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ABSTRACTS

GABIJA STANISLOVAITYTĖ

Vilnius University

Lithuania

gabija.stanislovaityte@knf.vu.lt

THE ROLE OF FORESTS IN DECARBONIZATION OF ECONOMY AND CREATION OF CARBON-NEUTRAL SOCIETY: A SYSTEMATIC LITERATURE REVIEW

As the world is trying to survive with the consequences of rise in GHG emissions, the role of forests is becoming increasingly significant. Forests act as imperative carbon sinks, absorbing and storing large amounts of carbon dioxide, thus playing a crucial role in mitigating climate change. This study aims to address two global issues: the transition to a low-carbon economy and the challenges implied by climate change in the forestry sector. This review examines the critical role of forests in addressing the challenges of a low-carbon economy and climate change. I use a combination of the SALSA model and the PSALSAR method to systematically analyze indicators to assess the role of forests in the decarbonization of the economy. The study confirms the commitments of COP26, emphasizing short-term measures to slow global warming and pledging that by 2030 deforestation will be halted. Reforestation appears as an option. As the second largest sink of terrestrial carbon, the forestry sector plays an important role in replacing fossil fuels, showing potential growth in climate change mitigation. Forests impact the carbon-to-GDP ratio and mediate economic growth through urbanization. This study provides valuable insights for policy makers, researchers, and practitioners striving to achieve sustainable developments in the face of climate change.

Key words: *forests, decarbonization, carbon neutrality, economy.*