Ozone levels around Delhi prompt new collaborative research project with India

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Researchers from the University of Birmingham and TERI University are working together to identify which emissions might best be controlled in order to reduce harmful ozone production in New Delhi.

Ozone is a major air pollution problem in the Delhi area, where levels exceed World Health Organisation guidelines for around 50 days per year. It leads to significant reductions in regional crop yields and consequently has direct economic impact. Ozone is also harmful to health, but as it is a secondary pollutant the control of ozone levels is not straightforward. Understanding the factors controlling ozone, and therefore identifying the optimum emissions reductions to reduce ozone exposure, remains a key environmental challenge.

The Birmingham and TERI University researchers will deploy a newly developed instrument to directly measure the local atmospheric ozone production rate in Delhi. This will enable better understanding of the ozone production rate and control regime. It will also begin to determine the extent to which local ozone arises from local emissions at all – compared with, for example, ozone being blown into the area from elsewhere. Both factors are critical for development of local and regional policy measures to improve air quality.

Dr William Bloss, Reader in Atmospheric Science at the University of Birmingham, said:

“As Delhi grapples with air pollution, we feel this joint research project with TERI University will provide critical insight into one aspect of the problem, regional ozone production. While this project is limited to initially exploring the potential to provide guidance for policy makers, it will provide the proof-of-concept data necessary to justify future, larger-scale measurements, which would have significant evidential weight for policy.”

Dr Nandini Kumar, Associate Professor at TERI University, added:

“Ozone exposure leads to significant reductions in crop yields across northern India, so improved understanding of air pollution and the factors controlling ozone formation in this region is really important. This project will help identify which of these factors are emissions potentially within our control, to improve future air quality”

Notes to Editors

The research project is funded by an award by the Royal Society. For further details about the Royal Society, please visit: **www.royalsociety.org (http://www.royalsociety.org/)**

The **University of Birmingham’s (http://www.birmingham.ac.uk/)** engagement with India spans over 100 years. The first Indian students came to Birmingham in 1909 to study degrees in Mining and Commerce and there are now more than 1000 Indian alumni. The University currently has over 180 students from India studying a wide range of subjects – at all levels from foundation to doctoral research.

The University’s India Office opened in New Delhi in 2009. This was the first overseas office of the University of Birmingham and has been established to maintain partnerships with local providers, support alumni in India, further consolidate research collaborations and provide local services to those students who wish to study at the University. For further information please visit: **www.birmingham.ac.uk/india (http://www.birmingham.ac.uk/india)**

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