Landscapes and Greenhouse Gases

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How is the exchange of greenhouse gases between the atmosphere and the biosphere, that is soils, affected by paving and other modifications in landscapes. This project is inspired by an existing collaboration with the University of York where we are providing modeling support for their greenhouse gas observational programme.

MSc: Identifying the distribution of tarmac, woodlands, marshes, grasslands, and areas blighted by pollution, coupled with data on the exchange of greenhouse gases between the atmosphere and the biosphere, to get a distribution on the exchange of greenhouse gases.

PhD: Modeling to explain and predict the effects of urban sprawl, deforestation, single-crop agriculture and other man-made influences on this exchange.