

SCHOLARLY PUBLICATIONS School of Economics & Commerce KIIT Deemed to be University

Journal Name: Environment, Development and Sustainability

IF: 4.7

Title: Club convergence in per capita carbon dioxide emissions across Indian states

Author: Akram V.; Rath B.N.; Sahoo P.K.

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Abstract: Although several studies examine the convergence of per capita carbon dioxide (CO_2) at the country level, research at the regional level is scarce except in countries like China and the USA. This study bridges this research gap by considering India's regional-level CO_2 emissions convergence. In

particular, this study proposes to undercover the convergence patterns of carbon emissions towards designing effective carbon reduction policies in the future at the regional level in India. Addressing this research is vital since this question is closely allied with fairness in the distribution of per capita emissions. In order to achieve the stated objective, this study first computes per capita CO_2 emissions. Then, it uses the convergence notion to analyse the CO_2 emissions in the case of 16 Indian states from 2003–04 to 2018–19. By employing Phillips and Sul's clustering procedure, this study supports the presence of overall divergence when all 16 Indian states are considered as a group. This suggests that all states together are not forming a single steady state rather, they are forming multiple steady (or club convergence) due to heterogeneity



in per capita CO_2 emissions. Moreover, 16 states cluster into three clubs which have distinct transition paths. From the policy perspective, it is important for the government of India to target reducing per capita CO_2 emissions by focusing on clusters of states in a phase-wise manner.

URL: https://link.springer.com/article/10.1007/s10668-023-03443-2





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Journal Name: Journal of the Knowledge Economy

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Title: Is Public Debt Sustainable in Indian States? An Empirical Insight

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Details: 2024

Abstract: This paper measures the public debt sustainability of twenty-eight Indian states during 2012–2013 and 2020–2021, including the first year of the COVID-19 pandemic. The study uses Domar's

stability test and panel vector autoregressive (PVAR) model in a generalized method of moments (GMM) approach by segregating the Indian states into three regions. The Domar's stability conditions find that there is no violation throughout all the regions of India. The major findings from the PVAR result show that the response of public debt to the gross state-domestic production ratio and the gross primary deficit is negative due to the positive shock of the level of economic growth for the southeastern region. On the other hand, we observed a positive response to public debt for the northwest and northeast regions due to the shock of economic growth. Our findings suggest that while the public debt is sustainable



in the southeast region, it is unsustainable in the northwest and northeast regions. The findings emphasize various steps and initiatives of state governments toward fiscal discipline for public sustainability in the long run.

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