

TWO IMPORTANT ACTIONS IN FIGHTING CLIMATE CHANGE APPROACH STUDYING THE SCIENTIFIC ASPECTS OF ADAPTATION AND MITIGATION APPROACHES.

Rahmatov Shukhrat Akhatovich

*Bukhara State Technical University Associate Professor
of the Department of Economics and Management*

E-mail: rahmatov79@mail.ru

Abstract. *Climate change is one of the most pressing global problems today. Adapting to climate change and trying to reduce these changes certainly requires the study of scientific theories. This article focuses on two important approaches that are important in combating climate change and highlights their scientific importance.*

Keywords: *climate, weather, climate change, adaptation, mitigation, climate mitigation, climate stability.*

Introduction. Climate change is changing globally, especially in terms of global warming, sea level rise, and extreme weather events (storms, floods, droughts, etc.). These processes are affecting not only nature but also human life. At the same time, two main approaches to reducing the negative impacts of climate change - **adaptation** and **mitigation** - play an important role.

Mitigation: climate change reduce

Mitigation (or climate change mitigation) is the process of changing human activities to slow or reduce the effects of climate change. The primary goal of mitigation is to reduce the release of greenhouse gases into the atmosphere. The focus here is on strategies to increase renewable energy sources (such as solar and wind power), increase energy efficiency, reduce industrial emissions, and electrify transportation worldwide.

In addition, measures such as preserving and expanding forests and restoring landscapes to increase carbon sequestration in the ground and water are also part of the mitigation process. For example, deforestation is a major source of carbon emissions into the atmosphere, so protecting forests and planting new ones is important in combating climate change.

The main goal of mitigation is to reduce the negative impacts of climate change and maintain a stable climate for the future of humanity. This process must be supported by governments, companies and citizens worldwide.

Adaptation: to changes adaptation

Adaptation is the process of adjusting to new conditions resulting from climate change. Adaptation occurs after changes have occurred and primarily involves ensuring that economic, ecological, and social systems adapt to changing conditions.

Climate change is causing droughts, more natural disasters, and rising temperatures. Adapting agriculture, such as planting drought-resistant crops or using water-saving technologies, is essential. It is also necessary to improve irrigation systems in agriculture, manage the use of pesticides and fertilizers, and implement engineering solutions to protect rural areas from natural disasters.

Adaptation also involves managing water resources, strengthening infrastructure, maintaining ecological stability in some areas, and creating energy systems that are adaptable to new conditions. For example, rising sea levels will require the adaptation of recreational and construction sites in coastal areas to protect against flooding.

It is also important to prepare social and health systems for climate change, that is, to prevent climate change-related diseases, and to prepare doctors and institutions for new threats.

Differences and co-implementation of adaptation and mitigation

Mitigation and adaptation are complementary approaches. Mitigation aims to prevent climate change, while adaptation aims to adapt to the changes that are already occurring. Together, these two processes are effective in reducing the negative impacts of climate change on a global scale.

If greenhouse gas emissions are reduced through mitigation, this will slow the pace of climate change and create better conditions for future generations. However, since climate change has already begun, adaptation strategies will be necessary. This is especially important for countries and societies that are already vulnerable to climate change and natural disasters.

In combating climate change, the coherence and effective implementation of mitigation and adaptation strategies are essential to reduce the negative impacts of

climate change in the future. Mitigation is about reducing the root causes of climate change, while adaptation is about adapting to existing changes, and we can create a sustainable future. At the same time, the joint implementation of both approaches will ensure the success of the global community in combating climate change. These processes require the active participation of every citizen, company and society, not just governments and organizations.

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