

ABSTRACT

Nowadays, traffic congestion has emerged as a massive problem for major cities in Bangladesh, and Rangpur city is one of them. In this study, the prevailing traffic conditions, congestion problems, and associated challenges at three different sites (Medical More, Raja Ram Mohon Roy Market, and Payra Chattar) in Rangpur city were investigated. The objectives are to assess the traffic situation and to suggest effective strategies to decongest and improve overall traffic management.

Bangladesh Road Transport Authority (BRTA), websites of several ministries of Bangladesh, offline interviews, and other relevant data sources were the primary sources of data used in this study. A part of the secondary information is collected from international organizations and daily newspapers in Bangladesh.

The whole work can be explained in three parts. In the first part, the main three places of traffic congestion in Rangpur city have been selected. In another part, the causes of traffic congestion in those locations have been identified, and in the last part, the probable solutions for the traffic congestion have been recommended.

In terms of sites selection, the busiest commercial and educational center area of Rangpur city has been selected where the greatest number of vehicles move, and that's why data was collected by counting the vehicles manually on five working days and two holidays. The causes of the traffic jam were identified based on the offline experience of the people traveling in those three locations. Additionally, through offline interviews, information regarding referral activities for problem remedies were obtained from the drivers of vehicles, traffic control police, and passengers at those locations.

The outcome of the thesis focuses on quantifying the extent of traffic congestion at those busiest locations with an emphasis on maintaining constant vehicle speeds and ensuring smooth passage for emergency vehicles.

Through this survey, the primary reason for congestion in Rangpur City was found to be increasing population, increased number of rickshaws and auto rickshaws. To incorporate these reasons for traffic congestion, it has been observed that a city bus service and implementation of traffic rules and regulations could be the feasible solutions for this congestion problem in Rangpur city.