UK Centre for Ecology & Hydrology

INTRODUCTION

An integrated UK network (UK APIENs: Air Pollution Impacts on Ecosystem Networks) has reported on indicators for monitoring air pollution impacts on ecosystems, as specified under Article 9 of the EU National Emissions Ceilings Directive (NECD, 2016/2284) for the very first time in July 2019.

OBJECTIVES

- Identify negative impacts of air pollution (SO_X , NO_X , NH_3 and ground level ozone) on ecosystems (acidification, eutrophication, ozone damage or changes in biodiversity).
- Determine the state of, and provide baseline against which any changes and recovery in ecosystem response to emissions reductions under the NECD may be assessed.
- Complement monitoring with ongoing modelling of exceedances of critical loads and levels across the UK.

MONITORING SITES

- Selected from existing environmental networks.
- Representative of freshwater, natural and semi-natural habitats and forest ecosystem types in UK.
- Covers range of air pollutant concentrations (NO₂, NH₃, N Deposition, SO_2 , Ozone).
- Supported by extensive field survey data from Countryside Survey (CS), ICP-Forests Biosoil and National Plant Monitoring Scheme (NPMS) that capture important changes in vegetation and soil condition across the country.

DATA REPORTING

- Monitoring network sites in UK APIENs was reported to the European Environment Agency (EEA) in July 2018.
- Monitoring data from the UK APIENs was reported to the EEA for the very first time in July 2019.
- Data submission will be every four years thereafter.



Integrating UK environmental networks to monitor air pollution impacts on terrestrial and freshwater ecosystems: A new initiative

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