

**UNEQUAL TRANSITIONS?
ENERGY SHIFT AND GENDER EMPLOYMENT GAPS IN THE STATES OF INDIA**

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Unequal Transitions? Energy Shift and Gender Employment Gaps in the States of India

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Abstract

India has set the target of achieving net-zero carbon emissions by 2070 as part of United Nations Sustainable Development Goals (SDGs). India is currently standing at a critical juncture in energy transition from coal-based industries to renewable energy which can be seen as both challenge and opportunity for a Just Transition. Gender equality and inclusivity is a crucial part of Just Transition as women continue to face barriers in workforce participation in the energy sector. Existing studies offer qualitative discussions on the gendered perspective of energy transition but they lack empirical evidence on how Just Transition policies affect the female workforce. As India is a culturally diverse country with 48.5% of its population as women, we have considered a state-level analysis. This study bridges the gap by examining the intersection of SDG 5 (Gender Equality) and SDG 7 (Affordable and Clean Energy) for India by providing empirical evidence to achieve a Gendered perspective of the Just Transition. In this study, we have explicitly carried out panel data analysis using Fixed-effects models among the Indian states for the time-period of 2018-2023. The analysis also considers female employment across formal and informal sectors to assess how India's energy transition may influence the sectoral distribution of women's work in addition to overall female participation. This research offers a new empirical foundation regarding Just Transition, contributing to the emerging debate on sustainable development, labour economics, and gendered policy-making.

Keywords: Just Transition, Gender Inequalities, Panel Data Models, SDGs

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