

EU MATTERS

NIEL's Monthly European Environmental News



Agriculture

[Antibiotic resistance genes traced from manure to soil and water on Finnish farms](#)

A new study has investigated the movement of antibiotic resistance genes between farm animals, soil and water in Finland. The results show that many of these genes are spread from animals to the soil through manure application; however, these genes do not appear to persist in soil. The study suggests that practices that minimise the use of antibiotics, as used in Finland, may lead to lower levels of clinically relevant resistance genes in agricultural soils.

[Water management on farms assessed by new tool, Flanders](#)

Researchers have developed a new model that highlights how agricultural practices impact on water availability in the wider landscape. The model, AquaCrop-Hydro, could be used to inform agricultural management decisions and policy related to water and land use, to ensure best allocation of water resources. Such tools are not only useful currently, but will be especially important in future in areas where climate change impacts on water availability and affects crop productivity.

[Farmland abandonment risk highlighted in new UK study](#)

Traditional, high-nature-value (HNV) grasslands are at risk of being abandoned by farmers in the future — in turn, risking the wildlife they support, warns a new UK study. Farmers interviewed by the researchers had weak motivations to protect grasslands, as they felt that financial incentives for conservation are low and that traditional management practices are inconvenient. More dialogue between farmers and conservationists could be part of the solution, the study suggests.

Biodiversity

[Economics of Ecosystems and Biodiversity: nature conservation and climate policy are mutually beneficial](#)

A new study has assessed the value of ecosystem-based approaches to mitigating climate changes and conserving biodiversity in Germany. The researchers highlight the trade-offs and synergies between climate adaptation and nature conservation and suggest that effective ecosystem-based climate policy requires improved coordination between different sectors, such as agriculture, forestry and energy.

[Save our bees? EU pollinator initiative lacks teeth to address unsustainable practices!](#)

The European Commission has launched the EU Pollinators Initiative to address the rapid decline of wild pollinators, such as as bees, bumblebees, butterflies and other insects, which are in rapid decline. Unfortunately, while the intention is good, the proposed initiative lacks teeth, failing to include strong concrete measures to address the most important drivers of pollinators decline: intensive agriculture, pesticide use and land use change.

Circular Economy

[Processing London's local food waste in an anaerobic digester avoids 3.9 tonnes of GHG emissions](#)

Analysis of the operation of a novel, micro-scale anaerobic digester has shown that this technology could provide a useful means of processing food waste in urban areas. The study found that the digester, located in London and fed mainly with local food waste, avoided 3.9 tonnes of greenhouse gas emissions, while



Brexit: Updates on NIEL's EU Policy work after the UK Referendum decision can be found [here](#).

providing biogas for cooking, heat and power. Anaerobic digestion on this scale could play a part in reducing the amount of food waste that goes to landfill¹ and contribute to the circular economy.

[New data collected by citizens: Cigarette butts & filters most common pieces of litter on Europe's beaches](#)

The European Environment Agency (EEA) has released new data about litter found on Europe's beaches. Based on nearly 700,000 collected items, disposable plastics are the biggest contributor to marine litter, with cigarette butts and filters being the most commonly found individual items. The new data has been collected by volunteers using the EEA's Marine LitterWatch mobile app.

Climate Action

[Greenhouse gas emissions from household consumption mapped across the EU](#)

An inventory of carbon footprints has been developed for 177 regions across 27 EU Member States. The map is the first to quantify greenhouse gas emissions associated with household consumption across the EU. It reveals significant regional differences based on income, household size and urban versus rural living.

[Review confirms climate change is threatening many ecosystem services](#)

Climate change is having mixed — but mostly negative — impacts on ecosystem services, suggest data analysed by a new study. The research, which brings together the findings of over 100 other studies, found that 59% of reported impacts of climate change on ecosystem services are negative, while just 13% are positive. However, the method of research was shown to strongly influence whether impacts are reported as positive or negative, with expert opinion studies far more negative than other types of study.

Freshwater

[Agricultural pesticides found in small streams in Germany](#)

Small streams are important refuges for biodiversity, yet knowledge of the effects of agricultural pesticides on these freshwater bodies is limited. Researchers have used national monitoring data to determine the number of small streams in Germany where regulatory acceptable concentrations (RACs) of pesticides are exceeded. An analysis of data covering almost 500 pesticides and over 2 000 small streams suggests that agricultural land use is a major contributor of pesticides to streams. Overall, RACs were exceeded at 26% of sampled streams, and exceedances were 3.7 times more likely if a stream was near agricultural land. This finding may have implications for environmental monitoring and agri-environmental measures.

[New tools for improved river assessment and monitoring are likely to inform future management strategies](#)

Sustainable river management is increasingly informed by hydromorphological stream assessments — evaluations and classifications of stream conditions which account for both hydrological (the movement, distribution and quantity of water) and geomorphological (the processes and forms deriving from the interactions of water and sediment movement) features. In order to provide a more accurate and comprehensive assessment of river character and dynamics, scientists have developed three novel methods. Together, these tools represent a promising technique for conducting collaborative assessment and monitoring of river conditions in Europe.

[Additives used in alternative road salts may affect aquatic ecosystems](#)

A new study shows that run-off from de-icing road salts can affect freshwater aquatic ecosystems by increasing certain types of plankton. The study is the first to compare effects of the most popular road salt, sodium chloride, with the effects of alternative salts and additives used to increase de-icing efficiency. Based on their findings, the researchers recommend that magnesium chloride and salt additives are used cautiously near water bodies.

Funding

[EU budget: Commission proposes to increase funding to support the environment and climate action](#)



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For the next long-term EU budget 2021-2027, the Commission is proposing to increase funding by almost 60% for LIFE, the EU programme for the environment and climate action.

[Proposals on CAP and LIFE woefully inadequate to meet Europe's environmental challenges](#)

The measures proposed by the European Commission for the future Common Agricultural Policy (CAP) and the LIFE programme fall well short of the EU's stated overall ambition to address the loss of biodiversity and environmental degradation, and to fund nature conservation projects adequately. This means that the EU budget will not equip Europe with the required tools to meet the key challenges of the 21st century, nor its international commitments on climate change, nature conservation and sustainable development.

Marine

[Fibres from polyester clothes could be more damaging to marine life than microbeads](#)

Tiny polyester fibres, which are washed into rivers, lakes and seas every time we do our laundry could cause more harm to animals than plastic microbeads, finds a new study. The researchers looked at the effect of microbeads and fibres on a small crustacean called *Ceriodaphnia dubia*, which lives in freshwater lakes. They found that although both types of plastic were toxic, microfibrils caused more harm. Both microplastics stunted the growth of the animals, and reduced their ability to have offspring; microfibrils, however, did this to a greater degree, and also caused noticeable deformities in the crustacean's body and antennae.

[New online oil spill risk tool provides local, specific information for coastal managers](#)

A new oil-spill risk-management system has been developed by researchers, which shows the likely effects of a coastal spill on the environment and economic activities for specific locations. It provides maps of oil-spill risk through a web portal and could help decision makers and emergency-response authorities protect the local environment and businesses through targeted and efficient planning and responses.

Planning

[Sustainable urban drainage systems: green roofs and permeable paving compared in southern Italy](#)

A new study has looked at the potential of green infrastructure to compensate for the effects of soil sealing generated by urban development. It investigates how green roofs and permeable paving could contribute to flood mitigation in southern Italy. Using a hydraulic model technique, the researchers found that, in this particular urban case, green roofs were more effective than permeable paving. Policies to promote the adoption of sustainable urban drainage systems (SUDS) by the private sector could thus prove more effective under certain circumstances, and policymakers should look at ways to promote SUDS where suitable.

Other

[What are environmental principles?](#)

The EU environmental principles offer protection to our natural world. They act as guidance for judges and decision-makers, giving laws shape and meaning. But what will happen to the environmental principles after Brexit?



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