

NIEL's monthly roundup of the latest international research information and policy analysis relevant to Northern Ireland.









## Innovative carbon farming initiatives: recent and ongoing projects across the EU

This report presents an overview of ongoing and recently completed EU projects which promote innovation in carbon farming. It focuses on initiatives funded by Horizon Europe and a smaller selection of programmes financed through other sources of public funding and private sector initiatives. Through an analysis of a sample of over 50 projects, this report offers insight into the efforts being made to accelerate the adoption of more sustainable agricultural practices across the EU.

<u>Could treated biowastes be a sustainable solution to the worldwide need for phosphorous fertiliser?</u>

Phosphorous (P) fertiliser from rocks is a limited resource with rising prices. This study investigates ways to enhance P release from biowaste materials to soil, to increase viability of these alternative sources. Phosphorus (P) is a critical raw material in Europe due to rock phosphate reserves being finite, depleted, and in geographical regions which may limit accessibility.



<u>Commission welcomes agreement on new legislation to prevent 500 million tonnes of emissions from fluorinated gases and ozone depleting substances</u>

The Commission welcomes the provisional agreement reached by the European Parliament and the Council on strengthened rules to massively reduce greenhouse gas (GHG) emissions from fluorinated gases (F-gases) and ozone-depleting substances (ODS). Building on existing EU legislation which has already limited the use and emissions of these gases significantly, the Regulations agreed will prevent almost 500 million tonnes of further emissions by 2050. It will contribute to the EU's 2030 climate targets of at least 55% emission reductions, and help make Europe climate-neutral by 2050



<u>Passive restoration can help former farmlands in Minnesota, USA, to recover their biodiversity, but</u> even 80 years is not enough for full recovery

Passive restoration can recover plant biodiversity on former farmland at low cost, say researchers. But active restoration could bring better results. This study measured plant biodiversity in once-farmed fields that had been left to nature up to 80 years earlier. The researchers show how recovery varies by the size of the plot to help guide better active restoration.

#### IUCN Leaders Forum 2023 closes with call to action towards a nature-positive world

The second IUCN Leaders Forum closed on 13 October 2023 with a rousing call to use cross-sector collaboration to turn the "tide for nature" and transform global commitments into inclusive action towards a nature-positive world.







## Pushing the right buttons to solve Europe's e-waste crisis

E-waste: Demand for electronics is booming, and so are its impacts on human health, environment and climate. As new Eurostat data reveal the extent of Europe's e-waste crisis, civil society calls on the EU to update the law on electrical and electronic waste and curtail the damage.

# Copper from industrial pollution increases antibiotic resistance in forest floor soil bacteria

Industrial heavy metal pollution in a Swedish forest induces resistance to metals in soil microbial communities, but also to tetracycline antibiotics, a new study concludes. Emerging antibiotic resistance is a central threat to global food security and health. It has been well established that metal pollution can cause antibiotic resistance in agricultural settings, but data is lacking on most other habitats.

#### Microplastics detected in clouds hanging atop two Japanese mountains

Findings regarding clouds above Mount Fuji and Mount Oyama highlight how microplastics are highly mobile.



# Heatwaves, droughts, other extreme weather events increasingly influencing adaptation policies

Climate risk assessments that take account of threats like heatwaves, droughts, floods and wildfires are increasingly being used to inform and improve national adaptation policies according to the latest European Environment Agency (EEA) assessment of national adaptation actions published.

#### European cities awarded with EU Mission Label for their plans to reach climate-neutrality by 2030

Ten European cities were awarded the Label of the EU Mission for Climate-Neutral and Smart Cities, one of the EU Missions in Horizon Europe. The EU Mission Label is an important milestone as it recognises the cities' plans to achieve climate-neutrality already by 2030 and aims to facilitate access to public and private funding towards that objective. The cities that have received the label are: Sønderborg (Denmark), Mannheim (Germany), Madrid, Valencia, Valladolid, Vitoria-Gasteiz and Zaragoza (Spain), Klagenfurt (Austria), Cluj-Napoca (Romania) and Stockholm (Sweden).









## Energy union: Nothing about us without us

Green union: EEB Secretary General argues that while Europe's energy union has done well to keep the EU afloat during challenging times, it should use this moment of reflection to ensure its centrifugal force is in check. The pursuit of industrial competitiveness must have the public interest at its heart.

# Higher energy security and economic complexity may hamper renewable energy development

This study highlights the resilience of renewable energy in the face of unpredictability such as climate change and suggests that large-scale production could not only help with climate change mitigation but also protect the environment. During recent decades there has been a major increase in environmental problems such as climate change and pollution, resulting from human use of energy for socio-economic activities.

## Questions and Answers - Making our energy system fit for our climate targets

What targets are set by the revised Renewable Energy Directive? The Renewable Energy Directive as revised under the Fit for 55 package and the REPowerEU Plan, raises the EU's binding renewable energy target for 2030 to a minimum of 42.5%, up from the previous 32% target, with the aspiration to reach 45%. This means almost doubling the existing share of renewable energy in the EU.



# **Environmental Justice**

# Local support for protected areas linked to social impacts and personal attachment

This study across five European countries identifies key factors that influence local community support for protected areas and considers how stated support is also associated with compliance with regulations and the decision to volunteer. Designating and managing protected areas is one of the main approaches to protecting biodiversity worldwide.

#### Health and environmental impacts prompt a call for strict ruling on ubiquitous 'forever chemicals'

The characteristics and widespread effects of per- and polyfluorinated alkyl substances demand their replacement with fluorine-free alternatives, say the writers of a comprehensive review on their use. Per- and polyfluorinated alkyl substances (PFAS) are a group of synthetic chemical compounds where the hydrogen atoms have been largely or completely replaced by fluorine.

# Informal waste collectors and the struggle for environmental justice in North Macedonia

Sustainable waste management: Despite dire living conditions and discrimination, Roma communities in North Macedonia play a significant role in reducing landfill waste. This article advocates for their recognition, protection, and active engagement in shaping sustainable waste management policies.







## More consistent policy support needed for urban agriculture to flourish

Urban agriculture needs to be formally recognised in policy agendas to incentivise and regulate growing practices at different scales, suggests a new analysis of progress in four European cities. Sustainable food supply has become one of the most pressing issues of the age.

## Strategic dialogue: real intent or delaying tactic?

Sustainable food systems: The European Commission dropped "transitioning to a sustainable food system" from its 2024 goals, a bad omen for a proposal that was promised for September 2023 but is still nowhere to be seen. Instead, the Commission plans to open a "Strategic Dialogue on the future of EU agriculture". But is this just another delaying tactic?



#### Restoring European rivers: a win-win scenario for humans and nature - "The Road to Green 5"

Rivers in Europe are heavily fragmented. There are thousands of unused and unwanted dams and artificial barriers around Europe, vestiges of human activities of the past century. They are destroying the health of rivers, impacting freshwater biodiversity, posing increasing risk to communities and undermining climate resilience.

# All good river restoration news!

River restoration is a broad concept. In addition, it is an activity that is applied within the broad context of Integrated River (Basin) Management. As a result, river restoration touches on many different aspects. This is reflected in the variety of articles in this ECRR Technical Newsletter.



#### Tidal landscapes a greater carbon sink than previously thought

Mangroves and saltmarshes sequester large amounts of carbon, mitigating the greenhouse effect. New research shows that these environments are perhaps twice as effective as previously thought. Natural habitats flooded by the tide form ecosystems that captures large amounts of carbon, which can help to mitigate climate change.

# Non-native species assessment of Spanish transitional waters (between land and sea) recommends proactive management

Invasive species can harm native ecosystems and impose a high cost on society. This study reports 129 non-native species at 30 sites in Spain at the fresh/saltwater interface and suggests prioritising monitoring and response efforts. Colonisation of natural habitats by non-native species has played a role in 33% of all recent animal extinctions and can cause substantial ecological and economic damage.







## How can cities support pollinators while adapting to climate change?

Cities are planning how to increase urban green spaces for nature and for a healthy environment that is adapted to climate change. Pollinators are part of the nature that can flourish in urban green spaces. IEEP and the Safeguard project in partnership with Eurocities led a conversation on how cities can integrate pollinator conservation and climate objectives into their urban greening planning in a recent webinar. The discussion gathered more than 50 EU city representatives and reverted on identifying how city planners and administrations can best integrate pollinator conservation and climate objectives into their urban greening planning. Participants discussed links between climate adaptation and biodiversity and pollinator conservation, which revealed some of the challenges that cities may face.

#### On shaky ground: EU's building energy law risks dilution and delays

Energy efficient buildings: The upcoming EU law on buildings' energy performance aims to drive social, energy and environmental progress through renovating Europe's draftiest homes and moving past outdated heating technologies, but it is threatened by dilution and delays.



# Sustainable Development

#### Think Sustainable Europe

The idea generator behind the Think2030 platform, Think Sustainable Europe (TSE) is a pan-European network of sustainability think tanks, led by IEEP, that provides policymakers across the continent with sound, science-based analysis and recommendations.



No new stories this month



# Wildfires in the EU: from response to resilience

As this year's fire season has come to an end in Europe, the latest statistics on forest fires reveal the scale of the devastating wildfires that hit the European continent this summer. Long-term solutions are needed to increase the resilience of European forests. A transparent Forest Monitoring Framework and an ambitious Nature Restoration Law are key legislative supports in facilitating such resilience.