

LETTERS



Exceptions to environmental and animal welfare requirements for farmers have undermined the EU's legislative framework for conservation and biodiversity protection.

Edited by **Jennifer Sills**

Stop regression of EU conservation laws

Over the past three decades, the European Union (EU) has established a strong legislative framework to protect the environment and biodiversity. However, recent political decisions have created legal uncertainties and internal conflicts among EU regulations, with negative effects on nature conservation. To ensure that political decisions do not impede progress toward conservation objectives, the EU and its Member States must integrate the principle of non-regression into conservation laws.

EU climate and energy policies (Regulations 2022/0160 and 2022/2577) (1, 2) have streamlined infrastructure project development at the expense of the environment. For example, environmental impact assessments and controls by authorities have been simplified or even removed (3, 4). In some cases, public participation in environmental impact assessment processes has also been eliminated, in violation of the Aarhus Convention (5), which requires that the public have a voice in decision-making on environmental issues.

EU agricultural policies have also eliminated some guarantees of environmental protection (6). Regulation 2024/1468 of the EU Common Agricultural Policy (7) reduced some of the conditionality requirements for farmers in relation to animal welfare and the environment (8). For example, nonproductive areas are no longer required in arable lands, crop rotation is now optional, farmers have more flexibility in claiming exceptions to conditionality requirements, and small farmers are exempted from checks and penalties associated with such requirements. Furthermore, proposed biodiversity protections, such as regulations related to the sustainable use of pesticides, were withdrawn in 2024 (9), and the European Commission decreased the budget for promoting sustainable agriculture and animal welfare in 2025 (10).

These policy amendments, which reflect political and economic priorities, collide with the EU's biodiversity strategy for 2030, which aims to strengthen the EU legal framework for nature recovery and to increase compliance with EU environmental legislation. They also undermine the Treaty on the Functioning of the European Union (Article 191), a commitment to protect and improve the environment (11).

According to the 2012 Rio+20 Summit non-regression principle, countries are prohibited from weakening their domestic environmental protection (12). The EU and Member States should integrate the principle of non-regression into conservation laws and adhere to Article 11 of the Treaty on the Functioning of the European Union, which states that all policies must include environmental protection requirements (11). Only by ensuring that European policies remain aligned with conservation laws can the EU continue to be an international reference for conservation goals.

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OUTSIDE THE TOWER

Assessing soil health with underpants

We watched as the two young boys stuck their shovels in the ground and painstakingly dug up the remains of the underpants. Most of the organic cotton fabric had decomposed in the 2 months that the underpants had been buried. "The worms, insects, and bacteria ate most of our underpants!" they exclaimed. "We have good soil!"

The boys' experience was one of about 1000 moments across Switzerland in which citizen scientists revealed information about

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Our suspicions proved correct. Once the project was announced, farmers and hobby gardeners all over the country leaped at the chance to fill the 1000 spots.

We provided 1000 identical pairs of underpants for burial, and the participants recorded their management practices and collected nearly 900 soil samples. Although we encouraged them to investigate their soils, we also analyzed all soil samples and assessed

the biological activity of soil in their gardens, fields, and lawns. They did so as participants in our citizen science project (1), which we organized to raise awareness and collect data about the state of Swiss soils. At first, we considered using cotton squares or socks, but we wondered whether nonscientists would be interested enough to participate. Then we had an idea: Cotton underpants with elastic "skel-etons" would be both intriguing and practical!

underpants degradation from each location in our lab. We then correlated soil samples and management data with underpants degradation, finding that cotton underpants serve as easily accessible soil-health indicators. As a result of media coverage, the project extended beyond Swiss borders, with reports from more than 25 countries spanning almost every continent.

This project helped us collect a unique dataset and gave us the opportunity to advocate for soil conservation in Switzerland and beyond. We provided the citizen scientists with personalized feedback, including soil analysis results, interpretation tools, and tips for sustainable soil management. Hopefully, the sensory experience of recovering a decomposed pair of underwear from their own land has inspired the participants to see soil as a living system and a vital resource and empowered them to serve as conscientious soil stewards.

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Citizen scientists buried and retrieved underpants to assess soil health. Here, underpants showing a range of decomposition hang from a clothesline.

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COMPETING INTERESTS

J.V.L.-B. is a member of the Canid Specialist Group of the International Union for Conservation of Nature and Natural Resources (IUCN) Species Survival Commission and a member of the scientific committee advising the Spanish Ministry for the Ecological Transition and the Demographic Challenge, both unpaid advisory roles.

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Protect US racial affinity groups

On its first day, the Trump administration released several executive orders terminating diversity, equity, and inclusion (DEI) programs, calling them "illegal," "immoral," and "discriminatory" (1, 2). DEI programs include racial affinity groups, which counter the systemic barriers to inclusion and advancement that Black, Indigenous, and People of Color (BIPOC) face in science, technology, engineering, and mathematics (STEM) disciplines (3, 4). These organizations provide a welcoming space for under-represented scientists to give and receive culturally aware mentorship (5). Given that diverse teams produce more innovative science (6), racial affinity groups benefit not only BIPOC scientists but also their employers and the public. Racial affinity groups do not violate US antisegregation or antidiscrimination laws; they enable equitable access to resources that support academic advancement for all. To protect scientists and scientific output, US stakeholders must work to protect affinity groups from government interference.

Racial affinity groups—which include academic societies, social media groups, nonprofits, employee resource groups, and institutional and departmental organizations—strengthen the STEM community. They increase retention of BIPOC scientists through professional development and mentoring (7). These scientists then contribute to the scientific enterprise by bringing new perspectives through their academic work, expanding science networks, and mentoring the next generation of STEM trainees (8). Racial affinity groups are critical communities of support and

compassion for BIPOC scientists, many of whom are the only member of their racial or ethnic community in their workplace.

Although most employed US adults support DEI efforts in the workplace (9), the recent federal directives are only the latest in a series of attacks on DEI. More than half of all states have introduced legislation limiting DEI activities, and members of Congress have mocked DEI programs (10). These actions, in addition to the removal of race-related affirmative action policies in colleges (11), foreshadowed the current onslaught of anti-DEI actions.

The current political climate is tremendously hostile to BIPOC scientists. Affinity groups provide solace and a loving community, but the burden of resistance cannot fall on the most marginalized (12). Those with privilege must step up on personal, collective, and institutional levels. Institutions—including private and public universities, professional societies, state governments, nonprofits, and private foundations—must financially support racial affinity groups and challenge disinformation about their role in STEM. These institutions must resist by taking legal action against civil liberty violations that result from anti-DEI directives. Last, rather than advise BIPOC scientists to stay quiet, institutions and those in positions of authority should provide affinity groups and their members with protection and job security. As political parties in the US and beyond seek to recodify white supremacist philosophies (10), STEM leadership must take urgent action to protect and support all members of our diverse scientific community.

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COMPETING INTERESTS:

N.T.-K. is the executive director and founder of the nonprofit Black Women in Ecology, Evolution, and Marine Science.

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