

CLIMATE CHANGE ADAPTATION AND MITIGATION MEASURES IN UZBEKISTAN

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Abstract

The climate change issue is being discussed more actively and the problem starts showing its consequences. The paper defines the measures are being taken by the Government of Uzbekistan and events organized for adaptation to its consequences.

Index terms:

Climate change, Kyoto protocol, United Nations Framework Convention on Climate Change, CO2 emission.

The global climate change, recognized as an undeniable fact, takes into its clench the whole living system in the planet – from a single tree in an uninhabited island to the clouds in distant layers of the atmosphere. As environmental warning alerts ring more frequently and loudly, all the countries in the world try, or just make an image of trying, to add their contribution to improve the climatic condition of our mutual globe.

The following article defines the scale of events and acts taken in order to reduce detrimental effects on the environment and mitigate frightening outcomes of vital activities in the Republic of Uzbekistan. The ideas, facts and expectations are mostly based on the data mentioned in Intended Nationally Determined Contributions Report of the Republic of Uzbekistan (2018).

Uzbekistan is a landlocked country located in the heart of Central Asia with a total area of 447.4 sq.km. It is the only state bordering all other countries of Central Asia, including Afghanistan, most of whose territory consists mainly of desert plains, with only about 20% of its territory occupied by mountains and foothills. According to the latest statistical data of the Committee of Statistics, population counts 32.3 million people, about half of whom live in urban areas, and accounts for about 40% of the total population of Central Asia. An arid continental climate prevails on the territory of Uzbekistan (desert and steppe), with a long, hot summer; mild winter; humid spring; and unstable autumn.

Uzbekistan, with its sensitiveness to climate change, started to pay attention to environmental problems with great worry. The warming rates observed in Uzbekistan since 1951 are more than twice the world average, with particularly significant changes observed in summer and autumn in most parts of the country.¹ The rising tendency of the temperature shows its effect on the water resources, agriculture, forestry, and, of course, living standards of people. Besides, Uzbekistan faced the biggest environmental disaster in the modern world – Aral Sea's disappearance. Salt residues from decreasing or totally disappearing water resources of Aral Sea has catastrophic effects within thousands of kilometers distance. Salt storms reach even European part of the continent.

So, among stated ecological problems, how does Uzbekistan's government try to handle the situation and makes its contribution to decreasing climate change causal actions?

Uzbekistan signed the UNFCCC in 1993 as a non-Annex I party and ratified the Kyoto Protocol in 1999. The government has delegated responsibilities and obligations related to the implementation of the UNFCCC in Uzbekistan to the Center for Hydrometeorological Service under the Cabinet of Ministers.²

Uzbekistan's economic development for more than 50 % based on the industrial sphere. As the industry is one of the main sources of Green House Gases (GHG) emissions, the main attention of the government is focused on modernizing industrial enterprises, implementation technological novelties to the production process in order to increase energy sufficiency and reduce CO2 emission.

¹ Second National Report of Uzbekistan on the implementation of the UN Framework Convention on Climate Change (2008)

² Second National Report of Uzbekistan on the implementation of the UN Framework Convention on Climate Change (2008)

All these processes are being done within the framework of Clean Development Mechanism (CDM) projects. Over the entire period of realization CDM projects, during the period of 1990-2010, energy consumption of GDP decreased 2.5 times while CO₂ emission per unit of GDP showed a decreasing trend for 50%.³ Energy efficiency policy is carried out by gradually transition to renewable energy sources as solar and wind energy. More than ten presidential and governmental decrees have already been adopted; many research works have been held, and hundreds of conceptual papers have been published.

For further development of energy sufficient and harmless economy of the country, and in accordance with the United Nations Framework Convention on Climate Change, Uzbekistan formed and presented its Intended Nationally Determined Contributions (INDC) for the period up to 2030. According to the report, the main objective is to decrease GHG emission for 10% by 2030 from the level of 2010. Besides, Uzbekistan will continue taking actions in the framework of adaptation procedures to reduce climate change impacts to provide sustainable development of the country. The process of gaining the target is supposed to have the following actions:

- Technological upgrading of the industry by using energy efficient and energy saving technologies;
- Development and widening the usage of alternative energy resources, improvement governmental financing schemes, and subsidy support to energy saving measures;
- Development of scientific researches, educational and training activities;
- Development of the system for inventory, reporting, and control over greenhouse gas emissions.

Moreover, Climate change adaption measures determine fundamental reforms in agriculture and water management sector, adaptation of strategic infrastructure and production facilities, and intensive focus on the social sector.

Additionally, existing problems in the environmental sphere cannot be skipped without any reference. Weak organized ecological monitoring system, relatively technologically underdeveloped economic system and poor awareness of climate change effects bring a certain risk to the successful realization of measures stated above.

References.

1. Second National Report of Uzbekistan on the implementation of the UN Framework Convention on Climate Change (2008)
2. Intended Nationally Determined Contributions of the Republic of Uzbekistan (INDC).

³ INDC Report of Uzbekistan (2018)