



The Royal Commission on Environmental Pollution

Artificial Light in the Environment

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Action needed by Government to recognise the damaging effects of light pollution

There is an urgent need for Government to recognise that artificial light in the wrong place or at the wrong time is a pollutant which can harm the natural environment, according to a report by the influential *Royal Commission on Environmental Pollution* (RCEP)ⁱ, published on Friday 27th November.

In its latest short report *Artificial Light in the Environment*ⁱⁱ, RCEP focussed on the loss of the view of the stars, the nuisance caused by badly designed lighting, and the effects of artificial light on nature and ecosystems.

Sir John Lawton, Chair of the Commission, said:

“We heard evidence to suggest that more light isn’t always better in terms of reducing crime or the incidence of road traffic accidents.

“There are around 7½ million road lights in the UK. Over 2 million are nearly 30 years old and will therefore need to be replaced in the next couple of years. This presents a real opportunity for local authorities to think about minimising the negative impacts of stray light, for the benefit of both nature and the general public.”

The Commission received evidence suggesting that artificial light can have adverse effects on the biology of many plants and animals. The move towards replacing existing yellow/orange road lighting, which does not affect many organisms, with more modern broader wavelength lighting, which is likely to be detected by a greater number and variety of organisms, could lead to significant impacts on natural systems.

Artificial light provides many benefits: it provides us with a sense of security and enables us to pursue recreational activities at night. However, much of our outdoor lighting is badly designed or poorly installed, leading to wasted light or 'sky glow'. This, combined with the growth in outdoor lighting we have seen in the UK since the Second World War, means we are losing our view of the night sky, and more needs to be done to preserve this important visual amenity in urban and rural areas.

In terms of crime, badly designed lighting can lead to glare and the creation of dark shadows which can help rather than hinder criminal activity. In terms of road safety, studies suggest that lighting can reduce accidents at junctions where pedestrians and traffic meet, but it does not necessarily reduce accident levels on motorways when compared to daylight conditions.

The RCEP are therefore keen for local authorities to consider alternatives to simply providing more light, such as using new lighting technologies coming on-stream, and dimming or turning off lights in quieter areas where they are not needed. This would have the added benefit of reducing energy use.

The Commission is concerned that the issue of artificial light and its effect on society and ecosystems does not seem to have any natural focus within Government. The Commission has called for the Department for Environment, Food and Rural Affairs to take the lead in co-ordinating Government activity on artificial light.

ⁱ **The Royal Commission on Environmental Pollution** (RCEP) is an independent standing body established in 1970 to advise the Queen, the Government, Parliament and the public on environmental issues. Although funded by the Department for Environment, Food and Rural Affairs, it is independent of Government departments. Its Chairman is Sir John Lawton CBE, who was previously Chief Executive of the Natural Environment Research Council (NERC).

ⁱⁱ **Artificial Light in the Environment** is a short report by the RCEP. The full report can be downloaded from the Commission's website at <http://www.rcep.org.uk>.