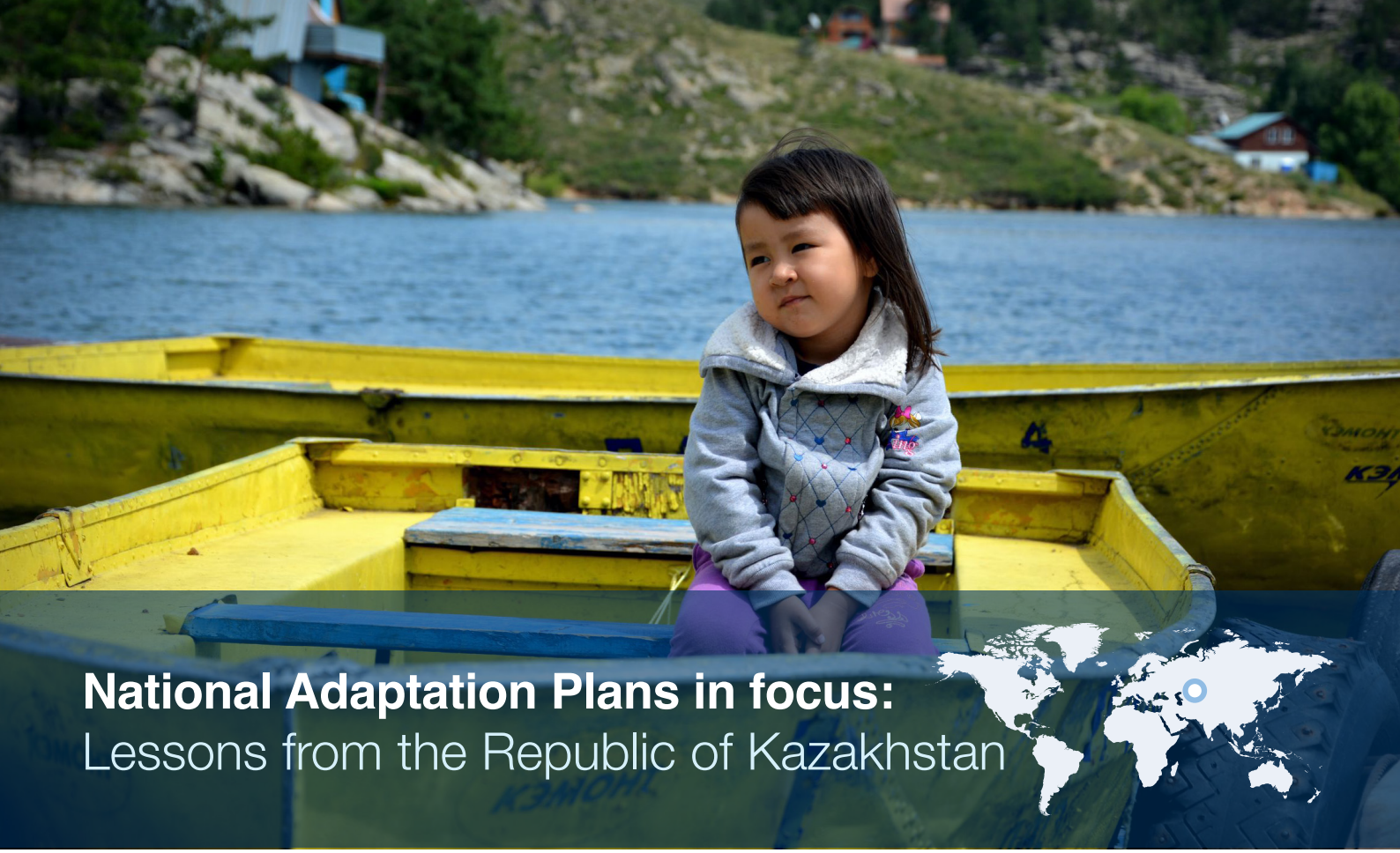

National Adaptation Plans in focus:
Lessons from the Republic of Kazakhstan

The Republic of Kazakhstan, with a total surface area of 2.72 million square kilometres, is the world's largest landlocked country and the ninth-largest overall. Located at the centre of the Eurasian continent, Kazakhstan strategically links the markets of South East Asia and Western Europe. The country extends from the Caspian Sea to its west and to the Altai Mountain Range to its east, neighbouring the People's Republic of China, the Russian Federation, the Republic of Uzbekistan, the Kyrgyz Republic, and Turkmenistan. Its topography is characterised by low mountainous regions, lowlands, and rocky plateaus and plains, with the latter making up nearly half of the country's expanse. Kazakhstan's climate is classified as continental with some regions characterised by scorching summers that alternate with equally harsh winters.

Despite several economic shocks since the dissolution of the Soviet Union in 1991, the economy of Kazakhstan remains the largest in Central Asia, with significant oil reserves as the primary driver for its economic growth.[1] More than half (53.24 percent as of 2017) of its 18.04 million inhabitants live in urban areas. Around 61.22 percent of its workforce is engaged in the service sector while 20.73 percent is employed in the industrial sector. Employment in agriculture has decreased significantly between 1991 and 2017 from 45.72 percent to 18.05 percent, respectively.[1] During the same period, GDP per capita increased from US$1,515 to US$8,837, placing Kazakhstan in the upper middle-income group since 2006. Most recent estimates indicate that poverty rates declined from 64.9 percent in 2001 to 7.7 percent in 2015,[2] and as the economy continues to strengthen, these are forecast to drop to 5 percent by 2020.[3]

Climate change risks

Projected climate change impacts vary across the country. Kazakhstan has already begun to experience an increasing number of droughts, floods, landslides, mudflows and ice jams that affect agriculture, fisheries, forests, energy production, water, and health.

Changing rainfall patterns are increasing the intensity and frequency of droughts. With the majority of the country's topography classified as steppe, desert or semi-desert, climate change is placing an additional burden on the country's water resource management and the livelihoods of almost 13 percent of the population that lives in high drought-prone areas. Due to low rainfall, severe water shortages occurred in 2012 and 2014 as a result of the reduced water levels of two major rivers in the country.[4]

The increasing occurrence of floods and associated mudflows have resulted in the displacement of thousands of people. Heavy precipitation in 2008 in the southern parts of the country impacted 51 settlements, inundated more than 2,300 houses, displaced around 13,000 people, and caused economic losses of around US$125 million.[5] Overall, almost one-third of the population lives in regions that are prone to mudslides, including the nearly 1.8 million citizens of Kazakhstan's largest city, Almaty.[6] Recent climate projections predict that these will occur more frequently with the increase of torrential rains.[7]

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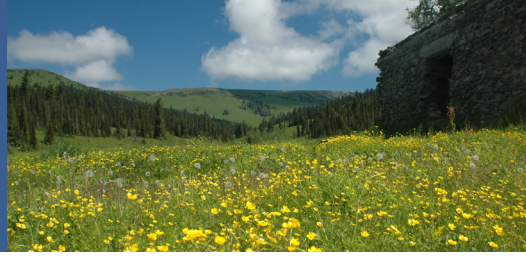
Groundwork for supporting the NAPs



Policy, planning and budgeting

The Government of Kazakhstan has adopted an environmental perspective across all economic sectors. Climate change and sustainability have been incorporated into strategic frameworks by several ministries and government programmes. The country actively aims to strengthen adaptation measures and to address issues related to ecological resilience in warming conditions and increasing aridity. Programmes have been introduced, such as the *State Programme of Rural Territory Development*, the *Programme to Fight Desertification* and the *Potable Water Programme.* Low-carbon development is one of the government's key priorities, with a focus on energy efficiency and renewable energy. Various key strategies, policies and related action plans that build upon the country's strategic directions are related to climate change mitigation. Consistent efforts have been made to enhance national policies and plans for climate change mitigation. However, measures for adaptation have not yet been emphasised in policy and legislation, with gaps existing in the conditions necessary to develop appropriate legislative frameworks for adaptation. Kazakhstan's First Nationally Determined Contribution (NDC), submitted to the UN Framework Convention on Climate Change (UNFCCC) in 2016, does not consider adaptation, or adaptation-related activities, and consequently does not recognise the economy-wide costs associated with their implementation, or alternatively with inaction.

However, Kazakhstan increasingly recognises the importance of reducing the country's vulnerability to climate change and has started to expand its investments in climate change adaptation. Its Second (2009) and Third-Sixth (2013) National Communications to the UNFCCC[8] present possible climate change scenarios and feasible adaptation measures for the sectors of agriculture, water resources, health, natural resources, and social and economic development. In 2016, the Government initiated a process to develop a National Adaptation Plan (NAP) that seeks to provide sector-specific guidance for the greater integration of climate change adaptation into policies and programmes.

Preparing for adaptation planning

Key documents that elaborate on potential climate change impacts, vulnerabilities, and initial assessments of adaptation priorities are Kazakhstan's First (1998), Second (2009) and Third-Sixth (2013) National Communications to the UNFCCC. The Third-Sixth National Communication[9] stresses that the agriculture sector is expected to be worst hit by climate change as a result of soil degradation, desertification, higher temperatures, and decreased freshwater resources. It also provides further clarity on the influence climate change will likely have on forests and human health, and presents data on mudflow activities and changes in glaciers.

Existing sector-specific and regional studies and projects are an additional and essential source of information on climate modelling, impact analyses, vulnerabilities, and potential adaptation measures. However, the data collection processes revealed in associated studies remain fragmented, limited, and uncoordinated at the national level.

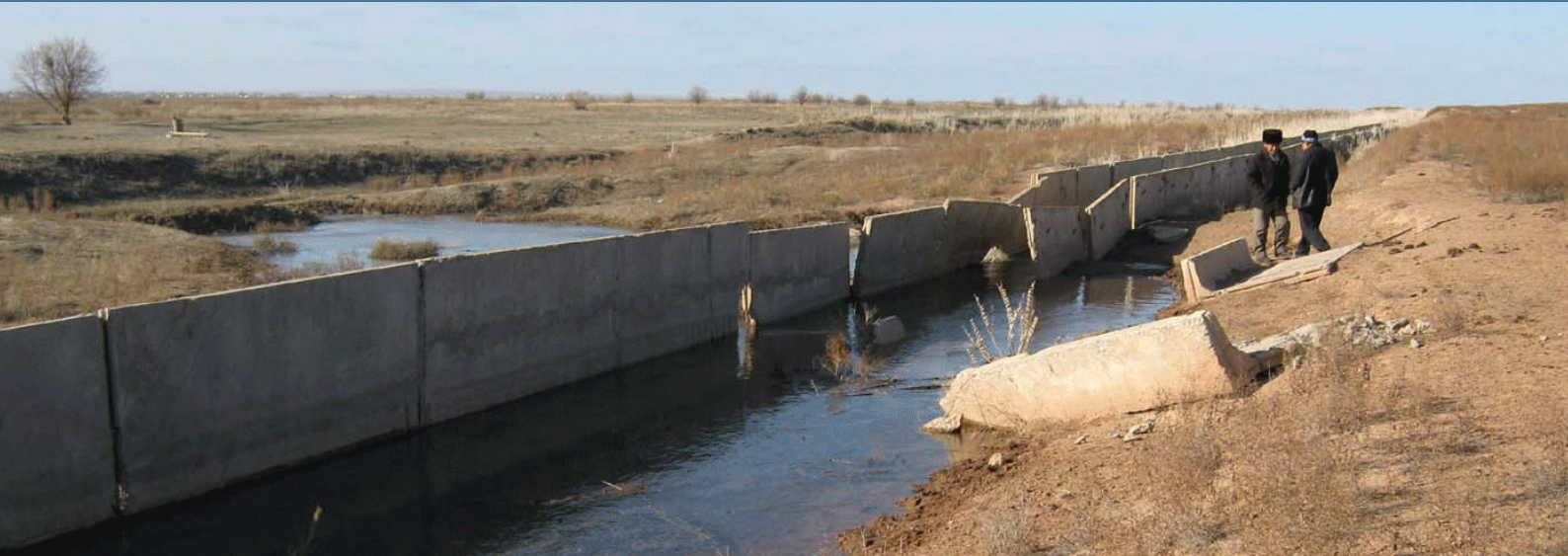
Implementation of adaptation actions

The Government is increasingly engaged in enhancing capacity to close the adaptation gap through bilateral and multilateral adaptation projects that include:

- Disaster and Climate Risk Management Project, World Bank (2010-2016): Developing innovative catastrophe insurance products covering the risks of weather extremes
- Second Irrigation and Drainage Improvement Project, IBRD/ Government of Kazakhstan (2014-2021): Improving irrigation and drainage systems for farmers
- Supporting Kazakhstan's Transition to a Green Economy Model, EU/UNDP (2015-2018): Promoting environmental governance systems, state-of-the-art water management policies and practices, environmental impact assessment procedures, and economic incentives for sustainable use of water resources
- Ecosystem-based Adaptation to Climate Change in High Mountainous Regions of Central Asia, GIZ (2015-2019): Introducing ecosystem-based approaches to climate adaptation
- Sixth Operational Phase of the GEF Small Grants Programme in Kazakhstan, GEF/UNDP (2016-ongoing): Building social-ecological resilience in steppe and desert landscapes.

" In Kazakhstan, we are committed to climate-proofing our economically-significant sectors, to deliver sustainable and inclusive economic growth."

Kanat Bozumbayev, Minister of Energy of the Republic of Kazakhstan



The process to formulate and implement NAPs in Kazakhstan

Institutional arrangements

Kazakhstan's Department of Climate Change under the Ministry of Energy functions as the delegated focal point to the UNFCCC. Its mandate is to coordinate technical issues related to climate change, serving as the primary point of contact for representatives from the private sector and civil society. The Department of Climate Change is primarily focused on climate change mitigation planning and action. The Ministry of National Economy (MNE) is responsible for the coordination, planning, and monitoring of national development projects. The MNE is also the lead publisher of the country's ten-year strategic development plans as well as the long-term development strategies. One such strategy is the Concept of Transition of the Republic of Kazakhstan to Sustainable Development, which highlights different approaches to improve sustainable economic and social development indicators, some of which are directly related to climate change mitigation or adaptation.

Support programmes

The advancement of the NAP process for the Republic of Kazakhstan is backed by intensive support from both national and international stakeholders including the Ministry of Energy, Ministry of National Economy, the Global Environment Facility (GEF) funded joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP), and the Green Climate Fund (GCF).

July 2016

The Government of Kazakhstan requested support to develop a NAP as a way to facilitate effective planning for climate change.

October 2016

With support from the NAP-GSP, a rapid capacity assessment mission was undertaken to identify Kazakhstan's needs regarding the NAP process, in consultation with various stakeholders.

November 2016

A stocktaking report and preliminary roadmap/concept for advancing the NAP process in Kazakhstan were developed and shared with stakeholders for review and comment.

July 2018

The National Designated Authority (NDA) supported by UNDP, is currently drafting a Readiness and Preparatory Support Proposal for the NAP process to be submitted to the GCF.

Challenges

The overreliance on oil production makes the Kazakh economy vulnerable to market forces tied to the demand for oil-based products. Climate-proofing its economically-significant sectors will be required to deliver more sustainable and inclusive economic growth. The development of a National Adaptation Plan is a step in that direction, which the government recognises as a fundamental process to future-proof its investments against the potential impacts of a changing climate. The 2016 NAP-GSP Stocktaking Report identifies specific gaps and barriers to be addressed by the NAP: (i) Lack of a legal climate change adaptation (CCA) framework; (ii) CCA data is fragmented, not collected in a coordinated manner, and not fully accessible to relevant ministries; (iii) no tools or frameworks that facilitate the mainstreaming of climate risks into existing national processes and systems; (iv) lack of domestic capacity; (v) no existing monitoring and evaluation framework for adaptation.

Successes

The country is emphasising the modernisation of the energy industry by maximising technology and resource efficiencies, and diversifying supply by developing renewable energy. In recent years, Kazakhstan has also prioritised the reversal of desertification, water scarcity, and the degradation of land through reforestation and restoration of abandoned farmlands.

While such efforts are focused on mitigation, Kazakhstan is in the process of developing and capacitating climate change adaptation plans and integrating them into legislative and institutional arrangements. The 2016 NAP-GSP stocktaking mission revealed valuable insights into the barriers for adaptation which the government plans to address through the NAP process. An example of an adaptation strategy currently being developed is the introduction of adaptive growing technologies to compensate for the expected decline in favourable climate conditions needed for spring crops.

The process to formulate and implement NAPs

The Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) established the National Adaptation Plan (NAP) process in 2010, to enhance country-led planning and preparedness for climate change adaptation (CCA) in the medium and long-term. The objectives of the NAPs are to reduce vulnerability to the impacts of climate change and to facilitate the integration of adaptation into all levels of development planning. The NAP process is multi-sectoral, involving Ministries of Environment as well as Planning and Finance, in addition to other key ministries. By bringing greater institutional integration and coordination to adaptation planning, NAPs can enhance ongoing national development planning processes, safeguard development gains, and build resilience.

Opportunities and next steps

Both the Second and the Third-Sixth National Communications present extensive lists of adaptation needs for agriculture, water resources, forestry, population health, and mudflow activities. However, these lists have not yet been prioritised. The establishment of a national legislative mandate, in conjunction with the development of a strategic framework for adaptation (i.e. NAP) and the improved technical capacity of national institutions, will be critical for progress on adaptation planning.

A stakeholder communication and engagement plan will be formulated to ensure that stakeholders at all levels and stages are consulted and engaged. The plan will involve government institutions, financial and technical partners, local civil society, academia, the private sector, international, and national non-governmental organisations (NGOs), including those that represent women and vulnerable groups. Outreach and engagement activities will include sensitisation activities, consultations, and training workshops. The focus will be on increasing ownership, improving awareness, and expanding knowledge of the role of climate adaptation in addressing climate change impacts to sustain long-term development.

Key documents

- 2015-2019 National Development Plan
- First Nationally Determined Contributions (December 2016)
- Third-Sixth National Communication to the UNFCCC (December 2013)
- Second National Communication to the UNFCCC (June 2009)
- First National Communication to the UNFCCC (November 1998)

Notes

[1] World Bank (n.d.). Kazakhstan. URL: http://pubdocs.worldbank.org/en/871781492011104561/mpo-kaz.pdf (Accessed June 2018)

[2] World Bank (2018). World Development Indicators. URL: http://data.worldbank.org/country/kazakhstan (Accessed June 2018)

[3] World Bank (n.d.). Kazakhstan. URL: http://pubdocs.worldbank.org/en/871781492011104561/mpo-kaz.pdf (Accessed June 2018)

[4] World Bank (n.d.). Kazakhstan. URL: http://pubdocs.worldbank.org/en/871781492011104561/mpo-kaz.pdf (Accessed June 2018)

[5] International Federation of Red Cross and Red Crescent Societies (2008). Kazakhstan: Floods. URL: https://reliefweb.int/sites/reliefweb.int/files/resources/541C7D269FD64A998525742F00565A39-Full_Report.pdf (Accessed August 2018)

[6] United Nations Development Programme (2018). Readiness and Preparatory Support Proposal to the GCF

[7] Government of Kazakhstan (2018). Citizens of the Republic of Kazakhstan 2017. URL: http://stat.gov.kz/getImg?id=ESTAT245798 (Accessed July 2018)

[8] Global Facility for Disaster Reduction and Recovery (2017). Kazakhstan. URL: https://www.gfdrr.org/kazakhstan (Accessed July 2018)

[9] The Third–Sixth National Communication synchronises the dates of the National Communications with other countries included in Appendix I to UNFCCC and contains the 3rd, 4th, 5th and 6th National Communications for the period up to 2012. This submission also consolidates draft submissions made under Annex I status under the Convention and those made as a non-Annex I Party to the Convention. URL: https://unfccc.int/files/national_reports/annex_i_natcom_/application/pdf/kaz_nc3,4,5,6_eng.pdf (Accessed July 2018)

[10] United Nations Development Programme (2016). Climate Change and Disaster Risk Reduction Snapshot – Kazakhstan. URL: http://www.eurasia.undp.org/content/dam/rbec/docs/UNDP-RBEC-Kazakhstan-Climate-Change-and-Disaster-Risk-Reduction-Snapshot.pdf (Accessed July 2018)

[11] Government of Kazakhstan (2009). Second National Communication to the UNFCCC. URL: https://unfccc.int/sites/default/files/resource/Kazakhstan_English.pdf (Accessed July 2018)

[12] USAID (2017). Climate Risk in Kazakhstan: Country Profile. URL: https://www.climatelinks.org/sites/default/files/asset/document/2017_USAID%20ATLAS_Climate%20Risk%20Profile%20-%20Kazakhstan.pdf (Accessed July 2018)

13% of the population lives in high drought risk zones

US$16.8-18.8 bn in damages caused by 2015 floods[10]

90% of national water consumption spent on irrigation

50% of water provision from neighbouring countries[11]

Renewable energy target of **50% by 2050**[12]

About the NAP-GSP

The joint UNDP-UN Environment National Adaptation Plan Global Support Programme (NAP-GSP) was launched in June 2013, financed by the Global Environment Facility (GEF) Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The NAP-GSP, together with partners, are assisting developing countries to identify technical, institutional and financial needs to integrate climate change adaptation into medium and long-term national planning and financing. The NAP-GSP provides technical expertise and guidance on country NAP processes, and opportunities for knowledge exchange on NAPs.

NAP-GSP
NATIONAL ADAPTATION PLAN GLOBAL SUPPORT PROGRAMME

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