

Problems Of Transportation And Traffic Use On The Highway Between The Cities Of Ramadi And Fallujah

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Article History: Received: 11 January 2021; Revised: 12 February 2021; Accepted: 27 March 2021; Published online: 16 April 2021

Abstract Evidenced by searching the existence of problems associated with the uses of transport responsible for generating traffic, after standing on the path of the road transport and the medium that its star about a lot of problems, which affect the public safety, the most prominent of accidents and pollution because of its effects on the economic, environmental and social level, then he shed light on the most important proposals, which were addressed based on the opinions that were reached regarding the achievement of the goals of sustainable transport, and then concluded with conclusions and recommendations.

Keywords: Road, damage, uses, problems and traffic.

Introduction

The uses of transport and traffic are the cornerstone of the development of human activities that have contributed to the major role in economic growth and linking all functional activities to achieve development in all its meanings and detailed contents with each other without limitation, within the geographical space, which is increasing in importance at the present time with the growing population and the significant increase in numbers and sizes Means of transport, which left its clear effects that emerged on the scene of events as one of the types of challenges facing issues in various sectors, environment and transport, as they resulted from serious problems that threaten public safety, which drew the community's attention to promoting sustainable transport as an alternative to the uncontrolled use of automated vehicles and the problems associated with them.

And to take a package of reasonable measures that are based on technology foundations in integrated practices in accordance with the safety standards associated with the lives of the population in order to ensure a road compatible with the volume of traffic and commensurate with the requirements of population density by highlighting the uses of transport and traffic in the study area to find out its problems and limit their causes. With a view to directing policies for the purpose of adopting proposals to address this phenomenon.¹

The importance of transportation uses lies in the great role that stems from the population's need for accessibility, linking all economic activities with each other, and achieving sustainable development, with all its meanings and detailed contents, to rebalance societies for decades to come, as it opens the door to complementary studies of the transport sector in other regions.

Research problem

The uses of transport and traffic gradually became, not meeting the ambition of sustainable transport with the requirements of life in achieving an appropriate level of regional service in light of the continuous increase in the use of cars, on the highway between Ramadi and Fallujah.

Research hypothesis

The transport and traffic uses lack the lack of integration and balance in performing its function, to achieve sustainable transport to connect its parts, in a way that helps to overcome all obstacles that prevent traffic problems on the main road between Ramadi and Fallujah.

Research objectives

- Identify the reality of using public traffic transport, and analyze it in order to uncover its problems in order to adopt advanced measures, to contribute to improving public transport, by developing solutions and proposals that are economically feasible, socially acceptable and environmentally sound, in accordance with the necessary strategy, which promotes sustainable transport.

Research Methodology

The research relied on the field study to determine the size of the problem, its type and the extent of its spread through the observation that was enhanced with Figures, in addition to the use of a questionnaire that was specialized in a selective sample, with those with relevance to the topic, distributed in the size of (300) questionnaires, to find out the opinions and desires of the slide, which led us to the development of transport uses Traffic in the study area.

Study area

The study area is located in the eastern part of Anbar governorate, which is the area of the highway that extends between the city of Fallujah and Ramadi at a distance of (47 km), in sub-orbital widths between two circles of latitude (10 33 - 48 33) north, and longitudes 26 43 - 32 43 To the east looking at Figure (1), it is

considered one of the main artery roads that are designed according to the volume of traffic trips between 800-1200 per hour (1), and is characterized by easy access and the absence of intersections, and its width is (100-90 m) and with two lanes each The path (3-4) corridor, and contains a middle carot, with a speed of (80-90) km / hour (2), and the road adopts an organic pattern that is characterized by many bends and centered next to it many of the areas it passes through.

Note the aerial Figure (1) It is one of the main places that attract people and regions according to its function, as it connects cities and regions with different human, economic and cultural characteristics, due to the combination of different environments (urban and rural), characterized by the lack of diversity of surface appearances, which contributed to determining its general path, consistent with its slope. Through its extension in the flood plain at an altitude ranging between (35-51 m) above the level Sea surface (3).

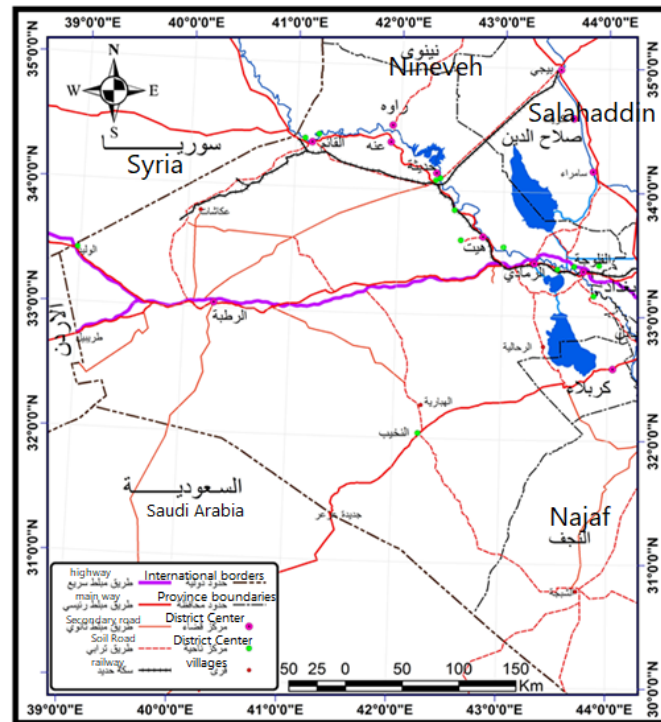


Figure 1. The road network of road transport in Al-Anbar Governorate



Figure 2. The surrounding areas on the main road between Ramadi and Fallujah

Problems of transportation and traffic uses

The urban inflation of cities and the development of their urban fabric led to an unprecedented revolution in many areas such as the steady population increases, the large increase in the numbers and sizes of transportation means, the multiplicity of activities and the complexity of the causes of life, which left its clear effects on the uses and functions of transport and traffic, with the emergence of many Problems related to it, and based on the field study that touches reality, and after examining the issues of traffic, transport and traffic, we came to:²

First, Transportation Uses Problems

They are problems that correspond to the area occupied by the road used in traffic, as their types were diagnosed by field observation, through repeated visits to the road and documented with Figures to prove it, as follows:³

1. Lack of road furniture: It includes all the necessary supplies (transport infrastructure) that complement the road, which must be provided due to its importance for the sustainability of the road, in order to perform its function in transport and traffic operations, of which the road is devoid of it along its stretch between the city of Fallujah and Ramadi , In spite of the funds allocated for the construction and maintenance of roads, by deducting the tax imposed on vehicles upon transferring their ownership, in the public traffic departments. These deficiencies are as follows:
 - Traffic light that regulates the traffic process according to priority without falling into accidents, especially at intersections and at entrances to nearby areas on both sides of the road.
 - Traffic signs that guide vehicle drivers in knowing all the matters surrounding the road while driving, in order to avoid sudden occurrences and causing accidents, in addition to identification plates bearing the names of the areas that are placed as a guide for road users to indicate them.
 - Drainage holes on both sides of the road during rainfalls when they occur in the winter season, to avoid economic damage and traffic accidents that may cause them.
 - The lack of lighting poles in the middle carots, which are necessary to clarify the vision on the road, as well as their help in avoiding high lights in the opposite direction during the course of the road, which reduces the occurrence of collision as a result, note Figure (3).



Figure 3. Represents the absence of lighting poles on the road in the Al-Falahat area

- The lack of green sides on both sides of the road, which gives it its natural and necessary beauty, to avoid the noise caused by vehicles while they are passing, as well as their contribution to purifying the air by absorbing toxic gases from car exhaust, note the Figure (4).



Figure. 4. The absence of green areas on the road in the Joeba area

2. Damages: it means all the faults that occur in the area occupied by the road, and cause problems for transport and traffic, as represented by the following:⁴
 - Bumps are the barriers that spread along the two sides of the road linking Ramadi and Fallujah back and forth, as their number reached (68) bumps, including what is plastic or asphalt, note the Figurer (5), to reduce the speed, and thus result in economic problems such as accidents Tire wear and hinders the journey, as well as affecting the patients while they are treated.



Figure 5. Represents one of the bumps on the road in the Hasibah area

- Cracks and potholes that occur as a result of poor bonding of asphalt materials that lead to damage to the surface layer, due to poor design of the mixture in terms of proportion and thickness and the lack of or excess of soft materials, which leads to the emergence of severe cracks and the loss of pieces of the asphalt paving rubble and its displacement in some areas as a result Vehicle movement, or maintenance work as well as the impact of the weather (Weathering) Note Figure (6). This results in the same pre-existing problems.



Figure 6: Represents cracks and potholes on the road in the city of Al-Khalidiya

- Depression is represented by the depressions that occur in some places on the road as a result of the descending of the road foundation layers below the asphalt layer due to the impact of loads, due to poor materials, thinning or thinning of the surface layers, especially near the checkpoints. Note a Figure (7), which results in economic problems .

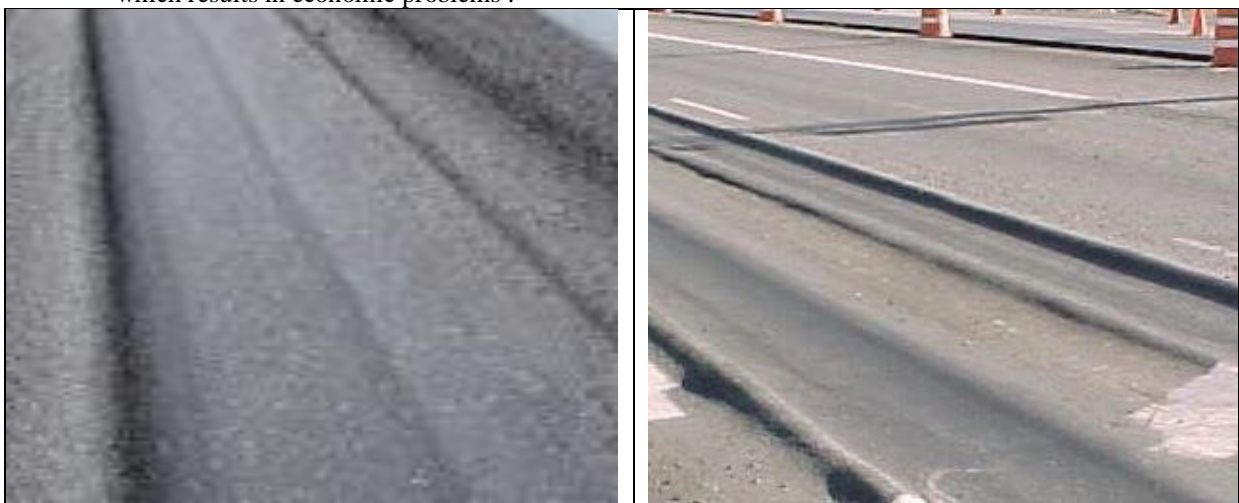


Figure 7. depicts the dips on the road at the entrance to the hallabasah

3. Visual pollution: It is one of the undesirable types of environmental pollution that distort any view. The human eye falls upon looking at it and feels psychological discomfort, as it is one of the types of lack of artistic taste, to hide the aesthetic image of things on roads and sidewalks in general, the road suffers from the problem of the spread of distorted pollutants along its length, which affects the public taste,

especially billboards and election propaganda of various sizes, colors and lines that distract attention while driving and make them lose the ability to focus, as the road has become a focal point for gathering them as if they were assigned to it,⁵ after The increase in its size, as well as the electrical wires that top it from the sides and the remnants of maintenance, note the Figure (8), instead of paying attention to the road and its cleanliness, creating green belts and enjoying the beauty of nature



Figure 8. Represents examples of visual pollution on the road in the strait

4. Check points: There are three main checkpoints that use the road permanently at the entrances to the city of Fallujah, Khaldiya and Ramadi continuously, in addition to the spread of temporary checkpoint barriers periodically and sometimes suddenly on the road for security reasons, during the station, especially on Thursday. And on Monday, in addition to the urban days due to the Corona pandemic, and what this causes in many ways is the damage to the road at its entrances. Subjecting them to the pretext of inspection, not to mention some practices that some immoral controls follow, such as the pretext of bullying sometimes for the purpose of blackmail or the like, which causes annoyance and sends in themselves a feeling of resentment and insecurity when passing through the checkpoints. The desire for its presence on the road, which came at a rate of (90%), as a result of those measures that lead to a lack of trust between the citizen and the security services.⁶



Figure 9. Represents the stopping of the vehicles at the entrance to Ramadi's control of the road

Second, Transportation and Traffic Problems

They are problems related to means of transport on the road, secondly traffic, the types of which have been identified by those concerned in the traffic sector (1), and then the percentage of their causes was determined based on the survey of opinions on the questionnaire, as follows:⁷

Accidents

Traffic accidents are one of the biggest problems in the use of transport affecting human safety, as about 1.3 million people die on the roads in the world annually, and tens of millions are seriously injured, and traffic accidents are the main cause of death among young people in the age group between 15 And 29 years (2), and it is evident through Figure (1), which represents the sample's views on the causes of accidents in the study area, as it was found that the violation of laws came with the highest percentage (56%) of the total opinions on the causes of accidents as a result of using mobile phones (mobile) While driving a car, at high speed, and reversing the direction, as well as ignoring and disregarding traffic etiquette and rules in public safety, which is a major challenge, especially for young people and adolescents, who are not subject to legal tests to obtain driving licenses that qualify them to use the car on the road, which leads to accidents that Its percentage increases near intersections and urban areas, while the

second reason was road damage by (40%) as a result of bumps and defects in the road, as well as damage caused by maintenance operations, which are often left unfinished. Here or alerting it to the purpose of taking caution and caution, which leads to the surprise of many vehicle drivers and the occurrence of accidents, as for the causes of other accidents caused by weather conditions and sudden holidays, they came at the lowest rates as they reached (2%) for each of them, being a rare thing Its occurrence which is represented by the loss of the ability to control the vehicle on the road as a result of rain,¹¹ fog, winds and storms, or the causes resulting from technical holidays that affect vehicles unexpectedly when the road is damaged in addition to sudden tire bursts.⁸

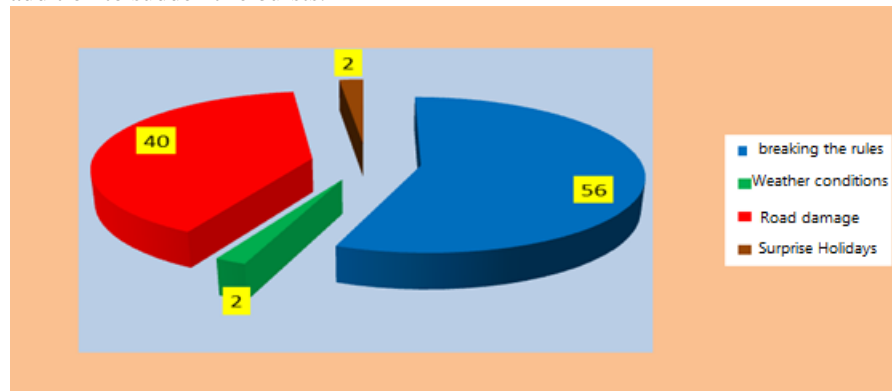


Figure 10. Represents the percentage of the sample's opinions about the causes of accidents in the study area

Congestion

Congestion is one of the most common problems of transport and traffic uses, especially at peak time (Rush time), the beginning and end of work, during the trips that increase the efforts of people to reach their places of work or return to their homes, which further exacerbates the traffic problem, as The traffic speed is reduced at many peak times. This leads to the economic costs of wasting a lot of time, slowing the arrival of goods and services, as well as its effect on the psychological state, which in turn leads to a decrease in human performance, as a result of psychological stress that he is exposed to along the way, caused by the following reasons according to the questionnaire through the Figure (2) Which showed that the cause of overcrowding is the presence of checkpoints on the road, as it came with the highest percentage (36%) of the total opinions, as a result of stopping cars at their entrances that represent a bottleneck, with the intention of undergoing scrutiny as a kind of security measures, which results in Accumulation of cars and congestion on the road, while the reason for the increase in the number of cars by (32%) followed, as a result of using the car, especially the private one due to the ambition of most people in the region to own a private car for a high level of income as a sign of the social status because of its many flexibility advantages. Movement, privacy, comfort and speed, which was reflected in the acquisition of the car, which gained great importance to meet the requirements of daily movement. It is for the sake of safety and exceeding the rights of others while walking, which reflects in its connotations the educational and psychological behaviors of its owners, as a measure representing their culture on the road (1), but the lack of road efficiency came at the lowest percentages (12%) of the total causes that affect the problem Congestion as a result of the poor carrying capacity of the road in meeting the required requirements of the volume of traffic caused by the increase in trips (frequent) to meet the requirements of daily traffic.⁹

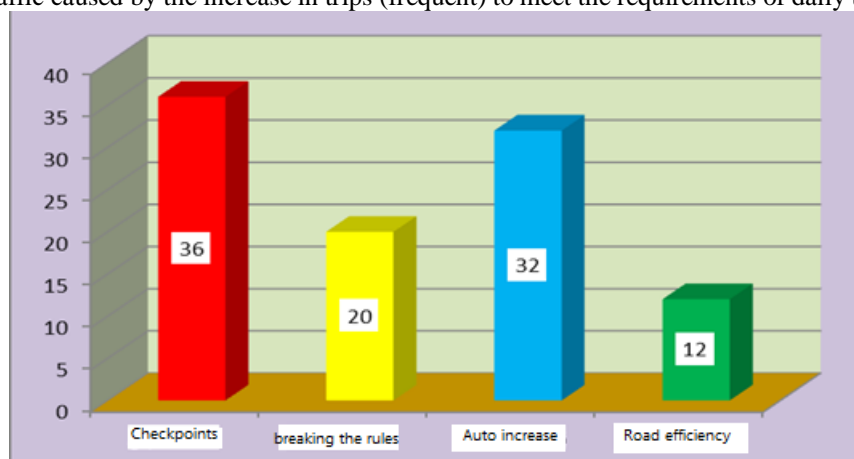


Figure 11. Represents the percentage of the sample's opinions about the causes of crowding in the study area

Air pollution

Transportation means are among the most harmful dangers in the environment of all kinds, because they throw 23% of pollutants, 95% of which depend on oil (1), as they exhaust gases and fumes from their exhausts as a result of combustion of monoxide Carbon and lead in the lower air layer, which humans deal with directly, by 60 m³ for small cars (4 cylinders) per working hour. As for large cars, they reach 90 m³ per work hour (2), and the questionnaire reveals an increase in its impact in the study area by (2) 84%), through trips (trips) generated during their passage through densely populated areas, especially (Halabsa, Baaloun, Sunan Al Khaldiya, Hasibah, and Surah). Note the aerial Figure (1) as local pollution reaches a lot of citizens with a huge volume in a short period, and thus represents a threat For the natural environment and health, physical activity is greatly impaired, which causes a source of concern and inconvenience, especially for people with respiratory diseases, as we learned that humans inhale (230) cubic feet of air per day (3), in addition to that it causes the death of 2% of the total death in the world (3) 4) These indicators are a cause for concern. Given that mobility is crucial to achieving the goals of the 2030 Agenda for Sustainable Development and achieving its goals, especially in enhancing access to health care services (Goal 3) and reducing greenhouse gas emissions .¹⁰

Noise

It is one of the transport problems represented by the annoying sound waves that emanate from unwanted sounds from various types of vehicles while they are passing on the road, as a result of the intense and continuous spread of cars that are almost uninterrupted throughout the hours of the day on the road in the study area. The worst disturbing inconveniences for rest, interrupting the chain of thoughts and causing auditory fatigue, as it exceeds the safe limit of 50 per unit of measurement of sound that a person can endure due to the loud sounds of its motors ranging between 70-100 dB (5), which leaves health effects such as headache, headache, distress and depression And the loss of appetite, especially with regard to areas of population and economic activities close to the highway, which was revealed through the questionnaire that noise was affected by (88%) due to the volume of traffic emanating from the various means of transport.¹¹

Third, the development of transport and traffic

The processes of developing the uses of transport and traffic routes in the study area are based on the three dimensions of development in understanding the prevailing trends, based on the considerations based in achieving their goals, Figure (3), such as economics in the application of sustainable transport, represented by accessibility, reducing bottlenecks, and achieving savings for consumers, And energy conservation, roads, etc., and social goals also include justice, represented by equality, affordability, the degree of safety, community cohesion, and the participation of all, for all transport users, etc. Preserving the aesthetic aspects of roads, which need more attention in the context of achieving development goals in the 21st century on development, and which are inevitable in reducing the burden of transport problems, thus qualifying them to achieve the benefits that enhance the development of transport infrastructure and services, which are still Absent or insufficient in many of the previously mentioned areas in the study area, and it is done through the following proposals: ¹²

First, Improving the use of transportation

- Repairing the damaged areas on the road with good materials, re-completing the pavement layers in a regular manner, and raising the bumps with continuous maintenance to maintain the continuity of the traffic of vehicles when performing their maintenance.
- Providing the road with all advanced supplies (a system for traffic lights, bridges and crossings for the sable, guiding signs, night lighting) at intersections, openings and entrances to cities, in addition to the establishment of the vehicles in the necessary places.
- Opening auxiliary external roads for vehicles that do not stop in urban areas to avoid penetrated traffic, to reduce traffic congestion and create harmful effects in which the movement is continuous , as the percentage of support reached (96%) upon the questionnaire.
- Establishing a green belt on both sides of the road, which contributes to the beauty of the public taste, and gives a sense of psychological comfort in addition to that it reduces the effects of pollution and climate change, as the percentage of support reached (98%) upon the questionnaire.

Second, Improving transportation and traffic¹³

- Switching to high-quality alternatives in the use of technologically advanced public means of transport (buses, trams) that are efficient to reduce congestion, traffic accidents and environmental

pollution, instead of using private cars to ensure road safety, as their approval rating reached (86%) upon the questionnaire.

- The tendency to use hybrid engines that run on alternative fuels generated from clean energy (electric, solar) that are managed in a more sustainable manner and increase the security of the energy used in transport by exempting them from taxes as economic incentives to allow their use by everyone, as their approval rating reached (100%) The questionnaire.
- The use of technology equipped with a mechanism to track the road, to monitor violations by using screens that display real-time information that it has in the monitoring centers, to manage incidents according to the process of smart transportation systems, as the percentage of support reached (86%) upon the questionnaire.
- Creating programs and projects that support communication and information technologies, in circulation and remote work on a large scale, using the Internet and mobile phones as means to reduce unnecessary transmission, as their approval rating reached (96%) upon the questionnaire.

Conclusions

1. The lack of integration of the road with the necessary requirements for sustainability and its neglect resulted in many problems associated with economic damages that contribute to the waste of money and public safety, through accidents, not to mention visual pollution.
2. The increase in the number of cars by relying on private transportation, has contributed to many major problems in the uses of transport and traffic, through the increase in the volume of their movement, which was represented by accidents, bottlenecks and pollution, especially at checkpoints.
3. Failure to adhere to traffic laws and ethics resulting from violating laws, causing many problems that have an impact on people's health, in addition to economic damage such as accidents and congestion.

Recommendations

1. Emphasis on increasing traffic awareness for all, in order to adhere to traffic regulations, traffic ethics and adhere to safety conditions, which are supposed to be taught within the educational curricula, with the download of an application on mobile phones to report violators to reduce the traffic problem. And ease congestions.
2. Activating the supervisory role on the roads, through traffic patrols, with strict accountability with fines and imprisonment for violators and negligence in accordance with the laws for safety and maintenance conditions, with the aim of achieving a reduction in accidents and injuries.
3. Applying the proposals received to develop and improve transport and traffic uses, in the body of the research, as effective solutions, for the purpose of advancing the current reality, to contribute to promoting sustainable transport at the governorate level.

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