

# **PhD Topic: To evaluate the impact of individual habits on the implementation of a sustainable transport system: a case study approach**

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## **Introduction**

Current usage of transport is unsustainable, resulting in the world facing major climate change challenges in future decades fuelled by population increases, increased average incomes and material consumption. This in turn makes reducing national and global emissions a difficult task: transport accounts for 25% of the UK's carbon dioxide emissions (CO<sub>2</sub>) with UK and worldwide CO<sub>2</sub> emission concentrations at their highest levels since records began. *Sustainability* and *sustainable transport* are terms often used in day-to-day conversation, Academia and political agendas, but how do planners and policy makers successfully implement a sustainable transport system? Recent academic research, planning and transport policy have all focussed on the motorised traveller rather than the non-motorised, and subsequently a lack of knowledge has developed in understanding how habits affect travel movement. It is the aim of this project to identify if habitual factors are acting as a stimulant or a barrier for the implementation of sustainable transport systems within the urban fabric. In order to meet this aim four objectives have been set:

- To describe the current sustainable transport debates from a local, national and global perspective.
- To understand habitual behaviour and urban character through a case study approach.
- To evaluate the impact that age and urban characteristics have on individual's behaviour associated to a sustainable transport system.
- To inform new sustainable transport policies aiding the reduction of CO<sub>2</sub> from automobile transit.

## **Method**

The methodology will consist of a mixed methodology using questionnaires and interviews. The research will compare different urban characteristics (e.g. difference in wealth, ethnicity, or population density) against age in order to understand how habits are engrained into individuals' travel movements. A comparison will thus be achieved between the impact of habitual behaviour across age and urban characteristics.

## **Contribution**

This research will contribute to academic literature currently surrounding the implementation of sustainable transport. Thus, allowing for greater understanding of how sustainable transport policies are impacted as a result of age and urban characteristics which will allow this research to inform future sustainable transport policy.



Figure 1: London

Source: Europepics., 2011

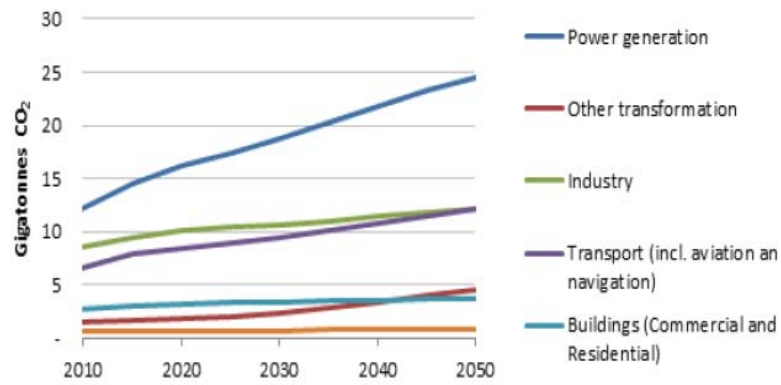


Figure 2: Business-as-usual growth in greenhouse gas emissions by sector 2010-2050.

Source: IEA, 2012

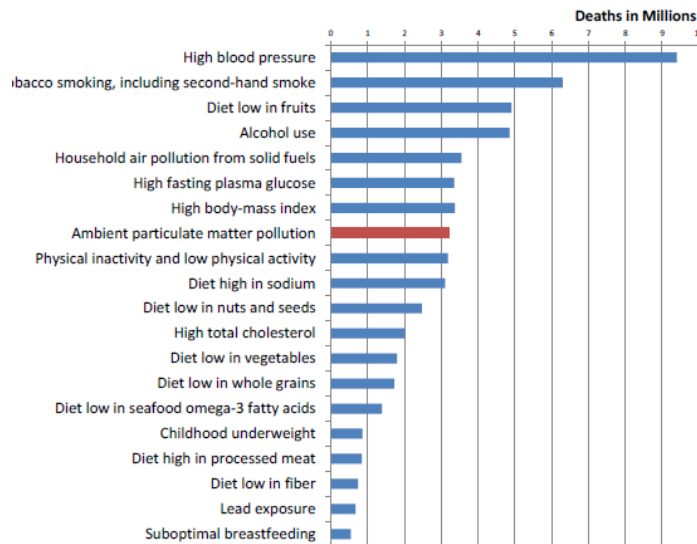


Figure 3: Deaths in millions as a result of ambient fine particulate pollution from transportation (shown in red)

Source: Rio +20, 2013