Future threats to the environment



BECAUSE: THIS ENABLES US TO SAFEGUARD BIODIVERSITY AND HEALTH, AND ENSURE WATER, FOOD AND ENERGY SECURITY

Society is changing the environment by developing and exploiting new technologies which can have large-scale, unexpected ecological consequences.

Through integrating long-term monitoring and cutting-edge research, CEH identifies potential future threats, assesses their risks, and provides options for their management.







DELIVERING IMPACT

CEH research provides evidence to policy-makers and industry of how chemical and biological changes can affect ecological processes.

CEH's Predatory Bird Monitoring Scheme was at the forefront of identifying the environmental impacts of organochlorine pesticides. The scheme now monitors and assesses the environmental risk posed by rodenticides, other known pollutants and emerging chemical hazards.

CEH collaborates across Europe and the USA to determine the environmental fates and ecological impacts of nanomaterials. Realisation of the potential global value of the nanotechnology industry, estimated at \$1 trillion by 2015, requires underpinning by evidence-based environmental risk management.

Invasive non-native species cause estimated losses to the British economy in excess of £3 billion a year. CEH led the development of the European and GB non-native species information portals, a key resource for researchers and policy-makers.

CEH studies vectors of disease; combining ecology and remote sensing, CEH monitors and predicts mosquito distributions and their vector potential within the UK.

CEH has identified drivers of freshwater algal blooms and provided management solutions and remediation strategies to minimise their frequency and severity.

CEH maps species' distributions, determines habitat requirements, models population dynamics, predicts future trends and advises on control strategies.

FUTURE CHALLENGES

CEH will continue to provide society with early warnings of future chemical and biological threats to the environment, enabling mitigation strategies to be developed to avoid chronic or acute environmental impacts.





