

School Transportation: Safety And Its Impact On Education And Inclusion

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ABSTRACT

“Article 21A of constitution of India” provides and secures free and compulsory education as accessible education is the key factor for national integration, social justice, equality, and development of scientific outlook. This spirit of the constitution has been institutionalized through the national education policy (NEP) 2020 but the inaccessible and unsafe transportation emerge as a great obstacle while means of transport are powerful tools to reach the doorstep of education. If these means are unsafe and inaccessible then achieving the basic spirit of the Constitution can be challenging and compromised because the absence of proper transportation facilities may deprive and exclude the children from education. Transportation is one of the most decisive and significant factors in the process of deciding the location of the school. Therefore, this paper deals with safety issues and challenges that are being faced by parents, and children while traveling to school. Based on the secondary data, this article also provides the status analysis of profiles of accused vehicles, Road Crashes and Safety of School Children, victims, and prosecution against violation of rules. International experiences associated with transportation from other countries have also been presented. Researchers also attempt to identify the challenges and issues related to safety and offer the necessary measures to resolve the safety issues so that children may travel without any fear and assistance from others and make education more inclusive for Indian pluralistic society. .

Keywords: School Transportation, School distance, Road safety, and Road crashes.

Introduction:

Inclusive Education is a broader term that includes all the means to support the diversity of learners in education by removing the barriers that may impact the ability of children to achieve their full potential. Education is an essential need of children that helps in the development of wisdom and intelligence. It plays a vital role in the development of personality and confidence and thereby plays an important role in bringing change in society. It is believed that education should be provided to every child to learn and to realize their full potential and for this equal opportunity should be provided to every child to access education, participate in school, supported with the resources according to their need and condition. This makes education inclusive in a real sense. To provide free education for all children including children with special needs and to achieve this aim, it is needed to remove all the barriers that obstruct and stop children from accessing school to get education. One such barrier is ‘distance from the residence to school’ which plays a major role in the enrolment of children in school which impacts their education excluding them from the formal educational structure- ‘the school’ either directly or indirectly. ‘School distance’ is one of the important factors and to cover that distance school transportation is one of the essential components that plays a vital role in the inclusive education of children. The increasing distance between the school's location and poor conditions of public, and private transport have become a hindrance in fulfilling the demand of the ‘Right to Education’ that aims to provide free and compulsory education to all children from 6 to 14 years of age (RTE Act, 2009).

Parents traditionally enroll their children in schools assigned by a local school district (Altrichter, Bacher, Beham, Nagy, & Wetzellhutter, 2011; Jacobs, 2011). The school selection process is influenced by factors such as distance, gender, safety, etc. In the selection of school, **safety** is the main factor for parents as their concern is whether their children reach the school conveniently and safely. The safety of school children in traveling is an important issue that not only impact their daily lives but also their education and this becomes more important when there is a matter of inclusion of girls and children with special needs. Poor transportation facility can impact the education of children. It can influence and impact their choices of school, and absenteeism, and may be a great cause for early school dropout as safety is an important concern for the parents and probably they will not compromise with safety issues. Safety is one of the important concerns but very little attention is paid in this domain. While traveling children witness a crashes but school authorities do not respond much and don't take necessary safety measures to check these crashes which are lagging. School authorities do not organize any workshops regarding safety measures, road safety, and safe driving.

Students and parents have concerns for safety while traveling to school such as bullying, harassment, road accidents, etc. While traveling to school it is observed that students use different mode of transportation such as walking, bicycle, motorbike, scooter, e-rickshaw, Gramin-sewa, school vans, cabs, DTC buses, school buses, etc. Different mode of transportation has different challenges for learners traveling to and from school. The safety of children is the most decisive factor for the selection of mode of transportation and choice of school. Each mode of transportation comes with certain issues and challenges and this not only impacts the education of children but also impacts the inclusion of children in the formal education system.

This paper is divided into four sections. The first section is based on the safety issues and challenges that are being faced by children while traveling to school in different modes of transportation. The second section, based on the secondary data, provides the status of Road Crashes and Safety of School Children, Profile of accused vehicles, victims, and prosecution against violation of rules. The third section refers to International experiences regarding the school transportation from Egypt, Maldives, Japan, Niger, Ghana, Bangladesh, and Burundi. The last section deals with discussion and recommendations to overcome the problems of safety issues.

Safety issues in different modes of transportation to school:

Walking: Walking is the most preferred and healthy mode to get to and from school. Walking needs supervision of adults until children reach around the age of ten years or reach about fifth grade. Before that age children are not ready to walk to school without the assistance of parents due to safety concerns. Children don't understand the situations and dangers that come across while walking along the road and are less cautious and impulsive around traffic. Parents need to walk with the children so that they learn the traffic rules, signs, and directions and model behaviors while crossing the street. Walking habits include safety issues such as safe street crossing, not talking or taking help from strangers, not using a cell phone while walking, and asking for when someone tries abusing or bullying children. On the roadside while walking it is seen many times that children especially girl child is harassed or abused while walking to reach school. Parents for this reason do not want to send their girl child to a distant school but try to send them to a nearby school. This leads to an impact on their school choices, and choice of stream in higher education and creates hurdles in their education. Children with less mobility or other disability need to learn safe pedestrian skills so that they can travel to school safely. Nowadays pedestrian paths are not safe to walk as most of the vehicles ride/drive along the path assigned for the road. Crossing the road for children becomes a challenge nowadays as it is observed that most of the drivers do not follow the traffic rules and even stop their vehicles blocking the path of zebra crossing when the traffic signal becomes red. Walking along the roadside becomes dangerous nowadays due to the increasing number of vehicles in the road and this creates a hurdle for the school-going children to walk.

Bicycle: Bicycle is the best mode of transportation for children to travel to school from health, educational, and environmental perspectives. Riding a bicycle to travel to school not only keeps the children fit but educates and makes them aware of learning life skills and knowledge. They learn the traffic rules practically and contribute less pollution to the environment by reducing the number of vehicles on the road. Nowadays in many states, the government is promoting students to ride a bicycle to reach school by distributing of cycle to students and thereby enhancing secondary school enrolment and retention. Indian states such as Bihar, Chhatisgarh, Jharkhand, and Karnataka have started the scheme of distribution of bicycles for secondary school students. In Chhatisgarh, "Saraswati Cycle Yojana" was launched to provide free transportation facilities to the female students of class 9th of government schools and government-aided schools. Similarly, in Bihar "Cycle Program" was launched to provide free bicycles to girls enrolled in secondary school in grade 9. Likewise, in Jharkhand free bicycle scheme was launched to provide transportation facilities to female students studying in the 8th standard in government and government-aided schools. Furthermore, Karnataka also adopted to free supply of bicycles to 8th standard students to improve the enrolment. "Providing bicycles and organizing cycling and walking groups to provide access to school are particularly powerful methods in increasing the participation of female students, even at lesser distances - because of the safety benefits and comfort to parents that they provide (NEP,2020)." Riding a bicycle is the best way to get to and from school

when students are ready and learn the skills to be safe bicyclists. Riding a bicycle is nowadays not safe to reach school as many challenges and issues come while riding a bicycle. Separate lanes are necessary for riding bicycles for the safety of riders and this becomes more important when there is a matter of young riders who are not much aware of the traffic and safety rules. In the absence of separate lanes, parents hesitate and don't want to send their children to school by bicycle as they are worried for the safety of children to prevent road fatalities and injuries. Despite the cycle being the cheapest mode for students to travel it is risky as traffic is heavy. It has been observed that children are not trained to ride bicycles obeying safety rules on the road and due to a lack of proper training in the school or other platforms, they are always in danger while traveling on the road. The success of any program or scheme depends on the preparation of execution of the program. 'Cycle distribution program' for school children requires proper training to ride bicycles on the road and to follow traffic rules while traveling on the road.

School Buses: For safety purposes, there is a clear guideline by the transport department that school buses need to be painted yellow and it is mandatory to write school bus on the back and front of the bus so that it appears clearly to others. There is much improvement needed in school buses and the way parents send their children to school every day. Parents feel better and relaxed sending off their children to school knowing they are in good and safe hands. Modernizing school buses with CCTV cameras, GPS, First-Aid Box, and special arrangements for Persons with Disability (PwD) to take the bus make it safe, sustainable, and accessible for all. Parents who participated in the interview believe that school buses are safe for children and they feel less tense when children travel to school in school buses rather than another mode of transportation. Children do not fear getting late while using school buses as a mode of transportation as compared to other modes of transportation which is the ultimate reason for parents to choose school buses for transportation. But the bus driver is the most important entity while traveling to school by the school bus. School drivers' job is not just earning; It demands whose responsibility. Safety, security, and life of children while traveling to school totally depends on the skilled driving of the driver. It is also important to highlight that dealing with parents, bus operators, School authority, and other associated personnel requires a lot of effort, attention, and patience. Sometimes this professional responsibility may have some severe health risk to drivers in the form of stress. This content and hectic schedule pushes the driver's health to the lowest priority level. Stress is the major challenge faced by the drivers because they have to drive the bus with utmost safety to avoid any undesired incident during the peak hours of traffic. Another source of stress to the driver is dealing with parents because parents have worries and concerns about their children's safe journey. They may try to connect with drivers from time to time, if the bus is a little late. This continuous tracking may take driver stress high. Hence, keeping the driver free from stress is a big challenge to the school authority.

DTC Buses: In Delhi, DTC buses are the most common mode of transportation for children to travel to and from school. Dependency on DTC buses is increasing day by day which puts extra pressure on the number of passengers and buses are seen overcrowded. The timing of the buses is not according to the schedule and the children face the problem of getting late while going to school. Many times, buses do not stop at the bus stop and if buses stop then not stop properly at the side. This is a very serious concern in terms of safety as children run to take the bus so that they may reach school timely. It is also seen that many times children travel in overcrowded buses standing near the open gate of the bus which is very unsafe for them. In some routes frequency of buses is not enough to bear the crowd. Bus stops are also not safe for the children especially when there is a matter of a girl child. Anti-social elements are also there near the bus stops bullying or harassing the children making the place unsafe for the children. Many times drivers on the buses do not stop the buses at the bus stop so that children waiting for the buses can board.

Road Crashes and Safety of School Children: From the year 2020 to 2022, vehicle-wise crash trend (Table 1) shows an increasing trend according to the Delhi Road Crash Trend, 2022. Except for cycle-rickshaws and gramin-sewa vehicles, road crashes will increase in 2022. Most of the time crashes happen with two-wheelers, cluster buses, and DTC buses. Most of the time DTC buses, cluster buses, and two-wheelers are used as a mode of transportation to travel to school children. It is seen that while riding a two-wheeler, riders violate the traffic rules even when they are riding along with the children on the road. Children in the back seat do not wear helmets which is very risky in case accidents or crashes occur while riding. As per data in Table 1, *the profile of the accused vehicle*, the number of road crashes in 2022 increased by 19.7% as compared to the previous year, 2021. Also, there is an increase in the number of deaths and injuries by 17.9% and 21.7% in road crashes. The increasing rate of road crashes, deaths, and injuries adds more fear for parents to send their children alone to school in heavy traffic. The increasing rate of road crashes in Delhi is a reason for the children not to walk alone or ride a bicycle to travel to school.

Table 1 Profile of accused vehicles

Types of vehicle	Fatal crashes			Non-fatal crashes			Total crashes		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
School Bus	0	0	0	0	1	1	0	1	1

Cluster Bus	20	29	22	57	69	85	77	98	107
Cycle-Rickshaw	2	0	0	3	4	0	5	4	0
DTC Bus	19	17	37	54	66	89	73	83	126
E-Rickshaw	1	10	8	37	45	58	38	55	66
Gramin Sewa	3	5	1	17	16	19	20	21	20
Mini Bus	5	7	7	15	13	24	20	20	31
Scooter/M.Cycle	126	114	144	425	562	646	561	676	789

Source: Delhi Road Crash Report (2022)

Crashes towards two-wheelers (Motorcycle/Scooter) are mostly caused by Car/Taxi/Jeep (Table 2) which indicates the reckless driving of LMVs. Parents generally drop their children at school using two-wheelers or four-wheelers, but the increasing rate of accidents of two-wheelers is a big concern for the safety of children. Statistics indicate that pedestrians are victims of road accidents and crashes caused due to two-wheelers (Scooter//Motorbikes) and four-wheelers (Cars/Taxi/Jeep). The reason behind pedestrian crashes are reckless driving, use of pedestrian paths by the motor vehicle, and violation of traffic rules by the drivers/riders. Children walking to reach school belong to one of the pedestrian groups who become victims of accidents caused by the accused vehicles. Road Crashes Report, 2022 indicates the increasing number of road crashes making roads unsafe for school children to walk/ or travel by bicycle. Buses and Heavy Vehicles (HTVs) account for 4.8% and 8.6% of fatal crashes towards pedestrians respectively. In the year 2022, Pedestrians including school children have emerged as one of the major concerns due to these fatal crashes.

Table 2 Victim in Total Crashes Accused and Victim Vehicles (Total Crashes – 2022)

Victims	Accused Vehicles								
	HTVs	LGVs	BUS	Car/ Taxi/ Jeep	TSRs	SC/ MC	Unknown Vehicles	Others	Total
Pedestrians	107	86	114	391	75	412	949	100	2234
Self	5	7	6	42	38	121	0	18	237
Cycle-Rickshaw	3	0	7	14	3	3	5	2	37
Cyclists	15	10	12	50	7	40	26	10	170
E-Rickshaw	4	8	15	42	3	6	16	5	99
SC/ MC's	217	134	130	780	64	183	677	103	2288
Passengers	0	0	28	0	0	0	0	0	28

Source: Delhi Road Crash Report (2022)

To understand road safety decisions and infrastructure for gender and age-specific groups, demographic classification of road accidents in Delhi provides clear evidence that the children below 18 years i.e. minors in the year 2022, 303 boys and 106 girls were injured whereas 57 boys and 20 girls were died. In the last five years. According to data in Table 3, 104 minor females died and 303 minor males died in road crashes in the last 5 years in Delhi. Concerning victims indicates that the minors accounted for road crash injuries including 74% males and 26% females. These minors are under the age of 18 years and belong to the population of school-going children.

Table 3 Crash Victims below the age of 18 years

Year	Below 18 years			
	Killed		Injured	
	Male	Female	Male	Female
2018	88	29	418	142
2019	67	22	307	89
2020	40	21	187	51
2021	48	12	221	75
2022	57	20	303	105

Source: Delhi Road Crash Report (2022)

School buses, DTC buses, School Cab, Cluster Buses, Gramin Sewa, Scooter/Motorcycle, E-Rickshaw, etc. are the vehicles by which the children travel to school generally. So, concerning the safety of children in these modes of transportation, drivers/riders of these vehicles must follow traffic rules so that children may travel to and from school safely in time. Violation of traffic rules not only affects the safety of the children but also creates an unsafe and unprotected atmosphere in the minds of parents which affects the education of children and leads to exclusion from the educational system if children have to travel longer distances to reach school

and the parents either have not time to travel with them. In table no. 4 of Delhi Road Crash Report, 2022, the Prosecution against the violation of rules that the vehicles related to transportation of students to school are violating rules such as not using seat belts, without wearing a helmet, drunken driving, and dangerous driving. According to the data Scooter/Motorcycle riders are mostly breaking and violating the rules and creating problems for the children walking or cycling toward school as indicated in Table 5.

Table 4 Prosecution against violation of rules- 2022

S. No.	Vehicles	Not using a seat belt	Rider W/O Helmet	Pillion rider W/O Helmet	Drunken Driving	Dangerous Driving
1	School Cab	14	0	0	0	12
2	DTC	29	0	0	1	606
3	School Bus	52	0	0	0	141
4	Sc/Mcycle	0	212440	44475	1306	21567
5	G. Sewa	53	0	0	9	165
6	Cluster Bus	99	0	0	0	1104

Source: Delhi Road Crash Report (2022)

Table 5 Offense-wise Vehicle – 2022

Offense	School Cab	Ch. Bus	DTC	School Bus
Traffic Signal	3	88	31	20
W/O Driving License	4	28	2	7
Violation of restrictions	41	138	0	1
Improper Parking	79	1639	101	78
Dangerous driving	12	769	606	141
Permit violation	66	6696	92	115
Drunken driving	0	2	1	0
Playing Music	0	2	0	0
Pressure horn	0	54	1	0
Tinted glass	0	14	0	0
High/ long load	0	0	0	0
Footboard Travel	0	3	0	0
Stop line crossing	3	49	37	4
W/o Pollution Certificate	4	57	0	5
W/o Registration	85	120	2	4
Defective Number Plate	1	34	0	0
Using veh. Unsafe Condition	0	1	0	0
Yellow line violation	0	13	3	3
W/o Light/Head/Ind. Tail	1	228	2	11
Not driving proper lane	0	137	86	20
W/o Speed Governer	0	0	1	0
Stop without Bus stop	0	94	2	8
Park/Wait in Bus Lane	0	1	2	0
Wrong overtaking	0	53	29	3
W/o Uniform Dvr/Condtr	0	23	2	0
Overcharge/ Misbehave	0	2	0	0
Crowd in Pass Vehicle	44	179	50	1
One-way violation	6	140	27	9

Source: Delhi Road Crash Report (2022)

School buses, school cab, DTC buses, cluster buses in Delhi are the backbone of transportation of children to school. In case if drivers of these mode of transportation break or violate the rules then this will set a question marks on the safety of children. Offenses made by them not only impact the children safety in these vehicles but it also increases the stress in the mind of parents that can affect their daily routine. Parents are taking facilities of school buses and school cab with a hope that these are best mode of transportation in terms of safety of the children as their drivers are trained to handle drive considering that in their vehicle most sensitive age groups are traveling. Offences made by these vehicles may lead to the accident that may cause major injuries and even death of the children. These accidents not impact the children physically only but in the long run impact the mental level. The trauma of accident sustains amongst children in the long run that might create fear of accident for the whole life. Delhi road crash report, 2022 shows the offenses made by the vehicles directly related to transportation of school children and the offenses made by these vehicles are

violation of traffic signals, driving without driving license, violation of restrictions, improper parking, dangerous driving, permit violation, drunken driving, playing music while driving, using pressure horn, carrying high long load, traveling on the footboard, crossing the stop line, driving with pollution certificate failure failed registration or defective number plate, driving vehicle that are not in the proper condition, violation of yellow line, driving vehicles without light/ headlight/ indicator tail, not driving in the proper lane, without speed governors, stopping without any bus stop, waiting or parking in the bus lane, wrong overtaking, driving without wearing proper uniform, misbehaving or overcharging the children traveling in the vehicle, overcrowd in the vehicle and the violation of one-way. These offenses were reported by the traffic police against the vehicles that are associated with the children traveling to school. These offenses made by the vehicles comes under the knowledge of traffic officials but many such offences are not reported that may results in more unsafe condition for the children using these transportations.

In Offense-wise vehicle report-2022 (table 5), 3 school cabs, 20 school buses, 88 cluster buses, 31 DTC buses came under the notice for violation of traffic signal. Violation of traffic signals by the vehicles are dangerous for the others and also unsafe for the vehicles making such offenses. It is found and reported that drivers in 7 school buses, 4 school cabs, 2 DTC buses, 28 cluster buses were driving without driving licences. Driving without driving licences means that drivers are not properly trained and not knowing the rules and the norms to be followed while driving on the road and thus school children prone to danger traveling in these vehicles. Parent needs to play the role of vigilant observer on this sensitive issue as their children are in danger while traveling in such vehicles where drivers driving without driving licence. There are number of cases reported against the school cab, cluster buses and the school buses for the violation of restrictions. Violation of any restrictions may result in penalties and consequences such as fines, suspension or revocation of the licence and in such restrictions driving a vehicle carrying a child is crime. Improper parking on roadway is a big problem now a days in Delhi as the number of vehicles are increasing continuously. Improper parking can impact the road capacity in the ways around schools which make the roads unsafe and creates a traffic congestion near the school. In the Offense-wise vehicle report-2022 (table 5), despite of other vehicles improper parking cases, vehicles related to transportation of school children convicted were in large number: 1639 cases registered against the cluster buses, 101 cases against the DTC buses, 78 cases against the school buses, and 79 cases against the school cabs. Improper parking near the school may lead to traffic congestion, results in the pedestrian areas are being taken over by vehicles gradually. Riding two-wheelers on the footpath creates a problem for the children walking to reach school and face difficulty in such situation which makes walking unsafe for the child pedestrians. Children are at higher risk of getting hit or at increased risk of getting injured in the vicinity of their schools during school drop-offs due to dangerous driving of the vehicles. People are busy and stressed especially in the morning as they have to get to work and thus they drive dangerously results in the increased risks of the pedestrian's collisions at schools. It is found in the research that "there is a significant association between schools with dangerous driving and pedestrian-motor vehicle collisions" (Rothman et al. - Traffic Injury Prevention – 2016). In 2022, 12 cases against school cabs, 141 cases against school buses, 606 cases against DTC buses and 769 cases reported against the cluster buses due to the reason of dangerous driving. Dangerous driving is a very serious issue and violation of traffic rules can affect and impact the safety of children walking or traveling to school. Though the number of cases reported against school vehicles for the offence of drunken driving were negligible, but other drivers who are driving their vehicles after drinking or consuming alcohol are dangers for the pedestrians or the other vehicles. In lack of self-control after drinking, they are dangerous for the children walking and traveling to school and put a question mark on the safety of the children. There are other offences made by the vehicles on the road such as playing music, pressure horn that create a sound pollution and create a disturbance for the others traveling on the road. There is strict restriction to use black or dark, reflective glasses in all vehicles according to the Indian law. Using black coated film or any type of material on windscreen or side windows of vehicles are prohibited according to the Supreme Court of India. Using of tinted glass vehicles in which children travels are prone to sexual harassment or bullying as people from outside can't see what is happening inside the vehicles. In vehicles tinted glass fitted by company can be used where the transmission of visual light of 70% on windscreen and rear window along with 50% transmission of visual light on side windows. Except the cluster buses there were not any offences reported against school bus, school cab, DTC buses for using tinted glass which make these vehicles safe for the students. There are other offences came under the view of Delhi Traffic officials against the vehicles related to transportation of school children such as vehicles traveling without pollution certificate, without registration, defective number plate or using vehicle in unsafe condition. Silly mistakes while driving on the road may lead to major road accidents that not only impact the transportation of children to school but make their life unsafe. School vehicles without light, headlight or indicator light can create problems for the others on the road. Yellow line violation and not driving on proper lane are major concern that makes the road unsafe for the pedestrians, bicycle riders and other vehicles. School children are immature and inexperienced and despite of walking in their own lane prone to road accidents results due to violation of proper lane driving by other vehicles. 'Dedicated bus lanes' started in new Delhi for heavy vehicles and buses with a hope of decongestion, curbing accidents and to ensure smooth traffic movement but heavy vehicles violating the safety norms of dedicated bus lane driving. Overcrowding in public transports such as DTC buses, cluster buses during school hours responsible for the children to take running buses to travel are dangerous for children. If somehow students are able to catch the

overcrowded bus then in lack of proper space they stand near the open gate of the bus are a major concern. Due to overcrowding in passenger vehicles children suffer most as they are not able to take buses timely to reach school. 179 cluster buses, 50 DTC buses, 44 school cabs, 1 school bus found guilty of overcrowding. This ferry of overcrowding vehicles may result in sending children to the jaws of death. Other offenses made by the vehicles are one lane violation that not only results in the traffic congestion on the road but this issue results in the safety on the road. Offenses made by the vehicles on the road do not impact the personal life of the driver or rider but are dangerous for the others traveling on the road and are a big concern for the safety of children. One of the important point regarding the safety of children is that vehicles should be equipped with seatbelts, but it is reported that most of the vehicles are not equipped with safety belts. There is a lack of awareness regarding the safety guidelines and to monitor these safety measures and speed guidelines surprisingly no transport managers have been appointed in schools. Most of the children use private vehicles and many times complain about rash driving by drivers. Children who commute to school by walking or by cycling reported the absence of footpaths and cycling paths at the school zone and witnessed dangerous traffic on their way to school. The majority of respondents who use private motorcycles do not wear helmets. Similarly, those who are using cars do not wear seat belts while dropping children at school. Safety is an important measure but there is a lack of awareness amongst the parents, school administrators, and children and thus there is a lot of space to improve the safety measures to improve the safety of children while traveling to school.

School Transportation: International Experiences

Concerning the facility of the transport, safety and security measures, and support system for students with disabilities at the international level, views from different countries were taken to address the problem of school transportation.

Egypt

Noura, a teacher education student and resident of Egypt, has asserted that the scene of school transport in Egypt differs distinctly between government, private, and international schools and shows disparities not only in the resources but also in the infrastructure and quality of services available. For most Egyptian children who go to government schools, the transportation problem is caused by the limited resources available at their disposal. Most have to either walk for distances or board unsafe public transport. Private and international schools generally have better-organized transport services. Most of the schools have their own fleet of school buses. They segregate the criteria for safety in the form of regular checks and maintenance to the available safety features such as seat belts and fire extinguishers. Most of the school buses fitted with GPS tracking devices aid in real-time location tracing of the bus. Parents will be intimated when their children are picked up or dropped off from their designated locations, thus, once again, constantly being updated about the children's whereabouts. Some are fitted with air conditioning to ensure comfort for commuting students. The drivers of the buses are well-trained, and routes are thoughtfully planned out to establish timely and efficient pickup and drop-off at designated locations. All these things add to the safety, reliability, and comfort of school transportation offered by private and international schools in Egypt. Despite these improvements in private and international schools, adequate transportation facilities for students with disabilities are lacking in all the schools mentioned above. Some private and international schools have started to develop accessible buses, ramps, and space for wheelchairs—those are few compared to the many. Furthermore, respondent said that these represent an expensive service. Access to government schools is even more difficult due to their poor budgets and lack of appropriate infrastructure to facilitate access. Therefore, much lies upon the family to transport students with disabilities. Concerted efforts by civil society and international organizations are underway in Egypt to improve the transport of students with disabilities. However, significant gaps exist in government intervention and investment to ensure that many more will travel to School safely.

Maldives

In contrast, the experiences concerning transportation from Maldives are different. Shuhuda, Head of Research and Development, "National Institute of Education", Male, Maldives, reported that the Maldives is a unique nation consisting of more than 1,190 small islands spread over 750 km in the Indian Ocean. With nearly 99% of the country covered by water, sea travel has always been the primary mode of transportation between islands. To achieve the Millennium Development Goal, "Education for All," the Maldivian government established a school on every Island, ensuring free education up to the 10th grade. However, in rare instances where the island population is very small, with only two or three children in a grade, providing subject teachers for secondary classes can significantly burden the government. In such cases, the government arranges regular ferries to transport students to a nearby island with a better school. Although the distance between islands might be less than 1 km, rough seas during bad weather can make travel unsafe. This situation is particularly challenging for children with disabilities, who may struggle with boarding and disembarking the ferry. Given the islands' small size, schools are typically within walking distance, so students usually do not have to walk far. However, being on the equator, the roads can be extremely hot year-

round, necessitating land transport for students on larger islands like the capital, Male'. Despite the need, there is no dedicated school bus service, and parents must transport their children using their own vehicles, which disrupts their schedules and duties. A public bus system exists in the capital, allowing students to travel for free, but it is not exclusive to school children. This means parents often have to accompany their children and pay fares, making it an inconvenient option. Additionally, these buses, meant for the general public, can leave children and their parents behind if there is not enough space. This situation is even more difficult for children with disabilities, who may not be able to walk to School due to their condition.

Akama, a PG student in education, shared insights into school transportation in Japan, particularly within the Tokyo context. Elementary school students typically attend local schools based on their house registration, allowing them to travel to School on foot, often alone. To ensure the safety of these young students, schools provide yellow hats and brightly coloured bag covers for first graders. The community also plays a vital role in looking out for the student's safety, with neighbours watching the children as they walk to School. As students progress to secondary School, the distance to their schools increases, requiring them to travel by bicycle, bus, or train. The government subsidizes their transportation fares, easing the financial burden on families. Japan's low crime rates provide a safe environment, enabling even special needs students to travel independently. The government further supports this independence by ensuring accessibility in public infrastructure. Footpaths, buildings, transportation systems, and public restrooms are designed to accommodate people with disabilities. Buses and trains feature designated spaces for wheelchair users, and drivers and train officers are trained to assist these passengers. Traffic rules are strictly followed, and the police are known for their friendly demeanour, making it easy for students to seek help if needed. These comprehensive safety measures in Japan's school transportation system provide reassurance about the safety of students.

Niger

Similarly, Abdul, a PG student and citizen of Niger (an African country), responded that in Niger, government school students use public buses for transportation. Most private schools have school bus facilities. Very few private schools do not have bus facilities, and their students use public buses. Besides school buses, public buses, taxis, and rickshaws are used for transportation. There are safety and security issues in transportation. Most of the time, buses are overcrowded, and accidents often occur. Buses are not properly maintained to prevent such kinds of accidents. In each bus, there are two drivers and one technician. If a bus faces any technical problem on the way, the technician resolves the problem. Some seats are reserved for persons with disabilities.

Other than this, there is no particular facility inside the bus. Buses stop properly at bus stands but need to maintain the correct timing. Sometimes buses come early, sometimes late. Moreover, because of this, Students face problems reaching School at the right time. Number of government buses needs to be increased. These should have a timetable for bus arrival and departure. Many students miss school because of that problem. Buses are overcrowded. There is a need for a nearby bus stop. Some students walk long distances from their houses to catch the buses. These are the challenges that need to be adequately addressed by the government.

Ghana

Anans, a PhD student in chemistry from Ghana, expressed that government basic school students go to School by public buses (tro tro). On the other hand, most private basic schools provide school buses from their side. Concerning government secondary school days, students go to School by public bus (tro tro), but most students have boarding facilities. They go to their home on vacation by public bus. Some government secondary schools have school buses for their students and teachers. As government secondary schools provide free education, there are very few schools that are run by private organizations. Most private school students stay in hostels. As the students in private secondary schools are very few, these schools do not provide school buses. The students of these schools use public buses. Some students come to School in their parents' personal cars in private secondary schools. The respondent is unaware of the transportation facilities for students with disability. He has not seen any particular facility that would be helpful to them.

Regarding safety, the respondents have mentioned checkpoints, first aid boxes, extinguishers etc. However, there is doubt about the proper activeness of the mentioned things. There is a vehicle licensing authority that checks through before giving permission to run for public transport. It is also checked whether the driver is qualified for driving or not. But they sometimes do not mark properly. Therefore, some issues of norm violation occur. Most of the buses stop properly at bus stops, but it does not maintain proper timing. Because of this problem, sometimes students face the problem of not being able to reach school on time. Government needs to take initiative to make transportation smooth for students with disabilities. Most of the buses are imported from other countries, but the government has not made any suggestion to bus manufacturing companies to give necessary structure and provide facilities to buses that will be easily accessible for persons with disability. The government does not have any provision that will properly address the transportation issues for students with disabilities.

Bangladesh

Sudipta, a UG student in journalism and resident, is of the view that in Bangladesh, transportation facilities for school-going children are very smooth. The government is development-oriented, has taken certain initiatives that help for the betterment of roads and transportation in the country, and has set up primary schools within a small radius in the villages. Therefore, these school-going children go to School on their feet. In other cases, general public transportation is available for the school students, and the community vans pick up students from their homes and drop them off at their School simultaneously. When School closes, these vehicles pick up the students from the school gate and drop them off at their homes. Community vans are managed by the schools, community, and society. In most cases, buses are managed by private bodies, and some government buses run for school-going students. In Bangladesh, differently-abled people get good treatment. The government takes the initiative to provide wheelchairs and white canes. There is no specific transportation system for PWD, but they also get help from the government at the local level on a case-by-case basis from someone who cannot be moved from one place to another. The respondent does not know whether the wheelchair can be carried by the bus or whether the wheelchairs drive inside the buses in commercial buses, and he explored that government buses have these kinds of facilities. Additionally, the Braille-written plates are available in managed government buses. Bus attendants are well-versed in social security and transportation measures. The respondent stressed that the government does not form any special norms and rules for school vehicles because schools and other educational institutions usually set up their own norms for them. Vehicles do not let them go out of the radius of their norms. In addition, society and the community take care of it. When thinking about the big cities, the government forms special norms for regulating them, and the government school vehicles follow these regulations; in other cases, awareness affects them to know and follow at the village level. Another issue respondents explored is that roads are narrow in some parts of the country due to traffic jams observed very hard. In addition, both government and individual school buses do not care about the schedule, and proper bus stand stops are not found. Apart from that, buses dropped the children in front of their homes. The respondent observed that during the rainy season, the condition of the roads is very poor at the village level. Sometimes students cross the river to go to School. The respondent praises the government for taking the step to make the bridges, and a school set up near the habitat is the best policy for school-going students in the village to manage the situation.

Burundi

Olivier, a PhD scholar from Burundi, responded that in Burundi, mainly non-government buses are used by School students. There is a lack of public buses. There are not so many special facilities for students with disabilities in transportation. They do not need to pay for public transportation. For them, some seats are reserved. Most of the students have boarding facilities in special schools. That is why they do not need to travel by bus to attend classes. There is no rule for safety and security. Passengers are compromised with securities issues. Bus stops properly at the bus stand but the bus does not maintain a fixed time table. Most of the time, it runs late. He suggests that the government needs to think about transportation for persons with disabilities. The government should offer school buses for School students. This will help students reach school on time and facilitate their well-being.

Discussion:

School Transport is an essential component that plays an important role in the education of children. It connects the children to school and is thus important for the inclusive education of children. Safety is an important concern nowadays as the traffic on the road is increasing day by day. Children are the most vulnerable section in society prone to road accidents as they are not aware of the traffic rules since they are in the learning stage. Traffic training parks are established in Delhi at Bal Bhawan, Roshanara Bagh, Punjabi Bagh, and Baba Khark Singh Marg to provide practical instruction to all road users including school children. The basic purpose of the establishment of traffic parks is to educate school children about the necessary safety rules and regulations. These parks are created with real-world road conditions, road signs, and automobiles so that youngsters will get an education and be aware of the traffic rules and regulations that are necessary for them to follow so that they can walk along the roadside safely while traveling to school. There is an important role of school administration, teachers, and parents to educate children to take care of themselves while walking, cycling, traveling, crossing the road, and following the traffic signals. Children need to learn to handle the situation while traveling to school and avoid interacting with strangers and if they need any help then to whom they will ask in that situation. Now a day's metro train network is spreading around the city and in terms of safety this can be one of the best mediums of school transportation. The government needs to make a policy regarding the concessional pass in the metro rail for children traveling to school so that their parents can afford their journey. Appointment of Marshall in the public buses, CCTV cameras, and GPS in buses makes buses safer for children especially girl children traveling to school. This can decrease harassment, abuse, and bullying cases and make school transportation safe for children as they can travel without any fear.

Conclusion:

School Transport is one of the essential needs and it plays an important role in making education inclusive as its role is to bring children to school but despite this, it is a neglected component in education. To provide education to all, children must travel to school safely without any hindrance, but 'School Transport' appears to be neglected by the government, policymakers, school authorities, and parents. In the case of India, the transportation system for school students is not sound, and travelling is unsafe. According to government reports, many road accidents have been witnessed. Concerning the international experience, the transportation facility for the students differs concerning International, private, and Government schools and has great disparity. In Egypt, the International School has a well-organized Transportation system. GPS is also installed in the buses and parents are also informed regarding the pickup and drop off of the students. However, in the case of the government transportation system, the condition is poor. Infrastructure and the transportation facility for students with disabilities (SWDs) are not very sound. However, some civil societies are working to improve the facility for SWDs. In Maldives, there are no dedicated school bus services because this country covers 99% of the sea and has 1190 small islands. Every Island doesn't have a School because on some islands, only two or three students are there. Therefore, the government has arranged the fairies to transport the students to a nearby Island. But travelling through fairies is a challenging task for SWDs to reach the School due to their struggle with boarding and disembarking the fairy. Students of Maldives have very different challenges to access the doors of the schools. Japan has a better Transportation system for school students because Japan uses house registration to facilitate transportation to attend the local schools. The Japanese community plays a vital role and keeps the watch full Eyes on school students' transportation. Good facilities are also available for transporting the SWDs to attend the School. In Niger, the buses are overcrowded and accidents happen. Timings of school buses are not maintained. However, some seats are reserved for SWDs. In Ghana, public and private buses are used for the school transportation but proper timings of school buses are not maintained in public buses. Facilities are lacking for SWDs. In Bangladesh, there is no specific transportation for SWDs, but wheelchairs and white cans are available for them. The government does not form any special rule and regulation for school buses. Heavy traffic can be observed in some parts of the country, which leads to school buses being late. Similarly, in Burundi, Non-public buses are used for school transportation, and some facilities are available for SWDs. Safety and security issues are compromised, and buses don't follow the proper timetable.

Recommendations

- School buses, school cabs, DTC Buses, and other vehicles related to the transportation of children should be equipped with CCTV cameras, and GPS.
- School management, no matter whether the school is private or the government should take care of the transportation of children and take care of children on the road when children are leaving school.
- Traffic police need to regulate and monitor whether the driver or rider obeys the traffic rules or not and must take care of the children when they are crossing the road.
- Parents need to check regularly, children should not travel in overcrowded buses or old vehicles and they need to travel sometime along with their children so that they can identify the real issues associated with the safety of children.
- The Transport Department needs to take care of the buses not stopping properly at the bus stop especially when there are school children, and children with disabilities standing at the bus stop waiting for the bus.
- To avoid crimes such as bullying, abuse, and harassment bus stops, and places near schools should be equipped with CCTV cameras and should be monitored regularly by the police authorities.
- Schools near heavy traffic or busy roads should have strict regulations of slow speed and heavy vehicles should not be permitted during school hours to travel in that road.
- School authorities should have a high priority for the maintenance of the buses .
- As safe driving is the responsibility of the driver. Similarly, driver's safety and wellbeing is the responsibility of school authority. Therefore, schools can conduct a stress management program for the drivers which is caused by parents making repetitive calls to drivers. Wellbeing program will be helpful to drivers to perform duties effectively. School authority should avoid the multiple shifts of drivers and appoint sufficient numbers of drivers.
- Schools may organize the training program for the parent to track the bus through the GPS. It may help avoid the many tensions of the parents. They can track the exact location of the bus. Besides, they can also reach the bus stop at time and avoid unnecessary waiting time. This step will help in relieving the stress of the driver caused by parents making repetitive calls to the bus driver.
- The parents discuss their children's academics or homework after they come back from school. Similarly, they should also discuss with their children any problems they face while travelling from home to school and back home from school. This proactive approach by the parents will prevent students from having numerous problems. Additionally, by listening to the problems of the children, solutions can be explored

by making contact with the school administration, bus operators, and drivers. This patient listening will make a child expressive to express the problem they encountered while travelling to school.

- Before appointing any driver for the school transportation, school authority is required to verify the documents submitted by the applicants for the post of driver.
- Only those candidates should be appointed as school bus drivers who possess a high level of character and polite behavior.
- The school authority is also required to get the police verification of all school transport drivers so that it can be secure that the applicant who is going to be appointed as the driver does not have any criminal history or case registered against him in any police station of the country. If unknowingly the criminal type of applicant is appointed as a driver, not only school authorities but also students may have to face serious unwanted problems. Hence, police verification offers various protections.
- Besides, school authorities are required to carry out the fitness test of the buses periodically. It has been observed that unfit buses break down on the way. Due to this problem, students reach school late. The possibility of the academic loss of the student cannot be ignored. This fitness test should not be conducted by concern "Regional Transport officer (RTO)" or officer authorized by RTO.
- In view of the extra expenditure on the PWD student's rehabilitation, health, and physiotherapy, school authorities should offer the facility of the school transportation free of cost or concession basis to the PWDs.
- Research is a great tool to identify the effectiveness of school transportation. Therefore, schools are required to carry out research to assess the perception of the parents and students towards the effectiveness of school transportation. The input from the parents, students, and other stakeholders regarding school transportation will help the school authorities take affirmative action to improve school transportation. Further, parent-teacher meetings may be a great platform to ascertain input from parents about school transportation and drivers. The students' experiences should be the central point in assessing the driver's driving style.
- In view of the mobility problem of the students, school buses should be specially designed for persons with mobility problems because such students generally have difficulty getting on and off the bus. Therefore, the doors of school buses should be wide enough so that a wheelchair can be entered inside the bus. Additionally, there should be sufficient space between the chairs of the inside bus so that a disabled person can move his/her wheelchair independently to take his/her seat on the bus. The front of the second layer of the chair should be reserved for disabled children. Further, it is also necessary that school buses should have automatic lifts so that disabled students can get on the bus independently without the help of an escort or any other person. Such specially designed buses can give the feeling of Independence and inclusiveness to the students with mobility problems.
- Deaf and hard-of-hearing children have problems with expression and communication with others because they use sign language to understand the feelings of others. Therefore, the driver and other assistants of the buses should know the sign language to communicate with a hard-of-hearing child. Bus staff's excellent sign language skills will prevent the hearing impaired child from the problem encountered while traveling to schools. Therefore, the school authority is required to provide sign language training to all the school bus staff so that they can help the hearing impaired child while traveling.

References: -

1. Accident Research Cell-Traffic. (n.d.). DELHI ROAD CRASH REPORT 2022. In [https://traffic.delhipolice.gov.in/sites/default/files/uploads/2022/Delhi-Crash-Report 2022. pdf](https://traffic.delhipolice.gov.in/sites/default/files/uploads/2022/Delhi-Crash-Report%2022.pdf).
2. Allen, Heather & Vanderschuren, Marianne. (2016). Safe and Sound International Research on Women's Personal Safety on Public Transport.
3. Altrichter, Herbert & Bacher, Johann & Beham-Rabanser, Martina & Nagy, Gertrud & Wetzelhütter, Daniela. (2012). The Effects of a Free School Choice Policy on Parents' School Choice Behaviour. *Studies In Educational Evaluation*. 37. 230-238. 10.1016/j.stueduc.2011.12.003.
4. Govt. of India (2009), The Right of Children to Free And Compulsory Education Act, 2009, <https://dsel.education.gov.in/sites/default/files/rte/rte.pdf>
5. Govt. of India (2020). National Education Policy 2020. https://www.mhrd.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_o.pdf
6. Govt. of India (2021) The Constitution of India. <https://ldashboard.legislative.gov.in/sites/default/files/COI...pdf>
7. Rothman, Linda & Howard, Andrew & Buliung, Ron & Macarthur, Colin & Macpherson, Alison. (2016). Dangerous student car drop-off behaviors and child pedestrian-motor vehicle collisions: An observational study. *Traffic injury prevention*. 17. 10.1080/15389588.2015.1116041.