



Can Uzbekistan Adapt to the Consequences of Global Climate Change?

Embassy of the Republic of Uzbekistan in the Kingdom of Belgium



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“Global climate change is one of the most serious challenges of our times. It is also becoming a significant obstacle to sustainable development”, - said **Marat Aitov, Head of**

department of the Institute for Strategic and Regional Studies under the President of Uzbekistan in an analytical note “**Can Uzbekistan adapt to the Consequences of Global Climate Change?**”, reports “Dunyo” IA correspondent.

Rising global temperatures contribute to destructive extreme weather events around the world, such as sweltering heatwaves, droughts, fires, hurricanes, torrential rains, and floods.

According to the UN, over the past 5 years the average global temperature has been among the highest in the entire history of observations. World Bank projects that by 2050 216 million people in six regions will become climate refugees, including 5 million people in Central Asia.

Nowadays, the number of recorded weather disasters is 5 times higher than in 1970, and they cost 7 times more. Over the past 20 years, more than 1.2 million people have died because of natural disasters, and economic damage reached \$3 trillion. Climate change and its consequences will cost the world economy \$8 trillion over the next 30 years. Experts predict that by 2050 global GDP growth will decrease by 3% due to the impact of climate change.

The international community expresses concern about the current situation, fearing the negative consequences of climate processes. In August 2021, a group of UN experts called the impact of climate change unprecedented, recognizing that in the long term, some of them are irreversible. UN Secretary - General A. Guterres warned of a catastrophe due to the rapid warming of the climate. Therefore, he called for consolidating the efforts of the international community to combat climate change.

The Central Asian countries are affected by the negative effects of climate change. According to the World Bank experts, by the end of the XXI century the average temperature in the world will increase by 4 degrees Celsius. Meanwhile, the Central Asia will experience 7 degrees increase.

Because of global climate change, the area of glaciers in Central Asia has decreased by about 30% over the past 50-60 years. According to calculations, water resources in the Syr Darya basin are expected to decrease by up to 5% by 2050, in the Amu Darya basin - up to 15%. By 2050, the shortage of fresh water in Central Asia may lead to an 11% drop in GDP in the region.

The analyses show that climate change will further exacerbate the water shortage in Uzbekistan. It may increase duration and frequency of drought, create serious problems in meeting the needs of the economy for water resources. Until 2015, the total water deficit in Uzbekistan was more than 3 billion cubic meters. By 2030, it can reach 7 billion cubic meters and 15 billion cubic meters by 2050. Over the past 15 years, the availability of water per capita decreased from 3 048 cubic meters to 1 589 cubic meters.

In addition, there are problems with the rational use of water in the region. FAO estimates that water use in some countries of the region has reached a critical level (more than 100%). In Uzbekistan this indicator is 169%, Turkmenistan - 144% of their water reserves. In Tajikistan, water stress is average at 62%. In Kyrgyzstan and Kazakhstan, the indicators of freshwater use also exceed the global level and reach 50% and 33%, respectively.

What is Uzbekistan doing to adapt to global climate change?

Uzbekistan is taking consistent measures to adapt and mitigate the effects of climate change. The government identified environmental protection as one of the priorities of State policy and strengthened the institutional framework in this area. The State Committee for Ecology and Environmental Protection, the Hydrometeorological Service Center have been completely reformed, and the State Forestry Committee has been established.

Long-term strategies have been adopted aimed at ensuring environmental safety, rational use of natural resources, and the introduction of new, environmentally friendly technologies in various sectors of the economy. Among them are the Concepts of Environmental Protection till 2030, water management development for 2020-2030, Strategies for the transition of the republic to a green economy for the period 2019-2030, solid household waste for the period 2019-2028, etc.

The development of ecological culture of the population plays an important role in improving the effectiveness of environmental protection measures. In 2008, Environmental movement of Uzbekistan was launched designed to consolidate the efforts of civil society in this direction. Subsequently, it became an Environmental Party, which made it possible to raise the environmental agenda to the level of political discussions. Currently, there are more than 200,000 people in the ranks of the party. In 2019 Environmentalists won 15 seats (10%) in

the Legislative Chamber of the Oliy Majlis. Moreover, for the first time in its history, the Party has nominated a candidate for the presidential elections on October 24, 2021.

An important factor in the formation of the ecological culture of the population is the upbringing of the younger generation. Uzbekistan started a system of continuous environmental education. In 2019, a Concept for the development of environmental education was adopted, which provides for the formation of environmental knowledge, consciousness and culture among the younger generation, the improvement of science in the field of ecology with the involvement of innovative technologies and the increase of human resources in the field of education and environmental protection.

Preschool educational institutions started implementing "Child Ecologist" program and organizing "Ecological corridors". The schools will hold competitions on the topics "The best environmentally friendly school", "The best ecologist-student". The contests "Expert in Ecology" and "Best Environmental Project" among students of lyceums and colleges will stimulate youth environmental initiatives. "Eco-clubs" will be established in higher educational institutions and student dormitories.

Because of the policy of openness and ensuring freedom of speech, environmental protection issues are in the spotlight of the media. Cases of illegal felling of trees, inhumane treatment of animals, as well as anthropogenic pollution of reservoirs are actively covered. Various volunteer movements have been established and conducted large-scale environmental actions. In July 2021, an environmental action was held in the Tashkent region, in which more than 1,000 people took part. As part of the event, volunteers and activists cleared the coast of the Charvak and Tuyabuguz reservoirs of garbage. In general, there is a demand of the population for the realization of the right to safe, clean, healthy, and sustainable environment.

The country began the transition to a green economy

The most important aspect of Uzbekistan's climate agenda is the gradual transition to a green economy. Measures are being taken to improve the energy efficiency of the economy, reduce the use of hydrocarbons, and increase the share of renewable energy sources. By 2030, the government plans to double the energy efficiency and reduce the carbon intensity of GDP.

To meet the growing demand of the population, Uzbekistan plans to increase the share of renewable energy in the total volume of electricity generation from the current 10% to 25%.

At the same time, the main emphasis is on solar energy. According to experts, Uzbekistan has the ability to generate 600 billion kW through the construction of solar power plants. This is 8 times more than the republic needs today. By 2025, together with international companies (Masdar, Total, Scaling Solar, Clipper, etc.), it is planned to launch solar and wind power plants with a total capacity of 2,900 MW. In August, 2021r, the first solar photovoltaic plant with a capacity of 100 MW was launched in Navoiy region.

To rationalize the use of water resources, new technologies are being introduced into agriculture. In 2020, water-saving technologies were introduced in the country on an area of 133.600 hectares. As a result, in recent years, the area of introduction of water-saving irrigation technologies has reached 291,200 hectares, which is about 7% of the total area of irrigated land. Because of the use of water saving technologies during the growing season, 280 million cubic meters of water were saved, the water supply of more than 300 thousand hectares of irrigated land was improved, and the opportunity was created to irrigate additional crops with an area of more than 16,000 hectares.

Special attention is paid to the greening of cities and settlements of the country. In Nukus, Urgench and Khiva, it is planned to create a green belt from local woody and shrubby plants. In addition, green zones will be created in the near future, and 125 million trees will be planted. The greening level of the total area of Tashkent will be increased from the current 26.4% to 30% by 2023. From November 1, 2019, there is a moratorium on cutting down valuable species of trees and shrubs that are not included in the state forest fund. Authorities are establishing an Eco police responsible for preventing violations in the field of ecology, including illegal logging, poaching, and illegal waste disposal.

Overcoming the environmental disaster in the Aral Sea region is the most important task Uzbekistan and the countries of the region facing

Minimizing the consequences of the drying up of the Aral Sea and the socio-economic development of the Aral Sea region are one of the priorities of Uzbekistan's climate policy. By creating protective green spaces on the drained bottom of the Aral Sea (1.5 million hectares of shrubs and trees planted) Uzbekistan is increasing the territories occupied by

forests and shrubs. Over the past 4 years, the volume of planted forests in the republic has increased 10-15 times. By 2018, the annual volume of forest creation was in the range of 47-52,000 hectares; in 2019, it increased to 501,000 hectares, in 2020 - to 728,000 hectares.

In recent years, Uzbekistan has implemented more than 250 projects aimed at reducing the consequences of the Aral crisis. The State Program for the development of the Aral Sea region for 2017-2021 has been adopted, aimed at improving the conditions and quality of life of the population of the region. In addition, the Program of integrated socio-economic development of Karakalpakstan for 2020-2023 was approved. In 2018, the International Innovation Center of the Aral Sea Region was established under the President of the Republic.

In order to strengthen control over the execution of presidential decrees and resolutions aimed at the development of the Aral Sea region, a Committee on the Development of the Aral Sea region was established in the Senate of the Oliy Majlis in 2020.

Uzbekistan is taking active steps to inform the international community of the consequences of the Aral Sea catastrophe, as well as to unite the efforts of the Central Asian countries to combat the consequences of this disaster. President of Uzbekistan Sh. Mirziyoyev, speaking at the 72nd session of the UN General Assembly in September 2017, drew the attention of the world community to the Aral catastrophe.

In 2018, after a ten-year break, Turkmenistan held a meeting of the International Fund for Saving the Aral Sea. In the same year, at the initiative of the President of Uzbekistan, the UN Multi-Partner Human Security Trust Fund for the Aral Sea region was established.

On October 24-25, 2019, under the auspices of the United Nations Nukus hosted a high – level international conference "The Aral Sea Region - a zone of environmental innovations and technologies". At the suggestion of Sh. Mirziyoyev on May 18, 2021, the UN General Assembly unanimously adopted a special resolution on declaring the Aral Sea region a zone of environmental innovations and technologies. The Aral Sea region became the first region to which the General Assembly granted such a significant status.

Uzbekistan stands for international cooperation to jointly overcome the negative consequences of climate change

Uzbekistan has become an active participant in the global environmental agenda, having joined and ratified several international conventions and relevant protocols in the field of environmental protection. An important event was the accession of Uzbekistan (2017) to the UN Paris Climate Agreement, under which the country committed to reduce greenhouse gas emissions by 2030 by 10% compared to 2010. To achieve this goal, a national strategy for low-carbon development is currently being developed, and Uzbekistan is considering achieving carbon neutrality by 2050.

However, no country can overcome the effects of climate change on its own. Uzbekistan has established cooperation with international organizations, the United States, the EU, and other countries in this area. The UN promotes the achievement of the Sustainable Development Goals including the fight against climate change and the preservation of terrestrial ecosystems. In 2020, Germany launched the regional initiative "Green Central Asia" in the field of climate and security in Central Asia and Afghanistan. The goal of the initiative is to create wider access to information and promote academic cooperation between the six participating countries over the next four years.

The proactive international activity of Uzbekistan requires special attention. President of Uzbekistan Sh. Mirziyoyev, speaking at international forums, puts forward relevant ideas and initiatives aimed at strengthening international and regional cooperation on key aspects of the global agenda, regarding climate change issues.

For example, the Head of Uzbekistan, in his speeches at the UN, SCO, ECO summits, Consultative meetings of the heads of Central Asian states, called for joining efforts to resolve issues related to climate change, as well as to create concrete effective mechanisms for regional cooperation in this direction.

At the SCO summit in Bishkek (June 14, 2019), Sh. Mirziyoyev proposed to adopt the SCO Green Belt program to introduce resource-saving and environmentally friendly technologies in the organization's countries. At the 14th summit of the Economic Cooperation Organization (March 4, 2021), the President of Uzbekistan put forward the initiative to develop and approve a medium-term strategy aimed at ensuring energy sustainability and broad attraction of investments and modern technologies in this area.

At the third Consultative Meeting of the Heads of Central Asian States, held on August 6, 2021, in Turkmenistan, the President of Uzbekistan called for the development of a regional

program "Green Agenda" for Central Asia, which will contribute to the adaptation of the countries of the region to climate change. At the 76th session of the UN General Assembly, the Head of State expressed support for the adoption of the Global Framework Program on Biodiversity in the near future.

In general, Uzbekistan's long-term policy in the field of environmental protection, maintaining ecological balance and rational use of water resources is timely and will lay the foundations for the country's sustainable development. Most importantly, there is political will, as well as a clear vision of Uzbekistan's future, which will develop based on modern, environmentally friendly technologies. Considering it all, we can confidently say that Uzbekistan will be able to adapt to global climate change.