



Paradox between urbanization, climate change, and platform economy: A case study of Kolkata and Delhi NCR

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Abstract

Urbanization is process towards development; 'beautification' of a particular place. It outstretched 'development as freedom', consequently 'development as vulnerability'. It has a direct link to climate change. This study examined how urbanization and climate change impact daily lives of the platform workers. The 'digital platform economy' functions on the roads, not in an enclosed digital space. Therefore, the growing concerns about platform workers should not be limited to the understanding of their vulnerabilities through 'algorithmic control'. It is also crucial to analyse their physical and mental condition after working for long-hours, where average AQI rate is in very poor to severe category. This study argues that there is a paradox between urbanization and climate change in the context of platform economy specifically, because on the one hand urbanization creates new job opportunities, on the other side it excludes some section of people to enjoy their 'Right to Life' because of climate change.

Keywords: Urbanization, climate change, platform workers, kolkata, delhi NCR

Introduction

The Neoliberal economy in the 21st century raises several questions of human rights. Using technology platform-based economy growing faster to reshape the labour market entirely. In case of India the dominating platforms are Uber, Rapido, Zomato, Swiggy, Blinkit, and Urban Company, which have captured the transportation and food delivery market. Earlier it used to be taken as an opportunity for the semi-skilled workers, claiming flexibility of working time, and place. Workers started joining as a permanent or part-time basis. They did not have class consciousness, because the nature of this work, which is sporadic; though did not able do collective burgeoning. Thought as an alternative platform to earn. But after covid and rapid job lost, people were forced to rely on this casual work. For some years they have started claiming for their rights; right to be defined as a worker, to get social security benefits like minimum wage, health insurance, after realizing the precarity of these jobs and the nature of exploitation. All India Gig Workers Union, Indian Federation of App-based Workers, Delivery Voice and other trade unions have been started demanding protection of platform worker rights. In the meantime, central and state government initiated some laws which is going to benefit them like the 'Social Security Code' (Ghosh, 2020) [4], which also has some problems that is not covered in this paper. This paper analysed the paradox between urbanization, climate change, and platform economy, which is the concern of 'Right to life' of the platform workers.

Research Objective and Method

This study aims to understand a new aspect of the burning issues of platform economy through a critical lens. Firstly, to understand the effects of urbanization and climate change on platform workers. Secondly, to understand the initiatives taken by the India in order to solve this burning problem. To focus on these two aspects, this study primarily used two methods; interview and focused group discussion. With the

help of non-probability sampling method respondents have been selected from five platforms; Uber, Yatri Sathi, Zomato, Blinkit, and Urban Company in Kolkata and Delhi NCR. Selected areas in Kolkata were Howrah and Sealdah railway station, Jadavpur, and Netaji Nagar, and in Delhi, Priya Bihar Complex (Vasant Kunj), Munirka Metro Station, and New Delhi railway station. Data have been collected from these places from August 2025 till January 2026 [7]. Beside this, other relevant data were gathered from different primary and secondary sources e.g. government websites, reports from different organization, book, journal and new paper articles. To conduct this primary research 60 delivery boys and drivers were conveniently selected, 30 from each city, and their name and identity has not been revealed for their safety and job security.

Discussion

The Paradox between Urbanization, Climate Change, and Platform Economy:

Neoliberalism facilitates urban development for ease of doing business, in a result platform economy came into picture in 21st century. The platforms demand that these jobs are flexible of time and space but in reality, there is a 'time-space energy' works in this field. Francesco Della Puppa *et al.* argues that time is important variable here because these businesses run with 'on-time' delivery. Space variable it also important in the urban contextual specificity like overcrowded streets, geo-location failure etc, it is energy intensive because of rating, and ranking (Della Puppa *et al.*, 2025) [3]. Altogether, this new form of capitalist exploitation pushes workers to death threat. To understand this paradox two places of India; Kolkata and Delhi were taken into consideration.

A Case Study of Platform Workers in Kolkata

The case study of Kolkata denotes a critical angle in this context. It is a capital city of West Bengal and provide a competitive market for platform economy. Unlike the other

states of India, where platforms like Uber dominates as a ride-hailing platform, in Kolkata a platform called 'Yatri Sathi' recently launched to include the old 'yellow taxi' in the newer digitized formed. In order to ensure the taxi drivers participation in 'digital work space'. Meanwhile, this initiative is also debatable to the drivers and trade unions that how much it is securing workers rights. Indeed, the main focus of this study is infrastructure of this metropolitan city and how it creates opportunities and challenges of the platform workers. Some parts of Kolkata like Salt Lake, New Town, Howrah, Hooghly are infrastructurally developed then the other parts of the city. The migrant workers come in Kolkata to fulfil their basic amenities.

Sometime unemployment and bad governance system of unequal resource distribution force people to come in an urban space with developed infrastructure seems like a blessing for people to live a standard life. West Bengal has faced cyclones; Aila (2009), Komen (2015), Fani (2019), Bulbul (2019), Amphan (2020), Yass (2021), and Dana (2024) due to climate change. The devastated effects of climate change mostly impacted the places like Sagar, Patharpratima, Namkhana, Kakdip, Gosaba, Canning, and Basati (Irrigation & Waterways Department, Government of West Bengal, n.d.). People from these places migrated to Kolkata. The city provides them job opportunities. But the increasing unemployment rate, approximately nine percent (Gupta, 2025) ^[5] triggers the problems of livelihood for the poor and lower-middle class workers. In this scenario the digital platforms e.g. Uber, Zomato, Yatri Sathi, Blinkit, Urban Company provide temporary jobs. The workers are sporadic and joining in a large number daily. Therefore, there was no specific data available which can identify their total numbers. Survey data showed more than 86 percent platform workers belong from SCs, STs, and OBC and around 63 percent comes from the disaster-prone areas.

During interview one of the respondents' named Prakash has said that "I do not like this city because of congested and dirty area. Traffic signal and horns completely disturb my mind. I drive approximately 160-180 kilo meters daily as an Uber driver. If I do not have the responsibility of my family, I will not prefer to work even a single day". This response shows us how the congested roads, huge traffic makes peoples life tough. Platform workers face difficulties in such a developed city because it lacks public toilets, enough petrol pumps, service centres, specific stands for them, drinking water facility etc. Heavy traffic, vehicular emission creates air and noise pollution average AQI 159-242 in winters. Another respondent said "after working 14 hours daily in this environment I feel mentally and physically exhausted. My age is 47, I do not know for how much time I can do this job. But what can I do after Covid I lost my job and could not find any other because of my age". Therefore, gradually these workers life is going towards death.

A Case Study of Platform Workers in Delhi NCR

In the case of national capital Delhi, more than 87 percent platform workers are migrants. They come from neighbouring states like Haryana, Uttar Pradesh, Bihar and West Bengal. They had different experience before joining this casual work. One of the respondents said that "Earlier I worked in a private firm but after thrown out by that company I have no where to go. I lived in Gurugram and thought to join as a delivery boy because I only have a bike,

it is a saviour for me". The respondent is 55 years old and have a family of five people. A young graduate delivery boy in Blinkit and Zomato was saying that "I did my Graduation from a college under Delhi University and doing Postgraduation from IGNOU, I had a wish to complete my study on a regular course but circumstances forced me to become a delivery boy". Some of the migrant workers express their opinion about platform work. They said this job helped them to settle in a new place because after coming in the place like Delhi, they are struggling to find a job. Nonetheless, they were also saying that "we are not in a good a position, we are struggling to meet our basic needs. We are working more then 12 hours a day but not getting enough to live a dignified life".

In India main causes of pollution is rapid development and urbanization (Singh, 2025) ^[12]. In the place like Delhi the other reasons of pollution are farm stubble burning, firecrackers, emission from vehicles, industrial unit, and construction dust (Singh, 2025) (Mathew, 2026) ^[7, 12]. Which led to irritation, cough, cold, infection, exacerbate respiratory and heart diseases, and these are not easily identifiable. Long term PM 2.5 exposure can also create hypertension, diabetes, lung cancer, altogether reduce the life expectancy. The State of Global Air 2025 ^[1] report estimated approximately 2 million pollution related death in India in 2023. Another study shows annual mortality rate rise by 8.6 percent (Patel, 2025) ^[9]. In Delhi average AQI was 307.6 in January 2026 (Mathew, 2026) ^[7]. Therefore, a question raised by Purvi Patel, a former senior consultant in National Programme on Climate Change and Human Health is that "why air pollution isn't a public policy priority". Medical experts are suggesting "...stay indoors, turn the air purifier and remain sedentary" (Roy, 2026) ^[11]. But the question is, is it possible for the platform workers to stay indoors and remain sedentary? President of India Foundation Pankaj Butalia answered this question, he says that if 50,000 air purifiers are installed in Delhi "which presumably provide relief to two lakh people, what about the remaining 22 million who to make do without any such relief? There's cynicism at work here. The poor have no life, anyway. If pollution does not kill them, hunger will". He also says that "The elite, the bureaucrats, the politicians, the judges, even if they are aware of the damage of air pollution, are not bothered. I ask myself why? Then I realise they all have a device called the 'air purifier'" (Butalia, 2025) ^[2]. The effects of urbanization are not limited to the air and noise pollution; it also raises serious concerns of heat waves during summer.

Indian government with the help of its global partners raises concern over climate change. Last year in Belem, Brazil UN Climate Change Conference, COP 30 was held, India was one of the participant countries (United Nations Framework Convention on Climate Change, n.d.). Where reduction of fossil fuels to protect the forest has discussed extensively, but there is no positive result, climate is drastically changed over decades. Countries like India is more focusing on economic development rather than policy developments to control climate change. The new ecosystem of platform-based economy is further accelerating this issue, because by introducing this, the number of public vehicles is increasing which contribute on vehicular emission. Though this is a debatable topic, some scholars have been saying that it helps to reduce the number of private vehicles. Each argument is relevant for our discussion. Indeed, this service sector

contributes to a country's GDP growth. Now the question is how does government protect human life with economic development? Is human life not becoming a barrier for the determination towards 'Viksit Bharat' 2047? Is there any possibility for sustainable development?

In an article Rishika Singh, a deputy copyeditor in The Indian Express says that India should take lessons from China to deal with air pollution. One of the solutions is electrification of vehicles (Singh, 2025) [12]. But the question is does India not know this answer? Of course India knows it well and for that matter a scheme called 'Faster Adoption and Manufacturing of Electric (& Hybrid) Vehicles in India (FAME India) on early 2015. Phase I and II invested million to promote electric and hybrid vehicles. Recently by replacing these two, government launched a new scheme named 'PM-DRIVE' with an outlay of 10, 900 crore and implemented on 1 April 2024 till 31 March 2028 (PIB, Government of India, 2026) [8]. But these schemes rather than facilitating the platform workers it creates another burden and opportunity for them. As mentioned, people from marginalized background usually get into this informal sector, they do not have the initial capital investment to purchase a bike, car, auto, or any other vehicle in order to onboard into platform. Either they take it as a rent from the owner or take a small loan for it to purchase. But now these small rentier companies like Yulu, Zyp, Malik Travel give the vehicles on rent around 3,000 to 5,000 rupees in a week (Nath, 2026) [8]. Definitely it helps the workers to start earning but they do not earn that much money to pay the rent. After working 12 to 14 hours six to seven days in a week, they hardly get 1500-1800 thousand in a month. Accordingly, government initiatives do not facilitate enough to these workers to use e-vehicle which can also reduce the effects of climate change. Therefore, the problem is not in the policy but in its process of implementation. As a result, these are only beneficial for the big manufactures cum capitalists.

It is very difficult for the common person to understand the motives behind government policies and paradox lies between it. Various schemes launched by the government to encourage manufactures to produce electronic vehicles to reduce vehicle emission, which protect climate as facilitates economic growth. But another future plan proposed by the government is tighten the 'Corporate Average Fuel Efficiency (CAFE)' from the financial year 2028. According to senior industrialist it is going to be an encouragement for the bigger car manufacturer, though heavy car produces less emission, basically it destroys the small car manufactures and "primarily first-time buyers, will be priced out of the market" (Barik, 2025) [1]. Therefore, those who have minimum capital to invest for buying a car, and earn some money as a driver of platform like Uber, Yatri Sathi, Rapido their source of income also suffers by these initiatives.

Conclusion

The paradox between urbanization and its effect on climate change is not a newer discussion. Since decades these discussions are on the table of policy maker nationally and globally. In 2015 UN adopted 17 goals to promote sustainable growth. In these goals we also noticed paradoxes because in 'Goal 3', 'Good health and well-being' has mentioned, opposite to it 'Goal 8' is says about 'Decent work and economic growth', and 'Goal 9' 'Industry, Innovation, and Infrastructure' (United Nations

Development Programme, n.d.), but generally we also know that these goals cannot be fulfilled simultaneously. A long discussion has been going on to protect the climate, but as such no positive results have been shown yet. Indeed, this study has emphasized on the growing aspect which has not been discussed yet on platform economy. These paradoxes ultimately not only damage the lives of workers but by promoting this casual work instead of permanent decent jobs, the ecosystem destroy the lives of the consumers as well because of drastic climate change.

The platform creates 'digital panopticon' to monitor workers activity. But the capitalist does not create a mechanism through AI to monitor workers health due to long time work in such a polluted climate, because it effects the proliferation of their businesses. Deepender Goyal, CEO of Zomato has said in a podcast that they do not fit any clock to strictly follow '10 minutes' delivery timings, but what he has not mentioned that how they control worker choice by incentives. A respondent was saying "...our labour is important for the owner of the platform and the government, but our body is not important for them, because they have a lot of unemployed workers who can work for them without questioning". Therefore, it is time to not ignore but think more about how to balance economic growth and the human life as an important matter.

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