

# **ZERO WASTE ALLIANCE IRELAND**

*Towards Sustainable Resource Management*

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## **Submission by Zero Waste Alliance Ireland to the European Commission on the Proposed Roadmap Towards Nature Credits**

**30 September 2025**

**Zero Waste Alliance Ireland is funded by the Department of the  
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### **Submission by Zero Waste Alliance Ireland to the European Commission on the Proposed Roadmap Towards Nature Credits**

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Names and logos of Irish Environmental NGOs which have indicated their support for the submission

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### **Submission by Zero Waste Alliance Ireland to the European Commission on the Proposed Roadmap Towards Nature Credits [COM(2025) 374]**

## **1. INTRODUCTION**

### **1.1 An Emerging Understanding of Our Interconnectedness with the Ecological Health of the Planet**

While not denying the importance of the economic and financial systems which most of us inhabit, to a greater or lesser extent, it is appropriate to recall the words of Tomas Berry, author of *“The Great Work”*,<sup>1</sup> who provides some very necessary guidance in today’s globalised and turbulent world:

*“Earth is a communion of subjects, not a collection of objects.*

*The human is derivative, Earth is primary. Earth must be the primary concern of every human institution, profession, program and activity. In economics, for instance, the first law of economics must be the preservation of the Earth economy. A rising Gross National Product with a declining Gross Earth Product reveals the absurdity of our present economy. It should be clear, in the medical profession, that we cannot have healthy people on a sick planet”.*<sup>2</sup>

But Thomas Berry was not the first to draw attention to the extent to which our lives as human beings were fundamentally interconnected with, and dependant upon, the functioning of the planet and its ecosystems. To give only a few

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<sup>1</sup> The Great Work: Our Way Into the Future. By Thomas Berry. New York: Harmony/Bell Tower, 1999. Also published by Crown Publications, 01 December 2000, 256 pages; ISBN-10: 0609804995; ISBN-13: 978-0609804995. See also: <https://thomasberry.org/awakening-to-our-role-in-the-great-work/>

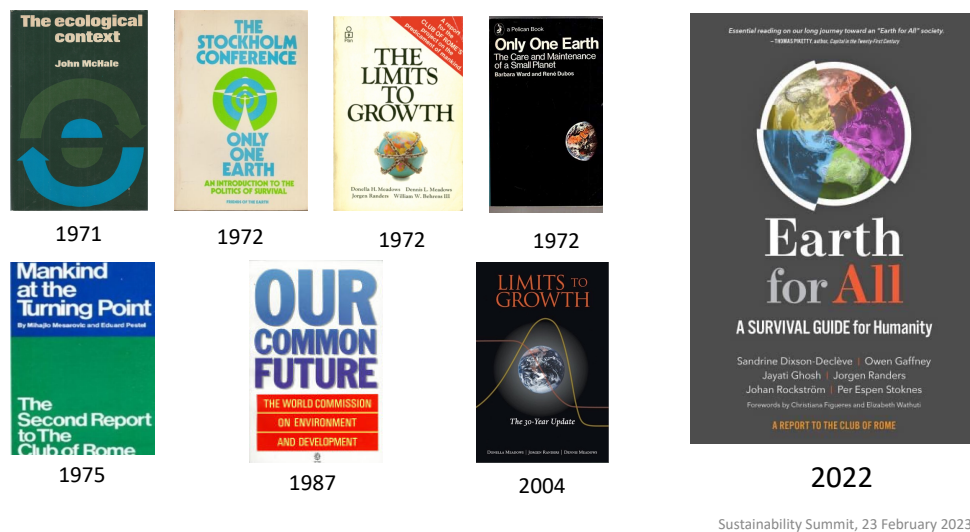
<sup>2</sup> Handout from the library of Santa Sabina Conference Center, San Rafael, California, 2004. From: CES Foundational Statements/Thomas Berry Key Principles. 2015-05-14

examples, the report co-authored by Barbara Ward and René Dubos, commissioned for the 1972 United Nations Conference on the Human Environment in Stockholm, and entitled "*Only One Earth: The Care and Maintenance of a Small Planet*",<sup>3</sup> provided a thorough assessment of the state of the Earth in 1971, emphasizing the urgent need for sustainable management of the planet's resources in the context of rising population pressures and technological advances. That seminal report highlighted the detrimental effects of urbanization, pollution, and the profit-driven production mentality that escalated after the second World War; it may be said to have ignited widespread awareness of environmental issues, underscoring the need for collective action to ensure the maintenance of the planet's future health and sustainability.

Other examples of studies and reports which explored and provided further evidence of our interconnectedness and our dependence of the functioning of a healthy planet were listed in a presentation, entitled "*One Earth For All*", made by one of the authors of this submission, at a Sustainability Summit Meeting, held in Dublin in February 2023.<sup>4</sup>

#### One Earth For All – A Plea For Sustainability

Emergence of Understanding:



Sustainability Summit, 23 February 2023

**Figure 1** Key publications, from 1971 to 2022, showing a growing understanding of human societies' interconnectedness with ecological systems and our dependence of the functioning of a healthy planet.

<sup>3</sup> Only One Earth: The Care and Maintenance of a Small Planet Paperback – 17 Nov. 1983. W. W. Norton and Company, Inc., 17 Nov. 1983, 256 pages; ISBN-10: 039330129X; ISBN-13: 978-0393301298.

<sup>4</sup> <https://www.zwai.ie/resources/2023/the-national-sustainability-summit-one-earth-for-all-a-plea-for-sustainability/>

Key points made in that presentation 2.5 years ago, drawn from many sources including those illustrated in **Figure 1** above, but continuing to be relevant today to the European Commission's draft proposed roadmap for a system of Nature Credits, include:

1. Relations between human cultures and the biosphere – how we interact with the Earth's myriad of living organisms, on which we are completely dependent – is a key determinant of our sustainability.
2. Human societies and the global economy are on a trajectory which can only be described as a pathway or road to instability and unsustainability, characterised by:
  - Global scale greenhouse gas emissions;
  - Accelerating global warming of atmosphere and oceans;
  - Soil loss and damage;
  - Global scale loss of forests and wetlands;
  - Increasing damage to marine species and ocean ecosystems, caused by intensive over-fishing, pollution by plastic waste, and ocean acidification;
  - Accelerated rate of extinction of many species (mass extinction);
  - Uncertainties in food supply; and,
  - An increasing risk of pandemics such as Covid-19.
3. Climate chaos, environmental degradation and perverse inequality have been defined and described as separate multiple crises, often in competition with each other; but in fact they are different aspects of what we might understand as the metacrisis.
4. These crises are interconnected not only in their social and economic realities, but more fundamentally in their source, and they share the same deep root: extractivism based on extrinsic principles (also described as economic externalities).
5. There are deep-rooted structural inequities in the way the global economy currently operates, and unravelling them will be extremely challenging.
6. Allowing common resources to be exploited by an unregulated free market prevents these finite resources from contributing to long-term economic development and wellbeing for all.
7. Making the transition to environmental, social and economic sustainability will require a new political philosophy for human progress which will place collective welfare over individual rights, abandon unimpeded consumption and reinterpret the definition of prosperity in an era of constraints.



8. Although the concept of sustainability needs to be applied differently in each continent and every country, there are three basic or foundational objectives to which it must adhere:
  - ➔ Protecting common and public goods;
  - ➔ Defining a path towards moderate prosperity; and,
  - ➔ Helping societies to prosper within challenging resource constraints.
9. We have the technology; the solution is not only the application of yet more new technology, even though we must scale up very significantly the rollout of every form of renewable energy, as well as reducing as much as possible unnecessary and wasteful energy use;
10. Two new metrics should be included in the world model from here onwards: **social tension index** and the **average well-being index**, as these allow us to estimate whether policy choices are likely to cause social tensions to rise or to fall in societies – if social tensions rise too far, societies may enter a vicious cycle where declining trust causes political destabilisation, economies then stagnate, well-being declines, and we enter the global ecological collapse depicted so well as one of the choices in the 1972 “*Limits to Growth*” model;
11. The “Limits to Growth” model showed that the “*business as usual*” scenario leads eventually to global collapse; the 2022 world model confronts us with a much simpler choice: **Too little too late; or a giant leap forward in the transition to sustainability.**
12. Six major changes in policy direction and action are now needed in order to ensure a socially just transition to sustainability:
  - (i) ending poverty, and addressing gross inequality;
  - (ii) empowering women;
  - (iv) making nature restoration and conservation of natural ecosystems our highest priority – as Thomas Berry stated in the quotation above, “*Earth is primary and the first law of economics must be the preservation of the Earth’s economy*”;
  - (v) making the food system healthy for people, the planet, ecosystems, and other living creatures with which we share the Earth; and,
  - (vi) transitioning to clean energy.

We therefore need to ask whether the European Commission’s draft proposed Nature Credits Roadmap, described as being intended “*to reward nature-positive*



action and boost private finance”,<sup>5</sup> would support and be supported by the above analysis and necessary changes in policies and actions. In **Section 3** of this submission, we will address this question.

## 1.2 Interconnectedness of Human Health and the Ecological Health of the Planet

One of the most highly influential and authoritative scientific journals, more well known for its commentary on global ecological and economic issues, is **The Lancet**. It is widely known for its publishing record on public health, global health, general medicine, and related research topics, together with its strong commitment to disseminating high-quality science, initiating public debate on urgent health topics, and translating complex knowledge into actionable insights for policymakers and practitioners.

Recognising that “*the evolution and sustenance of our planet hinges on a symbiotic relationship between humans, animals, and the environment that we share*”, **The Lancet** established in May, 2019, the One Health Commission comprising 24 Commissioners and a team of experienced researchers from multiple disciplines from around the globe.<sup>6</sup>

In its most lengthy analysis, the Lancet One Health Commission, guided by an ethos comprising principles of holism and systems thinking, epistemological pluralism, equity and egalitarianism, stewardship and sustainability and a socioecological systems perspective, stated that: <sup>7</sup>

*“Humans, other animals, plants, and a myriad of other biotic and abiotic elements in our shared ecosystems are fundamentally interconnected. Although the nature of our inter-relation varies over time and across species and cultures, recent centuries are distinguished by unprecedented human impact and formidable transformations, including industrialisation, urbanisation, and globalisation. These developmental trajectories have advanced health markedly, but largely at the expense of equity and sustainability, and they have generated an expanding array of **interlinked***

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<sup>5</sup> Nature Credits Roadmap to reward nature-positive action and boost private finance. European Commission - Press release; Brussels, 7 July 2025.

<sup>6</sup> Amuasi JH, Lucas T, Horton R, Winkler AS. Reconnecting for our future: The Lancet One Health Commission. *Lancet*. 2020 May 9;395(10235):1469-1471. doi: 10.1016/S0140-6736(20)31027-8. PMID: 32386579; PMCID: PMC7252112.

<sup>7</sup> Winkler, Andrea Sylvia & Brux, Christina & Carabin, Hélène & Das Neves, Carlos & Häslér, Barbara & Zinsstag, Jakob & Fèvre, Eric & Okello, Anna & Laing, Gabrielle & Harrison, Wendy & Pöntinen, Anna & Huber, Annalena & Ruckert, Arne & Natterson-Horowitz, Barbara & Abela, Bernadette & Aenishaenslin, Cécile & Heymann, David & Rødland, Ernst & Berthe, Franck & Amuasi, John. (2025). The Lancet One Health Commission: harnessing our interconnectedness for equitable, sustainable, and healthy socioecological systems. *The Lancet*. 406. 10.1016/S0140-6736(25)00627-0. Published online July 16, 2025 (69 pages); Introduction, page 1.

***threats to health and wellbeing throughout the socioecological system*** [our emphasis]. *Climate change is accelerating, biodiversity is declining, and the crises of food insecurity and freshwater scarcity are progressing more rapidly*”.

Among the many key messages in this analysis by the One Health Commission, we have selected only a few, which emphasise an urgent need to:

- (a) navigate the complexity of food systems challenges;
- (b) cultivate unifying values around roles and responsibilities;
- (c) inform and realise the systemic changes that are necessary to deliver food safety and security in globally and intergenerationally equitable ways;
- (d) demand attention to financialisation and corporate dominance;
- (e) ensure that corporate actors become fully engaged to address the conflict between profit and sustainability from a global perspective;
- (f) raise greater awareness of food production inputs, such as feed, medications, and water sources, as well as of post-farm processes, such as food transport and processing, including the **management of waste and contaminants** [our emphasis];
- (g) critically examine the financialisation of the food sector and resist the pervasive and aggressive promotion of inexpensive, highly processed, and unhealthy foods; and,
- (g) explore alternatives to economic paradigms anchored in GDP-growth economics, such as Doughnut Economics, the Circular Economy, and the Wellbeing Economy.

The Commission also stresses that “*the prevailing, anthropocentrically oriented global economic system, in which growth is measured in terms of gross domestic product (GDP), is inherently antithetical to the One Health goal of equitable, sustainable, and healthy socioecological systems*”.<sup>8</sup>

**It is our submission** that all of these highly principled, evidence-based and science-based statements and recommendations by the Lancet One Health Commission constitute an essential context against which the proposed Roadmap for the implementation of a Nature Credits scheme must be evaluated.

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<sup>8</sup> The Lancet One Health Commission: harnessing our interconnectedness for equitable, sustainable, and healthy socioecological systems. The Lancet. 406. 10.1016/S0140-6736(25)00627-0. Published online July 16, 2025 (69 pages); Key messages, page 3.

### 1.3 The Importance of Nature Conservation in Europe and the Urgent Need for Restoration and Recovery

In May 2023, the European Environment Agency (EEA) published an important and relevant Briefing Note on the importance of restoring nature in Europe.<sup>9</sup>

The Briefing Note stated that Nature, *“along with its inherent biodiversity, is key to functioning societies and economies. It provides the food we eat, filters the water we drink, cleans the air we breathe, and is important for our mental and physical health. Yet in the EU, many habitats and species are in a poor or bad state, and only a very small fraction of these has shown any improvement over recent years. The restoration of Europe’s habitats and species is important not only for the inherent value of nature itself: it is also key for improved human health and well-being, and reduced climate change impacts”*.

Key messages in the Briefing Note include:

- ✘ In the EU, 81% of protected habitats, 39% of protected birds and 63% of other protected species are in a poor or bad state; only a very small fraction of these has shown any improvement over recent years;
- ✘ Diverse factors contribute to biodiversity loss, including land use, pollution and climate change; restoration efforts followed by ongoing management of the restored areas are needed both within and outside protected areas to ensure that our use of planetary resources is sustainable in the future;
- ✘ In the EU, 84% of crops at least partially depend on pollination by insects, and restoring pollinator habitats helps improve future food security;
- ✘ Improving and increasing the area of forests, wetlands and seagrass meadows increases carbon sequestration and storage; restoration improves ecosystems’ resilience, supporting nature-based production systems and helping them adapt to the increasingly frequent extreme weather events associated with climate change; and,
- ✘ Ecosystem restoration can improve health, well-being and quality of life for people by increasing the availability of green spaces, mitigating pollution, and reducing the risk of diseases spilling over from animals to humans.

Other key and relevant points made in the EEA Briefing Note include:

*“A lack of ecosystem restoration combined with human pressures such as pollution, land degradation and resource overuse is significantly stressing nature in Europe. Due to these combined pressures, **ecosystem services provided by nature such as carbon sequestration and climate regulation are threatened** [our emphasis]. Climate change is causing*

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<sup>9</sup> The Importance of Restoring Nature in Europe. European Environment Agency Briefing Note, 09 May 2023. <https://www.eea.europa.eu/en/analysis/publications/the-importance-of-restoring-nature-in-europe>

*more frequent and extreme weather events such as floods, droughts, fires and storms. If nature is more resilient, it will help Europe adapt to such crises as they occur. However, if societies in Europe and beyond continue depleting non-renewable natural resources at an unsustainable rate, ecosystems will be heavily impacted”.*

The fragile and vulnerable state of the natural environment, including Nature and many key species, is appropriately summarised in the EEA Briefing Note:

*“Globally, 75% of land on earth and 66% of its oceans are currently severely altered by human activity. In the EU, meanwhile, 81% of protected habitats, 39% of protected birds and 63% of other protected species are in a poor or bad state, and only a very small fraction of these has shown any improvement. While protected areas make up 26% of land and 12% of sea area in the EU, these alone have not been sufficient enough to reverse nature’s decline. They are often isolated and insufficiently resourced and managed, and some do not provide full protection to nature. In Europe, it is estimated that the area of protected habitats in need of restoration is at least 259,000 km<sup>2</sup>, around half the size of terrestrial Spain. Other areas, such as the habitats of certain specific species, are also in need of restoration to stop declining biodiversity”.*

The EEA Briefing Note also clearly identified the benefits of nature restoration, including an increase in biodiversity and an improvement in ecosystem resilience.

The monetary benefits of restoring a broad range of EU peatlands, marshlands, forests, heathland and scrub, grasslands, rivers, lakes, alluvial habitats and coastal wetlands were estimated by the EEA to reach around €1,860 billion (with costs estimated at around €154 billion), leading to the obvious conclusion that nature restoration is not a net cost. In fact the net monetary benefit is significant, based on an estimate by the European Commission that investment in nature restoration provides a return of between €8 and €38 for every €1 spent, owing to the broader benefits delivered through ecosystem services that support food security, human health and well-being, and climate mitigation and adaptation.

Services and materials provided by the natural environment are at risk if nature conservation and restoration actions are not speeded up and implemented quickly –

- ✓ Food security is directly dependent on a healthy natural environment;
- ✓ The ongoing decline of pollinators is threatening the availability of nutritious and healthy food;
- ✓ 60%-70% of soils in Europe are degraded, and cannot deliver resilient food production;

- ✓ Landscape features under threat, such as tree lines, hedgerows and grass strips, contribute to natural pest control while improving water and nutrient availability for crops;
- ✓ Nature restoration also protects against the ongoing loss of valuable genetic diversity;
- ✓ The security of marine food supply requires healthy marine habitats such as seagrass meadows, tidal marshes, coral reefs and shellfish beds; while restoring marine ecosystems increases their marine biomass and supports marine biodiversity, which contributes to carbon sequestration;
- ✓ In addition to direct carbon sequestration, nature restoration also helps to mitigate the effects of climate change, e.g. by reducing greenhouse gas emissions from drained peatlands;
- ✓ The increased occurrence and duration of heatwaves, which between 1980 and 2020 were responsible for 77,000-129,000 deaths in Europe, can be partially mitigated by restoring green spaces in cities, which provide shade and regulate microclimates;
- ✓ People's health, well-being and quality of life depends on nature both directly and indirectly, while restoring urban green and blue spaces directly increases their availability and accessibility for people, with documented benefits for both physical and mental health, overall well-being, and reduced mortality and morbidity from chronic diseases; and,
- ✓ Restoring degraded ecosystems can be seen as a 'public health intervention' that can protect and promote human health and well-being.

## 1.4 The Regulation on Nature Restoration – Coherence or Inconsistency ?

One of the most important responses by the European Commission to these multiple critical problems was to propose, in June 2022, a Regulation on Nature Restoration.<sup>10</sup>

The logical reason given by the Commission for proposing this wide-ranging Regulation were essentially similar to those quoted in sections 1.1 and 1.2 above:

*“Despite EU and international efforts, biodiversity loss and the degradation of ecosystems continue at an alarming rate, harming people, the economy and the climate”.*

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<sup>10</sup> Proposal for a Regulation of the European Parliament and of the Council on Nature Restoration. COM(2022) 304 final. Brussels, 22.6.2022.

The Regulation was described in the Commission's Press Release on 22 June 2022 as a pioneering proposal to restore damaged ecosystems and bring nature back across Europe, a key step in avoiding ecosystem collapse and preventing the worst impacts of climate change and biodiversity loss. Restoring EU wetlands, rivers, forests, grasslands, marine ecosystems, urban environments and the species they host was a crucial and cost-effective investment.

After a contentious process including significant resistance from some political groups and misinformation campaigns, the European Parliament adopted the text in February 2024, followed by final approval from EU environment ministers in the Council in June 2024, and the regulation came into force as the EU Nature Restoration Law in August 2024.

The EU Nature Restoration Law sets legally binding targets to restore 20% of the EU's land and sea areas by 2030 and all degraded ecosystems by 2050, with specific aims for habitats like wetlands, forests, and urban areas. Implementation of the Nature Restoration Law by all Member States across the EU will improve biodiversity, carbon capture, and resilience.<sup>11</sup>

Member States have until 01 September 2026 to prepare their draft national restoration plans. They must carry out the necessary preparatory work to help identify the most urgent restoration measures to be implemented by 2032, and to develop a strategic overview of additional measures and actions that will be required to achieve the overall restoration targets, at the latest by 2050. Monitoring requirements are also prescribed for each restoration target.

While penalties for non-compliance are not detailed in the core text, the EU Environmental Crime Directive<sup>12</sup> can be linked to these legally binding targets, allowing for fines and up to ten years' imprisonment for severe environmental damage.

When the Nature Restoration Law was being proposed in 2022, the European Commission stated that restoring ecosystems was not only a priority for Europe, but was also high on the international agenda.<sup>13</sup>

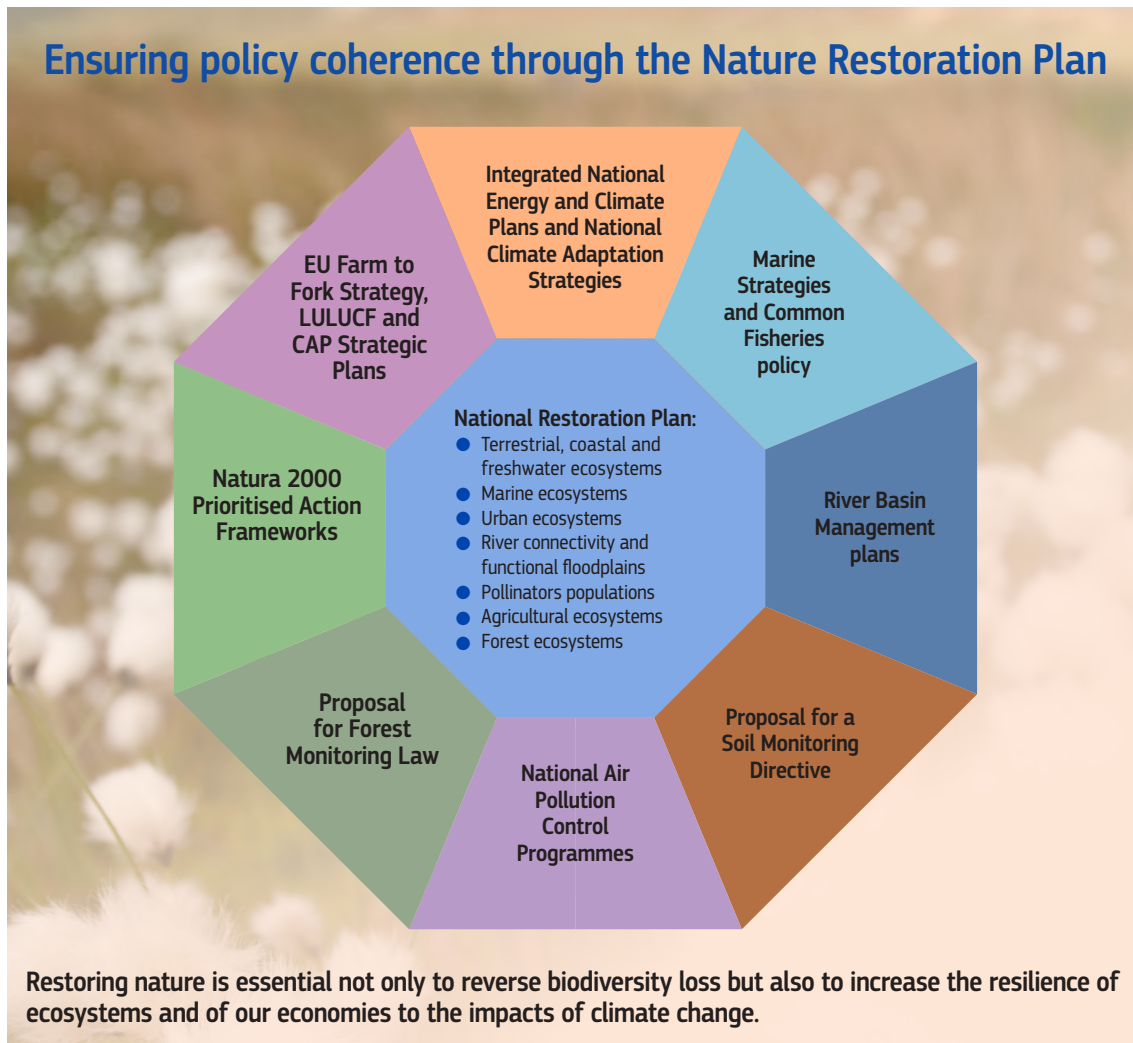
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<sup>11</sup> Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869.

<sup>12</sup> Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment through criminal law and replacing Directives 2008/99/EC and 2009/123/EC.

<sup>13</sup> Proposal for a Regulation of the European Parliament and of the Council on Nature Restoration. COM(2022) 304 final. Brussels, 22.6.2022; context of the proposal, reasons for and objectives of the proposal, page 2.





**Figure 2** Coherence between national Nature Restoration Plans and other key and essential legislation and programmes necessary for protection and restoration of the environment and ecosystems (from The Nature Restoration Regulation, European Commission, Natura 2000 Unit, February 2025. Luxembourg: Publications Office of the European Union, 2025; 24 pp, page 8).

Listed international agreements and conventions included the 2050 vision under the Convention on Biological Diversity,<sup>14</sup> the United Nations Convention to Combat Desertification (UNCCD),<sup>15</sup> the 2030 Agenda for Sustainable Development (the Sustainable Development Goals)<sup>16</sup> and the UN Decade for

<sup>14</sup> The 2050 vision and 2030 mission of the Kunming-Montreal Global Biodiversity Framework is a world of living in harmony with nature where “by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.” <https://www.cbd.int/gbf/vision>

<sup>15</sup> United Nations Convention to Combat Desertification in those countries experiencing serious drought and/ or desertification, particularly in Africa (UNCCD), available at [https://www.unccd.int/sites/default/files/relevant-links/2017-01/UNCCD\\_Convention\\_ENG\\_0.pdf](https://www.unccd.int/sites/default/files/relevant-links/2017-01/UNCCD_Convention_ENG_0.pdf).

<sup>16</sup> United Nations: Resolution adopted by the General Assembly on 25 September 2015 – Transforming our world: the 2030 Agenda for Sustainable Development, available at [https://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E).



Restoration<sup>17</sup> – all of these international agreements call for protecting and restoring ecosystems.

Restoration will also be necessary for the EU to meet its own commitments under the United Nations Framework Convention on Climate Change, and the Paris Agreement.<sup>18</sup> Ecosystems such as peatlands, wetlands, oceans and forests – if in good condition – can significantly assist EU Member States, and the EU as a whole, to achieve the UNFCCC and Paris Agreement objectives to reduce the impact of climate change by the removal and storage of large amounts of carbon dioxide.

The coherence with, and integration of the EU Nature Restoration Law with other legislation is best shown in **Figure 2** above.

To answer the question at the beginning of this section, it is our submission that the EU Regulation on Nature Restoration provides a high degree of coherence and consistency with the aims and requirements of other relevant European and international agreements and conventions for the protection of nature and mitigation of climate change.

It therefore follows that one key characteristic of the proposed Nature Credits Roadmap is that it must be consistent with, and act in coherence with the objectives of the European and international agreements and conventions described above. In our observations on the draft proposed Nature Credits Roadmap, we will address this issue (in Section 3 below).

## **1.5 The European Commission's Approach to the Draft Proposed Nature Credits Roadmap**

In the introduction to the Communication<sup>19</sup> proposing a Roadmap towards Nature Credits, the commission states that:

*“Nature is our strongest ally to support our livelihoods, health and prosperity. It provides essential ecosystem services such as retaining water, ensuring soil fertility and pollination. It contributes to climate mitigation, adaptation and resilience against disasters, often in a very cost-effective manner. For companies, it contributes to determining production processes, credit worthiness, and access to financing. This also affects*

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<sup>17</sup> Resolution adopted by the General Assembly on 01 March 2019 - United Nations Decade on Ecosystem Restoration (2021–2030), available at <https://www.decadeonrestoration.org/about-un-decade>

<sup>18</sup> Paris Agreement, available at [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).

<sup>19</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Roadmap towards Nature Credits. COM(2025) 374 final. Brussels, 7.7.2025

*the risks for the financial institutions that grant loans to these companies, which is why financial supervisors show an increasing interest in nature-related risks”.*

*“Nature is therefore a crucial foundation for a competitive and resilient economy. The people who are at the front lines of nature stewardship, such as farmers, foresters, landowners and land managers, fishers, users of sea and freshwater ecosystems, conservation area managers, and local communities, must be appropriately rewarded, through the marketplace, for contributing to safeguarding and improving the strategic economic asset that nature is”.*

However, the Communication then further states in the Introduction that –

*“In the finance toolbox for biodiversity and nature, certification and credits are emerging as a potentially valuable way to complement public funding. By facilitating investments in activities that benefit nature, these innovative and voluntary tools can play a crucial additional role in preserving the health of our land and marine ecosystems and help reverse the decline in biodiversity. With a view to strengthening the bioeconomy, these tools can also provide an opportunity to generate income to the people involved in the protection, restoration, and sustainable management of ecosystems ...”*

While this approach may appear admirable, and is to be welcomed, our analysis of the proposed Nature Credits Roadmap leads us to the conclusion that a system of “*certification and credits*” is unlikely to deliver the expected benefits to nature. Experience with other similar systems, for example The Clean Development Mechanism (CDM; a carbon offset scheme under the Kyoto Protocol)<sup>20</sup> and the EU Emissions Trading System, which is part of the EU’s policy to combat climate change.<sup>21</sup>

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<sup>20</sup> <https://cdm.unfccc.int/about/index.html>

<sup>21</sup> <https://www.epa.ie/our-services/licensing/climate-change/eu-emissions-trading-system-/> and [https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets/about-eu-ets\\_en](https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets/about-eu-ets_en)

## **2. ZERO WASTE ALLIANCE IRELAND (ZWAI)**

At this point we consider that it is appropriate to mention briefly the background, aims, activities, policies and strategy of ZWAI, and to list some of our previous submissions to Irish Government departments and to the European Commission.

### **2.1 Origin and Early Activities of ZWAI**

Zero Waste Alliance Ireland (ZWAI), established in 1999, and registered as an Irish company limited by guarantee in 2004, is a Non-Government Environmental Organisation (eNGO) and a charity registered in Ireland. ZWAI has prepared and submitted to the European Commission, the Irish Government and to Irish State Agencies many policy documents on waste management and waste elimination, and continues to lobby the Irish Government and the European Commission on using resources more sustainably, on promoting re-use, repair and recycling, and on development and implementation of the Circular Economy.

One of our basic guiding principles is that human societies must behave like natural ecosystems, living within the sustainable flow of energy from the sun and plants, producing no materials or objects which cannot be recycled back into the earth's systems, or reused or recycled into our technical systems, and should be guided by economic systems and practices which are in harmony with personal and ecological values.

Our principal objectives are:

- i) sharing information, ideas and contacts,
- ii) finding and recommending environmentally sustainable and practical solutions for domestic, municipal, industrial and agricultural waste management and for more efficient and ecologically appropriate uses of natural resources such as scarce minerals, water and soil;
- iii) lobbying Government and local authorities to implement environmentally sustainable waste management practices, including clean production, elimination of toxic substances from products, re-use, recycling, segregation of discarded materials at source, and other environmentally and socially beneficial practices;
- iv) lobbying Government to follow the best international practice and EU recommendations by introducing fiscal and economic measures designed to penalise the manufacturers of products which cannot be re-used, recycled or composted at the end of their useful lives, and to financially support companies making products which can be re-used, repaired, recycled or are made from recycled materials;
- v) raising public awareness about the long-term damaging human and animal health and economic consequences of landfilling and of the

- destruction by mass burning or incineration of potentially recyclable or re-usable materials;
- vi) investigating, raising public awareness and lobbying Irish Government departments and agencies about our country's failure to take adequate care of vulnerable and essential natural resources, including clean water and air, biodiversity, and soil;
  - vii) advocating changes in domestic and EU legislation to provide for more ecologically appropriate, environmentally sustainable and efficient uses of natural resources; and,
  - vi) maintaining contact and exchanging information with similar NGOs and national networks in the European Union and in other countries, and with international zero waste organisations.

## **2.2 Our Basic Principles**

In nature, the waste products of every living organism serve as raw materials to be transformed by other living creatures, or benefit the planet in other ways. Instead of organising systems that efficiently dispose of or recycle our waste, we need to design systems of production that have little or no waste to begin with.

There are no technical barriers to achieving a “zero waste society”, only our habits, our greed as a society, and the current economic structures and policies which have led to the present environmental, social and economic difficulties.

“Zero Waste” is a realistic whole-system approach to addressing the problem of society's unsustainable resource flows – it encompasses waste elimination at source through product design and producer responsibility, together with waste reduction strategies further down the supply chain, such as cleaner production, product repairing, dismantling, recycling, re-use and composting.

ZWAI strongly believes that Ireland should have a policy of not sending to other countries our discarded materials for further treatment or recycling, particularly to developing countries where local populations are exposed to dioxins and other toxic POPs. Relying on other countries' infrastructure to achieve our “recycling” targets is not acceptable from a global ecological and societal perspective.

## **2.3 What We are Doing**

Zero Waste Alliance Ireland has prepared many policy documents on waste management, we continue to lobby the Government of Ireland on the issue of sustainable resource management, and to express our concern at the failure to address Ireland's waste problems at a fundamental level.

In recent decades, as many older landfills were closed or became better managed (primarily as a consequence of the implementation of European Directives, Irish legislation transposing these Directives, the development of a

waste licensing regime by the Environmental Protection Agency, and the establishment of the Office of Environmental Enforcement in 2003), concern about the public health effects of landfills decreased considerably.

ZWAI therefore concentrated more on the objectives of ensuring that Ireland's government agencies, local authorities and other organisations will develop and implement environmentally sustainable resources and waste management policies, especially resource efficiency, waste reduction and elimination, the promotion of re-use, repair and recycling, and the development and implementation of the Circular Economy.

As an environmental NGO, and a not-for-profit company with charitable status since 2005, ZWAI also campaigns for the implementation of the UN **Sustainable Development Goals**, including (but not limited to) Goal 12, Responsible Consumption and Production, and Goal 6, Clean Water and Sanitation (having particular regard to the need to avoid wasting water, and to wasting nutrients contained in our wastewater); and Goal 15, to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, to halt and reverse land degradation and to halt biodiversity loss

Our work therefore became more focused on responding to public consultations, giving presentations on waste-related topics, and evaluating Irish Government and EU policies on the use, reuse, and recycling of materials and energy, on identifying wasteful practices, and on promoting the Circular Economy. Examples of our submissions and presentations include:

- How Ireland, the European Union and the Irish food industry should address the problems of single-use plastic packaging and plastic waste (March & Nov. 2019);
- Transforming the construction industry so that it could become climate-neutral (instead of being a major emitter of greenhouse gases & toxicants);
- Several observations and submissions addressing the need for recovery and reuse of the phosphorus and nitrogen content of wastewater (2019 to 2023);
- Observations to the European Commission on a proposed revision of the EU Regulation on Shipments of Waste (January 2022);
- Feedback to the European Commission on a proposed Directive on Soil Health – protecting, sustainably managing and restoring EU soils (March 2022);<sup>22</sup>
- Submission in response to a public consultation on the review of Ireland's security of energy supplies (October 2022);<sup>23</sup>

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<sup>22</sup> <https://www.zwai.ie/resources/2022/protecting-sustainably-managing-and-restoring-eu-soils/>

<sup>23</sup> Submission to the Department of the Environment, Climate and Communications in Response to the Public Consultation on a Review of the Security of Energy Supply of Ireland's Electricity and Natural Gas Systems; <https://www.zwai.ie/resources/2022/public->

- Submission in response to a public consultation on Ireland's Fourth National Biodiversity Action Plan (November 2022);<sup>24</sup>
- Submission in response to a public consultation on Ireland's National Bioeconomy Action Plan 2023-2025 (January 2023);<sup>25</sup>
- Presentation and illustrated talk on the topic of "*One Earth for All – A Plea for Sustainability*", given at the National Sustainability Summit, Leopardstown, Dublin (February 2023);<sup>26</sup>
- Submission in response to a public consultation on Ireland's draft Waste Management Plan for a Circular Economy (July 2023);<sup>27</sup>
- Submission in response to a public consultation on the problem of disposable vaping devices (July 2023);<sup>28</sup>
- Observations and recommendations on the increasing European and global problem of waste electronic & electric equipment (WEEE, Sept. 2023);<sup>29</sup>
- Observations to the European Commission on a Proposed EU Directive on Soil Monitoring and Resilience (November 2023);<sup>30</sup>
- Observations on the Irish Government's draft Green Public Procurement Strategy & Plan (November 2023);<sup>31</sup>

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consultation-on-a-review-of-the-security-of-energy-supply-of-irelands-electricity-and-natural-gas-systems/

<sup>24</sup> <https://www.zwai.ie/resources/2022/submission-to-the-department-of-housing-local-government-and-heritage-in-response-to-the-public-consultation-on-irelands-fourth-national-biodiversity-action-plan-nbap/>

<sup>25</sup> <https://www.zwai.ie/resources/2023/zwai-submission-on-irelands-national-bioeconomy-action-plan-2023-2025/>

<sup>26</sup> <https://www.zwai.ie/resources/2023/the-national-sustainability-summit-one-earth-for-all-a-plea-for-sustainability/>

<sup>27</sup> Submission to the Regional Waste Management Planning Offices on the draft Waste Management Plan for a Circular Economy; ZWAI, 05 July 2023: <https://www.zwai.ie/resources/2023/submission-on-the-draft-waste-management-plan-for-a-circular-economy/>

<sup>28</sup> Submission to the Department of the Environment, Climate and Communications in Response to the Department's Public Consultation on Disposable Vaping Devices; ZWAI, 27 July 2023: <https://www.zwai.ie/resources/2023/submission-to-the-decc-on-disposable-vapes-and-why-they-should-be-banned/>

<sup>29</sup> Submission by ZWAI to the European Commission on Waste from Electrical and Electronic Equipment — Evaluating the EU Rules; ZWAI, 22 September 2023. <https://www.zwai.ie/resources/2023/waste-from-electrical-and-electronic-equipment-weee-evaluating-eu-rules/>

<sup>30</sup> Observations and Feedback to the European Commission on the Proposed EU Directive on Soil Monitoring and Resilience; ZWAI, 03 November 2023. <https://www.zwai.ie/resources/2023/submission-on-the-proposed-eu-directive-on-soil-monitoring-and-resilience/>

<sup>31</sup> <https://www.zwai.ie/resources/2023/submission-to-the-decc-on-the-draft-green-public-procurement-strategy-and-action-plan/>



- Observations and feedback to the European Commission on the proposed revision of the EU Waste Framework Directive (November 2023);<sup>32</sup>
- Observations & feedback to the European Commission on revision of Directives 2000/53/EC & 2005/64/EC on End-of-Life Vehicles (December 2023);<sup>33</sup>
- Submission by ZWAI to the Department of the Environment, Climate and Communications in response to the Department's public consultation on proposed amendments to the Access to Information on the Environment (AIE) Regulations 2007-2018 (January 2024);<sup>34</sup>
- Response to the first Public Consultation by the Department of the Environment, Climate and Communications on Ireland's draft National Energy and Climate Plan (March 2024);<sup>35</sup>
- Submission by ZWAI to the European Commission in response to the Commission's public consultation on the evaluation of the Nitrates Directive (91 / 676 / EEC) on Protection of Waters against Pollution caused by Nitrates from Agricultural Sources (March 2024);<sup>36</sup>
- Response to the second Public Consultation by the Department of the Environment, Climate and Communications on Ireland's updated draft National Energy and Climate Plan (June 2024);<sup>37</sup>
- Submission by ZWAI to the European Commission in response to the Commission's public consultation on proposed ecodesign and ecolabelling requirements for computers (July 2024);<sup>38</sup>
- Submission by ZWAI and the Waterford Environmental Forum to the Department of Transport in response to the Department's Public Consultation: *"Moving Together – A Strategic Approach to Improving the Efficiency of the Transport System in Ireland"* (August 2024);<sup>39</sup>

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<sup>32</sup> <https://www.zwai.ie/resources/2023/observations-and-feedback-to-the-european-commission-on-the-proposed-revision-of-the-eu-waste-framework/>

<sup>33</sup> <https://www.zwai.ie/resources/2023/end-of-life-vehicles-observations-and-feedback-to-the-european-commission/>

<sup>34</sup> <https://www.zwai.ie/resources/2024/submission-to-the-decc-on-the-proposed-amendments-to-the-access-to-information-on-the-environment-aie-regulations-2007-2018/>

<sup>35</sup> <https://www.zwai.ie/resources/2024/submission-by-zwai-to-decc-on-irelands-national-energy-climate-plan-necp/>

<sup>36</sup> <https://www.zwai.ie/resources/2024/submission-by-zwai-to-the-eu-public-consultation-on-the-evaluation-of-the-nitrates-directive/>

<sup>37</sup> <https://www.zwai.ie/resources/2024/draft-update-of-irelands-national-energy-and-climateplan-necp-submission-by-zwai-to-decc/>

<sup>38</sup> <https://www.zwai.ie/resources/2024/ecodesign-and-ecolabelling-requirements-for-computers-zwai-submission-to-eu-commission-ecodesign-and-ecolabelling-requirements-for-computers/>

<sup>39</sup> <https://www.zwai.ie/resources/2024/moving-together-a-strategic-approach-to-improving-irelands-transport-system/>



- Submission by ZWAI to the Irish Department of Housing, Local Government and Heritage in response to the Department's Public Consultation on Draft Proposed Additional Measures for Ireland's Fifth Nitrates Action Programme (December 2024);<sup>40</sup>
- Submission by ZWAI to the European Commission in response to the Commission's public consultation on the European Union Ocean Pact, emphasising the importance of Europe's surrounding seas and the Atlantic ocean, and their fundamental in sustaining life on our planet (February 2025);<sup>41</sup>
- Submission by ZWAI to the Department of the Environment, Climate and Communications, in response to a public consultation on Ireland's draft National Implementation Report 2025 to the Aarhus Convention Secretariat (April 2025);<sup>42</sup>
- Submission by Zero Waste Alliance Ireland to the Department for Infrastructure, Northern Ireland, in response to a Transboundary EIA Public Consultation on a Proposed Gold Mine Project in the Sperrin Mountains, County Tyrone (April 2025);<sup>43</sup>
- Submission by ZWAI to the European Commission on proposed draft amendments to Delegated Regulation (EU) 2019/1122 for the purpose of improving carbon accounting in the European Union Registry under Regulation (EU) 2018/841 for the Land use, Land Use Change And Forestry (LULUCF) Sector (May 2025);<sup>44</sup>
- Submission by ZWAI to the European Commission in response to the Commission's call for evidence on a New Policy Initiative and a New Agenda for Cities and Urban Areas (May 2025);<sup>45</sup> and,
- Submission by ZWAI to Department of Climate, Energy and the Environment on the draft National Policy Statement and Roadmap on Circular Textiles (July 2025).<sup>46</sup>

It will be clear that ZWAI is primarily concerned with the very serious issue of discarded substances, materials and goods, whether from domestic, commercial or industrial sources, how these become "waste", and how such "waste" may be

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<sup>40</sup> <https://www.zwai.ie/resources/2024/proposed-additional-measures-for-irelands-fifth-nitrates-action-programme-nap/>

<sup>41</sup> <https://www.zwai.ie/resources/2025/eu-oceans-pact-submission-by-zwai/>

<sup>42</sup> <https://www.zwai.ie/resources/2025/aarhus-convention-national-implementation-report-2025/>

<sup>43</sup> <https://www.zwai.ie/resources/2025/consultation-on-a-proposed-dalradian-gold-mine-project-in-the-sperrin-mountains-county-tyrone/>

<sup>44</sup> <https://www.zwai.ie/resources/2025/submission-on-proposed-eu-carbon-accounting-amendments-for-the-lulucf-sector/>

<sup>45</sup> <https://www.zwai.ie/resources/2025/submission-to-eu-commission-on-a-new-policy-initiative-and-a-new-agenda-for-cities-and-urban-areas/>

<sup>46</sup> <https://www.zwai.ie/resources/2025/submission-on-the-draft-national-policy-statement-and-roadmap-on-circular-textiles/>

prevented by re-design along ecological principles. These same ecological principles can be applied to the many ways in which we abstract and use water as a resource, and to the equivalent volumes of wastewater produced as a consequence of these uses. ZWAI is also very concerned about the effectiveness and appropriateness of Irish and EU policies, legislation, programmes and plans which are the prime determinants of how these “wastes” are managed, controlled and monitored for environmental and societal benefits.

In-depth examination and analysis of national policies have made us very aware of the many disconnections and conflicts between economic, environmental, land-use planning and social policies, frequently resulting in failure to implement necessary changes. While making the submissions listed above, we have welcomed many proposed policy changes; but at the same time we have also considered that it was very necessary to evaluate all proposals in the context of what is best for the environment and society.

**ZWAI** is represented on the Irish Government’s Waste Forum and Water Forum (An Fóram Uisce), is a member of the Irish Environmental Network and the Environmental Pillar, and is funded by the **Department of Communications, Climate Action and the Environment** through the **Irish Environmental Network**.

ZWAI is also a not-for-profit company limited by guarantee (Company registration number **394205**), and a registered charity (CRN number **20057244**). Membership has been growing in recent years, and is currently slightly more than 50 individuals, and the company’s affairs and activities are supervised by a 6-person Board of Management (Directors), some of whom are regular contributors to submissions, or make presentations at conferences.

In 2019 ZWAI became a full member of the **European Environment Bureau** (EEB); and a member of the **Waste Working Group** of the EEB. Through the EEB, we contribute to the development of European Union policy on waste and the Circular Economy. In November 2021, the EEB established a **Task Force on the Built Environment**; ZWAI is a member of this group, and we contribute to continuing discussions on the sustainability of construction materials, buildings and on the built environment.

In 2025, ZWAI became a member of **Climate Action Network (CAN) Europe**, a strong coalition of some 200 environmental member organisations, representing over 1,700 NGOs, and more than 40 million citizens, in 40 European countries. CAN Europe works in the area of climate action, especially climate mitigation, socially just transition to clean energy, advocacy and awareness raising.

In preparing this submission, we worked with CAN Europe, and contributed to their submission, while they worked together with ZWAI. Other Irish NGOs have also given us their support, and their logos are in **Appendix I**.

### **3. OUR OBSERVATIONS AND RECOMMENDATIONS IN RESPONSE TO THE EUROPEAN COMMISSION'S PROPOSED ROADMAP**

#### **3.1 Preliminary General Observations**

Zero Waste Alliance Ireland (ZWAI) welcomes the European Commission's initiative to explore innovative finance mechanisms for biodiversity through the Roadmap towards Nature Credits. The ambition to mobilise private investment for nature restoration and conservation is timely, reflecting the urgent need to address biodiversity loss across the EU. However, our analysis in the following sections of this submission identifies significant structural, legal and ecological risks within the Roadmap that could undermine its effectiveness and credibility if left unaddressed.

Firstly, the Roadmap suffers from vague definitions and a lack of robust operational and legal safeguards (expanded in sections 3.2 to 3.5 below). Key concepts such as "nature credits" and "nature-positive outcomes" remain undefined, with no clear methodology for measurement, verification or enforceable compliance. The framework relies on corporate good faith to deliver outcomes, despite historical evidence that voluntary approaches often fail to produce genuine ecological gains. Moreover, by attempting to impose short-term financial logic on long-term ecological processes, the proposed market risks intergenerational greenwashing, where credits may be sold for benefits that are uncertain, temporary or unmonitored.

Secondly, the Roadmap risks operating in isolation from the EU's established nature protection and biodiversity policy system outlined in section 1.4 above. Without explicit integration with the EU Biodiversity Strategy for 2030, the Nature Restoration Law and the Birds and Habitats Directives, the crediting scheme may fragment conservation efforts and inadvertently commodify ecosystems. Nature credits, if treated as tradable units, could be misused to justify ongoing degradation or circumvent legally binding obligations, undermining the EU's commitment to avoid, minimise and restore ecological harm.

Thirdly, lessons from nearly three decades of global carbon and biodiversity offset markets demonstrate systemic risks that are highly relevant to the Roadmap. Experiences from the Clean Development Mechanism, voluntary carbon markets and avoided deforestation projects reveal widespread issues with non-additionality, inflated baselines, monitoring failures and fraud. In many cases, these projects have harmed local communities and Indigenous peoples, highlighting the social as well as ecological consequences of poorly designed credit systems.

Taken together, these findings underscore that, without precise definitions, legally enforceable standards, integration with EU policy, and mechanisms to

prevent fraud and ecological harm, the Roadmap risks replicating the failures of past market-based environmental schemes. ZWAI therefore calls on the European Commission to ensure that any nature credit framework prioritises biodiversity integrity, complements binding EU obligations and safeguards both ecosystems and the communities that depend upon them.

In addition to the general observations above, Zero Waste Alliance Ireland would like to make further and more specific observations (in sections 3.2 to 3.10 below) on issues which we consider should become important, or even essential, components of a forthcoming EU policy and operational system of Nature Credits.

### **3.2 Vague Definitions of Credits and Outcomes in the Draft Proposed Nature Credits Roadmap**

In any proposed scheme of financial transfers, such as the planned Nature Credits system, it is essential to have clear definitions of terms and operational safeguards.

The EU Nature Credits Roadmap lacks these fundamental components because of a failure to provide precise definitions for “nature credits” and “nature-positive outcomes” which are used as central pillars of the framework without any accompanying clarity or standardized criteria. Nature credits are only vaguely defined as “quantifiable and fungible units for verified biodiversity outcomes”, yet the Roadmap provides no methodology as to how such credits are to be calculated, verified, or recognized across different jurisdictions. Biodiversity is a complex and multifaceted spectrum, differing due to unique environmental factors like climate and is classified within three levels, which are genetic diversity (intra species variation), species diversity, and ecosystem diversity.<sup>47</sup> The credit system depends on a high degree of homogeneity, whereas biodiversity is marked by its heterogeneity.<sup>48</sup>

As such, it would not only be scientifically unsound, but also a weak business step to provide a weak framework to encourage the monetisation of nature. To illustrate this point, the Mediterranean region which encompasses parts of Spain, Italy, and Greece contains approximately 15,000 to 25,000 terrestrial species, 60% of which are endemic, alongside over 17,000 marine species, including critically endangered and highly specialised species.<sup>49</sup> These ecosystems are not only biologically unique but are exceptionally sensitive to climate change,

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<sup>47</sup> Sven Wunder, Cecilia Fraccaroli et al, ‘Biodiversity Credits: An Overview of the Current State, Future Opportunities, and Potential Pitfalls’ (Wiley Online Library, 17 June 2025) < <https://onlinelibrary.wiley.com/doi/10.1002/bse.70018>> accessed 13 September 2025.

<sup>48</sup> Sven Wunder, ‘Biodiversity credits under the microscope’ (Circular Bioeconomy Alliance, 15 October 2024) < [https://circularbioeconomyalliance.org/wp-content/uploads/2024/10/CBA\\_Biodiversity\\_Credits\\_2024.pdf](https://circularbioeconomyalliance.org/wp-content/uploads/2024/10/CBA_Biodiversity_Credits_2024.pdf)> accessed 13 September 2025.

<sup>49</sup> UN Environment Programme, ‘Biological Diversity in the Mediterranean’ (March 2021) < <https://www.unep.org/unepmap/resources/factsheets/biological-diversity>> accessed 12 September 2025.

meaning that conservation interventions carry a higher ecological weight. In contrast, the Boreal region of Finland and Sweden which is arguably much colder and dominated by extensive cold-adapted species renders them more resilient to environmental disturbances.<sup>50</sup> The roadmap's rigid and narrow crediting approach fails to account for these ecological disparities and creates conditions where legal challenges are likely.

From our knowledge and experience of evidence from global biodiversity offset markets, which have demonstrated the inherent risks and the minimal positive changes resulting from investments in biodiversity credits, it is our submission that an ambiguous definition of 'credits' can serve only to compound the greenwashing effect and is likely to guarantee similar failures.

It is unfortunate that 30-60% of biodiversity credits in voluntary schemes fail to deliver the promised ecological benefits due to lack of additionality, permanence, or precise measurement.<sup>51</sup> Without precise definitions, enforceable standards, and region-specific criteria, the EU risks facilitating superficial interventions that meet nominal credit requirements while failing to achieve substantive biodiversity protection.

### **3.3 Absence of a Robust Legal Framework in the Draft Proposal for a Nature Credits Scheme**

Additionally, the Roadmap fails to establish a legally precise and operationally robust framework, rendering it an ineffective policy instrument and one that actively facilitates greenwashing. The term "nature-positive" is deployed as a central goal without any measurable time-bound targets within the roadmap itself. A credible framework would legally define this as a net-positive impact against a science-based baseline, with mandatory additionality and guarantees of permanence. By omitting this, the roadmap allows any project with marginal, temporary, or even hypothetical benefit to be branded as "nature-positive", enabling corporations to over-conflate the appeal of their claims which are legally incontestable, because the term has no enforceable meaning.

The roadmap also makes only vague references to "independently verified actions" but completely sidesteps the legal architecture required for proper transparent verification. It does not provide a guideline for the development of a standard of verification which must be adhered to, making it a subjective exercise that is susceptible to cherry-picking data to show a positive outcome.

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<sup>50</sup> United Nations Economic Commission for Europe, 'Boreal forests: A global treasure' (2024) <[https://unece.org/sites/default/files/2025-03/2421978E\\_PDF\\_WEB.pdf](https://unece.org/sites/default/files/2025-03/2421978E_PDF_WEB.pdf)> accessed 11 September 2025.

<sup>51</sup> Hannah S Wauchope et al, 'What is a unit of nature? Measurement challenges in the emerging biodiversity credit market' (Bangor University, 1 December 2024) <<https://pure.bangor.ac.uk/ws/portalfiles/portal/75865095/wauchope-et-al-2024-what-is-a-unit-of-nature-measurement-challenges-in-the-emerging-biodiversity-credit-market.pdf>> accessed 14 September 2025.

Fundamentally, the framework of the roadmap ignores a central tenet of market-based regulation, which is that a system designed to reward positive action must be supported by equally robust mechanisms to penalise failure to adhere to this framework, without which the regulation is likely to be reduced to a subsidised reputational risk-management tool devoid of environmental integrity.

The complete lack of legally enforceable liability for developers and verifiers whose credits fail to deliver the promised permanent, additional biodiversity gains, coupled with the absence of mandatory financial assurances creates an asymmetric incentive structure where corporations can purchase cheap, unsecured credits to make “nature-positive” claims while bearing no financial or legal exposure if those credits are later invalidated.

The lack of a specified mechanism not only risks reproducing the flaws of previous precedents, such as the Clean Development Mechanism<sup>52</sup> (a carbon offset scheme mentioned briefly in section 1.4 above and section 3.8.1 below) where voluntary carbon markets not only led to mass greenwashing, but also incentivised a race to the bottom in credit quality.<sup>53</sup> This legal vacuum could likely result in the market becoming flooded with ecologically useless or hollow units which would serve to greenwash ongoing degradation of the natural environment, rather than finance genuine recovery, thereby perpetuating the very crisis which this mechanism was created to solve.

### **3.4 Over-reliance on the Good Faith of Participants to Carry Out Agreed Obligations Under the Proposed Nature Credits Mechanism**

Another fatal flaw of the draft roadmap is its over-reliance on the good faith and voluntary initiative of corporate actors to self-regulate and fulfil their obligations, a premise that is demonstrably unfeasible and ignores the lessons of past market failures. The roadmap repeatedly defers critical enforcement mechanisms to future stakeholder discussions and “expert groups”, while simultaneously promoting the immediate development of a market based on trust. This creates a dangerous regulatory vacuum as it blindly places responsibility onto companies, some of which will continue to prioritise maximising profit and overall output over the interests of nature.

For example, in Section 2.2, “*Building trust and integrity*”, the roadmap explicitly, though briefly, acknowledges the necessity for safeguards to be established against greenwashing and double counting; yet the draft roadmap provides no binding, enforceable EU-wide standards to mandate them. Instead, it proposes only that “*strict criteria will need to be considered*” and that credibility will be

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<sup>52</sup> <https://cdm.unfccc.int/about/index.html>

<sup>53</sup> Vittoria Battocletti et al., ‘The Voluntary Carbon Market: Market Failures and Policy Implications’ (ECGI, July 2023) <  
[https://www.ecgi.global/sites/default/files/working\\_papers/documents/thevoluntarycarbonmarket.pdf](https://www.ecgi.global/sites/default/files/working_papers/documents/thevoluntarycarbonmarket.pdf)> accessed 14 September 2025.



underpinned by “*transparency*”, effectively outsourcing integrity to the very market participants who have financial incentives to minimise costs. This approach makes the unwarranted assumption that corporations will voluntarily assume significant costs for rigorous, independent verification and will prioritize ecological outcomes over shareholder returns.

The proposed two-step model of “certification” followed by “*crediting*” exposes a critical, upfront vulnerability that relies entirely on the good faith of corporate actors during the project design phase. The document posits that an initial “*certificate*” will be awarded based on an assessment of a “*project plan, the methods used and its intended effects*” which will then help developers “attract financial support.”

This model relies on an assumption that companies will faithfully design projects for maximal, additional, and permanent biodiversity gain without any binding regulatory criteria or financial incentive to do so at this stage. In reality, this merely opens a gateway of unforeseeable problems in the near future – for example, a developer can design a project to meet the lowest possible bar for certification, securing the valuable reputational “signal” and access to finance based on intentions rather than proven outcomes. This system thus trusts companies to act against their own interest, relying on their good faith to design robust, expensive interventions when the certification model itself rewards them for simply producing a plausible plan.

More alarmingly, the international dimension of the roadmap exposes a critical and unaddressed reliance on the good faith of non-EU actors, expanding the mandate of the credits scheme, creating a higher risk of extraterritorial greenwashing. The roadmap promotes international alignment and suggests that valuable experience can be gained from pilot projects where “*EU-based companies can contribute to biodiversity conservation abroad*”.<sup>54</sup> However, it again provides no enforceable EU mechanism to ensure that credits generated outside of its jurisdiction meet the same rigorous standards that it aims to develop internally.

This framework could lead to a dangerous domino effect where the proposed mechanism blindly trusts that foreign certification schemes, verifiers, and registries will voluntarily adhere to integrity standards without any EU supervisory oversight. A company can, in good faith today, purchase a cheap credit from a poorly regulated market abroad to offset its EU biodiversity impact, making a “nature-positive” claim based on an unverifiable unit. The roadmap’s promise of “high-integrity” is thus instantly bypassed, not through malice but through the absence of extra-territorial control and binding import criteria.

If this roadmap has failed to adequately address the immense regulatory complexity of establishing a high-integrity market within the EU’s own jurisdiction,

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<sup>54</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Roadmap towards Nature Credits; Section 4.1, page 8. COM(2025) 374 final. Brussels, 7.7.2025



opting instead for vague principles and deferred governance over binding rules, then its assumption that credits generated outside of the EU would magically meet higher standards must be considered as fundamentally unsound. **It is therefore our submission** that not only are the draft Roadmap's proposals for a Nature Credit mechanism within the EU dangerously lacking in safeguards and controls, but that the Roadmap's proposals for considering actions outside the EU are even more unreliable, from a nature protection perspective.

### **3.5 The Mismatch Between Financial and Ecological Timescales, Almost Inevitably Leading to Market Failure**

The proposed biodiversity credit scheme attempts to apply short-term financial logic to long-term ecological processes, creating a dilemma that almost guarantees failure. Financial markets, and the corporate reporting cycles that drive a demand for credits, operate on quarterly or annual financial returns. Ecological restoration, by contrast, operates on longer timescales for outcomes such as forest maturation. The roadmap vaguely mentions “permanence” as a concern but offers no viable mechanism to ensure that a credit representing a tree planted today will still represent a functioning forest in 30, 50 or 100 years.

It is our observation that the draft proposed Roadmap contains no credible plan for the multi-generational monitoring and legal enforcement required to secure these outcomes against future landowners or even political shifts.

This temporal failure exposes the market as a form of intergenerational greenwashing, as it allows a company to make a “nature-positive” claim today based on a financial transaction for a project whose ecological outcome is entirely uncertain and unenforceable in the future. The roadmap defers the problem to future governance frameworks, and this is an abdication of responsibility for the current generation, as by the time these frameworks are properly debated, an entire generation of credits would have already been sold, setting off a chain reaction of ecological failure. This makes the roadmap ethically reckless as it empowers a mechanism for passing the true cost of environmental restoration onto future generations while allowing current actors to profit from it.

### **3.6 Addressing Policy Fragmentation and the Risk of Commodification of Nature**

As mentioned in our preliminary general observations (section 3.1 above), Zero Waste Alliance Ireland (ZWAI) welcomes the European Commission's ambition to explore new finance mechanisms for biodiversity protection by means of the proposed Roadmap towards Nature Credits.

Unfortunately, our analysis finds that the Roadmap risks functioning in a silo, insufficiently linked to the European Union's existing biodiversity and nature conservation policy system and framework which we have outlined in our introductory section 1 above. This “silo approach” has serious implications for the effectiveness, coherence, and credibility of the proposed Nature Credits

mechanism. In particular, the lack of explicit integration with the EU Biodiversity Strategy for 2030, the Nature Restoration Law, and the Birds and Habitats Directives which underpin the Natura 2000 network risks weakening the proposed Nature Credits mechanism. The lack of integration and coherence with other components of the European Union's existing legal framework for nature protection will have the effect of diverting attention from legally binding obligations and would lead to a reframing of biodiversity as a commodity for trade. This section of our submission highlights these risks and proposes concrete policy recommendations to ensure that biodiversity conservation remains the primary focus of EU action.

### **3.6.1 The Roadmap's Siloed Approach**

The Commission's Roadmap describes Nature Credits as an innovative, voluntary finance tool intended to mobilise private capital for restoration and conservation. It frames nature as an 'engine of value creation' and a 'strategic economic asset'. While this framing may attract investment, it reflects a narrow finance-oriented perspective that risks overshadowing the broader objectives of EU biodiversity law. Nowhere in the draft Roadmap document is there an explicit reference to how credits must align with the EU Biodiversity Strategy for 2030 or to how they will interact with obligations under the Nature Restoration Law, the coherence and importance of which we demonstrated in section 1.4 above.

Equally absent from the Roadmap is a clear articulation of how nature credits would respect the non-substitutable protection regime of the Birds and Habitats Directives, which form the legal foundation of the Natura 2000 network. Without these linkages, the Roadmap risks establishing a parallel track of voluntary action that may mobilise finance but fails to deliver on the EU's binding ecological commitments.

### **3.6.2 Risks of Commodification and Offsetting**

The Roadmap frames Nature Credits as tradeable units derived from certified biodiversity actions. While certification and measurement are important for integrity, the act of converting complex ecosystems into tradable credits creates a significant risk of commodification. Biodiversity differs from carbon in that it is spatially specific, non-fungible, and context-dependent. A wetland restored in one Member State cannot be equated with restoring a degraded grassland in another.

Linking nature to so-called "market instruments" risks reducing unique ecosystems to interchangeable commodities, undermining their intrinsic value, which is far more than their exchange value. In sections 1.1 and 1.2 above, we have shown that the value of ecosystems and the many services which they provide cannot be easily measured in monetary terms, or cannot be measured at all. Any attempt at measurement under our current economic system would lead only to a degradation of their value. And in section 3.8 below, we give examples

of fraud and misrepresentation which have damaged both the offsetting scheme or market instrument, and also damaged the environment.

There is also the further danger of creating 'pollute and purchase' loopholes, whereby companies may seek to use credits as offsets to justify continued degradation elsewhere. Unless strictly prohibited, such uses would directly conflict with the mitigation hierarchy enshrined in EU law: first avoid, then minimise, and only as a last resort, compensate for environmental harm.

### **3.6.3 Gaps in Alignment with Existing EU Policy**

The EU Biodiversity Strategy for 2030 commits the European Union to protect at least 30% of land and sea, restore degraded ecosystems, and reverse biodiversity loss by the end of this decade, and the Nature Restoration Law translates these ambitions into binding targets (section 1.4 above).

Unfortunately, the Roadmap does not explicitly connect the proposed Nature Credits to these legally binding targets. For example, Nature Credits could play a supportive role in financing ecological corridors, buffer zones around Natura 2000 sites, or restoration of degraded ecosystems outside protected areas. But by failing to embed the Nature Credit framework into this overarching strategy, the EU risks fragmentation, duplication, and inefficiency. Moreover, the omission of explicit safeguards referencing the Birds and Habitats Directives raises the risk that credits could be misinterpreted as substitutes for strict conservation obligations.

It is therefore our submission that the proposed Nature Credit mechanism has no real interconnectedness nor coherence with the existing nature conservation legislation and programmes for protection of the environment and ecosystems, and for restoration of damaged areas and ecosystems.

## **3.7 Policy Recommendations to Address the Deficiencies and Problems Outlined in Section 3.6**

### **3.7.1 Explicitly Align Nature Credits with the EU Biodiversity Strategy 2030 Targets and the Nature Restoration Law**

Gap identified: The Roadmap highlights finance mobilisation but makes no clear link to the EU's key biodiversity targets (e.g. 30% of land and sea protected, together with restoration of degraded ecosystems) or binding Nature Restoration Law requirements. This risks fragmentation and duplication.

**Recommendation:** Any credit methodology should include a requirement that projects connect explicitly with the EU Biodiversity Strategy 2030 targets and the legally binding restoration objectives of Regulation (EU) 2024/1991.<sup>55</sup> For

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<sup>55</sup> Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869.

example, credits could be issued only for actions that restore habitats listed under the Habitats Directive, enhance Natura 2000 connectivity, or contribute to achieving the 20% restoration requirement under the Nature Restoration Law. This ensures that voluntary finance flows reinforce, rather than distract from, binding EU commitments.

### **3.7.2            Establish a Legal Safeguard that Credits Cannot be used to Offset Compliance Obligations under the Birds and Habitats Directives or Natura 2000**

Gap identified: The Roadmap positions credits as “units of nature-positive action” but does not explicitly state whether these units could be used to meet legal conservation requirements. This opens the door to misuse.

**Recommendation:** Introduce a legal clause clarifying that credits are “contribution-only” instruments and cannot be counted towards compliance with Birds and Habitats Directives (92/43/EEC and 2009/147/EC) or Natura 2000 site management obligations. This safeguard prevents “pollute-and-purchase” dynamics, ensures that Natura 2000 protections remain non-substitutable, and preserves the integrity of EU nature law.

### **3.7.3            Reinforce the Mitigation Hierarchy in the Credit Framework: avoid > minimise > restore; no trade-offs**

Gap identified: The Roadmap refers to certification of voluntary actions beyond legal obligations, but it does not explicitly restate the EU’s mitigation hierarchy. Without this anchor, credits could weaken prevention-first principles.

**Recommendation:** Embed the mitigation hierarchy (avoid, minimise, restore/compensate) as a mandatory condition for any crediting scheme. Credits may only apply to actions beyond legal compliance and after avoidance and minimisation measures have been demonstrably applied. This ensures credits support restoration rather than legitimising new harms.

### **3.7.4            Require that any Credit-Funded Project Demonstrate Additionality and a Measurable Contribution to EU Biodiversity Targets**

Gap identified: The Roadmap discusses certification and verification, but lacks clear criteria for additionality or measurable biodiversity gains. This risks credits being issued for business-as-usual or double-counted efforts.

**Recommendation:** Mandate additionality tests (e.g. would this restoration or conservation action be undertaken without credit finance?) and require alignment with measurable indicators (e.g. habitat condition, species richness, ecosystem services) tied to EU reporting frameworks such as the Mapping and Assessment

of Ecosystems and their Services (MAES).<sup>56</sup> This ensures that credits will deliver real, verifiable biodiversity outcomes.

### **3.7.5 Prioritise Complementary Actions: Buffer Zones, Ecological Connectivity, and Degraded Land Restoration**

Gap identified: The Roadmap is silent on what types of projects should be prioritised, risking investment in low-integrity or politically sensitive areas (e.g. offsetting within Natura 2000).

**Recommendation:** Nature credits should explicitly prioritise complementary actions that support EU-wide ecological resilience without overlapping with legally mandated conservation measures. These include:

- Establishing buffer zones around Natura 2000 sites to reduce edge pressures;
- Restoring ecological corridors to enhance species movement and climate adaptation; and,
- Rehabilitating degraded agricultural or urban landscapes outside the Natura 2000 network.

This focus prevents duplication and directs private finance to underfunded but critical areas.

### **3.7.6 Ensure Transparent Governance, Public Registries, and Independent Verification, Learning From The Shortcomings Of Voluntary Carbon Markets**

Gap identified: The Roadmap acknowledges risks of greenwashing and double-counting, but does not provide a detailed governance model. Lessons from carbon markets show that opacity erodes trust.

**Recommendation:** Build a governance framework with:

- EU-level registry for all issued credits, accessible to the public;
- Unique serialisation to prevent double issuance;
- Independent third-party verification of all credit-generating projects, subject to periodic audits; and,
- Disclosure requirements for buyers, aligned with CSRD and ESRS E4 (Biodiversity and Ecosystems).

This level of transparency is essential to building market integrity and public trust.

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<sup>56</sup> Mapping and Assessment of Ecosystems and their Services (MAES) is an initiative, originating from the EU Biodiversity Strategy to 2020, that aims to provide harmonized information on the state of ecosystems, their biodiversity, and their capacity to deliver ecosystem services, such as food, water, climate regulation, and recreation.

### **3.7.7 Summary of Policy Recommendations to Address Fragmentation and Lack of Coherence and Complementarity**

The Commission's Roadmap towards Nature Credits could be an important and welcome step to mobilising private finance for the protection of biodiversity, and for restoring biodiversity where ecological systems have been damaged, often by the activities of large corporations. And, if the proposed Nature Credits mechanism were to be implemented properly, with the safeguards and changes we have outlined above, it would give those corporations an opportunity to restore to ecological integrity and quality the places and areas which they have damaged, or to make amends by supporting restoration in other suitable areas.

However, by failing to explicitly integrate with existing EU biodiversity strategies and legal obligations, the proposed Nature Credits mechanism risks creating a fragmented, finance-driven framework that treats nature as a commodity rather than as a common good. For Ireland and the EU as a whole, safeguarding ecological integrity requires that voluntary finance mechanisms should complement, not substitute, binding obligations. ZWAI urges the Commission to embed nature credits firmly within the EU Biodiversity Strategy, the Nature Restoration Law, and the Birds and Habitats Directives, thereby ensuring that the primary focus remains biodiversity conservation, not financialisation.

## **3.8 Lessons from Known Carbon Credit Frauds and Failures of the Clean Development Mechanism**

### **3.8.1 The Clean Development Mechanism (CDM)**

Between 1997 and 2020, the Clean Development Mechanism (CDM), established under the Kyoto Protocol, aimed to direct climate finance to developing countries by allowing industrialised nations to fund emission-reduction projects abroad. Although the CDM generated billions of euros, many projects subsequently faced criticism because of significant problems.

Analyses showed that many projects were “non-additional,” indicating they would have happened regardless of carbon finance. Some also used inflated baselines, leading to the over-issuing of credits. Apart from technical challenges, the operation of the CDM caused social harms by funding projects such as hydro and biomass, leading to community displacement, and the operators of palm oil plantations being accused of deforestation and human rights abuses. In 2011, a well-known case in Honduras linked EU-supported CDM credits to violent land disputes, including alleged killings of local farmers.<sup>57</sup> This example of the operation of the CDM highlights how carbon markets can worsen inequality and create harmful incentives.

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<sup>57</sup> <https://www.theguardian.com/environment/2011/oct/03/eu-carbon-credits-murders-honduras>



### 3.8.2 The Problem of “Avoided Deforestation” Credits

In 2019, ProPublica published an investigation using satellite imagery analysis to evaluate the remaining forest in a conservation project that started selling carbon credits in 2013. The findings revealed that, four years later, only half of the project's areas were still forested.<sup>58</sup> When forest areas credited under specific schemes are later cleared despite the credits being sold, buyers end up paying for environmental protection which had never actually happened.

This example highlights one of the most serious challenges with “*avoided deforestation*” credits: they depend on hypothetical scenarios about what would have happened without the project. If the anticipated deforestation does not happen, the credits are essentially based on a fiction. This example also reveals the fragility of avoided deforestation offsets and explains why many experts believe they should not be part of climate neutrality claims.

### 3.8.3 Overstated Carbon Offset Projects and Exaggerated Claims

In 2023, an investigation by the Guardian, German newspaper Die Zeit, and by the non-profit organisation, *SourceMaterial*,<sup>59</sup> revealed that over 90% of rainforest offset credits offered by Verra (one of the world's leading certifiers for voluntary carbon markets) were probably 'phantom credits' that did not correspond to actual carbon reductions.<sup>60</sup> The investigation examined three scientific studies of Verra-approved active projects and found that only a few of them demonstrated significant reductions in deforestation. This small fraction of successful projects accounted for three-quarters of the total forests protected.<sup>61</sup> The issues were found to originate from overstated baseline scenarios of forest loss; projects asserted to prevent imminent deforestation, but in many instances, the forests were not under significant threat.<sup>62</sup>

In the same year, *Carbon Brief* analysed media reports from 2018 to 2023 and discovered that roughly 43% of these reports indicated that carbon offset projects were overstating their capacity to reduce emissions.<sup>63</sup> As a result, companies purchasing carbon credits can claim to offset emissions when, in reality, there may be no genuine carbon benefit. Also in 2023, the Australian Institute reviewed a list of studies and investigations into carbon credit projects, one finding that 182

<sup>58</sup> <https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/>

<sup>59</sup> *SourceMaterial* is an award-winning team of experienced reporters using in-depth journalism to uncover stories that hold the powerful to account. <https://www.source-material.org/>

<sup>60</sup> <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

<sup>61</sup> <https://www.pnas.org/doi/10.1073/pnas.2004334117>

<sup>62</sup> <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cobi.13970>

<sup>63</sup> <https://interactive.carbonbrief.org/carbon-offsets-2023/mapped.html>



of Australian human-induced regeneration (HIR) projects<sup>64</sup> failed to significantly increase vegetation cover or sequester carbon anywhere near the extent claimed by the Australian Carbon Accounting Model. A systematic review of existing empirical studies of over 2,000 offset projects found that overall, 88% of all the credits in the voluntary carbon market worldwide did not reflect real emissions reductions.<sup>65</sup> The Australian Institute lists more than 20 additional examples of projects, and the main issue surrounds the exaggerated claims on carbon sequestration impacts.<sup>66</sup>

The next year, in 2024, an analysis conducted by Corporate Accountability examined the 50 most popular carbon offset projects and concluded that a significant portion of them were ‘probably junk’.<sup>67</sup> The report found that many of these projects either failed to deliver additional emissions reductions, overestimated their impact, or were too short-lived to qualify as genuine offsets<sup>68</sup>. The findings revealed systemic issues within the carbon offset industry, with companies using these credits as a means to continue polluting rather than genuinely reducing their own emissions.

#### **3.8.4 An Example of a Carbon Offset Fraud**

Staying in 2024, U.S. prosecutors charged Kenneth Newcombe, the former CEO of C-Quest Capital, with orchestrating a multimillion-dollar fraud in the carbon offset market. C-Quest had developed projects that distributed efficient cookstoves in Africa and Asia, which aimed to reduce firewood use and generate credits.

According to the investigators, Newcombe and his associates manipulated data to overstate the amount of fuel being saved and, consequently, the emissions being avoided. By inflating these figures, the company issued far more credits than the projects actually justified, selling them to global buyers. The case was significant because cooking stove projects had often been promoted as “gold standard” offsets with strong social co-benefits. The fraud charges underscored that even seemingly straightforward, small-scale interventions are vulnerable to misrepresentation and exploitation.

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<sup>64</sup> Australian human-induced native forest regeneration carbon offset projects (<https://www.nature.com/articles/s43247-024-01313-x>)

<sup>65</sup> <https://www.research-collection.ethz.ch/entities/publication/5cdeabd2-0319-4efe-9cef-bec6130bab07>

<sup>66</sup> [https://australiainstitute.org.au/post/here-are-23-times-carbon-offsets-were-found-to-be-dodgy-2/?utm\\_source=chatgpt.com](https://australiainstitute.org.au/post/here-are-23-times-carbon-offsets-were-found-to-be-dodgy-2/?utm_source=chatgpt.com)

<sup>67</sup> <https://www.theguardian.com/environment/article/2024/may/30/corporate-carbon-offsets-credits>

<sup>68</sup> <https://www.theguardian.com/environment/2023/sep/19/do-carbon-credit-reduce-emissions-greenhouse-gases>

### **3.8.5 Analysis Showed Illegal Loggers Profiting from Brazil's Carbon Credit Projects**

As recently as July of this year (2025), news agency *Reuters* analysed 36 carbon offset projects in the Brazilian Amazon forest certified by Verra or Cercarbono (another big carbon credit registry).<sup>69</sup> The assessment found that at least 24 of those projects had involved actors previously fined for illegal logging. Ricardo Stoppe Jr. was identified as a principal developer whose projects generated and marketed credits in accordance with reputable standards, including Verra. Nonetheless, investigations revealed a recurring pattern of forged land titles, continuous deforestation within designated “protected” project areas, and connections to the laundering of illegal timber.

Rather than contributing to forest conservation, these schemes appeared to facilitate a financial pathway for recognised environmental offenders to profit from the green economy. The Reuters report revealed that by paying individuals with a history of environmental law violations, the carbon market may be funding illegal deforestation.

### **3.8.6 Adverse Impacts on Local Communities And Indigenous Rights**

Beyond technical issues, carbon offset projects have frequently faced criticism for human rights violations. In parts of Africa, Asia, and Latin America, forest protection or REDD+ initiatives have limited traditional land use without obtaining the free, prior, and informed consent (FPIC) of Indigenous or local communities. Some communities reported losing access to farmland or forest resources, while others accused armed rangers, assigned to protect carbon forests, of intimidation. Benefits were often unevenly distributed, with local people receiving minimal financial return from projects that generate lucrative carbon credits.

These conflicts highlight a key tension: carbon markets view forests as carbon stocks, but for indigenous peoples, they are also homes, livelihoods, and cultural landscapes. Without strong social safeguards and fair benefit-sharing, carbon projects risk perpetuating injustices they aim to resolve.

In their 2023 review discussed in section 3.8.1.3 above, *Carbon Brief* also utilised the information and reports contained in the Global Atlas of Environmental Justice.<sup>70</sup> More than 70% of the reports examined found evidence of carbon offset projects causing harm to Indigenous people and local communities.<sup>71</sup> These reports provided evidence of displacement of Indigenous people from their

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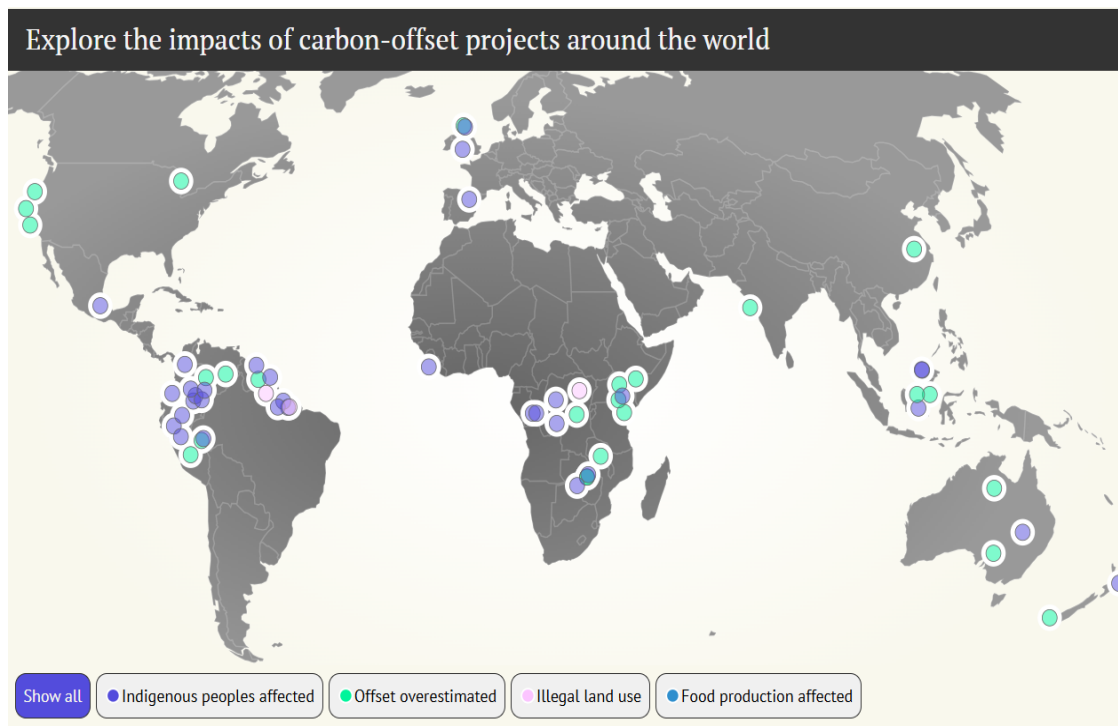
<sup>69</sup> [https://www.reuters.com/business/environment/illegal-loggers-profit-brazils-carbon-credit-projects-2025-07-07/?utm\\_source=chatgpt.com](https://www.reuters.com/business/environment/illegal-loggers-profit-brazils-carbon-credit-projects-2025-07-07/?utm_source=chatgpt.com)

<sup>70</sup> The EJ Atlas is a global database of environmental conflicts maintained by researchers at the Autonomous University of Barcelona's Institute of Environmental Science and Technology (<https://ejatlas.org/>)

<sup>71</sup> <https://interactive.carbonbrief.org/carbon-offsets-2023/mapped.html>

lands as a consequence of carbon-offsetting projects in the Republic of the Congo and the Democratic Republic of the Congo (DRC), the Amazon regions of Brazil, Colombia, and Peru, and also in Kenya, Malaysia, and Indonesia.

*Carbon Brief* has mapped the findings of this review (for an interactive version, visit their website), demonstrating the extent of these adverse effects and showing that it mostly impacts people in developing regions. Climate change already disproportionately affects these regions, so we should at least ensure that carbon offsetting for companies from the EU does not negatively impact people within those areas.



**Figure 3** Carbon-offset impacts worldwide, illegally using land, causing adverse impacts on indigenous peoples, detrimentally affecting food production, and in some cases the magnitude or purported effects of these offsets were overestimated.

Another prominent case to bring to the attention of the European Commission is the 2023 New Ireland Hardwood Timber (NIHT) carbon project in New Ireland, Papua New Guinea. This project was promoted as a way to halt deforestation and deliver schools, health centres, and housing for local communities. In reality, villagers said they received little more than token payments — around 200 kina (about \$80) each — and signed contracts they did not fully understand or have legal advice on.

Lawyers who later analysed the case said the agreements were one-sided, giving NIHT broad discretion to deduct costs and leaving customary landowners with minimal benefit. Anger and frustration grew, with some locals describing the arrangement as exploitative of their most valuable asset: their land. Disillusioned by the lack of promised rewards, some landowners allowed commercial loggers

into the supposedly protected project area, even as NIHT continued selling credits overseas. NIHT later conceded that large-scale logging had taken place since 2020, costing it hundreds of thousands of credits, though it insisted the integrity of previously sold credits remained intact. Critics disagreed, arguing that the deforestation undermined the project's credibility and left buyers with "hot air" credits. NIHT's exploitation of local people not only failed to deliver the benefits it promised but also triggered new deforestation, leaving communities worse off and undermining both the credibility of carbon offsets and the health of the environment they were meant to protect.

### **3.8.7 Conclusions from our Examination of Carbon Credit Frauds and Failures**

Across these various cases, several common issues emerge. The first is the problem of additionality: many projects received credits for emission reductions or forest protection that would have occurred anyway, often due to inflated baselines. This compromises the fundamental goal of carbon credits, which is to support actions that genuinely go beyond "business as usual."

A second concern involves non-permanence and monitoring deficiencies: forest and land-based credits are particularly vulnerable, as stored carbon can be released through fire, logging, or land-use changes. There have been cases where forests labelled as "protected" on paper were still cleared, making those credits ineffective. Insufficient or short-term monitoring systems allowed reversals to go unnoticed or unaddressed.

Thirdly, the cases highlight the danger of fraud and data manipulation. Dependence on unverifiable self-reported data opens avenues for abuse. Without rigorous independent verification, carbon markets become targets for opportunists.

Finally, and perhaps most concerning, is the potential for social and ecological harm: carbon projects have, at times, displaced Indigenous peoples, restricted traditional land use, or benefited large corporations while harming local communities. Even if climate calculations are correct, a project can still exacerbate injustice or harm biodiversity if social safeguards and co-benefit requirements are weak.

The examples above showcase that despite hundreds of attempts across the world spanning nearly the last three decades, carbon offset projects have not lived up to their promise and have at times even done more harm than good.

### **3.8.8 Recommendations Derived from our Examination of Carbon Credit Frauds and Failures**

In this section of our submission, we list our key recommendations for improving the draft EU Roadmap towards Nature Credits.

- Strengthen additionality tests:
  - Require robust, evidence-based baselines that are independently verified.
  - Prohibit crediting for activities that are already profitable or mandated by law.
  - Periodically reassess additionality to account for changing economic and policy contexts.
- Guarantee permanence and manage reversals:
  - Introduce long-term liability mechanisms (e.g. buffer pools, mandatory replacement of credits if carbon is released).
  - Mandate continuous monitoring for land- and forest-based projects, not just one-off assessments.
  - Differentiate clearly between permanent removals (e.g. geological storage) and temporary sequestration (e.g. soils, forests).
- Close loopholes for fraud and data manipulation:
  - Require transparent publication of project data, methodologies, and verification results.
  - Use independent, third-party verifiers with no financial ties to project developers.
  - Introduce randomised audits and penalties for misreporting or deliberate inflation of results.
- Protect communities and indigenous rights:
  - Enforce free, prior and informed consent (FPIC) as a non-negotiable requirement.
  - Ensure equitable benefit-sharing with local communities, not just landowners or developers.
  - Embed human rights safeguards into certification standards, with grievance mechanisms accessible to communities.
- Safeguard biodiversity and ecosystem health:
  - Prohibit projects that promote monocultures or ecologically harmful land-use changes.
  - Require biodiversity co-benefits as part of eligibility criteria for certification.
  - Incorporate local ecological knowledge into project design and monitoring.
- Increase transparency and accountability:

- Develop public registries with project details, credit issuance, and transaction data.
- Track and prevent double-counting across national inventories and voluntary markets.
- Hold credit buyers accountable for claims — limiting use of credits for “carbon neutral” marketing unless strict integrity criteria are met.

### 3.9 The Potentially Negative Impacts of Neoliberalism and Commodification on the proposed Nature Credits Mechanism

In our introductory section 1.1 above, we referred very briefly to deep-rooted structural inequities in the way the global economy currently operates, based on the concept and practice of “extractivism” and allowing common resources to be exploited by an unregulated free market.

Extractivism is an economic and political model focused on the removal of raw natural resources for export, often with little processing, creating dependency and environmental degradation. While traditionally linked to colonial-era resource exploitation in the Global South, extractivism has evolved to encompass new frontiers, including the varieties of exploitation of natural resources and environmental damage we have described in sections 3.7 and 3.8 above.

However, we note that there are other ideologies or ways of dealing with the natural environment which have found a home in contemporary economies, and these should be considered as equally damaging to our interconnectedness and our dependence of the functioning of a healthy planet, as described in section 1.1 above.

The first of these is **neoliberalism**, which can be considered as a range of measures resulting in an increased role of the private sector in society, facilitation of free trade, decreased government role and an overall guiding principle that prioritises market value as the ultimate ethical compass, while de-emphasising other moralities.<sup>72</sup> Neoliberalism has proven time and again to divert government spending into the pockets of a wealthy minority, at the expense of the vast majority of people.<sup>73</sup>

Our second concern is the tendency towards the **commodification** of natural ecosystems, which are fundamentally important to the health, wellbeing and independence of people across the globe; and we consider that the proposed Roadmap to Nature Credits is a potential step towards commodification. The

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<sup>72</sup> Ganti, T., 2014. Neoliberalism. *Annual Review of Anthropology*, 43(1), pp.89-104.

<sup>73</sup> Harvey, D., 2007. Neoliberalism as creative destruction. *The annals of the American academy of political and social science*, 610(1), pp.21-44.



commodification of habitats and species encourages private investment into destructive and polluting industries, for profit, thereby rewarding such practices. We have initially addressed this concern in section 3.6 above, but would like to draw further attention to this way of considering the natural world, to the detriment of ecosystems and their integrity, and the impacts on people whose lives depend on a well-functioning natural environment.

The EU Commission has presented the proposed Roadmap to Nature Credits as a positive sustainability measure, when in reality this proposal will likely result in extensive greenwashing and diversion by ecologically destructive industries, as we have documented above. Tord (2024) argues that Nature Based Carbon Credits (NBCCs) have already proven the *“risk of exploitative practices by restricting lands for the market’s will, rather than purposefully contributing to human and non-human well-beings”*.<sup>74</sup> Companies who engage in destructive practices would be given a *“get out of jail free card”* by asserting they have made up for, or cancelled out, the damage they have caused. Rather than *polluter pays* we are presented with *polluter gets paid*.

Furthermore, off-loading biodiversity measures to other regions and countries implies an out of sight, out of mind approach. Consider: it is functionally impossible to off-set biodiversity destruction, as all habitats are unique with local benefits (ecosystem services) and have species comprised of individual organisms with unique genetic makeups adapted to local habitat conditions, the product of billions of years of competition and evolution. The loss of a habitat in one location cannot be compensated by the conservation (on paper) of another habitat elsewhere. The majority of ecosystem services are associated with areas in and around the habitat, for example: groundwater filtration, dust suppression, temperature moderation, pollinator support, natural pest control, flood risk reduction, protection from soil erosion, human recreation and wellbeing, scientific value, forest fire risk reduction, support for fisheries, tourism, artistic and cultural value, indigenous values etc. The loss of these vital services would be detrimental to any given human population in the local area, with the lowest impact felt by the wealthiest individuals.

In an economic system, as production increases, as a rule, diversity decreases. Consider agriculture, which tends towards single varieties of crops with high output and predictable, measurable characteristics, which can be massively scaled, while “undesirable” traits are eliminated for efficiency’s sake. For example, in Ireland, many heritage varieties of apples exist, or rather used to exist. Lamb (1951) recorded 43 known cultivars,<sup>75</sup> yet nowadays one would struggle to find more than a few varieties of apple on sale in any given supermarket, with perhaps a single Irish variety in the appropriate season.

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<sup>74</sup> Tord, C.O., 2024. Navigating nature-based carbon credits in Peru: a critical look into interpretations, operationalizations and implications (Doctoral dissertation, MSc Thesis Environmental Policy Group, Wageningen University & Research).

<sup>75</sup> Lamb, J.G.D., 1951. The apple in Ireland: its history and varieties.

Heritage apple varieties have varying shelf lives, flavours, disease resistance and growth rates, therefore it is more efficient to breed a few varieties for maximum output to perform in the free market. Therefore we must consider the implications of commodifying ecosystems, a process which is directly contrary to the agreed UN and EU goal of increasing diversity. Has there ever been a system which has become more diverse and variable when exploited for profit? Has a field ever become more biodiverse when cultivated for food production?

A further area of our concern is that the proposed Nature Credits appear to echo the ideology of imperialistic, colonial style wilderness, where humans are not considered. In the past, misguided attempts at nature conservation involved the removal of indigenous people from their land, ostensibly to create an idealised “wilderness”, yet resulted in the displacement of entire people groups.<sup>76</sup> As mentioned in section 3.8.6 above, the existing carbon credits scheme has already resulted in indigenous people being displaced from their land. For example, in November, 2023, Ogiek Indigenous Peoples from Kenya were forcibly removed from their traditional territories under a conservation agenda meant to make way for carbon credits.<sup>77</sup> Since indigenous-owned lands tend to be relatively biodiverse,<sup>78</sup> we reaffirm that the proposed nature Credits Scheme presents a high risk of displacement of indigenous people.

Another school of thought appears to regard indigenous people as requiring protection in national parks, drawing inappropriate analogies to endangered animals needing protection. As one of the many post-colonial nations in the European Union (others include the Baltic States, for example, which were colonised by the former Soviet Union for decades), Ireland has a valuable perspective on indigenous rights; and therefore, in our capacity as an Irish environmental NGO, we would have to oppose the promotion of colonial-style commodification by the Commission. **It is our submission** that self-determination by communities, groups, tribes and nations is key to long term sustainability of human and non-human wellbeing.

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<sup>76</sup> Brockington, D. and Igoe, J., 2006. Eviction for conservation: a global overview. *Conservation and society*, 4(3), pp.424-470.

<sup>77</sup> Nikolakis, W., Welham, C. and Greene, G., 2022. Diffusion of Indigenous fire management and carbon-credit programs: opportunities and challenges for “scaling-up” to temperate ecosystems. *Frontiers in Forests and Global Change*, 5, p.967653.

<sup>78</sup> Schuster, R., Germain, R.R., Bennett, J.R., Reo, N.J. and Arcese, P., 2019. Vertebrate biodiversity on indigenous-managed lands in Australia, Brazil, and Canada equals that in protected areas. *Environmental Science & Policy*, 101, pp.1-6.

### 3.10 Current and Future Potential Challenges to the European Union's Nature Protection Policies and Legislation

#### 3.10.1 "Simplification" or "Deregulation", or Both

On 27 November 2024, President von der Leyen announced a Competitiveness Compass<sup>79</sup> as a major initiative of the Commission, building on the Draghi report and providing the framework for the Commission's work on competitiveness.

In its work programme for 2025, the Commission announced a series of measures to address overlapping, unnecessary or disproportionate rules that create barriers for EU companies. Collectively, with these measures, the Commission wants to reduce administrative burdens by 25%, and by 35% for small and medium-sized businesses, by the end of its mandate in 2029.

Starting during the first part of this year (2025), the European Commission began a process of examining how EU environmental laws could be made faster, easier and cheaper to implement, with the intention of "*making life easier for EU businesses*". Proposed measures being considered include "*streamlining administrative obligations, eliminating duplicate reporting requirements, promoting further digitalisation of reporting*", and addressing what are described as the challenges of obtaining permits for developments.

The Commission also stated that it is currently screening a wide range of environmental legislation to identify legislative acts which have a potential for administrative simplification, and will analyse suggestions gathered from current and previous consultation processes.

This screening process is stated to be aligned with the objectives of the above-mentioned Competitiveness Compass, which sets a target to cut the so-called administrative burden by at least 25% for all companies and at least 35% for small and medium-sized enterprises (SMEs). The Compass also calls for accelerated permitting for sectors in transition to a clean and digital economy in the EU.

While these may appear to be admirable objectives, they contain a serious challenge to the necessity for better environmental protection. For example, the document issued on 19 January 2025 is described as "*An EU Compass to regain competitiveness and secure sustainable prosperity*", but it does not contain any proposals to "secure" or improve environmental sustainability. On the contrary, if the proposed changes in the EU's environmental legislation were to be implemented, they would lead to further long-term unsustainability.

Almost all environmental NGOs and more than 200,000 EU citizens have expressed serious concern about, and opposition to, these proposals for "simplification" of the EU's environmental legislation. For example, Pesticide Action Network Europe stated that "*Talking about health, biodiversity and food*

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<sup>79</sup> An EU Compass to regain competitiveness and secure sustainable prosperity. Brussels, 29 January 2025. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_339](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_339)

*production, we need a more effective implementation of existing laws and, where needed, more protective regulation, not a weakening of the rules”.*<sup>80</sup> And on 08 September, Pesticide Action Network Europe issued a strong statement, asserting on good evidence that the European Commission is planning “*an unprecedented wave of drastic cuts to regulations that protect labour and social rights, human rights, digital rights, and the environment*”.<sup>81</sup>

Another example of this widespread concern was expressed at a major conference in Brussels on 10 June 2025, entitled “*Rules to Protect – the Real-Life Consequences of Deregulation*”, organised by the European Environmental Bureau (EEB) together with a coalition of seven leading civil society NGOs, including Climate Action Network (CAN) Europe, Corporate Europe Observatory (CEO), Friends of the Earth Europe (FoEE), European Coalition for Corporate Justice (ECCJ), European Federation of Public Services (EPSU), and the European Trade Union Confederation (ETUC).

The event, which brought together policymakers, representatives of civil society and affected communities, drew attention to the serious risks posed by the EU’s current deregulation agenda, and warned against the erosion of key protections for people and the environment masked as bureaucratic ‘simplification’. A report on the event stated cogently that the Commission’s so-called Omnibus packages, framed as efforts to “simplify” EU legislation, risked “*systematically dismantling key environmental protections with no basis in scientific evidence nor impact assessments*”.<sup>82</sup>

Another example: Scientists for Future addressed an appeal, signed by more than 2,000 scientists, urging the European Commission and EU Member States to significantly **increase dedicated biodiversity funding** in the next Multiannual Financial Framework (MFF).<sup>83</sup>

**It is our submission**, based on these and other examples of the valid concerns about potential environmentally damaging effects of the proposed “simplification” of EU legislation, that the Commission should not allow the proposed EU Roadmap towards Nature Credits to become a vehicle or mechanism which would degrade, weaken, or result in weakening, of EU environmental legislation or the application in EU Member States of relevant international conventions and obligations intended to protect the environment and ecosystems.

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<sup>80</sup> <https://www.pan-europe.info/blog/state-union-weakening-pesticide-rules-despite-damage-health-and-environmental-collapse>

<sup>81</sup> <https://www.pan-europe.info/sites/pan-europe.info/files/public/resources/Letters/Deregulations%20Statement%20September%2025%20ENG.pdf>

<sup>82</sup> <https://eeb.org/rules-to-protect-civil-society-policymakers-and-affected-communities-united-against-the-threat-of-deregulation-in-the-eu/>

<sup>83</sup> <https://fundnature.scientists4future.at/>

### 3.10.2 The Potential Adverse Impact of Increased Military Expenditure in the EU

During the last three years, huge changes have taken place in the attitude of the European Union, the European Parliament and most European citizens to what is best described as military expenditure, i.e., increased national and EU funding for “defence”.

In April 2025, when the Board of Zero Waste Alliance Ireland was preparing its strategy for 2025-2026, we wrote that –

*“Russia’s brutal war on Ukraine has been continuing for more than three years, as well as the horrors inflicted by Israel in Palestine. As an environmental NGO we need to be aware of the effects of these destructive wars, and to develop both resilience and a policy of advocating against the waste of human lives,<sup>84</sup> the deliberate destruction of ecosystems (ecocide),<sup>85</sup> damage to protected nature conservation sites,<sup>86</sup> widespread soil contamination and damage, and the production of extremely large quantities of waste resulting from the complete or partial destruction of buildings and military hardware”.<sup>87</sup>*

But we did not mention in our strategy one further and possibly equally damaging effect on environmental protection of Russia’s war on Ukraine, coupled with Russia’s threatening behaviour towards other European countries and towards the EU as a whole. We know that Finland and Sweden, which for decades were proudly neutral, have become active members of the North Atlantic Treaty Organization (NATO) – a change of policy which we in Ireland could not have imagined three years ago – but we did not comment on internal policy changes in the EU which could already be causing detrimental effects on the Union’s priorities in the areas of environmental protection and restoration.

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<sup>84</sup> Under threat: the International AIDS Society–*Lancet* Commission on Health and Human Rights; *The Lancet*, April 2024; [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)00302-7/abstract](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)00302-7/abstract)

<sup>85</sup> ‘Ecocide’ is being used as a weapon of war in Ukraine. It should be one of the crimes tried in the International Criminal Court. <https://theconversation.com/ecocide-is-being-used-as-a-weapon-of-war-in-ukraine-it-should-be-one-of-the-crimes-tried-in-the-international-criminal-court-240267>.

<sup>86</sup> Walter Leal Filho, Mariia Fedoruk, João Henrique Paulino Pires Eustachio, Anastasiia Splodytel, Anatoliy Smaliychuk, and Małgorzata Iwona Szykowska-Jóźwik, 2024. The environment as the first victim: The impacts of the war on the preservation areas in Ukraine; *Journal of Environmental Management*, 364 (2024) 121399; 14 June 2024. <https://doi.org/10.1016/j.jenvman.2024.121399>

<sup>87</sup> UNDP supports innovative solution to ‘war waste’ in Ukraine. <https://news.un.org/en/story/2024/06/1150906> and see also the story on our ZWAI website about how waste is being recycled by the people of one village in Ukraine -- <https://www.zwai.ie/2024/05/positive-zero-waste-news-from-ukraine-cc-yard-in-ruska-lozova-kharkiv/>



In March 2022, a few weeks after the start of Russia's full-scale invasion of Ukraine, EU leaders adopted the Versailles Declaration<sup>88</sup> and agreed to invest more financial resources on defence, while aiding the European defence industry and reducing Europe's strategic dependencies. A Policy Paper published by the Fondation Robert Schuman on 10 October 2023<sup>89</sup> stated that the Versailles Declaration "*reflects an unprecedented political commitment by the Heads of State and government of the European Union to strengthening European sovereignty in military, energy and economic matters*". Of course there is no mention of strengthening Europe's ability to protect the environment, giving a clear indication of where the EU's priorities are heading.

At successive European Council meetings between 2024 and 2025, EU leaders reaffirmed their commitment to reinforcing the EU's overall defence readiness and to implementing the objectives set in the Versailles Declaration. Building on that declaration and on the political priorities set by the European Council, the European Commission launched on 19 March 2025, a lengthy White Paper on European Defence,<sup>90</sup> together with the *ReArm Europe Plan*, also entitled *Readiness 2030*.<sup>91</sup>

Not surprisingly, the White Paper makes no mention of the environment or ecosystems in the environmental sense, but only in phrases such as "*a security environment*", "*the new geopolitical environment*", "*changes in the strategic environment*", and so on. The use of the word "ecology" in the White Paper follows a similar pattern, which is repugnant to any ecologist, in phrases such as "*an ecosystem of technological innovation for our defence industries*", "*technology ecosystems to advance national security objectives*", "*industrial ecosystems which benefit Europe's regions and communities*", etc. It is clear to us, and it should be clear to the Commission, that the writers of the White Paper have neither an interest in, nor a concern for, the natural environment.

The *ReArm Europe Plan* paves the way for a massive defence investment surge in Europe, making up to €800 billion of additional defence spending possible in the coming years. The purpose of this plan is to ensure that the European defence industry can produce military equipment at the requested speed and volume and facilitate the rapid deployment of troops and equipment across and beyond the EU.

On 27 May 2025, the Council of the EU adopted the first pillar of the *ReArm Europe plan/Readiness 2030* – a regulation setting up the *Security Action for*

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<sup>88</sup> The Versailles Declaration, adopted at a meeting of the Heads of State or Government, Versailles, 11 March 2022 (10 pp).

<sup>89</sup> What kind of "European sovereignty" after the Versailles Declaration? Fondation Robert Schuman, Paper No 721, 10-Oct-2023

<sup>90</sup> White paper for European Defence – Readiness 2030. European Commission, March 2025.

<sup>91</sup> ReArm Europe plan – Readiness 2030  
<https://www.consilium.europa.eu/en/policies/european-defence-expenditure/#plan>



Europe (SAFE) instrument<sup>92</sup> which will provide financial assistance in the form of loans of up to €150 billion, backed by the EU budget, to support Member States in making rapid and significant increases in their defence investments through common procurement.

Our concern is that this planned very large increase in military expenditure, when taken into account together with the Commission's proposals to "simplify" and weaken environmental regulations, will result in significantly reduced funding for environmental protection and for the restoration of ecosystems which have already been damaged, at a time when Europe's protected areas are under increasing threat from pollution and damage, as outlined in our introductory section 1.1 above.

On 09 July this year, the European Environment Bureau organised an open letter, signed by a large number of scientists, expressing their combined alarm that the proposed EU Multiannual Financial Framework (MFF) 2028-2035 (which was to be launched on 16 July 2025), will apparently threaten the integrity and existence of dedicated funding for environmental NGOs, particularly the LIFE programme, EU's flagship environmental funding mechanism.<sup>93</sup>

The letter warned that merging environmental priorities into a new Competitiveness Fund risks weakening the EU's climate commitments and marginalising civil society voices. The academics also condemn certain recent political attacks on NGOs, characterising these attacks as authoritarian and undemocratic, and they call on the Commission to preserve the independence of LIFE,<sup>94</sup> protect NGO funding, and uphold transparent, democratic governance in EU policymaking.

**It is our submission** that these concerns are real, and based on what the Commission has already stated, we therefore urge that there should be no reduction in funding for the EU LIFE programme nor for any other EU financial supports for environmental protection, and no reduction in the funding of environmental NGOs.

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<sup>92</sup> Proposal for a Council Regulation establishing the Security Action for Europe (SAFE) through the reinforcement of European defence industry Instrument. COM(2025) 122 final. Brussels, 19.3.2025.

<sup>93</sup> Open letter from the European Environment Bureau to Ursula von der Leyen, President of the European Commission; Piotr Serafin, Commissioner for Budget, Anti-Fraud and Public Administration; Teresa Ribera, Executive Vice-President for a Clean, Just and Competitive Transition; and to Stéphane Séjourné, Executive Vice-President for Prosperity and Industrial Strategy. Available at: <https://eeb.org/library/open-letter-from-academics-on-ngo-funding-and-the-life-programme/>

<sup>94</sup> A detailed account of the many positive impacts and achievements of the EU LIFE programme is given in "*Bringing nature back through LIFE – The EU LIFE programme's impact on nature and society*". European Commission Environment Directorate-General, 17 December 2020. A study prepared for EASME (Executive Agency for Small and Medium-sized Enterprises, Brussels) by the NEEMO LIFE Team under Framework Contract EASME/LIFE/2018/001. Published by the European Commission, Environment Directorate-General.

Our concern was also well expressed in the Irish Times a few weeks later, on 03 August 2025, which wrote that –

*“Two developments, one national and one at EU level, have caused legitimate alarm and anger among environmental NGOs. They regard them both as “gutting” commitments to green measures at the very moment when we should be supporting the development of coherent nature recovery plans under the flagship Nature Restoration Law.*

*It is understandable that such measures slip down the priority list, given the multiple challenges our societies are facing. But this is not acceptable. The existential threats of climate change and biodiversity collapses remain.*

*So it is disturbing that the European Commission’s proposal for its next budget indicates that the EU Life Programme – the dedicated fund for environment, nature and climate action – is likely to be repealed. Life’s proven return on investment can be seen in many Irish rural communities, exemplified by the Burren Programme.*

*“It would gut one of the EU’s most effective tools just when we need it most,” according to the European Environmental Bureau, which represents 190 member organisations and 30 million individual supporters. It should be listened to”.*

**It is our further submission** that the Commission, when re-drafting and preparing the final version of the Roadmap towards Nature Credits, and the proposed Nature Credits system of framework, should take careful account of these concerns, and ensure that neither the EU LIFE programme nor any of the other EU financial supports for environmental protection are weakened or reduced.

## **4. CONCLUDING SUMMARY OF OUR OBSERVATIONS**

1. We began this submission by pointing out that our lives as human beings were fundamentally interconnected with, and dependant on, the functioning of the planet and its ecosystems; that the Earth, that Planet on which all of us are living, must be the primary concern of every human institution, profession, program and activity; and the first law of economics must be the preservation of the Earth economy.
2. Relations between human cultures and the biosphere – how we interact with the Earth’s myriad of living organisms, on which we are completely dependent – is a key determinant of our sustainability.
3. Our own collective well-being, and maintaining the sustainability of our planet, depends on continuing a symbiotic relationship between humans, animals, and the environment that we share.
4. But we have, as a species, been responsible for accelerating climate chaos, environmental degradation, declining biodiversity, and other interconnected crises; and these are the consequences of deep-rooted structural inequities in the way the global economy currently operates, and to emerge from these crises will require a new political philosophy, placing collective human welfare over individual rights, abandoning unimpeded consumption and reinterpreting the current definition of prosperity.
5. Making nature restoration and conservation of natural ecosystems should be our highest priority, given the fact that, in the EU, 81% of protected habitats, 39% of protected birds and 63% of other protected species are in a poor or bad state; and only a very small fraction of these has shown any improvement over recent years.
6. Ecosystem restoration can improve health, well-being and quality of life for people by increasing the availability of green spaces, mitigating pollution, and reducing the risk of diseases spilling over from animals to humans.
7. The monetary benefits of nature restoration were estimated by the EEA to reach around €1,860 billion (with costs estimated at around €154 billion), leading to the obvious conclusion that investment in nature restoration is not a net cost, but has a monetary benefit, estimated by the European Commission to provide a return of between €8 and €38 for every €1 spent, along with many other non-monetary benefits.
8. The EU Nature Restoration Law (Regulation of the European Parliament and the Council on Nature Restoration COM(2022) 304; and Regulation (EU) 2024/1991), described as a pioneering proposal to restore damaged ecosystems and bring nature back across Europe, sets legally binding targets to restore 20% of the EU’s land and sea areas by 2030 and all degraded ecosystems by 2050.

9. The Nature Restoration Law or Regulation includes compliance with many EU nature-related and environmental Directives, and also compliance with the requirements of international agreements and conventions which the EU has signed.
10. The Nature Restoration Law provides a high degree of coherence and consistency with the aims and requirements of other relevant European and international agreements and conventions for the protection of nature and mitigation of climate change.
11. One of the most important key characteristics of the proposed Nature Credits Roadmap is that it must be consistent with, and act in coherence with, the objectives of European and international agreements and conventions.
12. Our analysis finds that the proposed Roadmap risks functioning in a silo, insufficiently linked to the European Union's existing biodiversity and nature conservation policy system and framework.
13. This "silo approach" has serious implications for the effectiveness, coherence, and credibility of the proposed Nature Credits mechanism, and will have the effect of diverting attention from legally binding obligations and would lead to a reframing of biodiversity as a commodity for trade.
14. The proposed Roadmap appears to be designed to operate in isolation from the EU's established nature protection and biodiversity policy system; and, in the absence of explicit integration with the EU Biodiversity Strategy, the Nature Restoration Law and the Birds and Habitats Directives, the proposed Nature Credits scheme is likely to fragment conservation efforts and turn ecosystems into tradeable commodities.
15. There is no clear statement of how the proposed Nature Credits would respect the non-substitutable protection regime of the Birds and Habitats Directives which form the legal foundation of the Natura 2000 network; the lack of integration with the EU Biodiversity Strategy for 2030 and the Nature Restoration Law, seriously risks weakening the proposed Nature Credits mechanism.
16. Our analysis of the proposed Nature Credits Roadmap leads us to the conclusion that a system of "*certification and credits*" is unlikely to deliver the expected benefits to nature.
17. The Roadmap suffers from vague definitions of "Nature Credits" and a lack of robust operational and legal safeguards; there is no clear methodology for measurement, verification or enforceable compliance; it relies largely on corporate goodwill to deliver outcomes, despite historical evidence that voluntary approaches often fail to produce genuine ecological gains.

18. The Roadmap frames Nature Credits as tradeable units derived from certified biodiversity actions; and, while certification and measurement are important for integrity, the act of converting complex ecosystems into tradable credits creates a significant risk of commodification.
19. Commodification and neoliberal economics are inherently destructive of natural systems, and especially damaging to biodiversity.
20. Linking nature to so-called “market instruments” risks reducing unique ecosystems to interchangeable commodities, undermining their intrinsic value, which is far higher than their exchange value.
21. The Roadmap provides no methodology to determine how such credits are to be calculated, verified, or recognized across different jurisdictions and widely different ecosystems.
22. Biodiversity is a complex and multifaceted spectrum, exhibiting a high degree of differing heterogeneity due to unique environmental factors, while the proposed Nature Credits scheme depends on a high degree of homogeneity across frontiers, and fails to take account of these ecological differences.
23. By attempting to impose short-term financial thinking on long-term ecological processes, the proposed Nature Credits Roadmap risks creating intergenerational greenwashing, where credits may be sold for benefits that are uncertain, temporary or unmonitored.
24. It is our observation that the draft proposed Roadmap contains no credible plan for the multi-generational monitoring and legal enforcement required to secure the expected or planned outcomes against future changes in landownership or political shifts.
25. Nature Credits, if treated as tradable units, could be misused to justify ongoing degradation or circumvent legally binding obligations, undermining the EU’s commitment to avoid, minimise and restore ecological harm.
26. Lessons from three decades of global carbon and biodiversity offset markets demonstrate systemic risks that are highly relevant to the proposed Roadmap; global experience of the Clean Development Mechanism and voluntary carbon markets reveal widespread issues with non-additionality, inflated baselines, monitoring failures, fraud, and harm to indigenous local communities and peoples, highlighting social as well as ecological consequences of poorly designed credit systems.
27. Without precise definitions, legally enforceable standards, integration with other EU environmental policies, and mechanisms to prevent fraud and ecological harm, the proposed Nature Credits Roadmap risks facilitating superficial interventions which meet nominal credit requirements while

- failing to achieve substantive biodiversity protection, thereby replicating the failures of past market-based environmental schemes.
28. One of the most challenging problems is that the Roadmap fails to establish a precise and operationally robust legal framework, rendering it an ineffective policy instrument which may actively facilitate green-washing.
  29. The Roadmap makes only vague references to “independently verified actions”, and completely sidesteps the necessity for an appropriate legal system to ensure transparent verification.
  30. The Roadmap does not provide for the development of a standard of verification which must be adhered to, making the awarding of “credits” a subjective exercise that is susceptible to cherry-picking data to show an apparently positive outcome.
  31. As a system designed to reward positive environmental actions, the proposed Nature Credits scheme must be supported by robust mechanisms to penalise failures; but there is nothing in the Roadmap to indicate that developers and verifiers whose credits fail to deliver the promised permanent, additional biodiversity gains would be subjected to legally enforceable liability.
  32. Another fatal flaw of the draft Roadmap is its over-reliance on the good faith and voluntary initiative of corporate actors to self-regulate and act against their own short-term interests in order to fulfil their obligations, i.e., an assumption that companies will faithfully design projects for maximal, additional, and permanent biodiversity gain without any binding regulatory criteria or financial incentive to do so – an assumption which ignores the lessons of past market failures, and will lead to unforeseeable problems in the near future.
  33. The draft Roadmap promotes international alignment and suggests that valuable experience can be gained from pilot projects where “*EU-based companies can contribute to biodiversity conservation abroad*”, but it provides no enforceable EU mechanism to ensure that credits generated outside of its jurisdiction meet the same rigorous standards that it aims to develop within the EU.
  34. Our submission provides several examples of known carbon credit frauds and failures of the existing Clean Development Mechanism (CDM), to show how these credit systems (especially CDM) have led to environmental and social harm instead of the expected beneficial results.
  35. Existing credit systems depend on hypothetical scenarios about what would have happened if the project had not been undertaken, and in many cases the carbon offset has been overstated, exaggerated claims made; and, in one particular type of carbon offset involving forest conservation,



- the operation of the “carbon market” was accompanied by forged land titles, illegal deforestation, profiting by known environmental offenders, displacement of indigenous peoples, restricted traditional land use, and other human rights violations.
36. Carbon markets view forests as carbon stocks, but for Indigenous peoples, these forests are also their homes, livelihoods, and cultural landscapes; and therefore without strong social safeguards and fair benefit-sharing, carbon projects risk perpetuating injustices they aim to resolve.
  37. Forest and land-based carbon credit systems are particularly vulnerable to fraud and manipulation, as stored carbon can be released through fire, logging, or land-use changes.
  38. Our submission also identified and described current and future potential challenges to the European Union’s nature protection policies and legislation, noting especially the current trending policies towards what has been termed “simplification” but which could be a euphemism for “deregulation” or weakening or dismantling of environmental protection rules and legislation, announced as the “Competitiveness Compass”, to reduce the administrative burden on companies – a move which has elicited serious concern from all environmental NGOs and more than 200,000 EU citizens.
  39. Our submission urges the Commission to ensure that the proposed EU Roadmap towards Nature Credits would not become a vehicle or mechanism which would degrade, weaken, or result in weakening, of EU environmental legislation or the application in EU Member States of relevant international conventions and obligations intended to protect the environment and ecosystems.
  40. Our submission also addressed the growing concern that increased military expenditure in the EU, a planned massive defence investment surge in Europe, greater financial supports for the “defence industry”, mandated by the ReArm Europe plan/Readiness 2030 regulation setting up the Security Action for Europe (SAFE) instrument, will result in significantly reduced funding for environmental protection and for the restoration of ecosystems which have already been damaged, at a time when Europe’s protected areas are under increasing threat from pollution and damage, and we drew attention to the risk to dedicated funding for environmental NGOs and environmental protection and restoration, particularly the LIFE programme.
  41. Our submission notes that these concerns are real, and we strongly urge the Commission, when re-drafting and preparing the final version of the Roadmap towards Nature Credits and the proposed Nature Credits system or framework, should take careful account of these concerns, and ensure that neither the EU LIFE programme nor any of the other EU

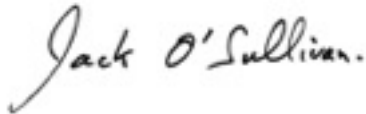
financial supports for environmental protection, and for environmental NGOs, are weakened or reduced.

42. Our submission also advocates a very significant number of policy recommendations to address the deficiencies which we have identified in the Nature Credits Roadmap; these recommendations are in sections 3.7 and 3.8 above, and they include:
- i) methodology should include a requirement that projects connect explicitly with the EU Biodiversity Strategy 2030 targets and the legally binding restoration objectives of Regulation (EU) 2024/1991;
  - ii) a legal clause should be introduced, clarifying that credits are “contribution-only” instruments and cannot be counted towards compliance with Birds and Habitats Directives (92/43/EEC and 2009/147/EC) or Natura 2000 site management obligations;
  - iii) Embed the mitigation hierarchy (avoid, minimise, restore or compensate) as a mandatory condition for any crediting scheme;
  - iv) Credits may only apply to actions beyond legal compliance and after avoidance and minimisation measures have been demonstrably applied;
  - v) Mandate additionality tests and require alignment with measurable indicators tied to EU reporting frameworks;
  - vi) Require robust, evidence-based baselines that are independently verified;
  - vii) Prohibit crediting for activities that are already profitable or mandated by law;
  - viii) Prohibit projects that promote monocultures or ecologically harmful land-use changes;
  - ix) Mandate continuous monitoring for land-based and forest-based projects, not just one-off assessments;
  - x) Nature credits should explicitly prioritise complementary actions that support EU-wide ecological resilience without overlapping with legally mandated conservation measures;
  - xi) Build a governance framework which requires transparent publication of project data, methodologies, and verification results; mandates an EU-level registry for all issued credits, accessible to the public; unique serialisation to prevent double issuance; independent third-party verification of all credit-generating projects, subject to randomised periodic audits; disclosure requirements for

buyers; and strong penalties for misreporting or deliberate inflation of results; and,

- xii) Enforce free, prior and informed consent (FPIC) as a non-negotiable requirement; ensure equitable benefit-sharing with local communities, not just landowners or developers, and embed human rights safeguards into certification standards.

It is our hope and expectation that this lengthy and detailed submission may have a nature-positive impact on the Commission's further consideration of the proposed Roadmap towards Nature Credits.



Jack O'Sullivan

**Zero Waste Alliance Ireland**

20 September 2025

This submission was researched and written by Nazia Naheed Husain (ZWAI member), Sara Guigui (ZWAI member and Board member), Sarisha Harikrishna (ZWAI member), Jack Coffey (ZWAI member and Chairman) and Jack O'Sullivan (ZWAI founder and Vice-chair); with final editing by Jack O'Sullivan. Thanks are due to Dalia Smelstoriūtė-O'Sullivan for assisting with preparation of the contents pages.

# ZERO WASTE ALLIANCE IRELAND



*Towards Sustainable Resource Management*

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**Submission by Zero Waste Alliance Ireland to the European  
Commission on the Proposed Roadmap Towards Nature  
Credits**

## Appendix I

### **NAMES AND LOGOS OF IRISH ENVIRONMENTAL NGOS WHICH HAVE INDICATED THEIR SUPPORT FOR THE SUBMISSION**

Logo	Organisation Name	Country
	Crann Trees for Ireland	Ireland
	Irish Peatland Conservation council	Ireland