

A Survey of Dynamic Games in the Exploration of Global Geoengineering Governance

Weili Weng // Chinese Academy of Social Sciences

Ying Chen // Chinese Academy of Social Sciences

Climate geoengineering, a suite of hypothetical technologies with the potential to dramatically cool the climate, could cause fundamental interventions to the ecosystem and create problems with high uncertainty and uneven distribution around the globe. The research on the science and regulation of geoengineering is not evenly developed across the world either, nor transparently disclosed. Speculations of other countries' progress in geoengineering research could lead to a race of actions. Apart from physical effects, risks and benefits analysis of climate engineering depends largely on political and social elements. The paper intends to imply game-theoretic analyses in geoengineering issues in a dynamic context and explore political and social driving forces that are likely to shape a global governance regime within which decisions on the use of climate engineering technologies could be taken.