

THE RELATIONSHIPS BETWEEN NO₂ AND PM₁₀ AIR POLLUTION AND SOCIAL DEPRIVATION IN THE UK

J.R. Stedman, **S. Pye**, M. Adams, K. King
Netcen, AEA Technology, Abington, UK

This study analyses the spatial relationship between air quality and social deprivation in the UK. GIS-based models have been used to calculate maps of current annual mean concentrations of NO₂ and PM₁₀ at background and roadside locations in the UK and projections of concentrations for future years. Social deprivation statistics and air pollutant concentrations have been compared at a ward level for four study areas: Greater London, Birmingham, Cardiff and Belfast. Positive correlations between social deprivation and air pollutant concentrations were found in all of the areas except Cardiff, with higher concentrations being associated with higher levels of deprivation. Individual domains within the multiple deprivation indices were also considered and showed a variety of trends although most domains had a positive correlation with air pollutant concentration. To be presented within the session: The social distribution of pollution and its impacts: understanding and addressing environmental inequality. Convened by Rosie Day r.day@ucl.ac.uk