's economy. However, Kazakhstan will likely experience a double shock as, at the same time, oil prices have plummeted to around $30/barrel. This is the same level as in 2016 when Kazakhstan experienced its most recent economic shock from which it only recovered recently.

2. **This new economic context provides an even stronger impetus for Kazakhstan's economic rebalancing and diversification**. Data is quickly becoming the key resource of the 21st century, but just like the oil that fueled the economies of the 20th century, capacity and incentives are required to convert raw data into value. For such reason, Kazakhstan is investing in data infrastructure, analytical and decision-support tools, notably the most advanced such tools involving *Artificial Intelligence (AI) technologies*, and related human capital, to ensure its economy remains competitive and resilient, particularly in view of increasing global health and climate change-related risks.

3. **Kazakhstan is now preparing for its next economic transformation.** The future prosperity of Kazakhstan depends on the country's readiness to create an enabling data economy, which will require investments in digital infrastructure and human capital to develop new skill sets and a new mindset with an entrepreneurial ecosystem led by the private sector. Shifting toward a more sustainable economic model less reliant on fossil fuels, is becoming increasingly urgent since the negative oil price shock in 2015-16, from which Kazakhstan is still recovering. This led to a major currency devaluation that increased the budget deficit, lowered incomes, raised poverty levels, and saw a rise in non-performing loans requiring a series of bank bailouts.

4. **The Government of Kazakhstan (GoK) has established a 2025 development strategy to undertake this structural transformation**. The Kazakhstan 2025 Strategy is a strategic plan aimed at building a foundation for achieving goals assigned in Strategy 2050.[1] Technological innovation and digital transformation play an important role under the

[1] In December 2012 the Head of State in his address to the Nation presented the Strategy for development of the Republic of Kazakhstan until the year 2050. Its main goal is the establishment of a welfare society based on a strong statehood, developed economy and universal labor opportunities, as well as Kazakhstan's joining the thirty most developed countries of the world.

2025 Strategy. This includes higher enterprise productivity based on technology, digital infrastructure investments and enhancement of skills. With these investments, Kazakhstan wants to create a new economic sector oriented on digital platforms and data-driven business models. Adopted on December 12, 2017, by GoK Decree, the "Digital Kazakhstan" State Program (DKSP) (or "program" with small "p") is designed to ensure success for Strategy 2025, through the digitalization of public services and their internal activities, and the development of the private ICT services sector.

5. **Kazakhstan has a particular opportunity to leverage data to modernize and build resilience into the country's urban infrastructure**. The country's urbanization rate is Central Asia's highest, at 57 percent, and its urban infrastructure is aging. The country has 14 cities of over 200,000 inhabitants, evolving in what is a largely dated infrastructure. Furthermore, Kazakhstan's cities are particularly vulnerable to several climate change-related risks, notably urban flooding, water scarcity, landslides and extreme heat, in addition to other natural hazards, notably earthquakes, placing an additional burden on the infrastructure. Modernizing and building resilience into the urban infrastructure, supported on deployment of digital technologies, is key to Kazakhstan's leveraging its position to enable high value-added economic activities outside traditional natural resources and fossil energy sectors.

6. **The investments supported by this PforR would come at a time when regional economic dynamics play in Kazakhstan's favor.** The country would benefit from the economic opening of Uzbekistan and the Belt and Road Initiative (BRI), all of which would strengthen regional trade and transport services as well as regional digital connectivity. This will also open up new opportunities for regional cooperation in Central Asia, especially with respect to energy, trade and sharing water resources, all of which would be facilitated by investments in digital infrastructure and services.

Sectoral (or multi-sectoral) and Institutional Context of the Program

7. **Over the past decade, Kazakhstan has made impressive progress in digital development, but much remains to be done, particularly in relation to integrated digital delivery of services.** While the digital connectivity infrastructure has improved dramatically, both in accessibility and quality, especially in large urban areas, the entrepreneurial ecosystem and the service orientation of the public and private sectors are still lacking. For example, government agencies are reluctant to disclose information that can be used to create added value in the form of relevant open data and there are no mechanisms in place to enable business to government data sharing. There is also a problem of fragmentation and a lack of holistic integration of databases between government agencies. This undermines the effectiveness of government bodies. In the 2018 World Bank Worldwide Governance Indicators (WGI) in terms of government effectiveness Kazakhstan ranked 54th among 200 countries. Providing a holistic infrastructure for the exchange of data between government agencies and with the private sector would provide significant improvements in efficiency, the quality of decisions, and services to citizens.

8. **Great progress has been made in the area of communication infrastructure and Internet access, but there is still an access gap between urban and rural populations and a quality gap in terms of access to high-speed Internet, which limits access to digital services in rural areas.** Based on Kazakhtelecom data, fixed broadband penetration in Kazakhstan reached 50.4% of households in 2019 and will reach 52.1% in 2020. According to the Ministry of Digital Development, Innovation and Aerospace Industry (MDDIAI), in 2019 the country had access to broadband internet services in 117 cities and 3,324 rural settlements (roughly 50% of the 6,600 rural settlements in the country), served with fiber optic lines, 3G and/or 4G mobile communications. As part of the DKSP, an additional 1,250 rural settlements will be connected to fiber optic networks by 2022. This still leaves an important digital divide of over

2,000 rural settlements without internet access, some in remote and inaccessible areas, which require significant investments whose viability is further complicated by the country's large size and low population density.

9. **On the policy, legal and institutional front, Kazakhstan has been facing several challenges to protect the privacy of its citizens.** This is compounded by a regional trend of *data sovereignty,* whereby data is considered the prerogative of the state. To secure citizens' privacy and to ensure responsible use of both personal and non-personal data, and to enable a conducive environment to safely share personal and non-personal data among public and private entities, the GoK must adopt a robust data governance and privacy protection framework, with both appropriate enablers and safeguards. Such framework entails a strong data protection and data-sharing regime, including a conducive legal and regulatory framework and strong regulatory institutions, which facilitate portability, interoperability, and the safe sharing of public and private data, can spur more inclusive economic opportunities.

10. **The modern world makes high demands on urban infrastructure and urban service delivery.** Kazakhstan's large cities continue to face challenges pertaining to public transportation, technical and social urban infrastructure, the quality of the urban environment, the effectiveness of managing city development and delivering services, and the development of urban public, business and residential spaces, all while taking into account the increasing population of cities. In the UN's pilot assessment of cities under its e-government Survey 2019, the UN, Almaty, Kazakhstan's largest city, received a very low score of 3 points for key indicators such as service provision, participation and engagement. In contrast, Istanbul and Sydney received a score of 12 points, demonstrating a high level of quality of the public services provided and city-level services for their populations. Higher scores are generally associated with efficient planning and management of urban infrastructure and services, which increasingly rely on high levels of adoption of digital technologies by the cities.

11. **Kazakhstan also has an entrepreneurship deficit as startups and SMEs are caught between informality and competition from large SOEs.** Domestic digital startups and SMEs—the backbones of digital transformation and innovation—have contributed very little to Kazakhstan's economy (as measured by their share of GDP) relative to peers and other commodity-exporting countries (WB Country Economic Memorandum, 2019)**.** The start-up ecosystem is poorly developed; R&D activities and venture financing are scarce**.** This is especially the case in emerging specialties such as big data, AI, blockchain. For instance, based on World Bank TCData360 portal in R&D expenditures (% of GDP) in 2016 Kazakhstan had only 0.14% (world median 0.7%), in terms of Venture Capital Availability in 2017 Kazakhstan also ranked far below the world median with a score of 2.4 out of 7, in terms of Early-stage Entrepreneurial Activity (% of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business), Kazakhstan also experienced a year-on-year average decrease of -5.34% between 2007 and 2017. Another important issue from the gender equality perspective is that employment of women in industry (including ICT) in Kazakhstan as per cent of their total employment considerably lagged behind that of men (11.8% versus 30.2%) as of 2018 (at the same time, employment of women in the services sector was 74% of their total employment in 2018, as opposed 54.1% for men).

12. **The Government's "Digital Kazakhstan" State Program (DKSP), which brings multiple digital development initiatives together and serves as a platform for transforming Kazakhstan into a digital economy.** DKSP's main mission is to accelerate Kazakhstan's economic development and improve the quality of life of the population through the increased use of digital technologies, and as a result, Kazakhstan would transition from an oil economy to a data economy, with significant benefits for its population in terms of access to services and employment opportunities, among others. Conceived to be implemented over 2018-22, the DKSP supports digital development initiatives grouped into five pillars: (i) Digitalization of key economic sectors to increase labor productivity and

economic growth (industry and energy, transport and logistics, agribusiness, e-commerce and financial services); (ii) Transition toward a digital state to deliver services to the population and businesses, digitalize internal government procedures, and implement "Smart City" initiatives , starting with a number of selected pilot smart cities; (iii) Implementation of the "Digital Silk Road" with secure high-speed infrastructure for the transfer, storage and processing of data; (iv) Human capital development, including digital literacy initiatives aimed at students in secondary, professional and tertiary education, as well as for the general population; and (v) Creation of an innovation ecosystem, by supporting the creation of innovation platforms, the development of digital entrepreneurship, startups and research, the attraction of venture capital and the introduction of innovations into industry. DKSP is currently in the process of being extended in time and scope to incorporate a sixth pillar centered on AI, to enable the country to implement a step-change in decision-making and the delivery of services that take advantage of the exponential growth in data, which can't be leveraged effectively with more traditional analytical tools.

Relationship to CAS/CPF

13. **The proposed SCAI Program (or "Program" with capital "P") is fully aligned with, and directly contributes to the new Kazakhstan Country Partnership Framework CPF (FY20-25).** SCAI supports all CPF priority areas (inclusive growth, human capital, sustainability & resilience, and the cross-cutting area of efficient governance). In particular, under CPF Focus Area 1 (Promoting Inclusive Growth) the proposed SCAI will support Objective 1 (Strengthen Environment for Private Sector Development) and Objective 3 (Strengthen Connectivity Infrastructure and Regional Services Delivery for Better Local and Regional Integration), by enabling innovation, supporting private operators and transformation of the economy, and improving service delivery at the local level, respectively. GoK recognizes the need to diversify the economy and shift toward a more private sector led competitive economy; and connectivity is critical to expanding economic opportunities between the main cities and from rural areas to the main cities. Under CPF Focus Area 2 (Strengthening Human Capital), the SCAI Program will also support Objective 4 (Enhance Relevance, Quality, and Equity of Education and Skills Development), by strengthening university education and research. Finally, under Objective 7 (Preserve and Restore Natural Capital) of CPF Focus Area 3 (Securing Sustainable, Resilient, and Low Carbon Growth), the CPF notes that the SCAI Program may encourage both energy efficiency at the city level and research areas linked to climate and natural capital monitoring and modeling.

14. **The proposed SCAI Program will also directly contribute to the CPF Cross-Cutting Theme on Efficient governance with strengthened market and social institutions** by supporting Objective 8 (Support Evidence-based Delivery of Public Sector Reforms and Increased Stakeholders' engagement) through the use of a results-based approach to develop AI capabilities in Kazakhstan which would address policy, data collection, and storage and implementation of initiatives across sectors. In this context, the challenge is to support the GoK in shifting its approach from bureaucratic regulatory control and subsidies toward incentivizing the private sector and creating a service-oriented public service, with citizen engagement at its core. As part of support under the CPF for economy-wide institutional interventions, the SCAI Program will address the need for an enabling environment for the development of the national data ecosystem, including further developing the legal and regulatory environment and strengthening institutions, while improving public sector capacity to manage the delivery of public services.

15. **The proposed SCAI Program is also fully aligned with the World Bank Group's twin goals of ending extreme poverty and promoting shared prosperity**. Direct impacts will accrue from the Program's support to more transparent and efficient service delivery, both at the central level and in pilot smart cities, which will impact citizen's lives by making

services more accessible and of better quality, and from the Program's support to the development and growth of new business models built around data, including through startups and improvement of digital skills, which will contribute to generating employment, new opportunities for trade and overall productivity growth.

Rationale for Bank Engagement and Choice of Financing Instrument

16. SCAI combines opportunity and risk in equal measure. The World Bank can boost the potential while helping mitigate risks. Some ways to achieve this include the following:

- Leveraging international best practice to ensure a robust design, with a stronger focus on the enabling environment to amplify the impact while minimizing the risks of rolling out nationwide data infrastructure and AI.
- Emphasizing in the project design the importance of active engagement of the private sector and civil society, such as through bolstering entrepreneurship, reviewing PPP arrangements to strengthen private sector participation, redefining government data centers and the national data management system, a commitment to competitive procurement, and the rule of law, individual freedom, protection and openness, as central features.
- Incorporating the recommendations from the JERP activity on data management that preceded SCAI[2], which emphasized the need to ensure interoperability and openness as core principles, based on comparable experience in different countries, notably the OECD and EU principles on AI as the starting point to eventually develop comparable principles in Kazakhstan.
- Leveraging the Bank's long-standing engagement in Kazakhstan through digital economy TA and operations, as well as the Digital CASA regional program, and the Bank's global network of partners and experts.
- Supporting linkages with international firms and investors, to help Kazakhstan integrate more directly into the regional/global digital economy, by attracting international investors and firms into the country.

17. The proposed SCAI Program introduces Kazakhstan to the Program-for-Results (PforR) instrument for the very first time. With this PforR, the WBG would strengthen and scale-up the existing Digital Kazakhstan State Program (DKSP). The PforR instrument may be particularly suitable for the following reasons:

(i) The Program envisages a systematic transformation of a country that requires a large-scale programmatic intervention covering many themes/topics, ministries, and levels of government. PforR is a better fit than other instruments to achieve change on the scale envisaged.

(ii) It is important to ensure that the large infrastructure investment requirements of the operation produce measurable results. PforR is a powerful tool to reorient counterpart thinking toward outcomes.

(iii) The Program envisages essential shifts in the legal, regulatory, and institutional environment with a premium on implementation. The verification protocols required by PforR, can serve as a positive nudge for the government as well as a tool to mitigate several risks associated with the project.

(iv) The PforR is the most effective instrument to strengthen government programs and systems, providing flexibility with controls built in for quality. Poor execution of government programs in terms of underbudgeting, poor disbursement rates and a lack of incentive mechanisms for implementing agencies to achieve results, has been a consistent issue in Kazakhstan—and also the case with regard to the DKSP. The use of the PforR instrument will help address this issue by linking the provision of finance to priority results and rewarding the implementing agencies for results achieved. This will have an impact beyond the PforR Program boundary and improve the performance of the DKSP program as a whole.

[2] Joint Economic Research Program (JERP) is Kazakhstan's programmatic RAS program. The activity referenced was aimed at helping the Government in developing effective mechanisms for the creation and implementation of a unified state information-analytical data management environment.

(v) The choice of PforR will enable strengthening the design of the Program by focusing on short, medium-term and strategic priorities, and existing country systems, and enabling the phased expansion of the Program beyond the pilots to increase its development impact.

C. Program Development Objective(s) (PDO) and PDO Level Results Indicators

Program Development Objective(s)

18. The Program Development Objective is to improve the accessibility and quality of data-driven public and private service delivery in Kazakhstan, including in selected cities.

19. Achievement of the PDO will rely on the development of a conducive data and AI enabling environment, data infrastructure, digital skills and private investment.

20. The long-term impact that the Program intends to achieve includes leveraging data and AI for inclusive and innovative growth, enhanced transparency and quality of public services, increased private sector investment, and improved urban livability.

PDO Level Results Indicators

21. At the stage of technical identification, a preliminary results framework has been defined, with key development outcome indicators and intermediate outcome indicators, including proposed DLIs.

22. Proposed PDO-Level Results Indicators include:

(i) % entities (public and private) integrated to the data infrastructure at national and city level and actively using it for delivery of data-driven services
(ii) % citizens and businesses using data platforms developed under the Program
(iii) Improved accessibility and quality of services provided by the cities in the Program, as evidenced by increased citizen satisfaction with the services delivered
(iv) Increased private investment in data and AI-enabled businesses (mln. USD)

D. Program Description

PforR Program Boundary

23. The main partners in the implementation of the SCAI Program are the Ministry of Digital Development, Innovation and Aerospace Industry (MDDIAI) and Nazarbayev University (NU). The MDDIAI is the state body of the GoK that provides leadership in the fields of aerospace and electronics industries, and in innovation, and scientific and technical development, surveying and cartography, ensuring information security in the field of informatization, leadership in the field of communications, information, "electronic government", and the development of public policy in the provision of public services online. The MDDIAI has four main institutes: (i) the “Aerospace Committee”; (ii) the “Committee on information security”; (iii) the “Committee of telecommunications”; and (iv) the "Committee of Geodesy and Cartography."

24. Nazarbayev University, created on the initiative of the President of the Republic of Kazakhstan in 2010, is the country’s flagship higher education institution, aimed at becoming a research university of international level. NU is

the first university in Kazakhstan whose activities are based on the principles of autonomy and academic freedom. Autonomous status was assigned to the university in accordance with the Law of the Republic of Kazakhstan dated January 19, 2011 "On the status of Nazarbayev University". In 2019, the Artificial Intelligence Fund was created under NU to attract the world's leading manufacturers of AI solutions to Kazakhstan. The purpose of the Fund is the development of AI in Kazakhstan in the educational, research, scientific, technical, social, cultural, innovative, managerial spheres, and sustainable development.

25. The main government program (small "p"), which will be supported by the SCAI PforR Program (capital "P"), is the "Digital Kazakhstan" State Program (DKSP). However, a number of associated digital economy expenditures currently outside the scope of the DKSP, as well as planned amendments to the DSKP, are also considered as part of the overall government program for the purposes of defining the PforR Program boundary, notably those linked to the 2025 development strategy, as per the table below. The proposed SCAI PforR Program will support a subset of expenditures of the Government's program, those that directly support Smart Cities and AI, and related data initiatives. The current expenditure framework of the government program and the proposed SCAI Program is:

Table 1. Planned and actual government expenditures for the digital economy

Expenditure	2020*	2021*	2022*	2023*	2024*	**Total**
Exchange rate: Kazakhstani tenge/US$**	387	387	387	387	387	
Current Planned *State Program* expenditures (DKSP), US$ million	267.7	226.3	217.7	-	-	711.7
Future Planned *Amended State Program* expenditures (Amended DKSP), US$ million	479.2	348.4	341.9	232.4	232.4	1634.3
Total Government program (small "p")	479.2	348.4	341.9	232.4	232.4	1634.3
Of which, planned government SCAI Program expenditures, US$ million	*231.5*	*135.0*	*116.5*	*87.0*	*80.0*	*650.0*
Total SCAI Program financing (capital "P")	231.5	135.0	116.5	87.0	80.0	650.0
Of which WB financing	190.0	100.0	90.0	60.0	60.0	500.0
Share of SCAI expenditures	82.1%	74.1%	77.3%	69.0%	75.0%	76.9%

* Estimated.
**Exchange rate used for the budget in 2020–24.
^ Estimated minimal expenditures
^^ Budgets of local akimats, Samruk-Kazyna state fund subsidiaries, budgets which are not included in DKSP such as Digital healthcare initiatives and Cybeshield program (estimated average minimal value of expenditures)
^^^ Investments of private companies in mining (ERG) and etc.

26. During project preparation, the WB and the GoK will agree on the disbursement-linked indicators (DLIs), which cover their technical scope, targets, and values. The proposed PforR will have about eight DLIs related to the results areas.

Table 2. PforR Program boundary

	Government program	Program supported by the PforR (PforR Program)	Reasons for non-alignment
Objective	Development of the digital economy	Leverage data and AI for economic development	PforR Program is a subset of the GoK program
Duration	2020-22	2020-25	Alignment expected before appraisal, as GoK program being amended and extended
Geographic coverage	The whole country	The whole country, except the Smart Cities pillar, focused on three pilot cities	Smart Cities pillar is scalable, testing solutions in three pilot cities, prior to replication.
Results areas	(i) Digitalization of key sectors (ii) Digitalization of services (iii) "Digital Silk Road" (iv) Human capital dev (v) Innovation ecosystem (Planned pillar vi on AI)	RA1) Legal and regulatory enabling environment for data and AI RA2) Digital foundations and public sector capacity for AI- and data-driven service delivery RA3) Private sector and research capacity for AI- and data-driven service delivery RA4) Provision of data-driven 'Smart' public services in cities	RA1 is cross-cutting and supports all pillars RA2 supports partially pillars ii and iii on infrastructure, as well as Pillar iv on skills RA3 supports partially Pillars iv and v on research and private sector capacity RA4 supports Pillar ii on Smart Cities All RAs support the future Pillar vi on AI
Overall Financing	US$1.6 billion	US$650 million, of which US$500 million is WB financing	

E. Initial Environmental and Social Screening

27. Based on the initial screening of the national legislation and regulation, the environmental management system is well defined. The Environmental Code of Kazakhstan adopted in 2007, with the most recent changes adopted in 2018, is the principal law that regulates relations in the field of protection, restoration and conservation of the environment, and the use and reproduction of natural resources in the implementation of economic and other activities related to the use of natural resources and environmental impact within the territory of the Republic of Kazakhstan. As Program becomes better defined, the World Bank will begin working with the MDDIAI, Nazarbayev University, and other relevant parties to determine their capacity for implementing the national system within the Program Boundaries. The environment risk is Moderate because the proposed interventions are primarily upstream and technical with little civil work envisaged. The civil works that might result involve rehabilitation of existing structures; new buildings on existing campuses; and installation of new data/communications infrastructure, primarily along existing utility lines. The risks from such interventions are well known and easily mitigable. The risk rating will be re-assessed prior to appraisal when the full extent of the Program Boundaries and Disbursement Linked Indicators are known**.**

28. PforR demands an assessment of the environmental and social systems (ESSA) from the Program's interventions perspective; and identify gaps (if any) and the risks thereof which need to be addressed so as to ensure sustainable environmental and social benefits. The ESSA is prepared by the World Bank's task team and the results are discussed with and endorsed by the borrower. There are two broad spheres emanating social risks. One due to construction activities' and other, related to information privacy. As regards the former, the Program will finance buildings and fiber optic networks. This would require lands. At this stage, the specific locations of the sub-projects are not known

but the Program does not expect involuntary acquisition of lands. The buildings are expected to be constructed on available government lands and the cables will be buried along the roads and power transmission lines using the right of way. However, the physical infrastructure activities under the Program include the excavation and back-filling operations required to install underground OFC, which may lead to the partial or temporary loss of productive assets (agricultural crops and fruit trees), land requirements, partial loss of ornamental vegetation, and temporary limitation of access to commercial and institutional establishments and residential properties. These activities are likely to involve downstream implications that could affect individuals and/or communities in different ways. The Program by design will avoid activities that may involve physical/ economic displacement and/ or loss of structures.

29. As regards information privacy, it relates to: access, use and collection of data, and the data subject's legal right to the data. This encompasses the following elements: (i) prohibiting unauthorized access to, and inappropriate use of, private data; (ii) ensuring accuracy and completeness of the data; (iii) availability of the content and the data subject's right to access (ownership); and (iv) rights to inspect, update or correct these data. One should recognize that privacy also implies trust and security which are governed by laws and ethics. Given the ever-emanating technology advances, the Program needs to recognize that protecting data privacy is paramount important, however much it may be complex. Safeguard measures need to be put in place to ensure that citizens are fully informed of the various contours and the risks in a transparent and easily accessible environment. Relevant data privacy policies, standards, guidelines and processes are appropriately put in place/ enhanced, communicated and complied with, and effective mitigation measures are implemented. The policies or standards need to be ethically consistent and socially acceptable. The Bank's task team will work with the Government of Kazakhstan and the citizens towards addressing this issue. Overall, at this stage, social risk is rated substantial.

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