

## UNDERSTANDING CONTEXT OF THE ISSUES FACED BY E-RICKSHAW AND AUTO-RICKSHAW DRIVERS OF HALDIA, WEST BENGAL

**Dr. SOUMI DEY**

Assistant Professor. Department of Anthropology.  
Haldia Government College.

<https://doi.org/10.37602/IJSSMR.2023.6405>

### ABSTRACT

With the rapid urbanization of Indian cities, the relevance of the paratransit informal public transport system grows all over the country. In India's public road transportation industry, battery-powered electric three-wheelers, sometimes known as e-rickshaws or Toto (local term), have recently gained popularity. Simultaneously with the age-old motorized auto-rickshaws, these battery-operated rickshaws have become very popular since they provide fellow passengers with a convenient and affordable means of transportation same as auto-rickshaws. At the same time both this type of rickshaws exacerbates the Haldia town's growing traffic congestion issue. The study makes an effort to understand the context of why those people have chosen this type of paratransit informal public transport service as an occupation and what types of issues they used to face in their day-to-day life for choosing this livelihood. This study has chosen purposive sampling and snowball sampling for data collection. Though this research is primarily based on qualitative methods, descriptive statistics helped in generalizing particular issues. This study has adopted participant observation, in-depth interviews, and group discussion techniques which basically enhance its trustworthiness. Research finding indicates mainly low education and economic hardship push them to choose this job as their career. In order to promote sustainable development, the government should highlight their income enhancement.

**Keywords:** e-rickshaw, auto-rickshaw, paratransit system, informal public transport

### 1.0 INTRODUCTION

Urban and sub-urban development depends greatly on the transportation system. In addition to the mass public transportation system like bus or train, the paratransit informal public transport system today plays a crucial part in the movement of people and commodities in urban areas as well as towns all over the India (Roy, 2016). This system offered either shared or individual hire services to passengers and it has low-capacity modes; having three to four seats (Kumar et al. 2016). Paratransit provide flexibility to fixed-route mass transit by offering individualized rides without set schedules or routes. At present motorized (four stroke engine operated three wheelers auto-rickshaw) and battery-operated electric (e-rickshaws/ toto) three-wheeler paratransit's are crucial for the transport system of Haldia, particularly when considering short trips as primary trip types in Haldia, a sub urban area of Purba Medinipur district in West Bengal. Mostly women, students and office workers prefer these rickshaws as a mode of transportation. These are essential in day-to-day life in sense of security, comfort, and

dependability; unavailability of ride-hailing platforms that connect passengers with drivers through a smartphone app (like Ola/ Uber); a large workforce participation; and an expanding role as a goods carrier. In 2012, Rana et al. demonstrated the contribution of battery-powered rickshaws to Bangladesh's urban revenue and employment creation. Additionally, it demonstrates how the mode of transportation depressurizes migration to Dhaka, the nation's capital. Rana and his team (2013) examine the battery-operated rickshaws in Bangladesh and makes recommendations to improve efficiency, including route fixing and the issue of driving licences. The situation in Bangladesh is comparable to that in Haldia as well as West Bengal. E-rickshaws, or battery-powered electric three-wheelers, have become popular in India's public road transportation industry since 2014. There are numerous issues with the mode of transport and how it operates in the state of West Bengal. The Motor Vehicles Act of 1988 should legally apply to battery rickshaws, but they are not registered or licenced, and there are no additional regulations that apply to them. The Government of India made additional legislation during the most recent legislative session in December 2014 to assure the legalisation of these vehicles (Majumdar and Jash, 2015). As a result, apparently, they are not being fined or investigated by the Traffic Police for breaking any laws. The city's battery-powered e-rickshaws have also been declared unsafe due to a lack of regulations governing their manufacture and the absence of safety ratings for these vehicles. According to a TERI survey cited by The Indian Express (2014), more than 80% of passengers felt uneasy riding in an e-rickshaw and expect a better design once the restrictions are in place. Although the Central Motor vehicle (Sixteenth Amendment) Rules, 2014, allow for the use of "special purpose battery operated vehicles," after declaring some regulations. Auto rickshaws, on the other hand, have official registration by RTAs (Regional Transport Authorities). The actual effects of auto-rickshaws on air pollution, traffic congestion, and safety are very different from how the public, the media, and policymakers have criticised and perceived them. The reality of operating an auto-rickshaw is quite difficult, and it is unlikely to raise the driver's family out of poverty, which may explain some of the acts, like not using the metre (Harding et al., 2016). While the earlier studies have mainly focused on the negative impacts of e-rickshaw and auto rickshaw on environment and people, the present study has focused on those who drive these vehicles. This study has been conducted

1. To comprehend the context why they join in this paratransit informal public transport sector of employment.
2. To understand the everyday practice and the emerging issues faced by both e-rickshaw drivers and auto-rickshaw drivers in regular basis.

## 2.0 METHODOLOGY

This study is primarily a qualitative exploration. Although descriptive statistics has been also used to understand the situation. Qualitative research method assumes that sociological understanding should be based in the meanings that social actors themselves bring to particular social interactions. Understandings and theories grow 'inductively' out of what is studied. In present context qualitative data have collected through semi structure interviewing both the drivers. On the contrary, quantitative data (only descriptive statistics) have obtained through questionnaire. In this context, the number of respondents has been fixed i.e 56 in each group. Data were collected from 23rd April to 30th May 2023. The views of the respondents are the ingredients of the study.

Haldia is a famous river-port town situated on the banks of the Hooghly River. It is an expanding industrial belt in eastern India. It is well connected with NH-41 and also the South-Eastern Railways. The area is bordered by Haldi River in the East and South East side, Chandipur in West; Nandigram, Khejuri is in South, and Mahishadal in North. It is 120 Kms from Kolkata. Mainly seven busy spots of Haldia were selected for the collection of data, these were Township, Makhan Babur Bazar, Ranichawk, City Centre, Big Bazar (Ambuja Neotia Mall) shopping complex, Manjushree, Durgachawk and Brajalalchawk. The general assumption is that there exists diversity along with the diverse e-rickshaw and auto-rickshaw stands in respect to the problems they faced in this informal employment segment.

The selection of the respondents was done by following purposive technique and snowball technique. In case of purposive sampling technique, the participants were selected based on the objective of the study. This type of sampling is very useful in this situation where researcher need to reach a targeted sample quickly, and where sampling for proportionality is not the main concern. In case of snowball technique, existing study subjects recruit future subjects from among their acquaintances. Thus, the sample group is said to grow like a rolling snowball. This study has mainly used three techniques for enhancing trustworthiness, such as participant observation, Semi-structured in-depth interview and group discussion. Triangulation of data develop reliability and trustworthiness (Lincoln and Guba, 1995).

The collected data was accumulated, categorized and analysed keeping in mind the objectives of the study. The analysis of qualitative data has done by following meaning interpretation. Quantitative data of the stated sources was done with the help of statistical tools like Microsoft Excel and interpretations of data are likely to be based on statistical generalization. In fact, descriptive statistics was used to generalize and identify prevalence from the data provided by the informants. Qualitative method was used to explain the significant phenomenon, causalities, social realities and experiences (O'Donoghue and Punch, 2003).

### 3.0 PROFILE OF THE STUDY PEOPLE

The present study has covered few selected busy areas of Haldia town. Those were – City center, Bigbazar area, Brajalalchak, Ranichawk, Manjushree, Durgachawk, Makhanbabur Bazar and Township. The respondents were mainly between 18 to 59 years of age. They are either from Hindu community or Muslim. Only one of the informants from Auto rickshaw driver is from Sikh (Panjabi) community. All are Bengali speaking. Table no. 1 shows in case of auto-rickshaw, among the participants 62.5 % are from Hindu community and 35.71% are from Muslim and in case of E rickshaw, 57.14% belong to Hindu and 42.86% Muslim. Number of Muslim E rickshaw drivers is more than auto rickshaw drivers.

It has found in table no. 2 that in case of auto rickshaw drivers that most of the respondents (44.64%) have left their study after class VIII, adequate number (19.64%) from them was found non-literate and very a small number (10.71%) of them has completed higher secondary level. In case of e-rickshaw drivers' table no. 3 shows, majority (33.92%) are non-literate and few can sign. Almost 28.57% has left their study in middle standard. 5.35% have passed Higher secondary level and only one of the respondents is graduate.

The earning is not fixed in both the cases of rickshaw drivers. In case of auto rickshaw driver's table no. 4 shows, majority (51.78%) of the respondents earn 8000 to 15000 rupees per month

and almost 17.85% earn more than 15000 rupees per month. Even 8.93% has admitted that they used to earn more than 29000 rupees per month and they have secondary income also. In present time their income becomes lower gradually than the previous time because of the increasing number of vehicles in same route that has reported by several participants. A respondent Subhas Mandal (52yrs) said that “In this route of Manjusree the number of auto rickshaw is almost 200 in present time but in earlier (5 to 8 years back) it was only 90”. In case of e-rickshaw drivers’ table no. 5 revealed majority (78.57%) have earn 8000 to 15000 rupees per month and only few that is 8.93% earn more than 15000 rupees per month.

Researcher has collected the data on the health problems of both the types of rickshaw drivers among last six months. Majority (60.71%) of the respondents (Auto and e rickshaw drivers, N=112) have admitted that they usually use mask or small scarf to avoid air pollution because they used to suffer breathing problems sometimes for inhaling toxic air of Haldia for long hours. It has found they generally faced three major types of health problems, these are – Lung problem, skin diseases and back pain problem. Beside this, gastric problem, nerve problem also has reported by various respondents. Table no. 6 and 7 shows the health status of the drivers in last six month where 10.7% e-rickshaw drivers and 12.5% auto rickshaw drivers confessed about their lung issues or breathing problem.

#### 4.0 AN OVERVIEW OF E-RICKSHAW AND ITS DRIVERS

E-rickshaws are becoming one of the most popular ways to travel short distances and are available in major urban, suburban, and township locations. It costs roughly Rs. 1,40,000 to purchase a new e-rickshaw. The battery powers the e-rickshaw; a single electric rickshaw has four batteries. The price per new battery is Rs. 36,000 (need to change after every five- six years) and the exchange value is approx. Rs.26000. These vehicles have brushless DC motors for propulsion that are powered by standard lead-acid batteries. Due to passenger transportation operations, e-rickshaws are environmentally benign and have the potential to lower carbon emissions. An e-rickshaw's initial voltage was 48 volts and 80 to 120 kms. may be covered by one battery charge, which takes around eight hours. According to battery capacity, drivers used to charge their batteries twice daily while the majority charge their vehicle almost 8 hours each day. Majority have shared they charged their batteries at home; due to the high electricity consumption, the amount exceeds three thousand rupees in just three months. There are both type of e-rickshaw drivers, one who have their own vehicle and other who share other’s vehicle. Who have their own vehicle, usually take loans from bank and work hard (almost 12-14 hours/day) to repay it. It would have cost less than 50,000 rupees if the e-rickshaw were in used condition. Drivers do not have a number plate for their e-rickshaws, but after interviewing them intensely, researcher have come to know that Haldia Municipality had previously issued them with a number for their vehicle, which they have since not using. Because the lack of authorized documents for their e-rickshaw, they frequently encountered problems that few of them reported. Each e-rickshaw stand is governed by either any union or politically influential NGO. But the union is not that much effective according to some drivers. They are compelled to attend political meetings or carry out political activities, and earned nothing for that day.

**At City Centre:** Researchers have learned that this e-rickshaw stand is run by the All-India Minority Association, a non-governmental organization (NGO). This association takes care of any issues that may arise in this e-rickshaw stand. Majority of this e-rickshaw stand drivers are

Muslim. The City Centre to Haldia court is the preferred route for e-rickshaw drivers at this time, though they can travel further if requested. The daily earnings of the e-rickshaw drivers in this position exceed 600–700 rupees. Conflict with auto drivers over passengers is their common problem. The e-rickshaw drivers said that they resolved these disputes on their own because they had to deal with them every day. The autos frequently stop at their stand to pick up passengers, causing them to run into difficulties and argue with the auto drivers. According to them, the government did nothing to help them. Their e-rickshaws were not properly supported by any administration. According to Sk. Anwar (39yrs), “Before long, a significant issue arose between the drivers of this (City Centre) e-rickshaw stand and those of another e-rickshaw stand (Big Bazar). The primary reason had to capture the passengers from 9 to 11 a.m., when Haldia court is in session. Therefore, a large altercation between the drivers of the two stands had occurred. The NGO AIMA and the union for the other stand then arranged a meeting and resolved the issue”. Many of them reported that getting permits to enter at the queue of the stand in order to pick up passengers, new commuters should pay rupees 2000-2500 to the secretary.

**At Big Bazar area:** This e-rickshaw stand is controlled by a political party office. Drivers of this stand may travel the distance from the Haldia court to B.C. Roy Hospital. Otherwise, if they have a reservation, they can go wherever they like. The reserve amount is at least 100 rupees; however, it also depends on the distance travelled and the driver's fee. They occasionally have disagreements over the reserve amount, but they can also work things out on their own.

**At Ranichawk:** This e-rickshaw stand is also overseen by AIMA, but they are also maintained by a separate union. Majority reported union provides a great deal of assistance than AIMA. Majority are Hindu drivers in this e-rickshaw stand. The fare rate is less than other e-rickshaw stands because it is close to many schools and colleges (1 to 1.5 kms.); they mainly get passengers for these short route destinations, as a result, their regular earning is lower than other e-rickshaw drivers. But they admitted they make a lot of money throughout the Haldia mela period as this stand is very near to Mela ground. They have positive interactions with auto rickshaw drivers, thus they have never had any problems with them. They had an issue with this e-rickshaw stand location because they lacked a suitable position to park their e-rickshaw.

**At Makhanbabur Bazar and Township:** This E-rickshaw stand is overseen by a political party office. There is an e-rickshaw union as well, but since it costs 400 rupees to join, most drivers choose not to do so. Due to the fact that they occasionally had issues with one another, some of the driver's joined union. Even they have identity cards. The drivers in this stand were always subject to political pressure. Majority reported, they are required to pay a sizable portion of their income during political affairs. Otherwise, local influentials used to cause trouble for everyone.

## 5.0 AN OVERVIEW OF AUTO-RICKSHAW AND ITS DRIVERS

The areas covered by the researcher for the data collection regarding the objectives of the present study on the Auto rickshaw drivers were Manjushree, City Centre, Brajalalchak and Big Bazaar area. Most of the individuals claimed that their low economic situation and/or unemployment contributed to their decision to choose this work as profession. The auto-



rickshaws operate along designated routes that have been approved by the union organizations and the Regional Transport Authority (RTA). Drivers are members of the auto-rickshaw union, which was founded by an auto-rickshaw stands. The union urges the drivers to abide with the rules and maintain the auto-rickshaw stand's vehicle parking queue for the purpose of smooth boarding of passengers. If there is a dispute between two drivers over boarding passengers, the union may get involved. Even if there are any legal or social concerns, the union will take the initiative to settle them firmly.

The majority of respondents have their own auto-rickshaw, with fewer having used second hand vehicle or lent vehicle that they have borrowed from an owner in terms of per day charge. The cost of a brand-new four stroke auto-rickshaw ranges from 2.34 to 3.35 lakhs. Those who borrowed vehicles were required to pay the owner 400 rupees each day without considering number of passengers they boarded for the day. At one time, this auto-rickshaw can accommodate four passengers. These vehicles must pay road taxes and receive the appropriate registration from the RTAs. These vehicles' drivers must have valid licenses to operate them. The maximum speed of these vehicles is 60 km/h, and depending on the vehicle model, the fuel tank size ranges from 15 to 20 liters. Many Auto-rickshaw runs on liquefied petroleum gas (80-90 km 250 rupees of LPG) and others on diesel (100 km/300 rupees of diesel). Many workers in this profession put in more than 15 hours a day. Their daily earning ranges roughly between 400 and 900 rupees. Due to the growing number of auto-rickshaw travelling the same route, their income is currently smaller than it was previously. According to Subrata Bera, a research informant, the number of automobiles on their route has increased from 90 to approximately 200+ during the past few years. Additionally, the number of e-rickshaws has increased and snatching passengers. As a result, their income is decreasing day by day.

## 6.0 THE EMERGING ISSUES OF E-RICKSHAW DRIVERS AND AUTO-RICKSHAW DRIVERS

Most common reasons for entering in this informal public transport sector job (auto rickshaw and e- rickshaw driving) is, firstly, there is no requirement for formal higher education, and one can make more than other paratransit informal economies like pulling paddle rickshaws, pulling vans, etc. without having to expend additional physical muscle. Driving an auto or an e-rickshaw in Haldia Town offers the chance to quickly make more than 8000 rupees per month compared to employment in other unorganized informal sectors. Due to the absence of a direct superior or boss in this industry, many drivers said they enjoy their work. In order for them to appreciate their work's freedom. Many claim that because of necessity and pressure from their families, they chose to drive an auto or an e-rickshaw even if they were unable to obtain employment very quickly at the time. The drivers of these both auto and e-rickshaw used to face some issues in their day-to-day life. Table no. 8 has revealed the frequency distribution of different problems faced by auto rickshaw and e-rickshaw drivers of Haldia.

**Earning problem:** To begin any income-generating work in India's informal economy, a minimal amount of capital is needed. This paratransit drivers are typically from lower socioeconomic levels; as a result, they have to manage rickshaws from owner-contractors on a daily basis for fixed, predetermined fees or can secure a bank loan to own their own vehicle. These people occasionally have a lot of difficulty obtaining loans from banks or other cooperatives. In this circumstance, households are frequently unable to retain their savings.

The majority of both auto and e-rickshaw driving respondents (69.64% out of N-112) acknowledged working more than ten hours a day. 85.71% of both driving respondents who were asked how many days there are in a week said they work every day. Take some time off for rest was the most common response, followed by being ill. As a result, these auto and e-rickshaw drivers do not always enjoy their free time. It is also important to mention that the drivers make more money and put in longer hours during the stifling summer months when more people choose these rickshaws for transportation rather than slogging it out on foot. These numbers of working hours and working days suggest that the trade of operating an auto or e-rickshaw involves laborious labour for little reward. "I've no money to set it aside for that I have something to draw on if an unexpected expense comes suddenly," said participant and auto rickshaw driver Dulal Jana (43yrs). Both drivers think they would have found better jobs if they had more possibilities for schooling. They believe that they would not be auto or e-rickshaw drivers if they had any kind of skill for other jobs.

Both categories of drivers do not receive a fixed monthly income. Even within a single month, it varies greatly throughout the year. In their interviews, the majority of respondents state that the first week of the month has the highest earnings of any other week, while Saturday and Sunday have the lowest earnings because those days are considered weekly holidays and all offices and schools are closed. Prior to Durgapuja and during the Haldia Mela (fairs) and Biswakarma Puja in a year, the highest profits were recorded. Earnings of half-day workers vary from those of other workers; in this study, interviewees primarily choose full-day drivers. 87.5% of e-rickshaw drivers and 39.29% of auto rickshaw drivers claimed daily income levels of more than 600 rupees each, and 8.93% of these drivers acknowledged to daily income levels of more than 900 rupees each at the time of Melas or Durgapuja. The majority of e-rickshaw drivers previously worked as either daily labourers or van rickshaw pullers. In the opposite situation, the majority of auto rickshaw drivers were formerly either day labourers or heavy truck drivers. Many auto rickshaw drivers acquired their vehicles through bank EMI or a single payment; as a result, they are required to make a monthly payment for the loan and are therefore unable to save money for the future. Many auto and e-rickshaw drivers have large families, but because they are the only earners in their household, their monthly income is insufficient to support their household. In order to charge their e-rickshaw's battery through an electric bill and a charging station, most e-rickshaw drivers are required to spend a set amount of money each day. An E-rickshaw driver Bapi Adak (46yrs) narrated, "I am the only income in the family and I have to support 7 heads—my old parents, one sister who is divorced, my two sons, and my wife. I also have to work to pay for my two sons' schooling and tuition. I have to make daily payments to the Muslim owner of the toto (e-rickshaw) that I have borrowed. The cost of charging the vehicle's electric battery is even 50 rupees every day. I have very little left over after taking care of my family's essential needs. Even if I feel unwell, I have to drive my toto."

**Health problem:** Both categories of drivers have complained about extreme air pollution. Their lives were difficult because of the toxic waste in the air of Haldia. The majority of drivers used to put in more than 10 hours per day, and their continued exposure to poisonous air rendered their lives dangerous. 25% of all e-rickshaw drivers reported having health issues in the previous six months. They had back pain, skin conditions, lung and eye diseases, body aches, obesity, blood pressure, nerve and gastrointestinal issues. Among them, a significant number experience lung and back discomfort issues. In case of auto rickshaw drivers, 28.5% have a health issue. Lung issues are a common ailment that most people experience.

**Peer problem:** They have a regulation to maintain a perfect queue at the auto-rickshaw stand, but it wasn't perfectly held every day, thus a problem arises between the drivers. They also have a rule that some get more passengers while others get less. While a customer board an auto-rickshaw or an electric rickshaw and if the driver was not happy with the payment received, at the same time if the other driver acknowledged the same payment for that travel way, then a conflict also developed between the two drivers. An auto rickshaw driver Asif Ali (32yrs) narrated, "I was boarding a passenger from City Centre, suddenly the next auto-rickshaw reached City Centre from B.C. Roy Hospital. A passenger of that vehicle asked me loud 'dada (elder brother) what is the fare from CEPET to City Centre?' Without thinking anything I replied ten rupees to that madam. Then the driver of that auto rickshaw came near to me and started arguing about the fare. He said 'The fare is Rs. 15 for that distance and now you have to pay me the rest of 5 rupees'. When I denied he gripped the collar of my shirt and it was really an embarrassing situation while passengers are waiting."

**Problem from other sources:** Others vehicles like – bus, taker, lorry etc. are always make objection about e- rickshaw and auto rickshaw for capturing road. When there are more than four persons along for the ride, the passenger's complaint. Even policemen create issues because the e-rikshaws lack a license and authorization to use the high road. If an auto rickshaw parks somewhere other than their designated stand, the policemen also raise issues. Some narrated that civic police used to demand daily payments totaling at least 150 rupees from them. Both the auto and the e-rickshaw drivers did not face any political issues, but back then they had to attend any political gatherings, which makes up for the fact that they are unable to make any earning for that day.

## 7.0 CONCLUDING OBSERVATION

From investigations, it is evident that driving an auto or e-rickshaw make possible to survive in the challenging world, but it is very difficult to make change and advance in life. Author selected many busy areas in the Haldia region for the fieldwork to gather information on the social issues facing autorickshaw and e-rickshaw drivers. Most drivers have minimal educational backgrounds that is why they tend to select this career path. However, other people enter this field after years of hard effort performing daily labour. Some drivers borrowed money from banks to purchase their auto rickshaws and e-rickshaws, while other drivers are operating rental rickshaw. E-rickshaws require different infrastructure to support them. E-rickshaws generally carry 5-6 passengers (sometimes 7-8), though their aluminium body is designed to hold only 4 passengers. Thus, passengers make grievance if they have taken more than 4 persons for a single ride. The braking system is also unreliable because it hasn't been examined by any government agency. Due to their fast speeds and capacity to make sharp turning, e-rickshaws also raise concerns about their stability. So, proper infrastructure of e-rickshaw should be taken for the safety purpose of the passengers. Installing appropriate charging stations across the city is necessary, as the vehicle require charging. These can increase their earning. Training on mechanical mechanics about how to handle e-rickshaw-specific issues is essential and government should focus on these for their awareness. Lowering the battery price is also needed as the battery becomes nonfunction in every five-six year. The E-rikshaw drivers of Haldia used to face police harassments or annoyances created by any passenger or local assailants but they are not be able to file a complaint in police station as they don't have any vehicle registration. E-rickshaw is a now a legal entity. The government of India also



announced regulations for e-rickshaw use in October 2014, requiring a driver's licence to operate one and capping the top speed at 25 km/h and any driver passing the driving test would be granted a licence. Lack of proper awareness about the legal protocols, they faced issues in their day-to-day life. Using the policy's key points and inquiries regarding the viability of battery rickshaws as a guide, proper policies should be created, enabling e-rickshaws to grow and gain access to more connectivity in metropolitan areas, boosting people's convenience.

Auto-rickshaw policy making is flawed because it does not fully take into consideration the perspective of drivers or the fact that they offer a highly valued, efficient form of transportation. They lack authorization to enter the area outside of their predetermined track. All auto rickshaws on a predetermined route charge a set fare to passengers however some of them overcharged. They do not receive a fixed income. Due to the increasing number of auto rickshaws and e-rickshaws operating along the same route, drivers are currently experiencing economic issues. Government should put a light on their income enhancement for their sustainable development. Inter- and intra-driver conflicts between auto and e-rickshaw drivers are a constant occurrence. Drivers of auto rickshaws and electric rickshaws deal with passenger issues every day. Every auto rickshaw stand has a union that handles issues of this nature. The E-rickshaw, however, lacks a position and a proper union; instead, they work out their issues amongst themselves. Due to Haldia's status as an industrial area, the area is severely contaminated by ash and dust. Therefore, the drivers of both the vehicles experience a variety of health issues, including breathing issues, headaches, back discomfort, lung problems, back pain, and body pain.

Haldia as well as in Purba Medinipur the unavailability of Ola or Uber service, e-rickshaws and auto rickshaws play an important role to local transport. These mediums of transport have the ability to improve connectivity for locals and increase access to transportation in other towns. Government interference may improve the sustainable development and minimise the issues they faced regularly.

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## TABLES

**Table 1. The Religious position of the Auto Rickshaw and E Rickshaw drivers**

Group	Hindu	%	Muslim	%	Sikh	%
Auto rickshaw driver	35	62.5	20	35.71	1	1.79
E- Rickshaw driver	32	57.14	24	42.86	0	0

**Table 2. Age group wise distribution of educational status of auto rickshaw drivers (%)**

Age Group(years)	Non Literate	Primary	Middle Standard	Madhyamik	Higher Secondary
18 - 24	1.78	1.78	8.93	3.57	3.57
25 - 31	7.14	5.36	17.86	5.36	5.36
32 - 38	5.36	3.57	5.36	3.57	1.78
39 - 45	5.36	1.78	8.93	0	0
46 - 52	0	0	1.78	0	0
53 - 59	0	0	1.78	0	0
Total	19.64	12.5	44.64	12.5	10.71

**Table 3. Age group wise distribution of educational status of e- rickshaw drivers (%)**

Age Group(years)	Non Literate	Primary	Middle standard	Madhyamik	Higher Secondary	Graduation
18 - 24	0	0	5.36	1.78	3.57	1.78
25 - 31	7.14	7.14	7.14	1.78	0	0
32 - 38	5.36	7.14	8.93	3.57	0	0
39 - 45	10.71	3.57	5.36	0	1.78	0
46 - 52	3.57	1.78	1.78	1.78	0	0
53 - 59	7.14	1.78	0	0	0	0
Total	33.92	21.42	28.57	8.92	5.35	1.78

**Table 4. Age group wise distribution of income status of auto rickshaw drivers (%)**

Age Group(years)	Below 8000rupees	8001 - 15000rupees	15001 - 22000rupees	22001 - 29000rupees	Above - 29000rupees
18 - 24	1.78	10.71	3.57	1.78	1.78
25 - 31	5.36	16.08	7.14	5.36	5.36
32 - 38	0	14.28	5.36	1.78	0
39 - 45	1.78	8.93	1.78	1.78	0
46 - 52	0	1.78	0	0	1.78
53 - 59	0	0	0	1.78	0
Total	8.93	51.78	17.85	12.5	8.93

**Table 5. Age group wise distribution of Income status of e- rickshaw drivers (%)**

Age Group(years)	Below 8000 rupees	8001 - 15000 rupees	Above 15000 rupees
18 – 24	1.78	10.71	0
25 – 31	3.57	19.65	1.78
32 – 38	5.36	21.43	3.57
39 – 45	1.78	12.5	1.78
46 – 52	0	7.14	1.78
53 – 59	0	7.14	0
Total	12.5	78.57	8.93

**Table 6. Status of health problem in last six months of the auto- rickshaw drivers**

Auto Rickshaw Driver (N = 56)		
Diseases in last 6 months	Number	percentage
Back pain	4	7.1
Skin problem	2	3.5
Nerve problem	1	1.78
Gastric problem	1	1.78
Lung problem	7	12.5

Knee pain	1	1.78
Reported no diseases	40	71.56
Total	56	100

**Table 7. Status of health problem in last six months of the e- rickshaw drivers**

<b>E-rickshaw driver (N=56)</b>		
<b>Diseases in last 6 months</b>	<b>Number</b>	<b>Percentage</b>
Back pain	2	3.5
Eye problem	1	1.78
Blood pressure	1	1.78
Lung problem	6	10.7
Body pain	2	3.5
Skin problem	1	1.78
Gastric problem	1	1.78
Reported no disease	42	75.18
Total	56	100

**Table 8. List of different problems faced by auto rickshaw and e- rickshaw drivers**

<b>PROBLEMS OF AUTO-RICKSHAW DRIVER</b>	<b>FREQUENCY (N-56)</b>	<b>PROBLEMS OF E-RICKSHAW DRIVERS</b>	<b>FREQUENCY (N-56)</b>
HEALTH PROBLEM	16	HEALTH PROBLEM	14
PEER PROBLEM	41	PEER PROBLEM	20
PROBLEM FROM OTHERS-FROM PASSENGER	12	PROBLEM FROM OTHERS-FROM PASSENGER	11
OTHER VEHICLE DRIVER	15	OTHER VEHICLE DRIVERS	13
POLITICAL INTERFERENCE FROM POLICEMEN	3	POLITICAL INTERFERENCE FROM POLICEMEN	3
REPORTED NO SUCH PROBLEM	7	REPORTED NO SUCH PROBLEM	10
	9		14