

International Scientific and Practical Conference on 'MAIN DIRECTIONS OF ENSURING SUSTAINABLE DEVELOPMENT: CONTEMPORARY ISSUES OF ECOLOGICAL EDUCATION AND ENVIRONMENTAL PROTECTION'

**On April 7-8, 2025**, Magtymguly Turkmen State University organized an International Scientific and Practical Conference titled "MAIN DIRECTIONS OF ENSURING SUSTAINABLE DEVELOPMENT: CONTEMPORARY ISSUES OF ECOLOGICAL EDUCATION AND ENVIRONMENTAL PROTECTION" in Ashgabat.

Derya Soysal delivered a lecture on the use of negative emissions technologies to preserve biodiversity. She taught students about climate change, the development of technologies by companies to combat climate change, such as negative emissions technologies. She explained the ecological problems in the world and Central Asia and emphasized the importance of studying biodiversity, preserving it, and fighting against climate change. She stated that climate change is the biggest challenge of the century and that we must study all technologies, including negative emissions technologies, carbon capture, and storage.

Negative Emissions Technologies (NETs) must capture and permanently store CO<sub>2</sub> from the atmosphere to neutralize it sustainably. Even Elon Musk is trying to develop this technology.

To achieve net-zero greenhouse gas emissions and limit global warming to 1.5°C, it is necessary to permanently remove and store CO<sub>2</sub> present in the atmosphere. This method is called Carbon Dioxide Removal (CDR). These practices or technologies that compensate for the emissions generated are often described as "negative emissions" or "sinks."

Moreover, the organization of a conference focused on biodiversity shows how concerned Turkmenistan is about addressing climate change and protecting the environment.