

China's Climate Change Policy Attention and Forestry Carbon Sequestration Growth

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Abstract: Forest carbon sinks play an important role in climate change mitigation and adaptation. The Chinese government has demonstrated its proactive approach in addressing climate change by setting development targets for low-carbon transformation and making solemn commitments to peak carbon emissions before 2030 and achieve carbon neutrality by 2060. In this article, the Chinese Government's Work Reports and Five-Year Plans were used to construct an index named *CCPA*, which reflects the government's emphasis on climate change and forestry in China. This paper aims to examine the impact of the *CCPA*, the adjusted Climate Policy Uncertainty (*CPU*) index from the U.S., or the Economic Policy Uncertainty (*EPU*) index from China on the Chinese forest carbon stocks (*FCS*), comprehensively. On this basis, we are interested in clarifying the channels that promote the growth of forest carbon sequestration in China. Specifically, a panel data from 30 provinces in China from 2000 to 2017 is used for empirical analysis, and the following results were obtained: (1) The baseline regression indicates that *CCPA* significantly promotes the growth of *FCS*, while *CPU* or *EPU* inhibits its growth. (2) The interactive regression shows that the promoting effect of *CCPA* on *FCS* growth is stronger than the inhibiting effect of *CPU* or *EPU*. (3) Mediation analysis documents that *CCPA* promotes *FCS* growth by increasing forest tending area, expanding existing forest area, increasing renewable energy consumption, and improving green investment. (4) Heterogeneity analysis reveals a clear differentiation in the impact of *CCPA* on *FCS*. Finally, policy implications are proposed based on the results. This article is expected to provide a theoretical basis for the Chinese government to develop relevant policies from the perspective of promoting *FCS* growth.

Keywords: Climate Change, Policy Attention, Carbon Stock, Forestry Carbon Sequestration, Channel analysis

中国的气候变化政策关注程度与林业碳汇增长

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摘要: 森林碳汇具有减缓和适应气候变化的重要作用。中国政府在应对气候变化时表现出了其锐意进取的一面, 提出了低碳转型的发展目标, 并在联合国庄严承诺在 2030 年前碳达峰, 2060 年前实现碳中和。为此, 本文借助中国政府工作报告和五年发展规划合成了反映中国对气候变化和林业重视程度的指标 CCPA, 连同调整的美国的气候不确定性指标 CPU 和中国经济政策不确定性指标 EPU, 并考察这些指标对中国森林碳储量 FCS 的影响。具体地, 使用 2000-2017 年中国 30 个省份形成的面板数据进行实证分析, 结果发现: (1) 基准回归表明 CCPA 能够显著促进 FCS 的增长, 而 CPU 或 EPU 则能够抑制 FCS 的增长。(2) 交互效应回归表明, CCPA 对 FCS 增长的促进作用, 强于 CPU 或 EPU 对 FCS 增长的抑制作用。(3) 中介效应检验表明, CCPA 能够通过促进森林抚育面积增加、现有森林面积扩张、可再生能源消费量增长和绿色投资水平提高, 进而促进 FCS 的增长。(4) 异质性分析表明, CCPA 对 FCS 的影响呈现出明显的差异化特征。最后, 根据研究结论提出政策启示。本研究预期能够从促进 FCS 增长的角度, 为中国政府制相关政策提供一定的理论依据。

关键词: 气候变化 政策关注碳储量 林业碳汇 影响渠道