79th SESSION OF THE ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Side event

National Climate Monitoring System of Russia: «Science Architecture» for Mitigation and Adaptation Modelling

16 May 2023 (Virtual)
12:45-13:45 (Thailand time)

BACKGROUND

The challenge of climate change is one of the most significant for the world, and it requires urgent solutions. The Asia Pacific region is extremely vulnerable to climate change impacts, stemming from the risks of rising sea levels for island territories and densely populated areas, an increase in the frequency of extreme weather events and heat waves for this region.

Global climate change mitigation and adaptation efforts are coordinated by multilateral agreements, including the UNFCCC (United Nations Framework Convention on Climate Change) and the Paris Agreement. The Russian Federation, as a party to these agreements, has decades of experience in the development of the climate change monitoring, modelling and assessment systems. Russian specialists not only produce national reports on GHG emissions and their absorption in accordance with international requirements, but also conduct research and evaluations of the state of the climate for neighboring regions, including Central Asia and Eastern Europe.

Long-term experience and state-of-the-art technologies have become the foundation for the creation of «The Integrated National Monitoring System for Climate Impacting Substances», which incorporates all stages of expert work from modelling of climate changes and risks to assessing the efficiency of mitigation measures. The system is based on the advanced scientific achievements of leading research centers, and calculations use the methodology aligned with the IPCC guiding principles.

The research results are practice oriented as they are employed in planning measures for implementation of the Russian Low-Carbon Development Strategy and decision-making with regard to national climate policies.

Achievements in the modelling of decarbonization strategies, GHG inventories, improved assessment of removals by land- and sea-based ecosystems, identification of environmental and climate change risks can be scaled and applied in the Asia Pacific region.

Guiding Questions

- *How can the monitoring system of the World Ocean and seas contribute to climate modelling?*
- *What is the carbon and GHG monitoring system in land-based ecosystems?*
- *How will the global model of the Earth system assist in the issues connected to climate modelling in the long-term?*
- *How can the quality of the National GHG inventory data be improved?*
- *Is it possible to identify and assess the necessary measures for adaptation of the country's economy to climate change?*

OBJECTIVES

The side event provides an opportunity to present the experience of creating a comprehensive system of expert and scientific support for the national mitigation and adaptation modeling system. Also, during the event, the capacities of individual components of «The Integrated National Monitoring System for Climate Impacting Substances» as well as the illustrative options for using of the obtained data in practice will be

presented. The components covered include the monitoring system of the World Ocean and Russian seas, the carbon and GHG monitoring system in land-based ecosystems, the global model of the Earth system, improvement of the quality of the National GHG inventory data, the model of socio-economic effects from the implementation of climate policies and necessary measures to adapt to climate change.

AGENDA

Time	
12:45 – 12:50	**Welcome speech** **Nikita Kondratyev,** Acting Director General of the Department**,** Ministry of Economic Development of the Russian Federation
12:50-13:00	**Gulev Sergey,** Shirshov Institute of Oceanology of the Russian Academy of Sciences *The monitoring system of the World Ocean and Russian seas*
13:00-13.10	**Lukina Natalya,** Center for Forest Ecology and Productivity of the Russian Academy of Sciences *The carbon and GHG monitoring system in land-based ecosystems (forests, agricultural lands, steppes, swamps, etc.)*
13:10-13:20	**Gritsun Andrey,** Institute of Numerical Mathematics of the Russian Academy of Sciences *The global model of the Earth system*
13.20-13:30	**Romanovskaya Anna,** Institute of Global Climate and Ecology *Improvement of the quality of the National GHG inventory data*
13:30-13:40	**Porfiriev Boris, Shirov Alexander, Kolpakov Andrey,** Institute of Economic Forecasting of the Russian Academy of Sciences *The model of socio-economic effects from the implementation of climate policies and necessary measures to adapt to climate change*
13:40-13:45	**Outcomes, summing up**