UNIVERSITY COLLEGE OF ESTATE MANAGEMENT EST 1919

Projects for Good

Collection of Carbon Footprint Data

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Summary

This report is to quantify the amount of fuel consumption (through individual transportation of each employee to work each day), then relating it back to the size of Carbon Dioxide (CO_2) footprint generated. This will identify the key areas where it can even be decreased or what measure needs to be implemented to achieve the objective of decreasing individual carbon production. This study will impact the participants involved, clients in some cases (by promoting video conferences rather than face to face interactions), and the organization itself.

Context

Delhi NCR has more four-wheeled vehicles, than any other city in the India. It has 8.8 million registered vehicles, including 2.8 million cars and the numbers increases by around 1,560 every day. A 2015 study by the IIT-Kanpur established vehicles are the second largest source of fine particular matter (PM2.5) emissions in the city, accounting for 20%. The largest source, at 38%, is road dust, which is mostly generated by vehicular movement. The IIT-K study says diesel four-wheelers contribute between 70 and 80% of the PM2.5 from the transport sector in the city. This is irrespective of the National Green Tribunal and Supreme Court ban on diesel vehicles older than 10 years and petrol cars older than 15 years within the National Capital Region back in 2015.

Aims

Therefore, we have targeted the office goers in this study to identify the actual amount contributed by an SME in one month.

- ➜ The overall aim is to find several amicable and economical ways to decrease the alarming growth of air pollution in NCR region caused by the 2, 3 and 4-wheeled vehicles
- ➜ This study also aims at identifying the alternate means of transport and promoting electric vehicles and metros for contributing to a greener and cleaner environment, thus by reducing the CO2 content.

The Project

Initially, I formed a team for collecting the data of employees means of transportation - such as make and model of vehicle, average distance travelled per day, availability of other means of transport on chosen route, and economics involved in choosing the particular route. However, factors contributing to the ease of use and choice of vehicle and cost of transportation for each individual employee were not considered. Then, the average mileage information is collected for one full month. The identified distance in kilometres (km) and fuel consumption were used to calculate the amount of CO2 generated. This was then correlated with the factors contributing to the pollution and was used to identify alternative means of transport to decrease CO2 production.

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Personal Impact

Based on the case study results, the management has allowed us to organize workshops, awareness programmes and various discussions to help encourage and educate staff to move towards a greener environment. There has been a change in attitude of the staff in the usage of transport vehicles and Metros, shared cabs and public buses have been given top priority. In the areas, where the above options are not possible, the use of E-Rickshaws has been promoted and accordingly the staff are routinely using them.

Results

This change is a slow process since distance, traffic, office timings, ease of transportation availability and the economics of travel play a key role in the selection of transportation mode; however, we expect this promotes change in the attitude of other office goers too. Furthermore, a policy has been finalized to conduct Skype and other video calls with respect to client meetings.

Results

After looking at our study, the clients are slowly realizing and understanding the importance of saving travelling time, and money, and contributing to a pollution free environment which to some extent led us to a great success.