

PARTNERSHIP FOR MARKET READINESS (PMR)

Kazakhstan's Proposal for Targeted Technical Support



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Section I. Overview: Policy Landscape and Domestic Emissions Trading Scheme

1. Overall Policy Landscape

Describe Kazakhstan’s overall policy landscape as it relates to climate mitigation, and explain the role and rationale for using market instruments to achieve any greenhouse gas mitigation goals.

At the 18th session of the Conference of the Parties (COP 18) to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2012 in Doha (Qatar), Kazakhstan declared its intention to join the list of Annex B countries of the Kyoto Protocol for the second commitment period, with a target to reduce its Greenhouse Gases (GHG) emissions by 5% from 1990 levels. Preliminary estimates, however, unveil significant challenges for the country to meet this target as it is anticipated that GHG emissions could reach 1990 levels as soon as 2017.

At the core of Kazakhstan’s engagement to tackle domestic GHG emissions, is the “*Concept for Transition of the Republic of Kazakhstan to Green Economy*” which was approved by President Nazarbayev on May 30, 2013. The Concept, which synthesizes the results of the available literature related to Kazakhstan’s sustainable development as well as the State’s existing development plans, is internationally regarded as a modern means to leverage the country’s transition to sustainable development. The energy intensity of the economy per unit of GDP is one of the main indicators for the country’s low carbon economy put forward in the concept, with a decrease of 25 percent by 2020, 30 percent by 2030, and 50 percent by 2050. These targets, also laid out in other important strategic programs such as the 2050 Strategy, will require the development of renewable energy sources, significant switching from coal to gas in thermal power stations, and improved energy efficiency in industrial facilities. On 31 July, 2013, the Ministry of Environment and Water Resources (MEWR) developed and approved the “Action Plan for implementation of the Concept of the Transition of the Republic of Kazakhstan to the “Green Economy” for 2013 - 2020.” This action plan includes a series of measures to support and implement the Green Economy Concept, through the sustainable use of water resources; sustainable development and highly productive agriculture; energy saving and energy efficiency; development of the electric power industry; improvement of waste management and reduction of air pollution; emissions reduction in the transport sector and effective management of ecosystems.

Besides the Concept for Green Economy, other major domestic policies which may affect Kazakhstan’s GHG emissions were also recently established:

- A National Emissions Trading Scheme (ETS) was introduced in December 2011 as the country’s main instrument to regulate domestic GHG emissions, and drive the development of low-carbon technologies, energy efficiency, and renewables. The first National Allocation Plan (NAP 2013) covered 178 companies and set a total emissions cap at 147.2 million tons of CO₂; the second NAP for the years 2014 and 2015 covers 166

enterprises with caps of 155.4 and 153 million tons of CO₂, respectively.

- The Law "On energy saving and energy efficiency" adopted in 2012 establishes a set of rules and requirements related to energy efficiency and saving for new construction and renovation of existing buildings.
- The Law "On supporting the use of renewable energy sources" amended in July 2013 aims to incentivize the use of renewable energy, support potential investors in renewable energy project development, and increase transparency and clarity in the implementation of renewable energy projects.

2. Emissions Trading Scheme (ETS): Key Features

Provide a short description of the current ETS design and any plans for review and revision going forward.¹

Kazakhstan incorporated the ETS into its National Ecological Code in December 2011, thereby including a legal foundation for establishing an ETS in Kazakhstan. Prior to the start of the ETS in January 2013, 30 subsidiary acts, 17 Government Decrees and 13 Ministerial Orders were also adopted as secondary legislation to regulate the system's governance and operations. The ETS covers all major enterprises in key sectors that emit over 20,000 tons of CO₂ per year.

Over the past two years, intensive work has been carried out to prepare for ETS operation, including the collection of GHG data, the development of the technical infrastructure for monitoring, reporting and verification (MRV), and the development of data management systems and a transaction registry.

Phase I of the ETS (2013) was a pilot year; the 178 companies it covered - from the power, oil and gas, mining, and chemical industry (55% of the country's GHG emissions) - were required to stabilize their 2013 CO₂ emissions at 2010 levels, and would incur no penalty for non-compliance. The covered entities received a free allocation of emission allowances and were allowed to use domestic offsets on an unlimited basis for compliance purposes. This pilot year notably allowed for the enhancement of market infrastructure, including several upgrades to the registry software, the selection of the trading platform, and the development of related market oversight. Notable developments related to MRV included 40 sectoral guidelines for GHG calculations and reporting, and the accreditation of eight auditing companies to perform third-party verification of GHG data.

The NAP for phase II (2014-2015) was adopted in December 2013 and assigns reduction targets of 0% in 2014 and 1.5% in 2015 from their average CO₂ emissions over 2011-2012. It is expected that phase III will run from 2016 through to 2020.

There are number of challenges currently facing the ETS which need to be addressed over phase II. These include a number of discrepancies and gaps in the ETS legislative framework, allocation method, work performed by the independent accredited entities (i.e., verifiers), and the fiscal

¹As a reference, see Annex III of the PMR note [Targeted Technical Support to Kazakhstan](#).

regime of emissions allowances. Some of these issues are currently being addressed, notably through the introduction of amendments to legislation. However, a number of others still require significant engagement, effort and capacity.

Section II. Building Foundations for ETS Design and Implementation

1. Challenges Facing ETS and Support from Technical Assistance Programs

Each section should include the following elements as relevant:

- *Key challenges to or gaps in ETS development, operations and enforcement;*
- *Any past, on-going, or planned support from donor countries and/or development agencies.*

i. Policy analysis: laying the ground work for ETS introduction

Economy-wide and sector analysis of GHG emissions trajectories, abatement opportunities, and the costs and benefits of different development scenarios may be performed before the introduction of low carbon policies. This requires access to data, development/use of specific tools, and integration of the analysis into economic planning. Describe the ad-hoc policy analysis work that has been carried-out to date, if any. Are there gaps in policy analysis that need to be filled?

Support to MEWR on upstream policy analysis has been provided by both local and international experts:

- Domestic driven initiatives include the joint work of Nazarbayev University (Research and Innovation System - NURIS) and JSC ‘Zhasyl Damu’ (operating arm of MEWR) on the country’s emission trajectories up to 2020 and abatement opportunities using econometric modeling. In addition, NURIS developed the TIMES KAZAKHSTAN model in preparation of Kazakhstan’s Third National Communication to UNFCCC (III-VI) and used it to draw emissions development trajectories under different scenarios up to 2030, taking into account current, and some additional, mitigation measures.
- Internationally-supported initiatives include:
 - A study commissioned by the European Bank for Reconstruction and Development (EBRD) on the determination of Kazakhstan’s MACC to explore investments opportunities in the country (see: The Demand for Greenhouse Gas Emissions Reduction Investments: An Investors’ Marginal Abatement Cost Curve for Kazakhstan (October 2011));
 - An assessment of the costs of mitigation actions and the opportunities for investments in the energy and transport sectors, based on the Long Range Energy Alternatives Planning System (LEAP) model fed with country specific data. The project is supported by the Asian Development bank (ADB) and will also lead to the formulation of Nationally

Appropriate Mitigation Actions (NAMAs);

- Development of a Green Growth Strategy for Kazakhstan supported by Germany (DIW Econ) based on a dynamic CGE-model including 22 economic sectors. This work was carried out under the project “Integrated Approach for the Development of Climate-Friendly Economies in Central Asia”;
- Review of mitigation opportunities in the oil and gas sector and workshops on the fundamentals of an ETS, supported by Norway (through Carbon Limits). The project involved MEWR and companies in the oil and gas industry.
- An analysis of the macro-economic and sectoral impacts of NAP 2014-2015 supported by Germany (DIW Econ) (on-going). The project involves MEWR and the Ministry of Economy.

In spite of the above developments, there is a critical need for placing the ETS in:

- The longer term and assessing its impact on the country’s emissions targets, key sectors and overall economy. Such analysis would be particularly important for the regulated companies to get a longer-term vision of the efforts required, and for Kazakhstan to envisage linking with other systems;
- The overall domestic policy context - in order to better comprehend interactions with other policies which directly or indirectly affect Kazakhstan’s GHG emissions. These include energy policies such as those promoting energy efficiency and the development of renewables, or other policies such as the “State program for accelerated industrial innovative development” which mandates fast economic expansion and growth in energy production and will therefore also be detrimental to the country’s emission trajectory.

Under USAID’s Kazakhstan Climate Change Mitigation Program (KCCMP), launched in October 2013, activities will be carried out to strengthen coordination and harmonization of the Law on Energy saving and ETS. However, the MEWR needs further support to develop the infrastructure and capabilities to fully integrate the ETS in the overall policy context.

ii. Key ETS design elements

The main design elements consist of ETS coverage and scope, cap setting, allocation plans and methodology (e.g., benchmarking), use of offsets and other cost containment measures, and linking perspectives. Such considerations may require up-front analytical assessment, notably taking into account the interplay between the ETS and other public policies which have an impact on GHG emissions such as industrial development, energy efficiency, or low carbon generation support. Describe the status and challenges met when designing the ETS.

One of the major challenges with Kazakhstan’s ETS design is the methodology for allowance allocation which is currently based on historical emissions. This methodology has met strong resistance from businesses during the development of the NAPs, notably because it does not take into account the special circumstances of different sectors or facilities. In addition,

historical data were often unreliable due to some discrepancies in the MRV system in place. These are the main reasons why the MEWR plans to introduce benchmarking in phase III, from 2016 onwards. The development of sectoral benchmarks requires, however, significant human and financial resources. Norway is currently supporting Kazakhstan with the development of benchmarks specific to the oil and gas sector. The same program will also develop a roadmap by spring 2014 laying out recommendations and milestones for the development of benchmarks in other sectors such as power, manufacturing and metallurgy. The EBRD supports the development of energy efficiency benchmarks in the steel, cement, and aluminum sectors in collaboration with the Ministry of Industry and New Technology (outcomes expected mid-2014). Further support will be needed to complement and finalize these developments in order to fully address the need for benchmarks across all ETS sectors.

Another key challenge for Kazakhstan's ETS more specifically pertains to the power sector, which is the major source of GHG emissions in the country. The sector is characterized by outdated production capacities with costly technology upgrading requirements, strong potential for energy efficiency gains and strong regulation under an antimonopoly agency in charge of electricity tariffs. The power sector is therefore particularly vulnerable and should be treated as such in the ETS design and legislation. Amendments were made to the "Rules of changing quotas and revalidation of certificates for GHG emissions" in order to allow companies to apply for additional free allowances if this is justified by early technology upgrades. This, however, provides fewer incentives to generate GHG abatements, trade allowances, or invest in offset projects. Another issue relates to the inclusion threshold, currently set at 20.000tCO₂ per year which may lead to small power plants incurring high transactions costs (e.g., monitoring documentation, costs of verifiers).

The development and operationalization of the domestic offset program will also be key to the success of Kazakhstan's ETS. As of today, the legislation sets out overall procedures for the development review, approval and implementation of offset projects. However, there are no methodologies, tools, or guidelines to allow for concrete projects to be developed. Norway and USAID's KCCMP project will support the development of several offset protocols as well as the overall operationalization of the program. In addition, the EBRD directly supported some companies with the development of offset projects within their operations.

iii. ETS technical infrastructure

The technical infrastructure supporting the ETS may include data management and registry/tracking tools, as well as the Monitoring, Reporting, and Verification (MRV) system. Describe progress on infrastructure development and the gaps in development that still need to be filled.

There have been significant developments related to the MRV framework, registry and data management systems in the past few years. However, critical challenges remain in the very short term horizon in order to operationalize this infrastructure.

Firstly, current MRV regulation still contains inconsistencies which need to be corrected. Amendments to the Monitoring and Reporting Regulation (MRR), and Accreditation & Verification Regulation (AVR) are currently being reviewed and debated. Norway's bilateral program supports such a review. With regards to MRV procedures and tools, 40 sectoral guidelines for GHG monitoring and reporting have been developed to date. Monitoring

templates are also available for the oil and gas, refineries and more generic sectors. Work is still on-going – with support from Norway and USAID – in order to cover all the ETS sectors. It is also envisaged that reporting based on paper documents – which is time, resource, and space consuming – is handled electronically. However, this would require financial resources and specialized IT skills which are currently missing. The verification framework is also not fully in place yet; the absence of a methodology and guidance for conducting verification, and the non-application of international standards leads to a lower level of confidence in the verified data. Rules are currently being amended – with support from USAID – to enforce international standards ISO 14064-14065 and the obligation to monitor the activity of verifiers.

With regards to the registry, Kazakhstan no longer plans to use the Seringas technology they had acquired in 2010, since the suppliers stopped providing the necessary maintenance and upgrades to the software. IT specialists commissioned by the MEWR are now working on building Kazakhstan’s own registry and linking it to the data management system, i.e. “cadaster” to allow the collection of GHG data and information on installations and their operators. In addition, the German Emissions Trading Authority (DEHSt) transferred the former German registry software to Kazakhstan in January 2014. Later on, this registry may replace the current one – developed by Kazakhstan – to ensure the country has a registry which is in line with the highest international standards in terms of security and connectivity. Further work is needed to determine the extent of modifications required to adapt this registry to Kazakhstan.

iv. Regulatory and institutional framework

Challenges may lie in the development and implementation of the ETS legislation and institutional arrangements, such as those related to MRV, compliance, penalty enforcement, market oversight, or VAT collection. Describe the envisioned regulatory and institutional framework and the status of its implementation.

ETS legislation requires further development and improvement, starting with the Ecological Code (primary legislation). Significant efforts are indeed being made at the moment to formulate amendments to the Ecological Code, involving consultations with other relevant ministries and industry. The proposed amendments cover all of the main ETS components, such as:

- Allocation issues related to new entrants and installation extension: there currently is a lack of clarity on the conditions to access extra allowances for companies extending the capacity of their covered installations, i.e., either through free allocation or government’s sales of the NAP reserve. Allowances for new installations must be bought from the NAP reserve, which may raise some fairness issues vis-vis the existing ones that have benefitted from free allocation;
- Determination of the relevant threshold for each sector covered;
- Clarify the boundaries of “installations”;
- The accreditation rules and mechanisms for third party verifiers must be significantly strengthened;
- Penalties for not reporting, or delays in reporting, must be considered to ensure better data and document collection.

The proposed amendments will be finalized in February 2014, then reviewed and discussed by stakeholders, and eventually enforced early 2015. The corresponding subsidiary acts will then need to be amended to reflect the changes.

Germany has been providing expertise to support the review and formulation of draft legislation since 2009. USAID also supported the MEWR with the preparation of a concept note for the Ministry of Justice explaining the rationale of amendments to the Ecological Code in 2013. Norway, USAID, and EBRD are now all engaged in the amendment review process taking place early 2014.

v. Market aspects

Challenges related to market aspects may involve setting up the underlying market infrastructure (e.g., trading platform), and supporting industry preparation (e.g., implications on financial accounting & auditing, OTC contracts). Describe the process for developing market infrastructure, identifying any particular challenges that should be addressed.

Substantial developments have been achieved over the past few years in building the ETS market infrastructure. However, there are still a number of barriers that keep trading dormant:

- The Caspian commodity exchange was selected in 2013 after a competitive procedure to become Kazakhstan’s trading platform for carbon units. Since then, IT experts have been working with Zhasyl Damu to technically link the platform and the transaction registry; further work is however needed. Substantial capacity and experience must also be shared for the exchange to be able to develop emissions contracts and manage trading activities on its own platform;
- As it stands now, current legislation “Rules of Trading”, which oversees the auctions of the NAP Reserve on the commodity exchange, sets impracticable conditions for trading to get started. It indeed requires a minimum of 10 potential bidders for each auction to be performed. Amendments to this legislation will decrease the minimum number of participants to 2, and set a relevant auction calendar;
- The overall market regulation and market oversight (fraud, manipulation) are also yet to be developed and enforced. So are accounting and fiscal rules (VAT, corporate tax) of which neither are outlined in the Ecological Code nor in the Fiscal Code. Price regulation, such as through a price floor and ceiling, is also non-existent.

USAID KCCMP is supporting MEWR with a study on operationalizing trading in Kazakhstan’s ETS, due early 2014. Given the wide coverage and depth of the barriers to trading, further support is needed quite urgently.

vi. ETS preparation

Preparation may involve building ETS capabilities of compliance entities (e.g., implications on financial accounting & auditing), financial players (e.g., third-party trading service development), auditors, and NGOs, as well as within the government (e.g., Ministry of Finance, Ministry of Justice). How has ETS preparation been handled? Are there any gaps to be filled?

Kazakhstan has received strong support from international partners in the form of training, workshops, and study tours. To illustrate, Germany organized a workshop on MRV for the power, steel, cement, and petroleum refining in Astana (September 2012). It also supported a study tour in Germany for Kazakh experts and regulators to receive training on MRV and registry issues (February 2013). Norway has provided several training materials, tools and workshops for the industry and authorities with the objective of promoting best MRV practices. This notably includes the development of monitoring plan and annual reporting templates and guidelines, as well as tools and guidelines to assess and minimize uncertainty in reporting. In 2013, EBRD organized a workshop to support private sector preparation.

Such efforts have improved the overall awareness and capabilities for both Kazakhstan’s authorities and its private sector. A concrete illustration of this improvement is the average quality of GHG reporting which has noticeably increased over time. However, training of private sector participants has to be deployed at greater scale in order to be prepared to participate in the ETS, and appease the strong resistance facing the ETS.

Going forward, the “Green Academy” has been mandated by the MEWR to organize regular trainings for businesses every two weeks from April 2014. Due to the lack of financial resources, companies have to pay for these trainings, which may keep them from participating.

USAID KCCMP’s intends to actively participate in building capacity within the business community to comply with GHG reducing policies and measures. A series of workshops and training will be organized to improve reporting and emissions management, verification capacities, and participation in the ETS.

2. Summary of the Proposed Activities for PMR Targeted Support

Outline the activities to be undertaken, along with their corresponding deliverable(s) and estimated budget.

i. Activities and deliverables

The MEWR, working with the PMR Secretariat and other donors engaged in technical assistance to ETS development in Kazakhstan, has identified the following activities to request PMR support:

1. Upstream analysis on ETS and policy mapping

The project will deliver analytical work and modelling to help Kazakhstan draw overarching

emissions trends and trajectories, analyze the role of the ETS to reach overarching targets, and assess its impacts on the economy. The project will also analyze relevant policies affecting GHG emissions (e.g. energy efficiency, industrial development program), in order to understand their interactions with the ETS and between them, and look at options to improve overall coordination. This project will notably draw upon existing local upstream analysis materials and capacities, and coordinate with relevant donor partners engaged in related work (i.e., ADB, EBRD, Germany, Norway, USAID).

2. Scoping study of barriers to trade and options to deal with them

The study will help the MEWR identify barriers to trading in Kazakhstan's ETS. Potential barriers to look at include the uncertainty of supply/demand, consistency of ETS and financial regulation, tax treatment of emissions allowances, or performance of the registry and trading platform.

3. Adaptation of benchmarks for allowances allocation for specific sectors in Kazakhstan

The MEWR seeks assistance developing emissions benchmarks in a number of sectors and sub-sector covered by the ETS. The activities supported by the PMR will identify the global emissions benchmarks used in the different sectors and sub-sectors abroad (e.g., EU, California, South Korea) and their applicability to the Kazakh context.

ii. Planning and estimated budget

For each activity outlined above, provide the following information (Table 1):

- *A schedule (timeline) to fulfill these activities; and*
- *A budget summarizing the financial requirements to support these activities.*

From the above, indicate the total funding requested from PMR under this proposal, i.e., first tranche of funding. Kazakhstan may indeed plan to come back to the PA for further uses of the overall envelope (US\$ 1 million in total).

Table 1 : Overview of activities and budget under the proposal

Activity	Expected Deliverable	Time required for completion	Estimated Completion date	Estimated budget
Upstream analysis on ETS and policy mapping	1. Analysis and modelling on: i) overarching and trajectories, ii) ETS role to reach overarching targets, and iii) impacts of ETS on the economy; 2. Analysis of relevant policies affecting GHG emissions in order to: i) understand their interactions with the ETS and between them, and ii) look at options to improve overall coordination.	15 months	Mid-2015	US\$350,000
Scoping study of barriers to trade and options to deal with them;	One of several studies addressing barriers to trade and potential solutions.	4 months	Fall 2014	US\$50,000
Adaptation of benchmarks for allowances allocation for specific sectors in Kazakhstan.	Development of emissions benchmarks for specific sectors.	6 months	Early 2015	US\$100,000
TOTAL estimated budget				US\$500,000