

Digital Technologies in Urban Carb on Accounting: Towards Comprehensive, Real-Time Scope 3 Inventories

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Abstract: Urban carbon footprint accounting often excludes Scope 3 emissions, leading to distorted city rankings, misattributed responsibilities, and policy misalignments. This paper critiques current Climate Action Plans (CAPs) in Indian cities, showing how the omission of Scope 3 sources—such as imported goods, aviation, and embodied energy—undermines accurate reporting and equitable climate governance. By proposing hybrid accounting models, enhanced data transparency, and mandatory Scope 3 disclosures, the study emphasizes the need for more holistic and just climate metrics. Addressing these gaps is a moral and political imperative for effective and equitable urban climate strategies.

Keywords: Scope 3 Emissions; Climate Action Plans; Urban Carbon Footprint; Climate Justice; Policy Reform; India

JEL Classification Number: Q54, Q01, R11, Q58

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