

Deficiencies of Transport Planning in Libya

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Abstract: *Good or proper planning fosters developmental activities on planet earth, while bad planning often results to several problems and disputes. Planners encourage civilization by anticipating and resolving community conflicts. Good planning requires special skills and perspectives; and is insightful, comprehensive, and strategic. Planners should strive to truly understand problems, and not just of a single perspective or manifestation. Therefore, effective planning requires correctly defining problems and raising the critical questions. This study examined thoroughly the transport problems in Libya, as well as its importance. Also, it studied the type of planning that must be followed in Libya, and the necessary steps to be taken to achieve the desired goals. During these findings, field research and studies on transport sector must be conducted to obtain the information necessary for planning. This can reflect the reality of urban development in the cities such as the change in population density, and counting traffic accidents. The revision of traffic laws and the identification of the weak and strong points of these laws in order to amend them, in a way keep up with the existing urban progress.*

Keywords: Planning, transport sector, risk of transport.

1. Introduction

Transport is defined as a system of the movement of people, goods, and utilities using the necessary means. The transportation of commodities and goods from production sites to the markets are not less significant than the transportation of people, in terms of economic development and growth. However, transportation of people is viewed as the most important, particularly within the cities. This is achieved by linking the relationships between population and the usages of land. According to the economic criterion, commodities are worthless and valueless economically speaking, if it is not available at the right place at the right time. Subsequently, the movement of people and goods together are the major factors that determine the growth of a society, economically and socially.

The main function of transport is obvious in that it provides the connecting link between the house and workplace, schools or universities, trips related to social communication between people, shopping, promenading, or for any other reason. In addition, it has been found that 50% of the trips within the city are relevant to work. Also, the movement of people requires various means of transportation such as roads, buses and other vessels of public transport in order to make this movement easy as far as possible.

2. Problems of Transport and Traffic in Libya

Accidents are the most prominent problem that affects people's safety. Generally, accidents increases along with the increase in urbanization. Besides the environmental conditions such as rain, wind and storm, accidents occur as a result of non-commitment to traffic rules and regulations. Although, we cannot put an end completely to traffic accidents, but measures can be put in place to limit and reduce them.

Crowdedness is a huge problem urban transport suffers from in Libyan cities, especially at traffic's peak hours, where employees and workers usually go to their workplaces or return back to their homes. Majorly, the reason behind this

crowdedness is the weak capacity of roads network, and the non-efficiency of the transport system in fulfilling the required needs in comparison to the traffic size within the cities. This will result to a loss of time and energy when the traffic speed reaches up to 16-25 km/h during rush hours. Crowdedness affects the psychological state of man, which results to lowering the performance of man in their workplace or in homes. This emerges as a result of the stress he undergoes along the road (Plummer, 2000 & Qadeer, 2004).

2.1 Disrespect of Traffic Regulations

Traffic infringements are considered as measures which reflect the actual behavior of the drivers of public or private cars. However, they represent the social, educational, cultural and psychological significance of transportation.

Noise are sounds emitted from traffic as result of horns, brakes, frictions of tires to road surface or any other sounds that causes disturbance or pressure on people nearby.

Air Pollution is the most serious hazard caused by transportation to environments in Libyan cities. It is getting high due to the increase in various types of fuel by different trucks and vehicles. Air pollution is a direct result of crowdedness and it slows traffic as previously stated, particularly at urban areas where there is a large population density. Polluted air usually affects more people within a short time, and has subsequently become a threat to the public health and environment (Todd Litman, 2007)

3. Transport: The Significance and Role in National Planning

Transport is one of the most important sectors of the universal development in advanced countries of the world. Planning transport within the cities is multi-aspect issue viewed as an integral part of the urban planning process. This is because, it strongly correlates with the physical/architectural configuration and land usages which is the major factors that generates trips.

Promoting the transport sector in our times is a criterion or indication that illustrates the level of architectural development and urban progress. Therefore, countries are measured as advanced according to the progress in their means of transportation. This is in virtue with the integral relationship between transport and other developmental sectors, especially if it is associated with advanced transport systems which depend on technological applications and modern intelligent systems.

Transport comes on top of the sectors that support economical structure. Hence, it is the cornerstone of any national economy, whereby transport with its different activities, represents the key pillar of progress. However, there is no balanced growth between the sectors of any national economy without securing the needs of these sectors from transport. Here, a good planning for transport, strictly linked to the plans of other economic sectors was kept in place (Rakodi & Firman, (2008) & RTPI, 2007).

In our times, transport industry has immensely developed in a way that it affects economic development. This is because transport has an impact in handling the space and distance factor which helps in expanding market. It makes effective use of natural and human resources. Also, it increases the means of production and transport of commodities and workforce to places where they are more useful. Furthermore, it helps locate projects in economically most feasible areas. This can be seen in all developed countries, where railways are the only major means of transportation, but now, there are other means of transportation (such as planes, ships, pipes, transit systems composed of land road networks etc.) in countries characterized with advanced and sophisticated systems of transport, along with railways. Thus, the transport sector has effectively contributed to the progress of these countries, economically and industrially. Also, the transport sector contributes to economic development by linking production areas with consumption one, and in facilitating the transit of people, raw materials, and commodities from/to investment areas. Consequently, transport once more is a helping factor in exploiting natural resources mostly situated in remote areas.

The main contributions of the transport sector in the developmental process of any country can be summed up in the following:

- Selection of places to situate the industries which provides national economy with much more benefits such as reduction in expenditures of production, transport and distribution.
- Expansion of land space agriculturally exploited.
- The growing and prospering of cities and urban centers.
- Realization of balance in supply and demand processes of commodities in different markets, nationally or internationally.

Transit of people and goods is a key task in every country. The progress of transport had a remarkable impact on the reduction of the cost of final products; however, the cost of transport is considered to be the most effective element. Some economic studies conducted in this regard indicated that the cost of transport approximately represents 20% of the final cost of the product. Thus, the significance of the

transport sector aims at reducing the cost of transport, and the cost of the final product accordingly. Transport also creates considerably jobs, where human element is the base on which the transport process stands on. Therefore, many jobs should be provided to carry out the requirements of the progress that transport witnesses. In addition, any increase in the tasks of this sector necessitates an increase in the human element, which eventually means several jobs of different specialties of transport would be available (John, 2005; Hull, 1975 & Richard, 2000).

Transport is a platform from which the economy launches its influences, either directly or indirectly. The social life of individuals which is achieved through communication among people, changes their social civilized behavior. Noticeably, transport brings about social change in the society at large. On one hand, it promotes social communication among people from the same country, and on the other hand, between people from other countries. However, this results to social progress, considering that backward societies are the ones that shut themselves down due to the difficulties in communicating with other societies. This could be seen in some societies in the world, where some primitive societies still exist due to the absence of communication between those groups and other societies. From what was previously said, it can be stated that any economic development is majorly linked to the availability of facilities and the potentials of suitable transport system. Thus, this necessitates planning process to be scientifically established to balance between the swift development of transport system on one hand, and the economic and social conditions on the other hand.

4. Types of Transport Planning to be Adopted in Libya

There are various types of transport planning which reflects the different levels and goals intended by planning:

1. Study of traffic effects in order to evaluate the impact of traffic, and mitigation strategies for certain period of time or for the development of certain project.
2. Planning of transport dedicated for specific situation or specific area, in order to determine the ways of improving the situation (walking, bicycling, public transport, ... etc.).
3. Planning for local transport which is intended to promote the community or local transportation within the neighborhoods.
4. Planning for urban or rural transport is a high-level planning which focuses on conducting plans for transport with an integral urban or rural scope for sizable cities.
5. Planning for national transport for big state/territory or a number of provinces should be executed by the national authority of transport.
6. Strategic planning in developing various means of transport (long-term plans), and it normally ranges between 20 to 40 years in the future.
7. Plans of improving means of transport or executive plans, that is, to set projects of specific programs that will be executed within some years.
8. Transport Plans to construct a certain course, or determine certain projects or programs which will be

executed in specific pathways, such as the length of some highway, bridge, roadetc.

5. Procedures of Transport Planning in Libya

1. Realizing the need to plan: This need should be present and pressing such as intense traffic tie-ups or lack of roads leading to some neighborhood or events, or if there is a crossroad where many accidents occur. This need may not be urgent, and then, it should be included with the future needs.
2. Planning ends: The end and purpose of the planning for transport have to be set well. This represents the value of the society, and the direction it wants to move to whether in the city, region or at the national level. Nevertheless, the society who moves towards economic progress, has its end to attract industries and commercial activities. Subsequently, it will design the transport system that addresses these activities. If the city pays attention to the esthetic aspect, it will build a spiral road network to preserve the beauty of its trees and ancient buildings.
3. Objectives: The objective is the means to achieve the ends. Thus, there are criteria used as measurement for the objectives. For example, the capacity of parking areas is specified such that they are 19% bigger than the demand as a standard to the development required for the capacity of the parking areas, while the development of the parking area in itself is an objective of the planning used to achieve the end represented in getting rid of crowdedness in the downtown.
4. Demand survey on transport: It is the database by which planning for transport is based on. Also, it is the type of previous and current growth known in terms of number of population, land usages, industries, commercial utilities, and the existing transport systems and their applications.
5. Demand analysis: Accordingly, the trips are often distributed to the existing roads and courses, and the available means of transportation. The existing capacity is to be compared with the existing demand. The increase or decrease in capacity is to be specified, and taken into consideration to select the appropriate means of transport in addition to future forecasts of demand on traffic prepared, and trips distributed to the roads.
6. Suggesting of possible solutions and conducting of detailed studies for most acceptable solutions, where the suitable means of transport should be selected. Likewise, sites and networks, and the service level are to be designed for each alternative of the suggested solutions.
7. Evaluating the suggested alternatives, carrying out detailed analysis to illustrate their benefits and effectiveness in achieving the desired goals, stating the economic cost and the social and environmental effects resulting from each alternative, and focusing on the favorable alternative are to be reviewed by competent authorities.
8. Submitting recommendations to the competent authorities, which are mostly not the body charged to carry out planning for transport so as to get them approved. They include municipality, city or legislative council. Also, recommendations should include the suggestion methods to finance the execution of the plan.

9. Execution: After the approval stage of the transport plan, the way of financing the execution is done. This allows the preparation of the layouts and detailed final designs in order to commence the execution according to the executive phased plan beginning from construction to the operation (from legal procedures relevant to land expropriation, bidding ... etc.). The following diagram shows the possible sequence of planning process for transport.

6. Summary

This study aims at conducting field research and studies on transport sector to acquire the information necessary for planning. Thus, this can reflect the reality of urban development in the cities such as the change in the population density, and counting traffic accidents. Also, this study seeks to revise traffic laws, identifies the weaknesses and strong points of these laws in order to amend them in a way that keeps pace with the existing urban progress. The research focuses on separating the movement of pedestrians from the movement of vehicles, pays attention to the passageways, and makes their design according to the criteria of health, safety, and environment.

Further, the study concerns itself with the promotion of the public transport and the relevant systems according to modern technologies and applications. In order to fulfill the actual needs of the city, putting much care on the public transport plays great role in reducing traffic tie-ups. Subsequently, this leads to the reduction in pollution, and limits energy consumption, besides reviewing spaces allocated for parking spots. This is to ideally exploit them, and improve the existing road network, with much care to crossroads in urban areas. Therefore, this is in addition to the ongoing maintenance to transport network per modern methods which keeps the traffic going during maintenance.

Conclusively, this study draws attention to traffic education in Arab cities via mass media. The aim is to urge people to abide by traffic rules and regulations, and ensure the public safety by limiting traffic accidents and traffic congestion. Therefore, if traffic is to be forced out of the city or its center, it would mitigate the severe crowdedness and its harmful impacts on the environment.

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