

Towards a Greener Future: Promoting Green and Sustainable Development in Transportation Operation.

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Abstract In this research paper, we will be exploring the need to have environmentally friendly transportation logistics operations and how the government can play a role in promoting the clean and green transportation logistics initiative. The purpose of this research study will be to give awareness and understanding of the problem of pollution caused by vehicles used in transportation logistics operations. Then after it, we will discuss the possible solutions to either minimize the reason for pollution entirely or make the effect of it as low as possible; To make solutions possible, the government's role will be the key in order to bind people through policies and laws and also providing the ease in acquiring the resources required by the private sector for the implementation of the environmentally friendly solution. To be mention that this paper will be limited to providing different ways for countries' governments to go towards sustainable development, from which each country's government can take away any practical solution for them and can successfully implement it in their country.

Keywords: Green Logistics, Logistics, Electric Vehicles, Transportation, Green Credit Points

1 Introduction

In the global world we are living right now has grown from time to time; if we look into the past, then we can see how much we have evolved as humanity and accomplished so much. This evolution of society gets possible through our intelligence and innovation of technologies for businesses and industries. However, we know that everything comes with a cost, yes, we achieved so much, and we were able to overcome so many challenges which we were facing before. Nevertheless, like every action has a reaction, every cause has its effect; similarly, with new solutions and processes, we introduce new types of problems that we have to deal with. So, despite all advancements we have made as humanity, also born issues that are the side effects of it, and to solve we have to bring changes and invent

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something new which can be able to handle the current problem we are dealing with right now. Some of the issues are not that critical, so we can take liberty on it and give time to find a solution for it and then slowly do the transition of processes accordingly. However, some issues are very severe and on which the survival of overall humanity depends and on which we cannot take risks, and we have to prioritize it so we can minimize the issue's impact and bring the problem to an end. One critical issue that is much more important and needs humans' focus is air pollution [1]. That is causing unbearable issues to the environment and becoming one of the reasons for climate change, but also it is causing health issues by polluting the air.

In recent years, the necessity of addressing environmental concerns and transitioning to a sustainable development model [2] has become increasingly apparent. Transportation [3] is a sector that requires immediate attention. Due to its substantial contribution to greenhouse gas emissions and reliance on nonrenewable resources, the transportation sector plays a crucial role in influencing the environmental landscape. Therefore, promoting green and sustainable development in transportation operations is essential for achieving global climate objectives and realizing a greener future [4]. Rapid urbanization and population growth have led to an exponential increase in the demand for transportation services worldwide. This increase in demand has caused numerous environmental issues, including air pollution, traffic congestion, and the depletion of fossil fuel resources. The need to resolve these issues has necessitated a paradigm shift toward more environmentally friendly and sustainable transportation systems. This article seeks to investigate the potential strategies and initiatives that can foster green and sustainable development in transportation operations, paving the way for a greener future [5]. Reducing greenhouse gas emissions is an essential component of attaining sustainability in transportation. Transportation is a significant contributor to global carbon dioxide emissions, predominantly due to the combustion of fossil fuels in vehicles. A transition from conventional internal combustion engine vehicles to electric vehicles (EVs) has acquired significant momentum in response to this issue. EVs [6] are a healthier alternative to conventional vehicles because they emit no tailpipe emissions. In addition, advances in battery technology and the development of a robust charging infrastructure have accelerated the adoption of electric vehicles [7]. This research article will explore the potential of electric vehicles to promote green transportation and describe the obstacles to their widespread adoption.

In addition to electrification, the incorporation of renewable energy sources into transportation systems contains tremendous potential. Renewable sources of energy, such as solar and wind, can be utilized to charge electric vehicles and power various modes of transportation [8]. This not only reduces reliance on fossil fuels but also contributes to the energy sector's decarbonization. In addition, the use of renewable energy in transportation operations can facilitate the development of smart infrastructure and energy management systems, thereby facilitating the use of energy in an efficient and sustainable manner. This article will examine the role of renewable energy integration in transportation and highlight its prospective benefits and challenges [9]. In addition, green transportation requires the optimization of transportation systems and the promotion of sustainable mobility practices. Intelligent transportation systems (ITS) and cutting-edge technologies, such as autonomous vehicles, can transform how we perceive and utilize transportation. Using real-time data and sophisticated algorithms, ITS can enhance traffic management, reduce congestion, and increase fuel efficiency. In contrast, autonomous vehicles have the potential to revolutionize transportation by enhancing safety, reducing emissions, and optimizing fleet operations. This article investigates the transformative impact of intelligent transportation systems and autonomous vehicles on green and sustainable transportation development [10].

In short, a comprehensive approach to promoting green and sustainable development in transportation operations is required for a verdant future. The transition to electric vehicles,

the incorporation of renewable energy sources, and the optimization of transportation systems using intelligent technologies are crucial strategies that can drive the transformation towards a more sustainable transportation sector. We can pave the way for a greener future, reduce greenhouse gas emissions, and create healthier and more habitable communities by addressing the environmental challenges posed by transportation. This research article seeks to shed light on the potential strategies, opportunities, and challenges involved in achieving a greener future in transportation, thereby contributing to the larger objective of sustainable development.

2 Literature Review

Below, we will be explaining the key terms which are used in this article for readers, so they can be able to understand the concept of this paper better.

2.1 Sustainable Development

The term "sustainable development" refers to an approach that places equal emphasis on the interrelationships among economic growth, social welfare, and environmental protection. Since it is the logistics industry's job to transport goods all the way through the supply chain [38], sustainable development depends heavily on the success of the logistics industry. Sustainable practices need to be adopted by the logistics industry. These practices include the utilization of environmentally friendly technologies, reduction of carbon emissions, and waste reduction. Green transportation technologies such as electric and hybrid vehicles, innovative logistics management systems, and renewable energy technology are some examples of green transportation technologies that can assist in reducing carbon emissions and support sustainable development.

2.2 Transportation Logistics Operation

2.2.1 Definition

The movement of finished goods from the manufacturer to the end user is referred to as transportation logistics operations and is a crucial component of the supply chain. Managing ecommerce inventory and filling and shipping orders make up the entire inbound and outbound logistics operation. In order to maximize ecommerce logistics, inventory management, warehousing, and order fulfillment are all essential. Smaller business owners often manage logistics operations themselves, as opposed to larger organizations, which may have professional logistics directors [41]. Your ecommerce supply chain has the power to make or ruin your company, depending on the systems and procedures you put in place. Inventory management becomes difficult due to the complexity of ecommerce logistics and the need for effective methods for monitoring ecommerce inventory throughout the process. Having too much merchandise can result in deadstock and expensive carrying costs while having too little can result in stockouts and extended shipment times. You will have a lot of loose ends without effective logistics operations, which will affect both your profit margins and client satisfaction. Therefore, maintaining a cost-effective, efficient logistics operation procedure will help save logistical costs, lower risk, and human error, and keep your customers satisfied [14].

2.2.2 Sustainable Transportation Logistics

Sustainable Transportation Logistics [23] has the potential to reduce the carbon footprint of transportation operations by improving the efficiency of supply chain activities, reducing or eliminating waste, and providing support for sustainable procurement practices. The establishment of rules and regulations by the government is an essential step in the development of long-term logistical operations. Tax breaks, eco-labeling initiatives, and financial support for environmentally friendly transportation technology are a few of the ways in which governments can encourage businesses involved in logistics to adopt more environmentally friendly practices. Standards for emissions and targets for fuel efficiency, for instance, provide an incentive for enterprises in the logistics industry to reduce their impact on the environment. According to the findings [45], governmental statutes and regulations have a significant bearing on the degree to which logistics companies adopt environmentally friendly business procedures.

2.2 Green Transportation Logistics

2.2.1 Definition

Green Transportation logistics is the process of lessening the influence of shipping and logistics procedures on the environment. Shippers must reduce their carbon dioxide emissions, deal with waste disposal and overall waste management, use recyclable products, and more as more consumers become environmentally conscious and place focus on choosing green businesses [15]. Green Transportation logistics address the carbon footprint of the supply chain, waste management and disposal of carbon emissions, packaging, recycling, lowering energy use, etc. More businesses are committing to zero-net aims in an effort to become as environmentally friendly as possible as a result of various national and international organizations supporting or requiring greater sustainability among businesses and more consumers favoring green consumption. Logistics for the first, middle, and last miles are part of a green supply chain [37].

2.2.2 Sustainable Green Transportation Logistics

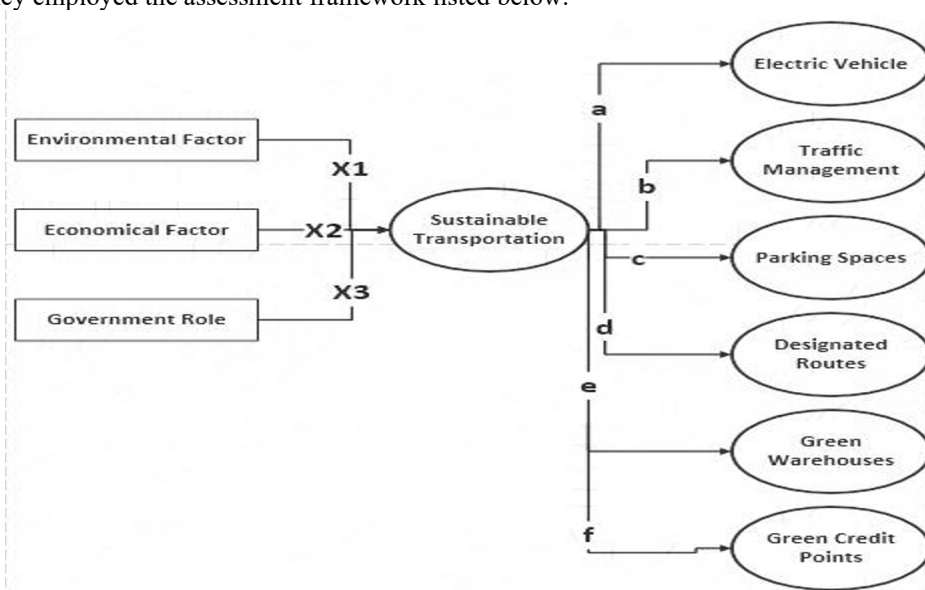
Electric and hybrid automobiles [38] are gaining popularity in the logistics industry due to their ability to operate with zero carbon emissions. This has led to an increase in their use. It is possible to reduce reliance on fossil fuels while simultaneously powering transportation infrastructure with renewable energy sources such as solar and wind power. Advanced logistics management systems, such as real-time delivery tracking, route optimization, and warehouse automation, are some examples of systems that can potentially reduce transportation costs and substantially boost sustainability. A sustainable supply chain management strategy, also known as sustainable supply chain management (SSCM), is a plan that integrates environmental, social, and economic concerns into the planning and administration of the supply chain. In addition to enhancing societal well-being and ensuring the continued viability of the economy over the long term, the overarching objective of SSCM is to lessen the negative impact that logistical operations have on the surrounding natural environment. Green sourcing methods, efficient inventory management, efforts to reduce waste, and reverse logistics are some of the fundamental elements that make up supply chain sustainability management (SSCM).

2.3 Role of Electric Vehicle in Green Transportation Logistics

Electric vehicles (EVs) have an electric motor in place of an internal combustion engine and a battery in place of a gas tank. Plug-in hybrid electric vehicles (PHEVs), which combine gasoline and electricity, have an internal combustion engine, a battery, an electric motor, and a gas tank. Fuel sources for PHEVs include both gasoline and electricity [46]. EVs have no emissions from the tailpipe. The total emissions associated with operating an electric vehicle are typically lower than those for driving a gasoline vehicle, even though charging the battery may increase pollution at the power plant. This is especially true if the electricity is produced using renewable energy sources, like the wind. When using gasoline as the fuel source, PHEVs emit exhaust emissions. You can fulfill all of your driving demands by simply plugging in a while at home, depending on how far you drive each day. A typical 120 V outlet may be used to charge the majority of EVs. You could install a special 240 V outlet or charging device to charge the car faster. You might also be able to use one of the many public charging stations that are becoming available at your place of employment [7].

3 Research Method

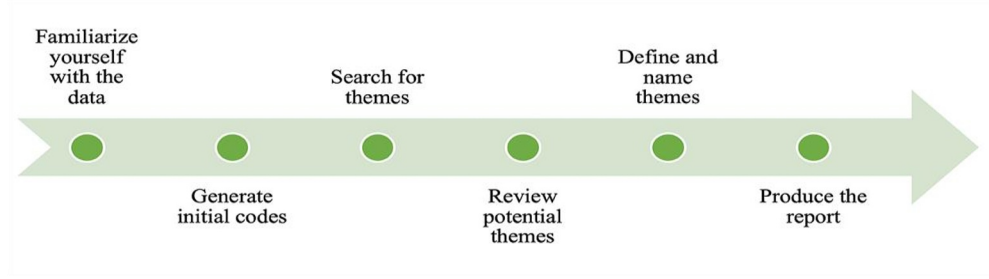
This study used qualitative research techniques and information gathered from articles, journals, and current industry trends. Using this method, the data is described and further evaluated to produce more detailed, reliable, and trustworthy information. Before the data was processed, the acquired data was carefully examined. When conducting the data analysis, they employed the assessment framework listed below.



(Figure 1. Evaluation of the Model's Performance Using a Framework)

The NCapture capability of NVivo Software can be used to assess online expression in the context of researching green transportation. With NCapture, researchers can quickly bring content from the web, social media, and online publications into NVivo for further analysis. The program aids researchers in collecting, classifying, and analyzing data, which in turn sheds light on themes, trends, and online expression rights in different nations. Using NVivo

and NCapture, researchers can conduct in-depth studies of environmentally friendly transportation, enhancing their understanding and adding to scholarly literature.

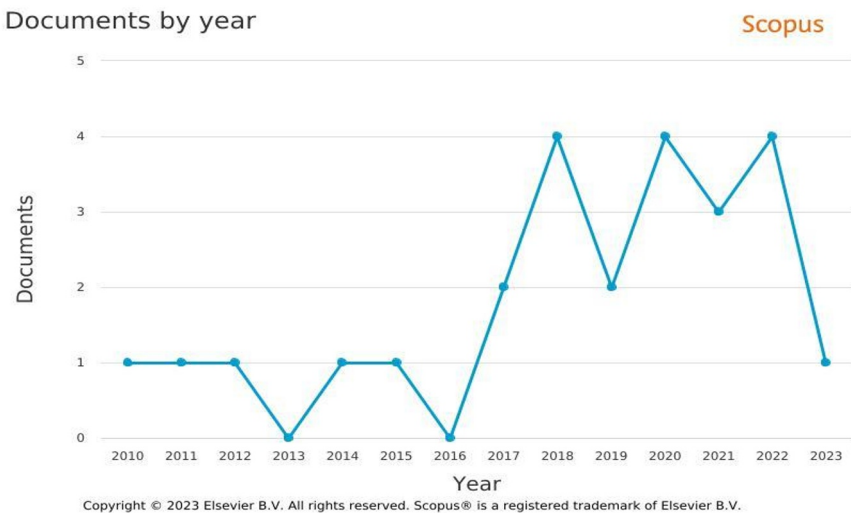


4 Results and Discussion

4.1 Results

4.1.1 Document Publication by Years

Figure 2 presents a timeline depicting the publishing of findings on the subject of Green and Sustainable Development in Transportation Operations from the years 2010 to 2023. Only one document was added to the Scopus Database in each of the years 2010, 2011, and 2012 respectively. In 2013, there were zero documents. On the other hand, from 2014 to 2015, there was just a single publication; nevertheless, in 2016, there was not a single publication. The publication surge began in 2017 with the publication of two documents, and it continued into 2018 with the publication of four documents.

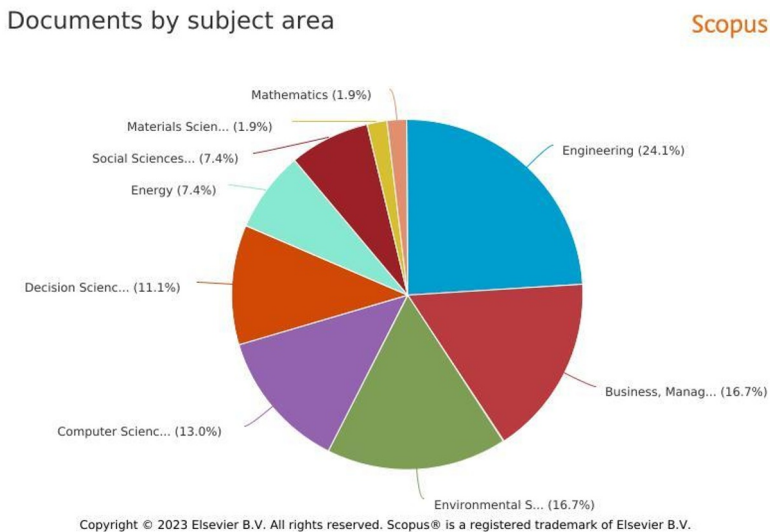


(Figure 2. Publication of Documents by Years, Source. Scopus Database)

In 2018, the publication surge continued. The following year, in 2019, there were a total of two documents, and the following year, in 2020, there were a total of four documents. In 2021, there were three documents, in 2022 there were four documents, and in 2023 there was only one document. It can be deduced from this that the years 2017-2023 constitute the launching point for achieving and sustaining progress.

4.1.2 Document Publication by Subject Area

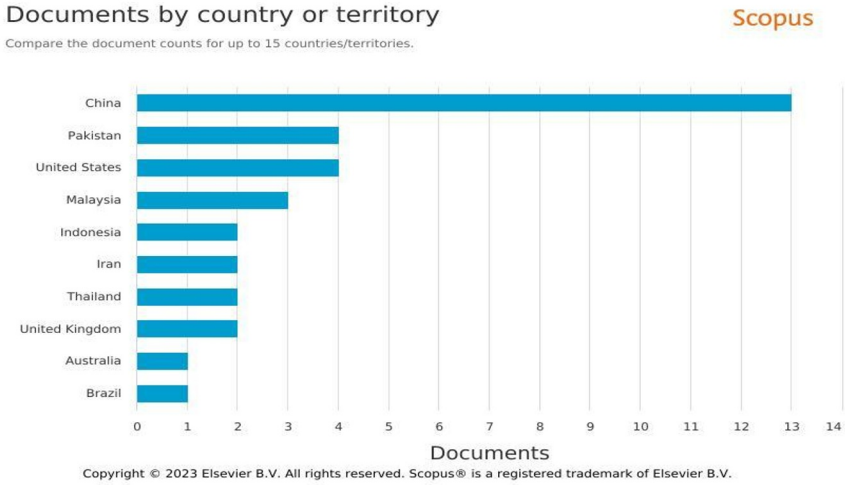
Figure 3 provides a visual representation of the breadth of the spectrum of the topic of Green and Sustainable Development in Transportation Operations. The Scopus database indicates that this pattern is being addressed, with the percentage of mentions being highest in the discipline of engineering at 24.1%. A total of 13.0% of students majored in computer science, followed by 16.7% in environmental science and 16.7% in business and management. In a similar vein, the contribution of Other Fields to published works ranges from 11.1% for Decision Science to 7.4% for Social Science, 7.4% for Energy, 6.1% for Environmental Science, 4.5% for Business and Management, 1.9% for Material Science, and 1.9% for Mathematics. These findings point to the same conclusion, which is that technology vendors are the ones who should be responsible for Green and Sustainable Development in Transportation Operations. Computer science and computer engineering are the subjects that have the biggest number of people working in them, hence this topic of "Green and Sustainable Development in Transportation Operations" is mostly discussed in the field of "Technology Science." It is required to enhance the use of information technology that is facilitated by the transportation system in order to improve operational effectiveness in the Green and Sustainable Development in Transportation Operations.



(Figure 3. Publication of Documents by Subject Area, Source. Scopus Database)

4.1.3 Document Publication by Country

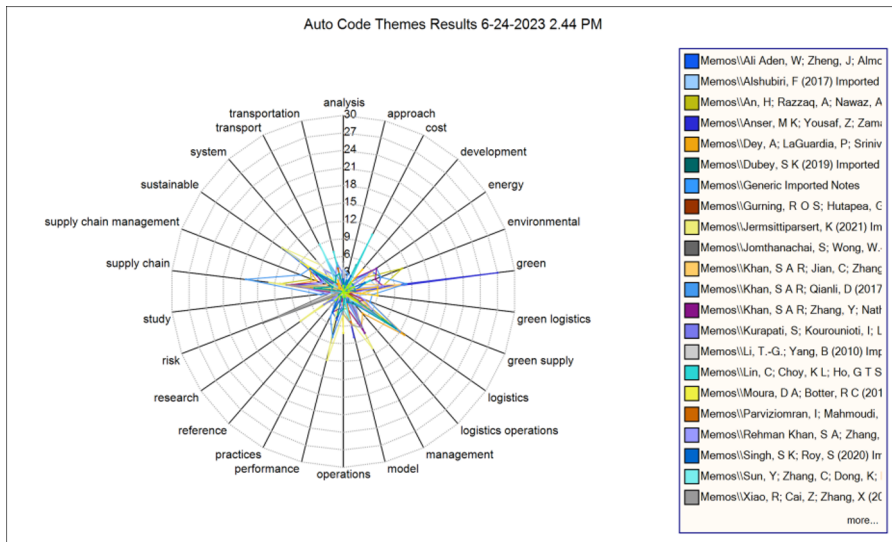
According to the data presented in Figure 4, the country of China is the most influential in terms of the number of publications it has contributed to the field of green and sustainable development in transportation operations. There have been 13 of these contributions. Both Pakistan and the United States are tied for first place when it comes to the amount of publications that their respective governments have produced; each nation has produced four publications.



(Figure 4. Publication of Documents by Country, Source. Scopus Database)

In the Scopus Database, the years 2010 through 2023 are considered relevant for evaluating publications. In addition, there is Malaysia, which has its own set of researchers who have produced three manuscripts. Additionally, Indonesia, Iran, Thailand, and the United Kingdom have each produced two documents. Last but not least, both Australia and Brazil have only issued a single document related to this subject.

4.1.4 Results Through NVIVO



(Figure 5. Auto-Coding to Find Main Themes, Source. NVIVO Software)



(Figure 6. Key Themes through World Cloud, Source. NVIVO Software)

4.2 Discussion

Based on the detailed research and analysis done on this topic, the outcome that is found will be discussed in detail in this section, which is described below;

4.2.1 Transportation Logistics Operation through Electric Vehicles

We have seen how the world is gradually transferring towards electric vehicles, and they are becoming more and more convinced about their benefits and practicality. So now it is a trial and tested successful solution which no one can deny, that is why it is time that it should be promoted and motivated in the logistics sector more. Different logistics companies are now using electric vehicles, but still, more is needed, and they should be promoted more. Because logistics is all about transferring goods from one to another, and it cannot be possible without vehicles, therefore using vehicles is necessary, and we know the impact of non-environmentally friendly vehicles on the environment. That is why the government should make sure and bind Logistics companies to move step-by-step towards using Electric Vehicles for their logistics operations. It will help to decrease the emission of CO₂ into the atmosphere without affecting the efficiency of Logistics operations.

4.2.1.1 Government Promoting Electric Vehicles

To make the transformation to electric vehicles easy for the logistics companies, the government needed to provide help to them in terms of ease in the regulations, help to import electric vehicles quickly, or even support the companies to start the production of electric vehicles locally. So, the government should ensure easy accessibility and usage of electric vehicles like other fuel-powered vehicles. It will be necessary for the success of this initiative. Even the government can attain Electric vehicles and provide them to companies who needed in easy installments. In that way, the government can also benefit from this initiative, and logistics companies can quickly get Electric vehicles.

4.2.1.2 Government Celebrating Electric Vehicles Day

The government can make 'Electric Vehicle' day in the country, so logistics companies on this day only use Electric Vehicles on the route, which will make people more motivated and

make them celebrate it as a tradition also, with Logistics companies the citizens also get awareness of the importance of it on this day through public service message Ads, Pamphlets, Hoarding Boards, Seminar, etc., and many more.

4.2.2 Transportation Logistics Operation Through Bicycle

For many years, traveling by bicycle has been promoted as the most environmentally friendly ride and is also perfect for health. Its most significant benefit is that it does not require any fuel or electrical energy to run, which is why most people prefer it. That is why it should be promoted to use in the logistics companies to transfer goods. However, speed and distance coverage are the lacking points of it, like if you want to reach the location at a far distance in a minimum time, then it can compete with other vehicles, and also, we cannot take very heavy load items on a bicycle. Therefore, it should be implemented in logistics companies where possible, like for working where distance is near, and quickly taken items are available. In this way, we make able to minimize not only the chances of pollution but also it will be cost-effective for logistics companies.

4.2.2.1 Government Promoting Bicycles Usage

Government can also play its role in successfully implementing Bicycle usage promotion by incentivizing companies with Taxes or Tariffs which are using Bicycles in logistics operations. Also, Government can make regulations and make logistics companies liable to use a certain percentage of logistics operations through Bicycle. Even the government can make laws for easy buying, selling, and importing of bicycles. Government can also attain bicycles themselves and provide them to Logistics companies at discounted rates and easy installations.

4.2.2.2 Government Celebrating Bicycles Day

The Government can celebrate 'Bicycle Day' for the promotion of its usage. On this Day, logistics companies will only use Bicycle for the logistics operation. With it, the government will also arrange events, Seminars, even create Ads, distribute pamphlets, etc., so not only logistics companies but citizens of the country will get awareness about it, and they can also participate in this day and celebrate it as a tradition.

4.2.3 Creation of Mini-Hubs

To make the logistics operation efficient, the difference between the logistics warehouse location and the customer location must be minimal. By minimizing the distance, logistics companies will fastly and effectively reach customers. Also, fuel usage will be minimal, which means less pollution, so decreasing this travel distance will have a positive impact on customer service and its benefits to the environment. That is why Logistics Companies, instead of creating a big central hub within a city from which all logistics operations will be managed, should make small mini-hubs all over the city and from which it will cover a specific area of the city. In that way, any new order placed will be tagged to the particular mini-hub from which the customer's location is nearest. Then the Delivery rider from that mini-hub will go to the customer location. Due to the minimized distance, thanks to the mini-hub, the delivery rider will reach the customer quickly, and fuel consumption can be minimized. Even in some cases, it can become zero if logistics companies utilize bicycles to contact the customer.

4.2.3.1 Government Providing Space for Mini-Hubs

One of the leading challenges Logistics companies can get in order to create mini-hubs within the city is finding the correct locations with the availability of required space. So, the government can play a role in it by giving government-owned places for using it as a mini-hub. Because the government often has locations in the city that are completely empty, or even if they are using them, it needs to be more utilized with so many open spaces. Therefore, they can provide those places to logistics companies for creating mini-hubs. In return, they can get rent for them so that logistics companies will get space for a mini-hub, and unutilized government space will be utilized and also get revenue in terms of rent, so it is a win-win situation for both.

4.2.4 Effective Traffic Management

In order to control pollution in terms of air and noise and with-it controlling fuel consumption on the route, it is very important to have a smooth traffic flow on roads. Because due to it, unnecessary delays are created for logistics companies on the way, and they do not reach time for work; also, their fuel consumption increases, which means more pollution in the environment and causes accidents because people are already getting late due to traffic jams. They try to reach on time by driving rashly. That is why it is crucial for the government to do the necessary planning of roads for the efficient flow of vehicle movement so the fuel consumption of logistics companies' vehicles can be decreased and also with the help of it Air and Noise pollution can be minimized.

4.2.4.1 Parking Spaces Availability

For a smooth flow of traffic, it is essential that the roads are free from unnecessary blockages. One main reason for it is when people start to park their vehicles on the side of the road due to the unavailability of parking spaces which will cause slow traffic. We have discussed that slow traffic will lead to delays and extra fuel consumption, which take us to air and noise pollution. That is why the government should make plans for enough parking space available for vehicles so traffic flow will remain efficient and should penalize vehicles that violate the law and park on the road despite having parking space. That parking space will not only benefit logistics companies as the smooth traffic flow but also help them park their vehicles properly when they are en route to deliver goods.

4.2.4.2 Special Route for Transportation Logistics Operation

One of the solutions, in order to manage routes and maintain efficient traffic flow, is to differentiate the traffic flow of regular people traffic with the logistics operation traffic. In order to do it, the government can fix a particular lane of the road for the logistics companies' vehicles only where regular people traffic should not enter, or government can create either a specific flyover and even build an underground route which will not affect regular all and no way regular could enter it. We think the second option will be more beneficial for the government to create special underground routes for logistics companies, and after government can divert any necessary traffic from this route also, like Ambulance, Fire Fighting Truck, Police, and VIP Protocol traffic in that way in case any emergency situation this special route design for logistics companies will be used effectively.

4.2.5 Efficient Route Optimization Through Software

In order to make fuel consumption minimal, which will eventually decrease the amount of pollution in the atmosphere, it is very important to optimize the traveling time of the logistics companies' vehicles on the road. In order to achieve it, the best way to do it is to take the

help of technology which is Route Optimization Software which many logistics companies are still using right now. It really makes it easy for the logistics vehicles to reach the customer location with a faster route and in minimum time. So, this Route optimization software should be promoted, and government should play a role in its implementation and also remove some of the challenges currently being faced in it like;

4.2.6 Clear Tagging of Citizen's Addresses

In Many Countries Especially Developing countries, this is still a problem that people poster addresses are not correctly tagged and managed; due to this, it becomes difficult for logistics companies to identify customer locations and reach them on time clearly, and because of it, logistics vehicles spend extra effort in order to go around and try to find the correct location which causes additional usage of fuel, and that means more air pollution. That is why the government should regulate to make sure every citizen's postal address is tagged correctly and can easily be located through software.

4.2.6.1 Standard Way of Given Address

The government should also introduce a standard way of a citizen's postal address. That way, the Address standards, should be followed everywhere, even in the logistics sector also, so customers should give their address correctly in the mentioned format in order to make sure the webpage or mobile application on which the customer will provide their address should be designed according to the address standard so no customer should be allowed to provide an address other than the given format. Government should regulate so address should be provided in a standard format, especially in the logistics sector; even the government can design Technology solutions that make sure the customer address is taken in the standard format and outsource it to logistics companies in the form of API or Plug-in so any company can easily integrate with their system and use it, in return, the government can take service charges for using it from them.

4.2.7 Powering Warehouses Through Green Energy

It is essential not only to convert the vehicles logistics companies use on the route should be on Environmentally friendly energy but also the hubs or warehouses on which logistics companies are working should also be moved to environmentally friendly energy as there no such heavy use of machinery in the logistics companies, so it will not be that difficult to transform their warehouses to green energy like;

4.2.7.1 Powering Warehouses Through Solar Energy

One of the most environmentally friendly energy sources is solar energy, which derives its power from the Sun, stores it, and can then be used to power various devices and vehicles, among other things. This energy is entirely in sync with climate change; the hotter the Sun gets, the more energy Solar panels can detect and use as needed. Logistics companies need to turn to this energy source because it is a sustainable, tried-and-true substitute for fossil fuel. The government should also offer incentives and encourage businesses in the logistics sector to put more effort into it and convert their warehouses to this green energy solution.

4.2.7.2 Powering Warehouses Through Wind Energy

Many nations are moving toward wind energy, which has also been positioned as one of the environmentally benign energy choices. Large wind fans are set up in windy areas, and when the wind blows through them, it generates energy that may be stored and used to power various devices and produce electricity. It is less widely utilized than solar and electric

energy. It is still valid, though, and the government needs to support the use of wind energy and encourage logistics businesses to upgrade their warehouses to use it.

4.2.8 Giving 'Green Credit Points' to Each Transportation Logistics Company

The government should implement a policy known as "Green Credit Points," in which each logistics company will be evaluated on how environmentally friendly the energy they use in their warehouses, as well as how much pollution is caused by the operation of their vehicles, and 'Green Credit Points' will be awarded to the logistics companies based on the results of these evaluations. The minimum 'Green Credit Points' target would be set for the logistics companies, which they have to accomplish each month; if they achieve the target, then the government will reward them through easing of taxes, relaxation on the import customs, etc.. However, if they do not meet the specified objective, they will be required to pay the penalty amount proportional to the number of 'Green Credit Points' that they are short. Therefore, they are required to pay the penalty and buy each point that is lower than the objective, and the government will use the money from the penalty to fund environmentally beneficial energy projects such as solar panels, wind fans, planting trees, and other similar endeavors. In this manner, each logistics firm will be made aware of and made responsible for either moving towards the green energy solution or paying the penalty for the pollution you are generating in the atmosphere, and that penalty will be used to cope with the pollution that the logistics companies cause.

5 Conclusion

This Research study provides us with a perfect starting point based on which we can lay down the foundation of environmentally friendly and sustainable development of logistics. With the help of this research work, we have presented the reason why countries' governments needed to focus on clean and green logistics because of the amount of pollution caused by the vehicles used in the logistics, which profoundly impacts the atmosphere and the air quality of the country. Not only the environmental impact is more significant but also for effective management of the country's traffic and roads so no extra load should have come which causes the traffic jam and creates the issue of noise pollution. So, we have listed down all the solutions that have the potential to solve either the issue entirely or at least can decrease the influence of the problem. Some of the answers have already been practiced in different parts of the world, and some are new ideas that can be tested to check their practicality. In short, we have not only clearly highlighted the problem statement and why its needs to be taken seriously due to its implication. In the end, we have provided the solutions with the implementation method of it that can be able to restrict the spread of the problem. Therefore, now it has to be decided by each country's government how they want to prioritize it in their agenda and solve this issue for the betterment of the future of people's health and also the country's progress.

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