

**Batumi Initiative on Green Economy (BIG-E)
Actions by Kazakhstan**

Country: Ministry of Energy, Kazakhstan

Title:

Improvement of waste management system; Enhancing sustainable use of water resources; Development of a sustainable and highly productive agriculture; Development of electric power, energy saving and energy efficiency

Focus area: Overarching actions

Description of the action: Increasing efficiency of use of resources (water, land, biological, etc.); Modernization of existing and construction of new infrastructure; Improving welfare of the population and the quality of the environment through cost-effective measures mitigating pressure on the environment; Enhancing national security, including water security

Proposed measures

Improvement of waste management system:

- Thorough audit of all large MSW landfills and determination of their remediation measures;
- Development of the state program for the processing and disposal of solid waste, covering:
- Increase of the MSW recycling rate up to 50 % by 2050 and storing a residual volume of solid waste in landfills that meet environmental and health standards;
- Amount of landfills that meet environmental and health standards is expected to reach 100 % by 2050;
- Maintain separate collection of household waste.

Enhancing sustainable use of water resources and development of a sustainable and highly productive agriculture:

- Overall reduction of water consumption by 2 times by 2030;
- Introduction of drip irrigation and other modern water-saving technologies at 15 % of sown areas by 2030;
- Reduction of the free flooding irrigation currently applied at 80 % of irrigated areas to being applied at 5% of irrigated areas;
- Increase of greenhouse area to 1,700 hectares by 2030.

Development of electric power, energy saving and energy efficiency:

- Upgrading or replacing old and inefficient boilers;
- Audit technical conditions and energy audit of all existing power plants by 2020 to determine the timetable for modernization of the remaining life of generation assets;
- Conducting consumer education through organization of information and awareness campaigns;
- Amendment as necessary and enforcement of relevant laws and regulations.

Action's timeframe/milestones, as appropriate: till 2050

Type of action: legal, regulatory and political instruments

Economic sectors:---

Reference instruments and sources, as appropriate: Strategy "Kazakhstan-2050": a new policy for an established state, the Concept of the Republic of Kazakhstan on transition to a "green" economy, the Strategic Plan;

Expected co-benefits and impact of the outcome: transition to a new economy model by increasing welfare and quality of life of the population of Kazakhstan, and thus ensuring country's entry into the top 30 most developed countries of the world while minimizing the impact on the environment and degradation of natural resources;

SDGs target(s) that the action may contribute to implement:

Implementation of Environmental Performance Review (EPR) Recommendations, as appropriate:

Objectively verifiable indicators, as appropriate: Waste Management: increase the share of recycled waste to 40% by 2030.

Water Management: ensure access to drinking water to the population by 2020 and supply of water for agriculture by 2040;

Agriculture: raise the productivity of agricultural land in 1.5 times by 2020;

Power sector: increase share of alternative and renewable electric energy to 3% by 2020 and to 10% by 2030;

Energy efficiency: reduce energy intensity of GDP by 25% by 2020 compared to baseline 2008;

Partners: Kazakhstan government

International organizations and financial institutions

business community

NGOs and local authorities

Contact points:

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**Batumi Initiative on Green Economy (BIG-E)
Actions by Kazakhstan**

Country: Ministry of Energy, Kazakhstan

Title: International Center for Green Technology and Investment under the auspices of the UN in Astana

Focus area 4: Changing consumer behavior in favour of sustainable consumption patterns

Description of the action: The International Center will cover seven main activity areas: Power sector transformation, sustainable urban development, green business development, transfer and adaptation of green technologies and best practices, development of green funding, development of renewable energy sources, and capacity-building for green growth.

Activity of the Center will be focused on implementation of the above-mentioned measures, primarily in the countries of Central Asia (Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan), Iran, Afghanistan, Mongolia and Azerbaijan.

At the same time, the Center will also cooperate with industrially developed countries of OECD, the European Union, the USA, the Russian Federation, China, India and the countries of Latin America.

The projects of the International Center will involve national holding structures and development institutions, international financial organizations, leading world and Kazakhstani universities and research centers, as well as non-government organizations.

The Center will be managed in accordance with UN standard operational procedures. "Best Practice Zone" of the EXPO Pavilion is a suggested location for the International Center.

Action's timeframe/milestones, as appropriate: Establishment of an International Green Technology Center is planned for the period during 2018-2019.

Type of action: The center will be established as an information, education and capacity-building tool.

Economic sectors: agriculture, forestry and fisheries, power engineering, mining, manufacturing, transport, water, waste management, tourism and housing, construction.

Reference instruments and sources, as appropriate:

1. Transforming the energy sector. This component is designed to promote a sustainable energy development strategy for the region, with the following objectives:

- promoting harmonization in the overall legal, regulatory and policy base;
- promoting energy efficiency and conservation;
- encouraging the greater use of natural gas as a "transitional" fuel
- greening the coal-to-energy chain; and
- addressing issues related to electric power network system interconnections.

2. Sustainable urban development. Rapid urbanization places growing stress on municipal infrastructure and the environment. Therefore the urban sector requires modernization and increased efficiency to sustainably deliver safe, healthy, and productive conditions for all segments of the population. Needed improvements can-not be carried out only at the expense of the government budget. Thus there is a need to attract private

investments into projects designed to bring social, economic and ecological benefits. The Center will work with cities in the following areas for sustainable urban development:

Outcomes:

- Definition of priority areas in regard with climate change and assessment of financial resources for implementation of various projects in cities;
- Development and creation of financial tools and models for investments, and de-risking mechanisms for private investors in energy and resource conservation, reduction of power losses, and development of renewable energy resources;
- Development of recommendations to local and municipal authorities on pilot projects to deploy and test advanced technologies and innovative solutions in energy efficiency and urban planning, and to increase public awareness;
- Development of a monitoring system for GHG emissions in low-carbon city projects.

3. Greening businesses. The promotion of green technologies and sustainable business for large and small- and medium-sized enterprises (SMEs), including startups, has the potential to contribute to the mitigation of climate change, while simultaneously strengthening the comparative advantage and competitiveness of the industrial sector in developing and emerging economies.

Outcomes:

- Promoting innovation & technology transfer. This method of sustainable corporate practices focuses in-ward on a company's ability to change its products and services towards less waste production and more sustainable best practices.
- Establishing collaboration. The formation of networks with similar or partner companies facilitates knowledge sharing and propels innovation.
- Process improvement. Continuous monitoring, evaluation, and improvement of processes are essential to waste reduction. Employee awareness of company-wide sustainability plans further aids the integration of new and improved processes.
- Greening the supply chain. Sustainable procurement is important for any sustainability strategy as a company's impact on the environment includes not only the results of direct consumption, but effects all the way up and down the supply chain.

4. Adaptation technologies and best practices. This component is intended to define, assess and select the best practices in climate change adaptation, in the context of national priorities and strategy in this area.

Outcomes:

- Development of a database of technologies for climate change adaptation and best practices.
- Adaptation technology transfer.
- Scale-up of application of the best practices. The Center will develop mechanisms for transfer of adaptation technologies to the countries of the region and globally. These activities can be provided through technical or other assistance of the Center to other countries.

5. Development of green finance. Transition to a green economy requires considerable resources. In this regard, there is a need for implementation of innovative funding mechanisms. Green finance is a broad set of financial instruments and services (loans, bonds, shares, funds, etc.) as well as methods for financing technological processes, projects and entities in the field of environmental protection.

Outcomes:

- Development of diversified green financial instruments.
- Establishment of early-warning and risk-sharing mechanisms.
- Introduction of policy incentives.
- Definition of standards and monitoring of implementation of green projects.

6. Development of renewable energy. Dependable and affordable energy supplies are crucial to economic growth in both developed and developing countries — to power homes, connect communities, provide safe water and promote economic and human development. This component will promote renewable energy on many fronts – from removing barriers and building capacity to direct financing of projects in renewable energy technologies.

Outcomes:

- Removing barriers: Developing countries face many policy, regulatory and technical hurdles to adopt renewable energy technologies.
- Capacity building: The Center will help countries build technical and institutional capacity by organizing workshops and by training government officials, local engineers and other technical staff.
- National policy: The Center will help develop national policies needed to support the renewable energy market, including national strategies, roadmaps and action plans.
- Demonstration projects: Countries need to test new technologies and prepare the marketplace before fully embracing renewable energy.
- Public acceptance: The Center will help countries develop standards, testing and certification of renewable energy technologies.

7. Green capacity building. The Center will deliver support for collaboration among countries in relation to green technology, R&D and policy development. The Center will establish cooperation and exchange programs with the following institutions.

Outcomes:

- To support planning and establishment of national green technology R&D policies
- Creation of new workplaces, including workplaces for highly skilled specialists in the new innovative "green" areas;
- Capacity building and professional training in skills and competencies needed for green workplaces;
- To establish a system of international cooperation in the field of green technology, technology transfer, and diffusion
- To conduct green technology forecasts.

Expected co-benefits and impact of the outcome: Activity of the Center will be focused on implementation of the above-mentioned measures, primarily in the countries of Central Asia (Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan), Iran, Afghanistan, Mongolia and Azerbaijan.

At the same time, the Center will also cooperate with industrially developed countries of OECD, the European Union, the USA, the Russian Federation, China, India and the countries of Latin America.

Appropriate benefits and outcomes shall be outlined as a part of Financial and economic feasibility study justifying establishment of the Center.

SDGs target(s) that the action may contribute to implement:

The activities of the Center will focus on the following:

1. SDG 7: Ensuring access to affordable, reliable, sustainable and modern energy for all.
2. SDG 8: Promoting sustained, inclusive and sustainable economic growth, full and productive employment and adequate work for all.
3. SDG 9: Building sustainable infrastructure, promoting inclusive and sustainable industrialization and innovation.
4. SDG 11: Ensuring urban and locality openness, security, resilience and sustainability.
5. SDG 12: Ensuring sustainable consumption and production patterns.
6. SDG 13: Take urgent action to combat climate change and its effects.
7. SDG 17: Strengthening the means to achieve sustainable development and revitalizing the mechanisms of the global partnership for sustainable development.

Implementation of Environmental Performance Review (EPR) Recommendations, as appropriate: -----

Objectively verifiable indicators, as appropriate: -----

Partners: UNDP, UNEP, UNECE, OSCE

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