Sustainability Science
https://doi.org/10.1007/s11625-024-01610-6

NOTE AND COMMENT

The transformative potential of the EU's Nature Restoration Law

Jerneja Penca[1] · **Mihnea Tănăsescu**[2,3]

Received: 1 September 2024 / Accepted: 17 November 2024

Abstract
Restoration of nature is spreading as a practice and policy approach. The European Union (EU) has not only promoted restoration, but made it an obligation with the Nature Restoration Law. This Comment evaluates the law for its potential to achieve the needed transformation. The law is not inherently disruptive of established approaches to nature conservation that have largely failed to stop nature's decline. However, its interpretation and implementation can become transformative by tackling root causes of nature's decline, advancing the restoration of human relationships with nature, and incorporating democratic participation and justice. We hope to inform how legal restoration targets can be translated into concrete actions by countries within and beyond the EU.

Keywords Biodiversity loss · Eecological restoration · Causes of nature's decline · Human-nature relation · Participation and justice · EU environmental policy

Introduction

As the ecological crisis deepens, restoring nature has become a necessity. Restoration actions have gained traction as a crucial component alongside species, habitat and ecosystem conservation, sustainable resource management, invasive species control, and climate action. Under the latest global biodiversity agreement (CBD 2022), countries are expected to integrate restoration into their biodiversity strategies and expand restoration activities. The European Union (EU) has not only promoted restoration as an opportunity, but made it an obligation with the recently adopted Nature Restoration Law (NRL; Regulation 2024/1991). The legal approach has been greeted with much enthusiasm in environmental circles, but has to date generated little discussion of the contents of the law, or its transformative potential. At a time when change is urgent to bring humanity's actions in line with planetary boundaries, can such novel restoration legislation achieve the needed transformation?

This Comment analyses the EU's NRL genesis and purpose in the context of existing knowledge on biodiversity conservation, and evaluates the final version of the law for its potential to reverse nature's decline (IPBES 2019). With the analysis, we hope to inform a discussion about how legal restoration targets can translate into concrete actions by countries both within and beyond the EU. The NRL and its implementation have the potential to escape a conservation logic that has failed to see cultural, social and political issues as inseparable from ecological crises. We identify three aspects of the NRL, also applicable to other restoration plans, which require strategic focus for its implementation: tackling root causes of biodiversity decline, restoring human's relationship with nature and integrating participation and justice. If countries, regions, businesses, and other actors, as well as those holding them to account, will continue to neglect or ignore these fundamental components of a transformation, the NRL and nature restoration as an approach stand to consolidate the existing conservation approach and, subsequently, to miss the necessary change.

Handled By Iris C Bohnet, Czech University of Life Sciences Prague, Czech Republic.

✉ Jerneja Penca
Jerneja.Penca@zrs-kp.si

[1] Mediterranean Institute for Environmental Studies, Science and Research Centre Koper, Koper, Slovenia

[2] National Fund for Scientific Research (FNRS), Bruxelles, Belgium

[3] University of Mons, Mons, Belgium

Published online: 24 December 2024

Restoration in global nature conservation

Over the decades, both intergovernmental and private actors have attempted to incorporate restorative approaches (convivial conservation, rewilding, net gain, nature positive, etc.) in nature conservation. Restoration science has targeted both species and ecosystems, based on a range of options from active to passive restoration. It has also endorsed direct human interventions, including through re-establishment of sustainable use (Perrow and Davy 2008). Restoration was mentioned in the Aichi Targets, where at least 15% of degraded ecosystems should be restored by 2020, specifically to improve ecosystem services, contribute to climate change mitigation and adaptation, and combat desertification (CBD 2010; Targets 14, 15). This target has not been met (Secretariat of CBD 2020). Nevertheless, the commitment to restoration was enhanced by the UN Decade on Ecosystem Restoration (2021–2030) and the Kunming–Montreal Global Biodiversity Framework. The latter established that at least 30% of degraded ecosystems should be under effective restoration by 2030. But despite the emerging consensus that restoration has a firm place in nature conservation, climate change mitigation and adaptation, and human wellbeing and health, restoration practices around the world were being implemented only gradually and not at the rate of ecosystem degradation. Having a global imperative did not result in concerted efforts to halt nature's decline.

The EU's legislative efforts have closely interlinked with these global processes—the EU was shaping them and expected to implement them. The European Commission announced its Biodiversity Strategy in 2020 (EC 2020) together with a commitment to operationalize it through a binding Regulation directly applicable in all EU Member States. Using legislation to advance political ambitions, define long-term targets, and establish the processes and institutions needed to meet them reflects the approach the EU has already taken with its climate law (Regulation (EU) 2021).

Since the launch of the draft NRL in June 2022 negotiations were intense (Cliquet et al. 2024), influenced by a number of external challenges. Increasing geopolitical tensions in Europe started to prioritize energy independence, economic and security issues, and framed these in opposition to nature conservation; the Commission's policy moves relating to more sustainable agricultural practices were portrayed as threatening food supplies, and the run-up to the European Parliament elections led Parties to side with interest groups, including those that pushed for a restoration law in any form, as well as those that consistently resisted it. All this led to a highly charged, often misinformed debate around the NRL and a text that contains several significant compromises. While taking place within the EU context, this process is nonetheless reflective of power conflicts elsewhere and the deeply political character of the struggle for transformation more widely (Blythe et al. 2018).

The resulting piece of EU legislation is not fundamentally disruptive of business as usual. It primarily reinstates duties through existing laws and holds back from influencing relevant legislation that contributes to biodiversity loss (such as on fisheries, agriculture, energy, or mining). It also offers several exemptions and derogations, which lessen the states' obligations under various circumstances that could jeopardize nature restoration (national defence, security, infrastructure related to acceleration of renewable energy). This makes it difficult to understand the fierce opposition to the NRL, but also reflects an unease with the possibility of directing investments to reviving nature, rather than extracting resources, re-distributing resulting benefits, or endorsing de-centralized and context-specific decision-making. However, some aspects of the NRL are potentially far reaching, and will play a decisive role in assessing whether the high expectations accompanying its approval are justified.

Tackling root causes of nature's decline

Whilst breathing new life into restoration, the NRL must keep focus on the ultimate goal of preventing further decline of biodiversity and nature. The NRL uses 'restoration' as an extremely broad term; it lists 33 examples of very diverse activities that range from active to passive restoration, and include recent developments in conservation, such as soil restoration or ecosystem connectivity (Annex VII). It encourages these kinds of activities to reflect specific national and local conditions as well as scientific evidence (Art. 14(16)). However, all these will have overall little impact without an attendant halt to biodiversity loss. For the curve of biodiversity loss to bend (Leclère et al. 2020), the NRL needs not only stimulate restoration actions but, at least indirectly, address root causes of nature's decline, in line with the normative hierarchy that prioritizes the avoidance of loss of nature to minimizing damage to remediating damage (in situ) and finally to restoring existing harm (Penca 2024).

The NRL identifies as problems for the decline of habitats and species the abandonment of extensive agriculture, intensifying management practices, the modification of hydrological regimes, urbanization and pollution as well as unsustainable forestry and species exploitation, invasive alien species, and climate change (Preamble, paragraph 12). These drivers of nature's decline share a set of deeper root causes (IPBES 2019), which the NRL does not mention. These span individual and collective values, beliefs, and relations (Ives et al.

2023), intersecting with the economic and financial system, which are rooted in growth and dismissal of externalities (IPBES 2019; D10). The law therefore leaves a big distance between recognizing drivers of nature loss and naming, let alone tackling, the causes of these drivers.

In the politicized context of the NRL, it would be unrealistic to expect an explicit naming of root causes. However, to implement the law, individual countries are required to draft National Restoration Plans (NRPs). The processes of drafting these documents should stimulate debates around fundamental factors affecting nature's decline and include measures directed at those that are deeply unsettling but crucial. For example, the NRL's prescribed requirement for countries to identify the subsidies which negatively affect meeting restoration targets (Art 15(3)(v)) represents a very useful aid for fostering such discussions, alongside various other suggestions, such as to tackle land use changes (preamble paragraph 59).

Restoring human's relations to nature

The implementation of legal obligations must enshrine relational, value-driven aspects of nature and find effective ways to promote them. Known and successful nature restoration practices are fundamentally based on restoring the relationship between humans and nature as much as restoring specific ecosystems (Tănăsescu 2017). Restoration represents an entry point for a whole array of relational and moral conversations over what is 'natural', 'historical', or 'significant' that go beyond classic aspects of conservation biology (Deliège and Drenthen 2014). It requires transcending the dominant conservation narrative that has traditionally focused on nature as separate from people and has seen human activities as inherently damaging, while focusing on what is perceived as special nature (the rare species, the unique ecosystems).The NRL does not fully recognize the multiple values implied in nature and restoration when listing the benefits of different activities in relation to socio-environmental concerns (such as mitigation of or adaptation to climate change, enhancing food sovereignty, elimination of pollution, or safeguarding from future pandemics). It falls short of acknowledging both nature's inherent worth beyond human utility and the many meaningful connections and experiences with nature, which are important for people's sense of identity and meaning.

To make up for this shortcoming, the drafting of NRPs must rely on broadly inclusive valuations of nature (IPBES 2022). These will recognize a fuller set of values than the current heavy emphasis on carbon storage.Next, possibly within the obligation to identify socio-economic impacts of restoration (Art 15(3)(s)), NRPs should consider how restoration activities and targets (such as increasing urban green space, including greenery into buildings and infrastructure, expansion of free-flowing rivers, and conservation beyond protected areas) will foster more reciprocal relationships between communities and nature. Expanding the focus of restoration outside protected areas to restoration aimed at common, but degraded landscapes and urban ecological restoration has an immense potential to include relational values and form a conservation narrative based on models that are inclusive of multiple species (Celermajer et al. 2022). Relational aspects and restoration as a generalized social practice should become targets on par with ecological impact.

The role of education systems in fostering that shift should not be ignored. Currently, restoration does not feature as a priority in school curricula and education programmes. The NRL does not need to stop at education, but can nonetheless include it as part of a wider strategy of promoting "fair and cross-society approaches" to restoration (Preamble, paragraph 83). The implementation of the NRL is an opportunity for member states to integrate interventions in nature with enhancing the ecological and ethical literacy at both individual and societal levels.

Ensuring participatory design and justice

Significant for restoration success will be the implementation of participatory restoration designs. Transparency, inclusiveness, and participation of NRPs are mandated under Art 14(20). In most EU countries, participation needs to become more than consultation, a tick-the-box inclusion of stakeholders, or increasing 'awareness' of the public to facilitate the pre-defined 'right decisions,' prepared by restoration science or institutional decision-makers (Kiss et al. 2022). Just as what represents a natural or 'close-to-nature' solution changes according to the context, so will the determination of what are meaningful nature restoration practices. Resource users should co-design priorities, goals, and approaches for restoration sites (Light 2006). Diverse sources of knowledge and multiple values that underlie nature conservation, use, or restoration must be drawn on (Winter 2022).

Participatory processes are unlikely to look the same in different countries. Public administrators will need to tailor democratic exchanges to the cultures of their constituencies and communities of resource users (Chilvers and Kearnes 2020). The facilitation of participatory processes oftentimes requires additional capacity building by public administrators (Susskind and Kim 2021).This should be carefully considered in NRPs. In enforcing the right to participation, it is lamentable that the right of access to justice has been removed from the law during negotiations.

The design of NRPs needs to pay close attention to how restoration activities will affect equitable and just distribution of benefits and costs (Coolsaet 2020). For example, the targets set for greening cities are a good opportunity to advance environmental justice in cities, where wealth disparities correlate with the toxicity of the surrounding environment. The enhanced 'greening' of cities should target the widest population, including marginalized and vulnerable communities.

Conclusion

We have analysed the EU's recent legislation on nature restoration with the purpose of contributing to its implementation in ways that are aligned with scientific findings, to inform forthcoming legislative action on restoration in other countries, and to stimulate scientific and public scrutiny of the policy design and implementation. Our findings are largely aligned with previous recommendations on how to implement restoration activities (FAO, SER, and IUCN CEM 2023), but more precisely focused on potential challenges, given the concrete piece of legislation.

The actual workings of the NRL will be determined mainly through NRPs submitted by governments, but also through specific delegated acts expected from the Commission to guide implementation by EU countries. All of these must engender strong political commitment, if the NRL is to contribute to transformative change for sustainability, which encompasses a fundamental restructuring and rethinking of nature's contributions to social and human health and development (IPBES 2021).

Embedding the NRL in the ambition of a *transformation*, rather than framing it as yet another approach in the policy toolbox of conservation, is essential for the required follow-up actions, such as re-channelling of (human, financial) resources from harmful to regenerative activities, introducing institutional innovation and shifting towards more decentralized and inclusive decision-making. The transformative purpose of the NRL needs to be continuously recalled alongside its timelines, numerical targets, and practical handbooks. Key implementation imperatives and challenges are also valid for other countries' approaches to delivering on their restoration commitments.

Funding JP has received funding from the Slovenian Research Agency ARRS, code P5-0453. MT acknowledges support by Fonds de la Recherche Scientifique F.R.S.-FNRS.

Declarations

Conflict of interest The authors have no conflict of interest.

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