

**THEORIES OF CLIMATE CHANGE AND CURRENT
ADAPTATION STRATEGIES**

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Climate change is one of the most serious global challenges today. Climate, or rather its change, affects ecological, social and economic processes. Scientists are developing various theories to explain the causes of changes in the Earth's climate, among which special attention is paid to both natural and anthropogenic factors. One of the main aspects of the current climate agenda is adaptation - the ability of societies and ecosystems to adjust to changing conditions. Current adaptation strategies include a wide range of solutions, from adopting sustainable agricultural practices to using high technology to mitigate climate change. It is important to consider both theories and practical approaches to effectively address climate change.

Let's consider the main causes in the Earth's climate change:

The first is natural factors, these include volcanic activity - volcanic eruptions release substances into the atmosphere that can temporarily cool the climate. Solar cycles also have an impact, with changes in solar activity affecting the amount of energy flowing to the Earth, which can cause climate change.

The second is anthropogenic factors: for example, greenhouse gas emissions, human activity, including the burning of fossil fuels and deforestation, increases the concentration of greenhouse gases in the atmosphere, leading to global warming. There has also been a recent increase in the use of missiles and multiple rocket launchers, which can have an impact on the climate by releasing pollutants into the atmosphere. Missile launches release carbon dioxide, nitrogen oxides, soot and other chemicals. These emissions increase the greenhouse effect, which contributes to global warming. In addition, localized temperature changes and the effects of explosions can affect the microclimate in particular

regions. The effects of such systems on global climate are limited, but they can have significant consequences for ecosystems and atmospheric processes.

The world is noticing changes in the climate system and is beginning to adapt to these changes. Current climate change adaptation strategies aim to minimize negative impacts and increase resilience to changing climate conditions. The main areas include:

1. Adaptation in agriculture
2. Urban adaptation
3. Risk management and preparedness enhancement
4. Policy and international initiatives
5. Technological innovation

These strategies aim at long-term reduction of vulnerability to climate change and resilience of ecosystems and communities in the face of global warming.

So what is our country, Belarus, doing to adapt to climate change and prevent it?

Let's start with adaptation. We can refer to the development of a climate change adaptation strategy to protect agriculture, water resources and infrastructure. Introducing sustainable agricultural practices and technologies to combat droughts and floods. Improving water management and creating flood defenses. Our country is actively engaged in all this.

Belarus is not only adapting, but also trying to prevent changes. The country also actively co-operates internationally and fulfils its commitments under the Paris Agreement.

In conclusion, I would like to say and highlight the complexity and diversity of factors, both natural and anthropogenic, that influence the Earth's climate system. Modern scientific research confirms that human activity, primarily greenhouse gas emissions, plays a key role in accelerating climate change. In response to these challenges, various adaptation strategies are being developed to minimize impacts and increase resilience to climate change.

Effective adaptation measures require an integrated approach that includes both innovative technologies and systemic changes in policy and governance. It is important that the global community continue to work together to address this global challenge in pursuit of a sustainable future for all.