International Online Seminar

"Internalizing Externalities: Funding for Mitigation of Global Warming"

15 October 2025

Background:

The emissions of Greenhouse Gases (GHG) mostly from fossil fuels cause global warming, an externality not accounted for in the market process without Government intervention. The damages of global warming show up in different regions and in different forms like bush fires, heat waves, torrents, and stronger storms. Various reports, like the Stern Report, suggest that the global damages clearly exceed the global costs of prevention.

Internalising externalities from pollution by noxious materials like particulate matter, SO2 and NOx became a topic of national policies in the 1970s. Curbing the negative effects of pollution on the health of people and on buildings was a question of the cost benefit balance within the national economy. Instruments to address them were: Emission standards, Pigou taxes reflecting the damage, subsidies to foster investments to curb pollution and cap and trade regimes (Coase theorem).

While these approaches offer useful insights, dealing with the global issue of global warming linked to GHG is different:

- GHG emissions have an impact on the entire atmosphere (instead of on surfaces like pollutants), creating a global dimension beyond national borders with a global causality: While avoidance costs accrue on a national level, the benefits of avoided damage are global and may show up in different regions.
- The emission of CO2 from fossil fuel combustion is the largest contributor to GHG emissions and has been deeply entrenched in global wealth creation for over a century with an uneven regional distribution of costs and benefits.
- Addressing Climate Change successfully requires a new global economic, technical and legal framework adjusting existing economies in the Global North and providing GHG-free economic development for the Global South.
- By its global nature, the mitigation of global warming raises the question of how to minimise and distribute global costs across borders.

The Paris Agreement (PA) foresees Nationally Determined Contributions (NDCs) as an approach to attribute the efforts of decarbonization. Several national and regional emission trading regimes have been established, like the ETS of the EU, the CO2 trading regime of China, and more recently of Brazil with a view to minimize the costs of meeting the NDCs.

Beyond these nationally or regionally determined schemes, there were always discussions about minimizing the costs of emission reduction, like in the Kyoto Protocol with the Joint Implementation (JI) and CDM (Clean Development Mechanism), but also under Article 6 of the PA where Parties can use internationally transferred mitigation outcomes towards their NDCs. Recent COPs made substantial progress to further work out the details. Another cross-

border issue are Carbon Border Adjustment Mechanisms which aim at preventing GHG leakage, i.e., the relocation of emissions to jurisdictions with less strict emission regulations.

The online seminar will explore these issues in two sessions and a panel discussion.

Presentations will be predominantly in English with the possibility of simultaneous translation between English and Russian.

Program

10:00 – 12:00 (MSK) **Session 1**

Chair: Dmitry Vasilenko, UNECON

The first session will address the principles of internalization of externalities and the experience from dealing with pollution within a political entity. It will present some of the established CO2 trading regimes like the EU ETS and various national trading regimes.

- *Lessons from internalizing pollution for GHG emissions*, **Ralf Dickel**, Independent Expert
- *Carbon credits market in India*, **Avinash Kumar**, Earthood
- *The EU approach to CO_2 Cap and Trade – The Emissions Trading System (ETS I and ETS II),* **Jens Völler**, Team Consult G.P.E. GmbH
- *Main Provisions of the CORSIA and their Impact on Russia*, **Sergey Nikiforov**, Earthood Russia

14:00 – 15:30 (MSK) **Session 2**

Chair: Irina Mironova, Independent Expert

The second session will continue presenting national CO2 trading regimes and address mechanisms to credit emission reductions across borders of different political entities, mainly under art 6 of the PA as well as border adjustment mechanisms.

- *The Brazilian Greenhouse Gas Emissions Trading System*, **Edmar de Almeida**, Professor at the Energy Institute – PUC University in Rio de Janeiro
- *Overview of trends in carbon unit markets from world offset projects*, **Ilia Nagaitsev**, Department of Sustainable Development and Climate Change, Center for Energy Research

- *Article 6 of the Paris Agreement: From Paris to Belem*, **Michael Sipos**, Independent Expert

15:30 (MSK)

Panel Discussion

Chair: Maxim Titov, ENERPO Research Center, European University at St. Petersburg

Finally a panel will discuss if emission trading just creates a penalty benefitting the treasury or if it can foster the investment necessary for decarbonization, and if trading them across borders can foster GHG-free development and wealth creation in the Global South.

Discussants:

- **Avinash Kumar**, Earthood
- **Edmar de Almeida,** Energy Institute – PUC University in Rio de Janeiro
- **Ralf Dickel**, Independent Exert
- **Michael Sipos**, Independent Expert