

working notes

*facts and analysis of social
and economic issues*

***Laudato Si'*: Ten Years On**

Pope Francis and his Papacy: A
Turning Point in Christian History?

Buildings and Climate Change:
How Building Decarbonisation Can
Help Mitigate Climate Change

Justice for Peatlands

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Ón Talamh Aníos / From the Ground Up

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Editorial

Kevin Hargaden

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Ten years ago, Pope Francis gave the Church and the world a great gift. *Laudato Si'* was not just an encyclical. It was a turning point: a summons to conversion, a prophetic warning, and a charter for a new way of inhabiting our common home. The former Minister for the Environment and leader of the Green Party, Eamon Ryan, summarised it well when he declared that it “was of historic significance.”¹

When it was published in 2015, it drew praise from climate scientists and Indigenous leaders, theologians and farmers.² And it still does.³ But perhaps its most enduring contribution is its insistence that the ecological crisis is not just a technical or political issue, but a spiritual one. It is not just about carbon. It is about communion.

This issue of *Working Notes* was originally conceived to mark the tenth anniversary of *Laudato Si'*. We had planned a celebration. Then Pope Francis died. Suddenly, the issue has become something more like a vigil. And yet, even in mourning, we find ourselves drawn again to the encyclical that first gave shape to what Francis called “integral ecology.” We return to it not out of nostalgia, but because we know the work is not finished.

Laudato Si' is now one part of a theological arc that includes *Fratelli Tutti* and *Laudate Deum*. This is a body of work that has placed care for the earth and concern for the poor at the heart of the Church’s moral vision. But what made *Laudato Si'* unique and what gives it continuing power is how it frames these concerns. The ecological crisis, Francis insists, is not separate from the crisis of inequality. “We are not faced with two separate crises, one environmental and the other social,” he writes, “but rather with one complex crisis which is both social and environmental.”⁴ Everything is connected.⁵

These are deceptively simple phrases. And yet they unsettle so many of the assumptions on which modern life is built: the separation of

1 Eamon Ryan, ‘Eamon Ryan: Here’s a Job for the next Pope. Deliver Us from Climate Apathy’, *The Irish Times*, 6 May 2025, <https://www.irishtimes.com/opinion/2025/05/06/eamon-ryan-heres-a-job-for-the-next-pope-deliver-us-from-climate-apathy/>.

2 Quirin Schiermeier, ‘Why the Pope’s Letter on Climate Change Matters’, *Nature*, 18 June 2015, <https://doi.org/10.1038/nature.2015.17800>.

3 Patricia Gualinga, ‘Laudato Si’ Validates Centuries of Indigenous Knowledge to Defend Nature’, *National Catholic Reporter*, 5 June 2020, <https://www.ncronline.org/earthbeat/politics/laudato-si-validates-centuries-indigenous-knowledge-defend-nature>.

4 Pope Francis, *Laudato Si'* (Vatican City: Vatican, 2015), §139.

5 Pope Francis, *Fratelli Tutti* (Assisi: Vatican, 2020), §34.

people from place, of economics from ethics, of human beings from the rest of creation. Francis invited us into a deeper logic. It is one drawn from the Franciscan tradition, shaped by Thomistic thought, and refined through the discipline of encounter.⁶ In doing so, he returned the Church to the margins – not as retreat, but as mission.

This issue gathers reflections that continue that mission. We begin with Peadar Kirby's rich overview of Pope Francis' legacy. Kirby sees Francis not just as an institutional reformer, but as a prophet who brought the Church back into the centre of public life. From his early visit to Lampedusa to his final exhortation *Laudate Deum*, Francis called us to see climate collapse not only as a technical problem, but as a spiritual and moral emergency. And he lived that call through his style of leadership, his solidarity with the poor, and his choice of words and silences.

In the essays that follow, we see how that call has been heard – and answered – across disciplines, vocations, and terrains.

Davide Dell'Oro, SJ writes as both engineer and theologian, showing how decarbonising our buildings is not merely a technical challenge but a moral imperative. He asks: can the spaces we inhabit become places of sustainability, justice, and care?

We then turn to the bogs of Ireland. "Justice for Peatlands" is a field-note meditation from Mariana Silva, a young ecological engineer whose intellectual formation has been shaped by *Laudato Si'*. She invites us to see boglands not as wastelands, but as thresholds – between life and death, past and future, science and reverence. Her essay is a model of what integral ecology looks like when lived with boots in the mud and heart in the liturgy.

Judith Russenberger draws the metaphor further. A retired mother and Third Order Franciscan, she writes from the front lines of protest in the UK. For her, protest is not merely political. It is ecological. Just as biodiversity sustains an ecosystem, so articulating your perspective on the critical matters of

significance in society – in traditional and more engaged manners – sustains a healthy democracy. Her witness reminds us that peace is not the absence of disruption, but the presence of justice.

Dr Ruby Alemu adds a vital theological critique. In her essay, "Reflections from An Animal Theologian," she explores what *Laudato Si'* omits: the ethical and theological status of nonhuman animals. Why, she asks, are the moral implications of animal agriculture absent from Catholic Social Teaching, even in a document as radical as *Laudato Si'*? Her call is not for purity, but for clarity. Through her eyes we see a Church that recognises the cries not only of the poor, but of all creatures.

And then, from a different angle, Frank Brady, SJ leads us home. In an interview filled with warmth, memory, and wisdom, he speaks of the Irish language not as heritage but as ecosystem. He shows how language, like land, needs tending. That tending happens in classrooms, kitchens, and pubs. It happens in song and sacrament. In Frank's witness, the revival of Irish becomes a case study in what Pope Francis calls "cultural ecology."⁷ To lose a language is to lose a way of seeing the world. To preserve it is an act of resistance, and of hope.

Together, these essays remind us that *Laudato Si'* stands at its tenth birthday as an invitation and a provocation to reflection and to action.

Ten years on, the cry of the earth and the cry of the poor are louder. Our politics are more divided. Our climate more volatile. Yet our call remains the same. The work of integral ecology is not just about systems. It is about spirit. It is about justice. And it is about joy.

Pope Francis is gone. Through writings like *Laudato Si'*, his wisdom endures. And he would want us to remember that much more important than any document are the communities, vocations, and imaginations it inspired. May they be guided wisely and powerfully by his successor, Leo XIV.

And may this issue honour his legacy. We hope it points, quietly and resolutely, toward the world he helped bring into view.

6 Vincent J. Miller, ed., *The Theological and Ecological Vision of Laudato Si': Everything Is Connected* (London: Bloomsbury T&T Clark, 2017).

7 Pope Francis, *Laudato Si'*, §143–46.

Pope Francis and his Papacy: A Turning Point in Christian History?

Peadar Kirby

Peadar Kirby is Professor Emeritus of International Politics and Public Policy, University of Limerick and Research Coordinator, Cloughjordan Ecovillage. His novel on the last of the Avignon popes, 'Misean go Peñíscola' won second prize in Comórtas Liteartha an Oireachtais 2024.

The avalanche of tributes that followed the death of Pope Francis went far beyond the usual appreciation of the achievements of a public leader. What was striking was the warmth, the sense of personal loss, and the recognition of his authentic love for those on the margins of society. But the wider significance of his remarkable papacy requires a broader and more historical assessment.

For some, the sudden resignation of Pope Benedict in early 2013 felt like the end of the project of restoration that had marked his papacy and that of Pope John Paul II, putting the brakes on the wider potential of Vatican II. The hope was that the new pope would return to the Council's unfinished business, engaging in a fresh way with the great concerns convulsing humanity. Nobody could have foreseen the new and distinct exercise of the papal office that was to emerge, genuinely revolutionary in its style and substance.

Constrained by the very limited categories of conservative and liberal that have structured much of the evaluation of his legacy, the deeper significance of the Francis pontificate runs the risk of being overlooked. I identify four dimensions that, to me, are of major historical importance.

The first is that he brought the Church back into the centre of public debates, in a way that no pope had done for centuries.

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While all popes have condemned war, there is a visceral passion to the way Pope Francis spoke about it.

Not only did he talk about the major issues of the day, but the passion with which he addressed them and the practical actions through which he expressed his convictions were fresh and at times even shocking. After all, his first visit outside Rome was to the island of Lampedusa, to the frontline of the migration realities convulsing Europe, and one of his final documents was a message to the bishops of the United States emphasising the unique dignity and equality of every person in the context of the migration policies of the Trump administration. While all popes have condemned war, there is a visceral passion to the way Pope Francis spoke about it. ‘Too Long Do I Live Among Those Who Hate Peace’ is the title of the second chapter of his autobiography *Hope* published just months before he died. He not only understood the real threats of climate change and biodiversity loss but made them the subject of his ground-breaking encyclical *Laudato Si'*, perhaps the most widely read and referenced papal encyclical ever. Similarly with the damage to society caused by ever deepening social inequality, and his regular



Pope Francis, 2018 (Photo Credit: Ashwin Vaswani on Unsplash)

and forceful condemnation of what in his final encyclical, *Dilexit Nos*, he called ‘this perverse mechanism’ referring to the power of constant consumption and its influence on people’s sense of their worth, he was a pope whose words went deep. This was pope as prophet, a very very rare combination. Pope Leo, in his early pronouncements promises a continuation of this engagement with a world in crisis, most strikingly in his promise to lead a Church “that illuminates the dark nights of this world.”¹

The second dimension flows from the first in that his primary concern was not with the institution of which he was leader but, rather, with the central importance of faith to individual and social wellbeing. In this way he reached out not just to other Christian churches but well beyond that to believers of all faiths and people of good will. Among the most touching tributes to him that I read was one from a Hindu leader in Malaysia, Dr Vinod Sekhar, who wrote about Francis:

He was a man who made kindness radical again, who reminded the powerful that humility was not weakness, who spoke of love not as doctrine but as duty. He was not just a religious man. He was something far more rare – he was universally spiritual.

He therefore exercised leadership in a very new way, all the more striking because of how it contrasted with so many of the global leaders of this era, based as it often is on divisiveness, narrow self-interest and, all too often, serving the needs of a fabulously wealthy economic elite. By contrast, Francis brought faith back as a key human and social reality – faith in humanity, faith in our future and, grounding all these, faith in a loving God – something believers of all faiths and none could resonate with. And this isn’t just a reality for refined souls – the 250,000 young people who mourned Francis in St Peter’s Square the day he was buried are witnesses to that. Already, Pope Leo has been explicit in stating that ‘there are many settings in which the

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Christian faith is considered absurd, meant for the weak and unintelligent’ while many baptised Christians end up living ‘in a state of practical atheism’. This makes clear that we can expect a forceful proclamation of the centrality of faith to human wellbeing to be central to his ministry.

None of this is to suggest that he neglected his role as church leader. The third dimension I identify is his exercise of the papal office, the Petrine ministry as it is often called. From the first moment of his election, he showed that he was overturning at least a millennium of the monarchical exercise of that office to model a totally fresh and personal way of being pope, telephoning people himself, reaching out to people in irregular marital situations or keeping in regular telephone contact with the parish priest of Gaza. Excoriating Curial officials and bishops for ostentatious living, lethargy and pharisaic legalism, he combated clericalism with vigour, urging clergy at all levels of the Church to live simply a life of service to others. His democratising of the exercise of synodality as it had emerged from Vatican II may in time prove to be his greatest legacy to the way the Catholic Church operates, not just the Church’s global synods but the possibility for local expressions such as the very striking Synod of the Amazon in 2019, linking a local region with the Church’s centre in the Vatican. This was modelling a Petrine ministry for a post-Reformation church. Pope Leo’s promise to continue with the synodal process initiated by Francis points to a further deepening of this exercise of the Petrine ministry.

Inevitably, this had major implications for the magisterium, the official teaching role of the Church, and this is the fourth dimension I identify. For centuries one of the most vital roles of the pope was his authoritative teaching of Catholic doctrine. From the

1 Angela Giuffrida and Harriet Sherwood, ‘Pope Leo Holds First Mass as Pontiff in Sistine Chapel’, *Guardian*, 05 2025, <https://www.theguardian.com/world/2025/may/09/pope-leo-holds-first-mass-as-pontiff-in-sistine-chapel#:~:text=Pope%20Leo%20XIV%20said%20he,frescoes%20in%20the%20Sistine%20Chapel>.

moment that Pope Francis began to give extempore sermons at the morning Mass in the Casa Santa Martha where he lived, it was clear that he viewed his teaching role in a radically innovative way. One way of expressing the difference is that he saw it as not being primarily expressed in carefully phrased statements but through his praxis of Christian leadership. Of course, this involved lots of speeches, statements and writings, but these must all be seen in the context of his actions, his witness, his constant reaching out beyond the traditional boundaries of the papacy as previously exercised. Even the very countries he visited showed that he wanted to go to places and meet people that had not figured on the agenda of his predecessors, while pointedly he never visited either Spain or Germany, despite many attempts by Spanish leaders to attract him there. It's quite possible that he wouldn't have visited Ireland either but for the World Meeting of Families that took place here in 2018. Pointedly, again and again he overlooked Ireland when appointing 108 cardinals during his papacy, with the result that no Irish cardinal participated in the recent conclave for the first time in over a century.

For me, these actions express a new understanding of the magisterium emphasising orthopraxis over orthodoxy. Perhaps it finds its richest expression in his three major encyclicals *Laudato Si'* (2015), *Fratelli Tutti* (2020) and *Dilexit Nos* (2024). His first and shortest encyclical *Lumen Fidei* (2013) completed one that Pope Benedict had

been working on when he retired from the papacy. To these must be added his Apostolic Exhortation *Evangelii Gaudium* (2013). These express in vibrant and at times very personal form his deep faith, his vision for the Church and, in *Laudato Si'* and *Fratelli Tutti*, groundbreaking and deeply inspiring mappings of a new paradigm of how we relate to the environment ('our common home') and to one other ('the exercise of political love'). In the final paragraphs of *Dilexit Nos* which takes as its subject devotion to the Sacred Heart, he relates it to his two social encyclicals, writing that it is "by drinking of that same love [of Jesus Christ] that we become capable of forging bonds of fraternity, of recognising the dignity of each human being, and of working together to care for our common home."²

When it comes to his successor, the choice of his Papal name signals immediately that Pope Leo is rooting his papacy in Catholic social teaching and he has hinted that Artificial Intelligence is an issue that he will address. Those of us who lived in Peru in the mid-1980s, as did Pope Leo, were all too conscious of the determined efforts of Cardinal Ratzinger and Pope John Paul II to undermine liberation theology, often showing poor understanding of its deep roots among the poor. With the election of a second American pope, on this occasion one who is deeply identified with Peru, we have a global pastor who carries this experience with him. As Pope Francis said on many occasions, our God is indeed a God of surprises.

2 Pope Francis, *Dilexit Nos* (Vatican City: Vatican, 2024), §217.

Buildings and Climate Change: How Building Decarbonisation Can Help Mitigate Climate Change

Davide Dell'Oro, SJ.

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In Italy alone, extreme weather events were six times more frequent in 2024 compared to 2015, the space of only ten years.

INTRODUCTION¹

Climate change poses a severe threat to the lives of millions, particularly vulnerable communities. In the encyclical *Laudato Si'*, released ten years ago, Pope Francis emphasised the urgent need for global action to combat climate change effectively, urging humanity to become responsible stewards of our Common Home.² In his follow-up document, *Laudate Deum*, the Pope reiterated his concern about the climate crisis, emphasising that greenhouse gas (GHG) emissions from human activities significantly contribute to the problem.³ Pope Francis called for humanity to adopt more sustainable lifestyles that generate fewer GHG emissions.⁴ While there have been notable efforts to reduce GHG emissions, much more work remains to be done to contain climate change. What role do our buildings – and how we inhabit them – play in this ecological crisis? Can building decarbonisation, which focuses on reducing GHG emissions from buildings, help mitigate climate change? Is this action within our reach? This article aims to offer some answers to these questions.

CURRENT CLIMATE SCENARIO. WHERE ARE WE?

The climate is changing globally at an alarming rate. According to the World Meteorological Organization, 2023 was the warmest year on record, almost reaching the 1.5°C threshold above pre-industrial levels.⁵ Alarmingly, some scientists believe that the rate of warming is happening faster than expected.⁶

Six international databases indicate that last year may have set another record, with the global average surface temperature potentially peaking at about 1.55°C above the pre-industrial level.⁷ NASA also confirms this potential new peak in global warming, reporting that “for more than half of 2024, average temperatures were more than 1.5°C above the baseline, and the annual average, with mathematical uncertainties, may have exceeded the level for the first time.”⁸ As UN Secretary-General António Guterres stated, “[w]e have just endured the hottest decade on record – with 2024 topping the list, and likely to be the first calendar year with a global mean temperature of more than 1.5°C.” Unfortunately, he adds, “global heating is a cold, hard fact.”⁹

The impact of climate change on the occurrence and intensity of extreme weather events has gained significant attention in recent years, and rightly so. Nearly 25 years ago, J.T. Houghton and his colleagues at the Intergovernmental Panel on Climate Change (IPCC) explained how the rise of global temperatures would increase the likelihood of extreme weather occurrences.¹⁰ As temperatures continue to rise globally, we should expect to experience extreme temperatures and heavy rainfall more frequently in the future.¹¹ The Global Precipitation Climatology Centre has already recorded an alarming trend of increasing rainfall accompanied by extended dry spells over the last decades.¹² For instance, the Osservatorio Nazionale Città Clima reported

1 The author utilised Grammarly's AI tool to edit the English in this article (<https://app.grammarly.com>).

2 Pope Francis, *Laudato Si'* (London: Catholic Truth Society, 2015), §116, §236.

3 Pope Francis, 'Laudate Deum' (Vatican, 4 October 2023), §5.

4 Pope Francis, §70.

5 World Meteorological Organization, *State of the Global Climate 2023* (Geneva: United Nations, 2024).

6 Jeff Tollefson, 'Earth Shattered Heat Records in 2023 and 2024: Is Global Warming Speeding Up?', *Nature* 637, no. 8046 (6 January 2025): 523–24, <https://doi.org/10.1038/d41586-024-04242-z>.

7 Copernicus, 'Global Climate Highlights 2024' (Brussels: Copernicus, 10 January 2025), <https://climate.copernicus.eu/global-climate-highlights-2024>; Clare Nullis, 'WMO Confirms 2024 as Warmest Year on Record at about 1.55°C above Pre-Industrial Level', *World Meteorological Organization* (blog), 10 January 2025, <https://wmo.int/news/media-centre/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level>.

8 Liz Vlock and Peter Jacobs, 'Temperatures Rising: NASA Confirms 2024 Warmest Year on Record', *NASA* (blog), 10 January 2025, <https://www.nasa.gov/news-release/temperatures-rising-nasa-confirms-2024-warmest-year-on-record/>.

9 Office of the Secretary General, 'Secretary-General's Statement on Official Confirmation of 2024 as the Hottest Year', United Nations Secretary-General, 10 January 2025, <https://www.un.org/sg/en/content/sg/statement/2025-01-10/secretary-generals-statement-official-confirmation-of-2024-the-hottest-year>.

10 J.T. Houghton et al., *Climate Change 2001: The Scientific Basis* (Geneva: Intergovernmental Panel on Climate Change, 2002), https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf.

11 Mark SubbaRao and Jenny Marder Fadoul, 'Shifting Distribution of Land Temperature Anomalies, 1962-2022', *NASA Scientific Visualization Studio* (blog), 2023, <https://svs.gsfc.nasa.gov/50651>.

12 See the GPCC databases available at <https://www.dwd.de/EN/ourservices/gpcc/gpcc.html>.

that, in Italy alone, extreme weather events were six times more frequent in 2024 compared to 2015, the space of only ten years.¹³

These last few years have witnessed a series of devastating events, including floods, tornadoes, heatwaves, and droughts, causing widespread destruction and endangering lives all over the globe.¹⁴ Millions of people have been affected by losing their homes.¹⁵ In southeastern Africa, for instance, Cyclone Freddy triggered 1.4 million displacements across six countries.¹⁶ According to the Internal Displacement Monitoring Center, weather-related disasters caused over 21 million new internal displacements in 2023.¹⁷ The situation was even worse the previous year when nearly 31 million people were displaced.¹⁸ Notably, in the same year, the worst drought on record forced 2.1 million people to leave their homes in Somalia, Ethiopia, and Kenya.¹⁹ Unfortunately, as reported by the IPCC, vulnerable communities are the most affected by current climate changes.²⁰ As we confront the escalation of this global emergency, we must ask ourselves: Do we still have any chance to stop this? What can we do?

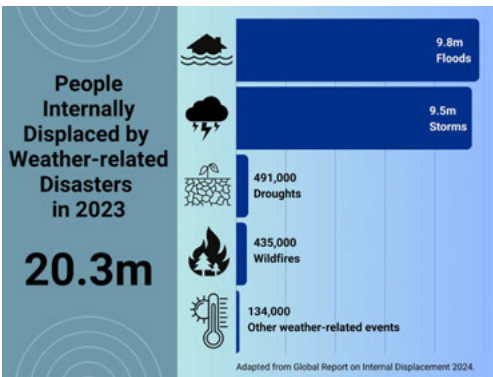


Figure 1: Breakdown of Global Rates of Internal Displacement in 2023 (Credit: JCFJ)

CALL FOR IMMEDIATE ACTION. CAN WE DO SOMETHING?

Most scientists agree that human-induced greenhouse gas emissions unequivocally drive climate change.²¹ For more than four decades, the scientific community has urged humanity to recognise its responsibility for causing such a crisis and to take action to reduce GHG emissions. If we do not act collectively soon, climate change could surpass a critical threshold, beyond which its effects will be irreversible for centuries.²² Scientific evidence shows that our actions, or lack thereof, will significantly influence the future of our climates and ecosystems. According to the IPCC, “[t]he level of greenhouse gas emission reductions this decade largely determines whether warming can be limited to 1.5°C or 2°C.”²³

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For more than four decades, the scientific community has urged humanity to recognise its responsibility for causing such a crisis and to take action to reduce GHG emissions. If we do not act collectively soon, climate change could surpass a critical threshold, beyond which its effects will be irreversible for centuries.

13 Legambiente, ‘Città Clima Bilancio 2024’ (Rome: Osservatorio Nazionale Città Clima, 2024), <https://www.legambiente.it/wp-content/uploads/2021/11/Citta-Clima-Bilancio-finale-2024.pdf>.

14 Darren Bett, ‘The Extreme Weather Events of 2024 as World Exceeds 1.5C Warming’, *BBC Weather*, 10 January 2025, <https://www.bbc.com/weather/articles/c1el8z2d7v8o>; European Environment Agency, ‘Responding to Climate Change Impacts on Human Health in Europe: Focus on Floods, Droughts and Water Quality’, *EEA Report 3/2024* (Copenhagen: European Environment Agency, 2024), <https://data.europa.eu/doi/10.2800/4810>.

15 NASA Earth Observatory, ‘Intense, Widespread Drought Grips South America’, *Text.Article* (NASA Earth Observatory, 15 October 2024), <https://earthobservatory.nasa.gov/images/153447/intense-widespread-drought-grips-south-america>; Tess Ingram, ‘Almost 1 Million People in Kenya, Burundi, Tanzania, and Somalia Affected as Unprecedented Heavy Rains Continue to Wreak Havoc in Eastern Africa’, *UNICEF*, 9 May 2024, <https://www.unicef.org/press-releases/almost-1-million-people-kenya-burundi-tanzania-and-somalia-affected-unprecedented>.

16 Internal Displacement Monitoring Centre, ‘2024 Global Report on Internal Displacement’ (Geneva: Internal Displacement Monitoring Centre, 2024), 12, <https://doi.org/10.55363/IDMC.DAKY2849>.

17 Internal Displacement Monitoring Centre (IDMG), 2.

18 IDMG, ‘2023 Global Report on Internal Displacement’ (Geneva: Internal Displacement Monitoring Centre, 2023), 2, https://api.internal-displacement.org/sites/default/files/publications/documents/IDMC_GRID_2023_Global_Report_on_Internal_Displacement_LR.pdf.

19 IDMG, 6.

20 Hoesung Lee, José Romero, and Core Writing Team, ‘Summary for Policymakers (Climate Change 2023 Synthesis Report)’ (Geneva: Intergovernmental Panel on Climate Change, 2023), 5.

21 Hoesung Lee, José Romero, and Core Writing Team, 5.

22 Lenton T. M. et al., ‘Global Tipping Points Report 2023’ (Exeter: University of Exeter, 2023), 6.

23 Hoesung Lee, José Romero, and Core Writing Team, ‘Summary for Policymakers (Climate Change 2023 Synthesis Report)’, 6.



Bushfires below Stacks Bluff, Tasmania, Australia, March 2021. Credit: Matt Palmer at Unsplash

Recognising the urgency of this environmental crisis, Pope Francis, in his encyclical letter *Laudato Si'*, calls on “the whole human family together to seek a sustainable and integral development.”²⁴ Containing climate change is a collective responsibility, and we must respond together as one human family.²⁵ Additionally, Pope Francis highlights the fact that the current environmental crisis is social and anthropological, pointing out that the environment and humanity are interconnected. Modern society must strive for sustainable development that respects human lives, particularly those of the poorest and most vulnerable, while protecting the environment.²⁶ Eight years after *Laudato Si'*, with the apostolic exhortation *Laudate Deum*, the Pope returned to share his “heartfelt concerns about the care of our common home,” pointing out that “our responses have not been adequate, while the world in which we live is collapsing and may be nearing the breaking point.”²⁷ Once again, Pope Francis calls for concrete and effective actions at both personal and societal levels, underlining the pivotal role played by international politics

24 Pope Francis, *Laudato Si'* (London: Catholic Truth Society, 2015), §13.

25 Pope Francis, *Fratelli Tutti* (Assisi: Vatican, 2020), §8.

26 Pope Francis, *Laudato Si'*, §139.

27 Pope Francis, ‘*Laudate Deum*’, 2.

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Pope Francis highlights the fact that the current environmental crisis is social and anthropological, pointing out that the environment and humanity are interconnected. Modern society must strive for sustainable development that respects human lives, particularly those of the poorest and most vulnerable, while protecting the environment.

and multilateral cooperation. Finally, the Pope, through the *motu proprio*²⁸ *Fratello Sole*, is actively contributing to the global effort to reduce GHG emissions and is paving the way for a carbon neutral future within the Catholic Church. This initiative includes the construction of an agrivoltaic plant outside of Rome, which will supply carbon-free electricity to Vatican City State.²⁹

28 In Catholic canon law, a *motu proprio* is a personally-signed document issued by the Pope, on his own initiative, to the whole church, part of the church, or to some individuals.

29 Pope Francis, ‘*Fratello Sole*’ (Vatican, 21 June 2024), https://www.vatican.va/content/francesco/en/motu_proprio/documents/20240621-fratello-sole.html.



What countries have done so far and promise to do in the future to reduce their carbon emission will not be enough to contain climate change. So, what now?

Although there have been notable advancements in climate action in the past decades, such as the EU-27 reducing its net GHG emissions by 31% in 2022, since 1990,³⁰ the United Nations Environmental Programme reports that the actions taken by countries following the 2015 Paris Agreement are still insufficient to curb global GHG emissions.³¹ Furthermore, the UN's 2024 Emission Gap Report shows there exists a large gap, destined to widen, between "the level of global GHG emissions resulting from full implementation of the most recent Nationally Determined Contributions, and levels under least-cost pathways aligned with the Paris Agreement temperature goal."³² In other words, what countries have done so far and promise to do in the future to reduce their carbon emission will not be enough to contain climate change. So, what now?

The challenging negotiations at the most recent Conference of Parties (COP29) resulted in an agreement on climate finance that many consider inadequate for what developing countries need to transit toward a sustainable future.³³ This, coupled with the narrowing likelihood of meeting emission pathways required to keep the global temperature rise below 1.5-2°C, has led to growing scepticism about our ability to mitigate climate change effectively. As a result, many argue that attempting to mitigate climate change is a battle already lost; addressing it would require time and financial resources that we either do not have or are unwilling to share. Instead, they suggest we should focus on adapting to

a world with temperatures higher than we have experienced so far.³⁴ A few even envision Mars and the Moon as potential new homes for humanity, perhaps believing our long-term survival on Earth is uncertain.³⁵ Some even add that a plan to colonise Mars and the Moon may help humanity find ways and technologies to make our life on Earth more sustainable.³⁶ However, all this raises some crucial questions: if climate change cannot be stopped, and the world becomes hotter than it is today, what will happen to those who cannot adapt or have no resources to escape to another planet? Is their fate already sealed?

BUILDINGS? REALLY? THE ROLE OF BUILDING DECARBONISATION IN FIGHTING CLIMATE CHANGE

"Top-down" strategies, such as international treaties and agreements that establish collective goals³⁷ and legally binding targets,³⁸ are fundamental for setting the pace for countries to mitigate climate change. Reducing global GHG emissions requires a coordinated commitment. However, political disagreements, the varying interests of parties, and the non-enforceability of identified measures have made the "top-down" strategies less effective, often resulting in frustrations over the slow progress of their application.



However, all this raises some crucial questions: if climate change cannot be stopped, and the world becomes hotter than it is today, what will happen to those who cannot adapt or have no resources to escape to another planet? Is their fate already sealed?

30 European Environment Agency, 'Total Net Greenhouse Gas Emission Trends and Projections in Europe', European Environment Agency, 31 October 2024, <https://www.eea.europa.eu/en/analysis/indicators/total-greenhouse-gas-emission-trends>.

31 United Nations Environment Programme, 'Emissions Gap Report 2024: No More Hot Air ... Please!' (Nairobi, Kenya: UNEP, 2024), <https://wedocs.unep.org/handle/20.500.11822/46404?jsessionid=C277ACF9CA62A2679B906F0F7F81EDCF>

32 United Nations Environment Programme, xv.

33 Office of the Secretary General, 'UN Secretary-General Statement on COP29', United Nations Secretary-General, 23 November 2024, <https://www.un.org/sg/en/content/sg/statement/2024-11-23/un-secretary-general-statement-cop29>.

34 Lucio Caracciolo, 'Climi e Tribù', *Limes: Rivista Italiana di Geopolitica*, November, 2024.

35 Florian Neukart, 'Towards Sustainable Horizons: A Comprehensive Blueprint for Mars Colonization', *Heliyon* 10, no. 4 (February 2024): e26180, <https://doi.org/10.1016/j.heliyon.2024.e26180>.

36 Anja Rademacher, 'Visions of Mars: A Sustainable Life Among the Stars', *Up2Date*, October 2023, <https://up2date.uni-bremen.de/en/article/visions-of-mars-a-sustainable-life-among-the-stars>.

37 For example, the United Nations Sustainable Development Goals: <https://sdgs.un.org/goals>.

38 Such as the Paris Agreement: <https://unfccc.int/process-and-meetings/the-paris-agreement>.

Considering these challenges, “bottom-up” actions may represent an untapped possibility to complement and enhance the effectiveness of “top-down” approaches to climate change. These actions may empower individuals, organisations, and communities to contribute actively to the fight against climate change. One promising action within this framework is the decarbonisation of our buildings.

According to the Sixth Assessment Report from the Intergovernmental Panel on Climate Change, GHGs emitted directly by buildings are 6% of global emissions.³⁹ The report identifies the power sector as the largest source of GHG emissions, with 34% of global emissions, followed by industry at 26% and transportation at 15%. Given these numbers, decarbonising the power grid is one of the most critical actions that countries must take to reduce carbon footprint.⁴⁰ Currently, research focuses on optimising power grid infrastructure and identifying the most cost-effective decarbonisation strategies best suited for each country.⁴¹ However, the previous distribution of GHG emissions changes when considering indirect and embodied GHG emissions tied to products’ life cycle. In this new perspective, the share of emissions generated by buildings and the building sector skyrockets from 6% to potentially over 30% of total GHG emissions.⁴² It is evident that, to reduce the effects of climate change successfully, we must decarbonise our buildings. So, what does it mean to

decarbonise buildings? Is it something within our reach?

Building decarbonisation means reducing and potentially eliminating the GHG emissions generated by buildings throughout their entire life cycle. These emissions generally fall into two principal categories. The first one, operational carbon, includes the GHGs emitted by operating a building, such as those generated by space heating or artificial lighting. These emissions can be classified as “direct” when emitted on-site (for instance, when burning natural gas in a furnace installed in the building) and “indirect” when generated off-site (for example, the electricity generated in a power plant and purchased by the building through the power grid).⁴³ The second category, embodied carbon, contains the GHG emissions generated during the production, transportation, construction, and dismission phases. According to the United States Environmental Protection Agency, “15% of global greenhouse gas emissions are associated with the production of construction materials.”⁴⁴

Thanks to modern technology, it is possible to design and construct Nearly-Zero Emission Buildings (NZEBs), which have zero operational and minimal embodied carbon. These buildings are highly energy-efficient, use carbon-free energy, and result from optimised construction processes that minimise GHG emissions from construction materials.⁴⁵ Furthermore, they also improve grid decarbonisation and flexibility “by providing decentralized renewable energy generation at household or community level, electric and thermal energy storage, better demand response and smart charging.”⁴⁶ Several examples of NZEBs have already been built

39 Intergovernmental Panel On Climate Change (Ippc), ed., ‘Summary for Policymakers’, in *Climate Change 2022 - Mitigation of Climate Change*, 1st ed. (Cambridge University Press, 2023), 8, <https://doi.org/10.1017/9781009157926.001>.

40 N.W. Stauffer, *Speed & Scale. An Action Plan for Solving Our Climate Crisis Now* (London: Penguin, 2021).

41 N.W. Stauffer, ‘Decarbonizing the U.S. Power Grid’, MIT Energy Initiative, 25 January 2024, <https://energy.mit.edu/news/decarbonising-the-u-s-power-grid/>.

42 European Environment Agency, ‘Greenhouse Gas Emissions from Energy Use in Buildings in Europe’, European Environment Agency, 31 October 2024, <https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-energy>. See also: Xiaoyang Zhong et al., ‘Global Greenhouse Gas Emissions from Residential and Commercial Building Materials and Mitigation Strategies to 2060’, *Nature Communications* 12, no. 1 (21 October 2021): 6126, <https://doi.org/10.1038/s41467-021-26212-z>; and: European Commission, ‘Energy Performance of Buildings Directive’, European Commission, accessed 19 March 2025, https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en.htm; “plainCitation”: “European Environment Agency, ‘Greenhouse Gas Emissions from Energy Use in Buildings in Europe’, European Environment Agency, 31 October 2024, <https://www.eea.europa.eu/en/analysis/indicators/greenhouse-gas-emissions-from-energy>; See also: Xiaoyang Zhong et al., ‘Global Greenhouse Gas Emissions from Residential and Commercial Building Materials and Mitigation Strategies to 2060’, *Nature Communications* 12, no. 1 (21 October 2021).

43 American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., ‘ANSI/ASHRAE Standard 228-2023: Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance’ (Peachtree Corners, GA: ASHRAE, 2023).

44 OCSPP US EPA, ‘C-MORE: Construction Material Opportunities to Reduce Emissions’, Overviews and Factsheets, EPA: Sustainable Marketplace - Greener Products and Services, 15 September 2023, <https://www.epa.gov/greenerproducts/cmorc>.

45 Delia D’Agostino and Livio Mazzarella, ‘What Is a Nearly Zero Energy Building? Overview, Implementation and Comparison of Definitions’, *Journal of Building Engineering* 21 (1 January 2019): 200–212, <https://doi.org/10.1016/j.jobe.2018.10.019>.

46 European Commission, ‘Nearly-Zero Energy and Zero-Emission Buildings - European Commission’, European Commission, 09 2024, https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/nearly-zero-energy-and-zero-emission-buildings_en.

Thanks to modern technology, it is possible to design and construct Nearly-Zero Emission Buildings (NZEBs), which have zero operational and minimal embodied carbon.

all over the world.⁴⁷ Stanford University's Building Decarbonization Learning Accelerator, for example, presents several case studies recently constructed, like the Exelixis – 1951 HBP building in Alameda, CA, and the Gundersen Healthcare building in Sparta, WI, that are completely electric and have fully decarbonised operations.⁴⁸

Countries are developing specific legislation to define and construct NZEBs. In the European Union, for example, the Energy Performance of Buildings Directive (EU/2024/1275), adopted in May 2024, mandates that “all new residential and non-residential buildings must be zero-emission buildings by January 1, 2028, for buildings owned by public bodies, and by January 1, 2030, for all other new buildings.”⁴⁹ This directive is part of the European initiative known as the Green New Deal, which aims to make the European Union carbon-neutral by 2050. Additionally, several cities and agencies, such as the City of Santa Monica, provide guides to assist owners, designers, and constructors in designing and building new NZEBs.⁵⁰

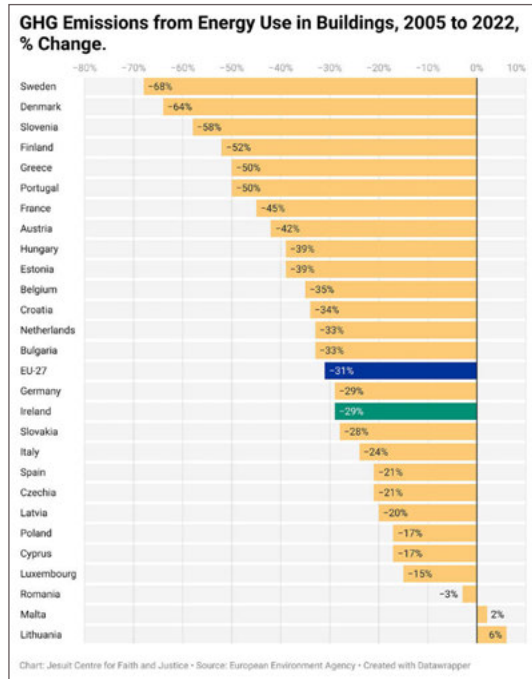


Figure 2: Change in Emissions from the Energy Use in Building across EU nations (Credit: JCFJ)

With current technology and expertise, designing and constructing new NZEBs is possible and achievable. Today, we have the knowledge to design and construct buildings of exceptionally high quality. However, it is important to note that these buildings represent only a portion of the overall building stock, most of which have significantly lower quality and performance compared to newly constructed NZEBs. According to the European Commission, “85% of EU buildings were built before 2000, and among those, 75% have a poor energy performance.”⁵¹ In Italy alone, almost 65% of the existing residential buildings were built without attention to energy efficiency and savings.⁵² It follows that a significant reduction in the operational carbon of existing buildings is possible and necessary! Some case studies, such as the renovation of the American Institute of Architects Headquarters in Washington, DC, demonstrate that full decarbonisation can be achieved also for existing buildings.⁵³ Nevertheless, transitioning an existing building into an NZEB may be far more challenging than designing and building a new NZEB due to technical, economic, and cultural reasons. Existing buildings may be protected

47 Consider the designs on display at: World Green Building Council, 'Case Study Library', World Green Building Council, 2025, <https://worldgbc.org/case-study-library/>.

48 These and other examples can be accessed through: <https://bdla.stanford.edu/teaching-materials/case-studies/>

49 European Commission, 'Energy Performance of Buildings Directive'.

50 New Buildings Institute for the City of Santa Monica, 'Zero Emission Building New Construction Guide: A Guide to Support Santa Monica's Zero Emission Building and EV Charger Reach Codes' (Santa Monica, CA: City of Santa Monica, March 2023), https://www.santamonica.gov/media/OSE/SM_Zero%20Emission%20Building%20NC%20Guide.pdf.

51 European Commission, 'Energy Performance of Buildings Directive'.

52 Giuliano Dall'Ò and Annalisa Galante, *Abitare Sostenibile: Come Affrontare l'emergenza Energetica e Ambientale* (Bologna: il Mulino, 2023).

53 American Institute of Architects, 'AIA Headquarters', AIA, 2025, <https://www.aia.org/about-aia/aia-global-campus-for-architecture-and-design>.



Today, we have the knowledge to design and construct buildings of exceptionally high quality. However, it is important to note that these buildings represent only a portion of the overall building stock.

to preserve their historic value, may have constraints that are impossible to remove, or may require high upfront costs that owners may not afford. So, what can we do to decarbonise our existing buildings? Can we do something both environmentally and economically sustainable?

POSSIBLE MEASURES TO DECARBONISE EXISTING BUILDINGS

Building owners can act to decarbonise their buildings in three key areas. The first element to consider is the type of energy sources used to operate building systems. In Italy, for instance, it is common to use fossil fuel energy, such as natural gas, for space and water heating, and electricity, for space cooling, lighting, and indoor equipment. Depending on how electricity is generated, as well as factors such as climate zone, building type, and building use, the GHG emissions from burning fossil fuel for heating can account for up to 50-60% of total emissions. The rest of building emissions come from the use of electricity produced off-site. Therefore, transitioning from non-carbon-free to carbon-free energy sources, such as carbon-free electricity, is the first crucial step that building owners can take. Eliminating the on-site combustion of fossil fuels for heating may require significant upfront costs for installing new equipment compatible with carbon-free energy sources. Unfortunately, not every building owner has the financial resources to do that. However, it is still possible to reach significant reductions in GHG emissions without major capital costs. For instance, building owners can purchase carbon-free electricity from a local supplier, thereby investing a minimal amount of money. This action is very effective and can significantly

reduce GHG emissions, sometimes saving up to 40-50% of building operational carbon!⁵⁴

Another critical aspect of building decarbonisation is improving energy efficiency, which includes the building envelope, systems, and equipment. Improving the thermal resistance of buildings, such as by adding thermal insulation to the exterior envelope or installing energy-efficient windows, allows building owners to reduce significantly energy demand and thus lower operational carbon. Additionally, upgrading installed equipment, like adding heat recovery systems or efficient heat generators, can impact GHG emissions and costs as well.⁵⁵ However, these actions often come with high upfront costs and extensive construction work, which may temporarily inconvenience building usage and occupancy. Furthermore, all newly installed equipment and construction materials have embodied GHG emissions. Building owners should prioritise products with the lowest carbon footprint.

Building energy efficiency can also be improved without significant financial investment. Owners have four possible areas of intervention: thermostat settings, air leaks, artificial lighting, and household appliances. Poor maintenance or faulty installation may cause incorrect thermostat settings and energy waste. Resetting old thermostats or installing programmable new ones can help to improve thermal comfort and achieve energy savings. Air leaks can also be a source of discomfort and energy waste. Sealing cracks, for instance, around building openings such as windows and doors, is a highly effective way to prevent energy loss and cut heating and cooling expenses.⁵⁶ A significant portion of electrical consumption (6-20%) comes from artificial lighting.⁵⁷ Verifying that all installed

54 Davide Dell'Oro SJ, 'Can Building Decarbonisation Help Mitigate Climate Change?', Faith Dimensions, 24 January 2025, <https://dimensions.faith/can-building-decarbonisation-help-mitigate-climate-change/>.

55 Giuliano Dall'Ò and Annalisa Galante, *Abitare Sostenibile: Come Affrontare l'emergenza Energetica e Ambientale*.

56 U.S. Department of Energy, 'Air Sealing Your Home', Energy.gov, February 2024, <https://www.energy.gov/energysaver/air-sealing-your-home>.

57 Laura Pompei et al., 'The Impact of Key Parameters on the Energy Requirements for Artificial Lighting in Italian Buildings Based on Standard EN 15193-1:2017', *Energy and Buildings* 263 (15 May 2022): 112025, <https://doi.org/10.1016/j.enbuild.2022.112025>. (Wiley) *Energy and Buildings* 263 (15 May 2022).

lamps and luminaires are LED-type is another cost-effective way to reduce energy waste and GHG emissions. Finally, replacing old inefficient household equipment with new energy-efficient ones will also help to diminish energy demand.



Credit: Bill Meade on Unsplash

Finally, a third key factor in building decarbonisation is people's behaviour. The way people use and occupy buildings can have a high impact on GHG emissions.⁵⁸ Simple awareness of our habits in a built environment, such as switching off lights when leaving a room, turning off Heating, Ventilation, and Air Conditioning systems (HVAC) when parts of the building are not in use, and keeping windows shut when the HVAC is on, can greatly lower energy demand and GHG emissions.

YES, WHAT WE DO COUNTS... ONE LAST PLEA

Investing in building decarbonisation not only helps mitigate climate change but also brings several other benefits to our lives, such as improving the air quality of our cities, increasing grid resilience, creating new jobs in different sectors, and reducing the risks of vulnerable communities being exposed to the effects of climate change. As Pope Francis highlighted in *Laudato Si'* and *Laudate Deum*, adopting lifestyles that reduce GHG emissions is a non-negotiable responsibility that affects both the present and future generations. Contrary to popular belief, building decarbonisation is not just an option reserved for a few who can afford its high initial costs; many practical and accessible solutions are available to any building owner committed to reducing global GHG emissions. So much is left to do for those who believe and commit to a change!

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Adopting lifestyles that reduce GHG emissions is a non-negotiable responsibility that affects both the present and future generations.

⁵⁸ Frédéric Haldi and Darren and Robinson, 'The Impact of Occupants' Behaviour on Building Energy Demand', *Journal of Building Performance Simulation* 4, no. 4 (1 December 2011): 323–38, <https://doi.org/10.1080/19401493.2011.558213>.

Justice for Peatlands: field notes from a Catholic ecological engineering PhD researcher

Mariana Silva

Mariana Silva is a PhD candidate at Trinity College Dublin, working with Bord na Móna and the Environmental Protection Agency on bog rehabilitation.

INTRODUCTION: GENERATION Z, GENERATION LAUDATO SI'

I am a 26-year-old Catholic peatland ecohydrologist. My faith formation, among other Catholics of my generation,¹ has been indelibly influenced by Pope Francis' ecological writings.

My "ecological conversion"² began when I encountered *Laudato Si'* soon after my confirmation in 2015. And I fell in love with peatlands while I was an environmental engineering student at the University of Notre Dame in 2019. Wearing chest waders, hip-deep in the forested boglands in Land O' Lakes, Wisconsin, I came to see how theological understanding and scientific curiosity are perfectly complementary, even in perhaps the least palatable of landscapes.

It wasn't until I moved to Ireland that I discovered there were people out there *willing* to hike through endless stretches of bogland. Avid Irish hill walkers trek the Wicklow Way (among many Ways) in all weathers. To an extent, societal perspectives determine which landscapes are palatable and which landscapes are not.³ Yet, I believe there exists a *conditionality of*, a threshold for, the Irish tolerance for bogland, which interests me terribly – more on that later.

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It wasn't until I moved to Ireland that I discovered there were people out there *willing* to hike through endless stretches of bogland. Avid Irish hill walkers trek the Wicklow Way (among many Ways) in all weathers. To an extent, societal perspectives determine which landscapes are palatable and which landscapes are not.

MY RESEARCH

I study a subset of environmental engineering called ecological engineering, defined as the design of sustainable ecosystems that integrate human society with its natural environment, for the benefit of both.⁴

I am a PhD researcher at Trinity College Dublin supported by Bord na Móna and the Environmental Protection Agency.⁵ My project is designed with the structure of engineering work. I visit the remnants of the industrially harvested raised bogs, and monitor/model/make predictions about their rehabilitation. We provide an independent assessment of the "success" (varying based on one's definition of success) of Bord na Móna's Peatlands Climate Action Scheme (PCAS) bog rehabilitation programme.⁶

Although my work sits within an engineering project, it's grounded in science – seeking a deeper understanding of peatland ecology, soil chemistry and biology, hydrology, and more,

3 Carys Swanwick, 'Society's Attitudes to and Preferences for Land and Landscape', *Land Use Policy*, Land Use Futures, 26, no. Supplement 1 (1 December 2009): S62–75, <https://doi.org/10.1016/j.landusepol.2009.08.025>. Land and landscape is deeply complex. Attitudes are reflected in behaviour, notably patterns of consumption through recreational activity, as well as in expressed preferences. Society attaches great importance to land. A large proportion of the population engages directly with it, through gardening and involvement in the management of allotments, community gardens and other public spaces. There is increasing evidence of the benefits of such engagement for individuals and communities. Society's attitudes and preferences have traditionally been dominated by expert or professional views, which have evolved over time and now place emphasis on everyday as well as special landscapes, and on urban greenspace and green infrastructure as much as on rural landscapes. The general public also seems to value the countryside as well as parks and green spaces nearer to home. Public attitudes are shaped by a number of different factors. Age, social and economic status, ethnic origin, familiarity, place of upbringing and residence, particularly whether urban or rural, are especially significant. Perhaps most important are environmental value orientations. At present, society seems to be polarised. At one extreme are older, more affluent, better educated, more environmentally aware people, often in social grades AB, who are often the most active users of the countryside and greenspaces. At the other extreme are younger age groups, ethnic minorities, and those who are in the DE social grades, who are often much less engaged. These groups have very different values and attitudes. But most people need to access and enjoy different types of landscape at different times and for different purposes, accessing what has been called a 'portfolio of places' that is particular to each person. It is by no means clear how the various factors that influence people's attitudes and preferences will play out in the future. Society may continue to become more detached from nature and landscape, and less caring about its future. Or there could be a rekindling of society's need to engage with the land and an increased desire to ensure that all sectors of society can benefit from green spaces and rural landscapes. This is likely to require interventions through education and campaigns to change attitudes and behaviour. Whether such initiatives can be effective in the face of competing drivers of attitudinal and behavioural change and over what timescale, may well determine how society's relationships with land and landscape evolve over the next 50 years.

4 W.J. Mitsch and S.E. Jørgensen, *Ecological Engineering and Ecosystem Restoration* (Hoboken, NJ: Wiley, 2004).

5 WET-PEAT is a "Peatlands and People" project, more information about which can be found at: <https://peatlandsandpeople.ie/news/>

6 Bord na Móna, 'Bord Na Móna Peatlands Climate Action Scheme', BNM Peatlands Climate Action Scheme, 2021, <https://www.bnmecas.ie/>.

1 The term "Laudato Si' generation" was discussed at the Catholic Youth Network for Environmental Sustainability in Africa conference in Nairobi in 2019; a Concept Note from the proceedings was entitled "Laudato Si' Generation: Young People Caring for Our Common Home." For more, see the website at: <https://generationsls.com/> or the book discussing the movement: Rebecca Rathbone and Simon Appolloni, *Generation Laudato Si'* (Mulgrave, Victoria: Garratt, 2023).

2 Pope Francis, *Laudato Si'* (Vatican City: Vatican, 2015), §217.

to carry out the monitoring and modelling required. I am gathering data from regular fieldwork which describes soil water levels and carbon emissions, among other geochemical parameters. From this I can attempt to answer some purely scientific questions. Are there significant differences in current emissions between locations, and why could this be? How has the water level changed pre- to post-rehab? What vegetation communities are regrowing, and do they resemble other types of undisturbed or less disturbed ecosystems?

I will *apply* this scientific knowledge in the project’s engineering context to model the potential effects of Bord na Móna’s engineering interventions on the “life” of our wetlands. How will these degraded wetlands respond post-rehab? Will they ever become “bogs” again? Can we predict their future “stable state,” to design our own lives in sync?

WETLANDS 101

We may know Irish bogs through the context of their geomorphology: how they’ve taken shape over time. We have thinner, sprawling, blanket bogs in the mountains, and deeper, domed,

raised bogs in the midlands. Generally, this is true. But to get a fuller picture of the past and future of bogs, understanding the broader classification of wetlands is also important.

Wetlands come in two main types: peat-forming and non-peat-forming. Peat-forming wetlands include bogs and fens, where layers of dead plant material build up slowly over time to form peat soil. Bogs tend to be rain-fed and acidic, while fens draw nutrients from groundwater and support more lush vegetation. In contrast, non-peat-forming wetlands – like marshes and swamps – don’t build up peat because plant material breaks down more easily in their more mineral-rich soils. This basic difference shapes everything from how these wetlands look to how they function. In a 2022 Notre Dame Stories article I interviewed for,⁷ we distilled raised bog growth down to five steps over thousands of years of geologic time: from glacier-carved lakes to sediment-filled ponds, to fully “terrestrialised” peatlands where specialised vegetation takes over the surface. The slow development of deep anoxic peat is what gives bogs their famous preservation powers, of chief importance to archaeologists and historians in recent centuries.⁸

	Bog	Fen	Swamp	Marsh
Shallow Water Wetland Type				
Water Source	Rainfall	Groundwater	Surface water	
Flow and Fluctuation	Low	Medium	High	
Nutrient Availability	Low	Medium	High	
pH Level	Low/Acidic	Medium	High/Neutral	
Peat Content	High	Medium	Low	

Table 1. A quick geochemical breakdown of primary wetland types. Graphic based on work from the Science Learning Hub – Pokapū Akoranga Pūtaiao, The University of Waikato Te Whare Wānanga o Waikato, www.sciencelearn.org.nz.

7 The blog includes an extremely helpful graphic describing peatland growth over time, where peat soils are in a darker brown seen “terrestrialising” what may once have been a glacial lake. Andy Fuller, ‘A Bog’s Life’, Notre Dame in Ireland (blog), 2022, <https://www.nd.edu/stories/ireland-series/a-bogs-life>.

8 While peatlands are valued for their archaeological heritage, learning more about our past in this way inevitably damages peatlands when we dig up artifacts (though significantly less damage to the artifacts now that industrial extraction has ceased!). Researchers have been discussing less invasive ways to investigate archaeology for over a decade, so it’s important to think about archaeology as more than just digging! I do not have the space to do this topic justice, but you may wish to peruse UCC’s IPeAAT project as a jumping-off point: <https://www.ucc.ie/en/peatlands/>

What different feelings do these images evoke?



Healthy Bog



Wooded Lawn

Image Credits: The Living Bog Project, and unsplash.com/@tommykwak

Figure 1. (Left) an image of a bog in good condition. (Right) an image of a wooded lawn. (Credit: JCFJ)

LIFE AND DEATH IN PEATLANDS

Human history is inextricably linked with bogs. A particularly illuminating account of this complex and evolving relationship is found in Annie Proulx's *Fen, Bog, and Swamp*,⁹ a compelling work that significantly informs this section.

The historical human relationship with peatlands has been fraught. Much of the focus of literature and scholarship on bogs revolves around danger or death. According to the American historian John Stilgoe, bogs are a “watery wilderness” – “the spatial correlative of unreason, or madness, of the unhuman anarchy that informs so many

folktales emphasizing the ephemeral stability of Christianity, society, and agriculture”.¹⁰

Look at the left image in Figure 1: do you feel safe in it? Notice if your feelings change when you glance to the right.

Visually, bogs are perceived as vast expanses of brown, offering little depth perception to gauge distance to the nearest ridge, road, or anything. You may feel simultaneously lost and exposed. Underfoot, a wrong step may plunge you into a metre-deep pool or engulf you in soft, quicksand-like peat. In contrast, wooded groves, with solid green lawns and well-spaced trees, offer the psychological security of truly knowing where you are in space and time.

In art and literature, this otherworldly, deadly connection is echoed time and again. Sir

⁹ E. Annie Proulx, *Fen, Bog, and Swamp: A Short History of Peatland Destruction and Its Role in the Climate Crisis* (London: Fourth Estate, 2022).

¹⁰ Proulx, Chapter 3.



Peatlands have not always been death-bringing, historically. For earlier peoples, some of the partially-forested, transition bogland areas which we see now as bogs “would have been highly productive environments for populations accessing a variety of resources.”

Arthur Conan Doyle famously sets moors as the backdrop for Sherlock Holmes’ murder investigation in *The Hounds of Baskerville*. In *The Lord of the Rings*, the Dead Marshes reflect JRR Tolkien’s memory of World War I battlefields, using the preserving power of peatlands to convey a tragic invented history.¹¹ Examples proliferate¹² but what we must also recognise is that peatlands have not always been death-bringing, historically. For earlier peoples, some of the partially-forested, transition bogland areas which we see now as bogs “would have been highly productive environments for populations accessing a variety of resources.”¹³

Beyond the artistic, the physical, or the spiritual, our real-life connection with death in bogs often works in the reverse direction. If we simply *perceive* ourselves to be unsafe in this ecosystem, a societal response would be: ‘Well, let’s try to find a way to use the land to support our subsistence.’ We seek to take advantage of it, before it takes advantage of us.

Irish audiences are likely intimately familiar with turf fires, but it is worth recalling why. Peat soil – renowned for its exceptional carbon-storing capacity – also serves as an extraordinarily efficient fuel. When cut into rectangular blocks and left to dry, peat

becomes transportable and combustible, enabling it to be used for heating and cooking, even in the most remote rural settings. This practice dates back centuries, but in the 20th century it was industrialised through the large-scale drainage of entire peatlands. The surface of these bogs was mechanically “milled” to extract peat on a massive scale – a process most notably undertaken by Bord na Móna. While this transformation inflicted considerable ecological harm, it undeniably played a significant role in the industrialisation and electrification of modern Ireland.¹⁴

The industrial age was positioned at the exact point in time rife with imperialism, class stratification, and technological advances. Esa Ruuskanen opens a captivating chapter in *Technology, Environment, and Modern Britain* with an 18-19th century Englishman’s firsthand account of the potential imperialistic uses for Ireland’s vast bogland.¹⁵ For England in the 18th-19th century (pre-Great Hunger), and for Ireland (by way of Bord na Móna) in the 20th century, human standards of living *did* improve with the more widespread use of peat for fuel.¹⁶ But we – and Bord na Móna are at the forefront here – have acknowledged that Ireland is a solidly post-industrial nation, and peat extraction should cease.¹⁷



But we – and Bord na Móna are at the forefront here – have acknowledged that Ireland is a solidly post-industrial nation, and peat extraction should cease.

Cultural ties to the use of this resource (especially concerning heating the home), plus a lack of trust in political regimes leave many in our communities reluctant to give up

11 Rod Giblett, ‘Theology of Wetlands: Tolkien and Beowulf on Marshes and Their Monsters’, *Green Letters* 19, no. 2 (4 May 2015): 132–43, <https://doi.org/10.1080/14688417.2015.1019910> (Though, it must be noted that in non-peat marshes, more abundant vegetation would not have so perfectly preserved bodies for so long and the area might be better likened to a bog or fen, and bodies so well preserved would no longer be at the surface of such ecosystems, they’d be deeply buried.)

12 A childhood nightmare-fuel for me, *The Never-ending Story*, features the Swamps of Sadness where main character Atreyu loses his horse in the muck to signify a stage of depression in his journey. Along similar lines, Dante depicts the fifth circle of Hell as a wetland in *The Inferno*, where the Sullen are stuck in the River Styx written as a muddy marsh, a literal liminal space between life and the afterlife from which many cannot move on.

13 Abbi Flint and Benjamin Jennings, ‘Saturated with Meaning: Peatlands, Heritage and Folklore’, *Time and Mind* 13, no. 3 (2 July 2020): 285, <https://doi.org/10.1080/1751696X.2020.1815293>.

14 See the 1957 article by Albert J. P. McCarthy, “The Irish National Electrification Scheme”, which heavily involves peat energy: Albert J. P. McCarthy, ‘The Irish National Electrification Scheme’, *Geographical Review* 47, no. 4 (1957): 539–54, <https://doi.org/10.2307/211864>.

15 E. Ruuskanen, ‘Encroaching Irish Bogland Frontiers: Science, Policy and Aspirations from the 1770s to the 1840s’, in *Histories of Technology, the Environment and Modern Britain*, ed. J. Agar and J. Ward (London: UCL Press, 2018), 22–40:22.

16 Ruuskanen, 36, 38.

17 Patrick Bresnahan and Patrick Brodie, ‘Waste, Improvement and Repair on Ireland’s Peat Bogs’, in *Ecological Reparation: Repair, Remediation and Resurgence in Social and Environmental Conflict*, ed. Dimitris Papadopoulos, Maria Puig de la Bellacasa, and Maddalena Tacchetti (Bristol: Bristol University Press, 2023), 180.

what feels like the “true” way to enact land ownership: extracting and storing turf. The embedded cultural memory of subsistence living and threat by colonialism is not to be disregarded.

Like a fear of sharks, the *perceived* threat of peatlands has made adversaries of humans and bogs over time, but after the Industrial Revolution, humans have been winning the battle hundreds of times over, daily. In the modern age, a bog is no longer anything to fear, but entirely something to use. Regardless, we still perceive bogs as our opposites: slicing into the earth as if we can have our cake and eat it too.

PEATLANDS, POWER, AND MORAL ECOLOGY

To translate the academic jargon into applicable lessons for Irish society, we must examine the social and ethical dimensions of our human relationship with peatlands. When in a bog, our assumptions about productivity, progress, and power are laid bare. Bogs ask uncomfortable questions of us: How do we see time? How do we assign value? And what kind of moral commitments are demanded of us in the face of ecological degradation whose full consequences will only be felt generations from now? Bear with me for just a bit more academic jargon to tease out these perspectives.

From Metabolic Rift to “Timeprint”

Peatlands continue to occupy a liminal space between life and death. Now, this boundary hinges on their response to human intervention. Our exploitation – or conversely, the effectiveness of our stewardship – could tip the scales for bogs’ survival, *and* for the survival of humanity in an age of climate change.

Karl Marx, writing in the 19th century, critiqued capitalist agricultural notions of “productivity” and the negative effect on soil fertility in England and Ireland. He introduced a concept now called “metabolic rift” which applies powerfully to contemporary peatland management. Marx suggests that soil fertility “is not so natural a quality as might

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The hidden impact of our interventions may not manifest fully for decades, but their imprint will be lasting. Sociologist Barbara Adam reframes this latency through the concept of a “timeprint”.

be thought; it is closely bound up with the social relations of the time”.¹⁸ Marx warned that industrial agriculture “simultaneously undermin[es] the original sources of all wealth—the soil and the worker”.¹⁹ His insight into delayed consequences – what we might call *latency* – is strikingly relevant. The hidden impact of our interventions may not manifest fully for decades, but their imprint will be lasting. Sociologist Barbara Adam reframes this latency through the concept of a “timeprint”.²⁰ Unlike a footprint, which requires us to witness impacts in the present, a timeprint reflects how present actions ripple through the future.

Artist Catriona Leahy’s Royal Hibernian Academy exhibition, *Nature’s Own Darkroom*, emulated peatlands’ fragile positioning in human timescales through her methods of printmaking.²¹ She described bogs as “contested landscapes”: within the social sciences this concept has significant

18 Imagine we swap “soil fertility” with “peatland health”. Cited in: John Bellamy Foster, ‘Marx’s Theory of Metabolic Rift: Classical Foundations for Environmental Sociology’, *American Journal of Sociology* 105, no. 2 (September 1999): 375, <https://doi.org/10.1086/210315>.

19 Foster, 379.

20 Barbara Adam and Chris Groves, ‘Futures Tended: Care and Future-Oriented Responsibility’, *Bulletin of Science, Technology & Society* 31, no. 1 (1 February 2011): 17–27, <https://doi.org/10.1177/0270467610391237>. whose existence is only revealed many years after they were initially produced, shows that the question of our responsibilities toward future generations is of urgent importance. However, the nature of technological societies means that they are caught in a condition of structural irresponsibility: the tools they use to know the future cannot encompass the temporal reach of their actions. This article explores how dominant legal and moral concepts are equally deficient for helping us understand what future-oriented responsibility requires. An alternative understanding of responsibility is needed, one which can be developed from phenomenological and feminist concepts of care. Care, by opening up for us an understanding of the diversity of values that are constitutive of a worthwhile life, also connects us to the future as the future of care. As such, it provides us with ethical resources that can guide us in the face of uncertainty.

21 RHA Gallery, ‘Catriona Leahy, *Nature’s Own Darkroom*’, RHA Gallery, 2024, <https://rhagallery.ie/events/exhibitions/catriona-leahy-natures-own-darkroom/>.

precedent.²² But, even in their destruction, bogs demonstrate a “slow violence” not as visceral or immediate as deforestation or oil spills.²³ In simpler terms, it’s much harder to “see” or know what harm we cause bog ecosystems until way after the damage is done—this is latent harm.

The Scales of Tolerance and Humility

To navigate our relationship with peatlands, I propose the use of two conceptual scales: those of *tolerance* and *humility* (Figure 2). I have already described the historical conceptions of death and danger associated with bogs, which makes the tolerance scale straightforward. A highly tolerable peatland is associated with usefulness, safety, habitability, beauty, and healing. A highly intolerable peatland represents danger, wasteland, uselessness, ugliness, and even death.

Imagine a peatland which has been cutover industrially for Bord na Móna. Whether or not it is rehabilitated, it’s pretty ugly. But perhaps a still-operational cutover peatland is perceived to be tolerable because it is useful. Or a rehabilitated one is considered safe or habitable, because the lack of heavy machinery allows for its enjoyment as an amenity.

Tolerance alone, however, is insufficient. What is needed is *humility* – an attitude that recognises our dependence on the land, and that reframes power not as domination but as stewardship. In ecological theology, especially in Catholic thought, humans are called not to dominate but to serve Creation. The doctrine of *Creatio ex Nihilo* reminds

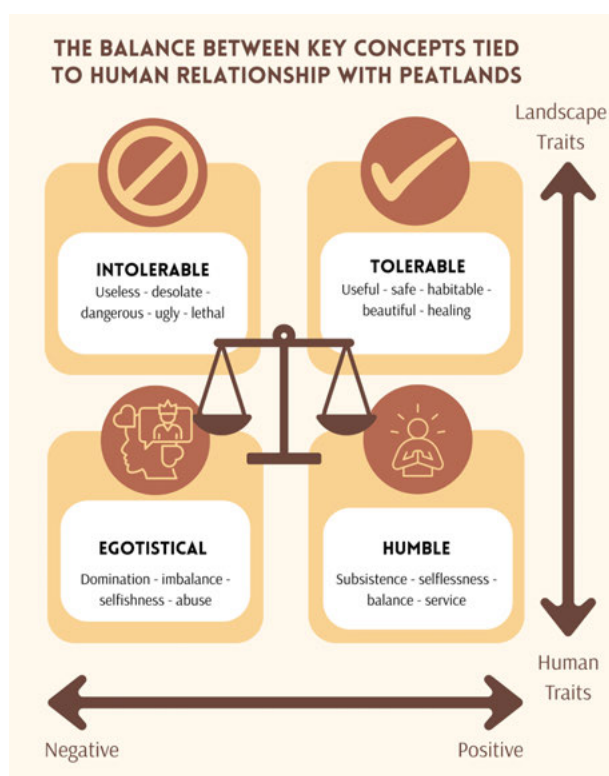


Figure 2. Imagining the balance between key concepts tied to human relationship with peatlands. More negative interpretations on the left, representing an intolerable landscape or an egotistical individual, and more positive interpretations on the right, representing tolerable lands and humble individuals. (Credit: JCFI).

us that the world is continually held in being by God – God is *being*, and we created things *have being*, and are held in existence by Him. Whatever still exists, *still matters*.²⁴ As theologian Kallistos Ware puts it, “Christ as Creator-Logos is to be envisaged not as on the outside but as on the inside of everything”.²⁵ Such a vision demands reverence, not control.

The Tension of Cultural Practice and Ecological Responsibility

This theology of humility complicates our relationship with cultural practices like domestic turf cutting. Turf cutting is often framed as a humble, arduous practice – symbolising subsistence and simplicity. Yet humility must be redefined in light of our knowledge of ecological

22 See, for example: Simo Hayrynen, Caitriona Devery, and Aparajita Banerjee, ‘Contested Bogs in Ireland: A Viewpoint on Climate Change Responsiveness in Local Culture’, in *Culture and Climate Resilience: Perspectives from Europe*, ed. Grit Martinez (Cham: Palgrave Macmillan, 2021), 69–96, as well as Derek Gladwin, *Contentious Terrains: Boglands, Ireland, Postcolonial Gothic* (Cork: Cork University Press, 2016), and, of course: Barbara Bender and Margot Winer, eds., *Contested Landscapes: Movement, Exile and Place* (Abingdon: Routledge, 2020).

23 Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011).

24 Janet Martin Soskice, ‘Creatio Ex Nihilo: Its Jewish and Christian Foundations’, in *Creation and the God of Abraham*, ed. David Burrell et al. (Cambridge: Cambridge University Press, 2013), 24–39.

25 Kallistos Ware, ‘Through Creation to the Creator’, in *Toward an Ecology of Transfiguration: Orthodox Christian Perspectives on Environment, Nature, and Creation*, ed. John Chryssavgis et al. (New York, NY: Fordham University Press, 2013), 93.

consequences. Can a practice remain “humble” if it imposes irreversible harm on ecosystems that are fragile, slow to recover, and critical to climate stability?

We maintain a power imbalance over the tiny things: beetles, plant roots, bird nests, things which to a *Laudato Si'*-minded Catholic bear the same level of importance as *ourselves*. There is a personal, individual call made to all Christians to live within boundaries, aiming always to be able to do another good. This “other” includes the environment.

A “humble” turf cutter can only appear humble in a purely human-centric view of our lives – humble relative only to our species as if in a vacuum.²⁶ What passes as humble may, in fact, be a collectively egotistical mindset that involves a “dynamic of dominion” not reflective of God’s intent for humans. This trajectory is a major cause of waste and environmental abuse.²⁷ Pope Francis says: “Once we lose our humility, and become enthralled with the possibility of limitless mastery over everything, we inevitably end up harming society and the environment.”²⁸

In this spirit, the question shifts from personal piety to communal responsibility. If a neighbour can no longer afford to heat their home without turf, the burden should not fall on them alone to embrace “the humble option.” Surely not! It is not the sole responsibility of the turf cutters alone to humble themselves in the face of nature, it is the responsibility of Irish citizens to support them as well. This is what makes *Integral Ecology* so important. “We are faced not with two separate crises, one environmental and the other social, but rather with one complex crisis which is both social and environmental” (LS §139). This is what makes *Laudato Si'* ever relevant.

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Can a practice remain “humble” if it imposes irreversible harm on ecosystems that are fragile, slow to recover, and critical to climate stability?

CONTESTED USE: POLICIES TO PRESERVE PEATLANDS

I have presented two behavioural and moral thresholds, both of which must be considered when reflecting on any policy decision relating to environmental restoration (or rehabilitation), for bogs or otherwise. We must ask ourselves: to what extent does this policy allow an individual to choose the “humble” option, to afford the environmentally beneficial choice? And further: to what extent does this policy perceive an environment as simply tolerable (or worse, a danger or a wasteland) rather than safe, interactive, and valuable in its own right?

While efforts like the Peatlands Climate Action Scheme (PCAS) that I work on are showing promising results, they face an obvious structural flaw. According to the Irish Peatland Conservation Council, as of 2022, 69% of bogs are actually privately owned.²⁹

Remembering the principle of integral ecology, we cannot defer responsibility to the State to conserve/market bogs as a climate strategy for us. Every Irish resident is responsible for their attitudes and attentions towards the land. This will lead us to push for the right policies and pressure the government to make decisions with the lens of environmental ethics, and *also* motivate us to care about the little things in our very midst, and make daily decisions to the benefit of peatlands or the environment as a whole.

26 Indeed, Thomas Aquinas states in the *Summa Theologica* that “...some people presume to find fault with many things in the world through not seeing the reasons for their existence. For though not requires for the furnishing of our house, these things are necessary for the perfection of the universe”. *Summa Theologica*, I, q. 72, a. 1, ad 6.

27 Pope Francis, *Laudato Si'*, §222.

28 Pope Francis, §224.

29 Catherine O’Connell et al., ‘Peatlands and Climate Change Action Plan’ (Irish Peatland Conservation Council, 2021), <https://irishuplandsforum.org/wp-content/uploads/2021/04/Peatlands-Climate-Action-Plan-2030-Compressed.pdf> Note however that in terms of total peatland area, the Coillte Forestry Service are the largest landowners, with 60% of forestry plantations on peat soil. And, when I did my own math from the National Strategy, I came up with a more specific figure—57% of peatlands are neither state-owned nor state-protected (SPA, SAC, or NHA), which can be split into 41% of raised bogs and 72% of blanket bogs.



The Poetry Seat where barriers have been installed to block the drainage ditches on Ilkley Moor to regenerate the peat bogs and sphagnum moss, West Yorkshire. (Credit: Rebecca Cole/Alamy)

Carbon Storage as Baseline

Too often, “peatland policy” is collapsed into “carbon budgeting”. But carbon storage should be seen not as a goal, but as a baseline – a minimum ethical threshold. If it becomes an obvious and ubiquitous truth that we *will* maintain peatland carbon storage, to what *further* action does that lead us?

Remember, the harm we do to peatlands is latent: the impacts will unfold long after any of our current politicians or even *aspiring* politicians are retired. Our actions must come from a moral sensibility – one that Catholics especially should be sensitive to – to follow what is righteous, even if that pays no dividend in an electoral cycle or even over an entire career. Every day I ask myself: How will my daily action weave into the fabric of time – How am I causing a “timeprint”?

We can imagine a future where our “baselines” are environmental rather than economic. How do we move towards it? What must change so that the most important “bar” is eliminating carbon extraction from Irish soil, and our economy could serve this goal.³⁰ This

³⁰ The value we currently ascribe to peatlands is in their carbon storage: the soil itself that remains underground. Anyone who touts the sequestering power of peatlands is using buzzwords, because it would in fact take millenia to sequester enough C-equivalents to combat the relative outward emissions for Ireland. Ceasing further extraction at the very least mitigates these emissions. See, for example: Nigel T. Roulet, ‘Peatlands, Carbon Storage, Greenhouse Gases, and the Kyoto Protocol: Prospects and Significance for Canada’, *Wetlands* 20, no. 4 (2000): 605–15. for example: Nigel T. Roulet, ‘Peatlands, Carbon Storage, Greenhouse Gases, and the Kyoto Protocol: Prospects and Significance for Canada’, *Wetlands* 20, no. 4 (2000)

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This may appear as an unrealistically metaphysical approach to policy. But our beloved “business-as-usual” lacks any metaphysical weight and is even more unrealistic.

may appear as an unrealistically metaphysical approach to policy. But our beloved “business-as-usual” lacks any metaphysical weight and is even more unrealistic.

Practical Solidarity: Looking to our neighbours

Watersheds and aquifers do not respect political boundaries. Nor do invasive flora and fauna. Nor do peatlands. It’s clearly relevant to see what our neighbours in the UK are doing with their peatlands – most directly, because Northern Irish peatland action will have direct consequence on Irish peatland action, but also because with similar climate and geomorphology, in broad strokes, academic, industrial, and policy successes seen in the UK can be emulated and integrated with harmonious efforts in Ireland.

This is already being done. In the private sector, a UK company called BeadaMoss is developing Sphagnum moss transplant technology in degraded raised bogs. Bord na Móna have partnered with them for pilot

trials in the Republic.³¹ In the public sector, the Shared Island Community Climate Action Scheme supports ROI-NI border counties to develop cross-border projects among paired communities. This work has included peatland research and restoration but isn't limited to this scope.³²

Our neighbours not only in the UK but in mainland Europe are also exploring a new agricultural field called *paludiculture*.³³ With the backdrop of the EU's new Nature Restoration Law, governments across Europe will be attempting to plan enough restoration measures to tally 20% or more of a country's land and sea area.³⁴ Much of this land area, not only for Ireland but for our neighbours, necessarily includes agricultural land.

But the requirement for rewetting as a "restoration" measure is entirely dependent upon the definitions of both those words: what does it mean to us for a peatland to be restored?³⁵ Why can't farming be compatible with *wetlands* instead of pasture? Surely, not

every farmer in Ireland considers themselves to be specifically connected to the type of farming with which they were brought up; I would bet that many have a strong connection to their land, *their* peatland, but are open to innovations in agriculture – a change of use. For example, some bog areas may soon be compatible with *Sphagnum* growth and harvesting on a regular basis, preserving the carbon store in the soil while making "use" of the moss layer only.³⁶

Finally, our neighbourhood is made more fully global in the online/social media sphere. Those of us who are part of *Generation Laudato Si'* would most likely have access to news and activities, influencers and communities, worldwide. This includes peatland-related initiatives. In this way, the youth-led initiative RePEAT deserves attention.³⁷ Much of their work involves campaigning spread across multiple European countries to transform sentiment among the up-and-coming changemakers in the direction of conservation and restoration. There is a *joyful* engagement with peatlands and their liminality through memes, jokes, reels, along with more substantive content.³⁸

Grounded Hope: Looking to our Grassroots Groups

I have noticed, in explaining my research to interested parties, that we *are* curious about the physical process of peatland restoration: blocking drains, removing invasives, planting *Sphagnum*, and more.³⁹ *People want involvement in the shift in use* of our land, rather than simply being told to stop using our bogs entirely. Too often we might consider ourselves ruled (at

31 Information made public through Bord na Móna's preliminary EDRRS Methodology Paper: Bord na Móna, 'Methodology Paper for the Enhanced Decommissioning, Rehabilitation and Restoration on Bord na Móna Peatlands (Preliminary Study)', EDRRS Methodology Paper, Version 19 (Newbridge, November 2022), 63–64, 144–146, <https://www.bnmecas.ie/wp-content/uploads/sites/18/2022/11/Methodology%20Report%20v19%20For%20Issue.pdf>. This initiative also been announced on the Peatlands and People website, showcasing active work on PCAS bogs: Peatlands and People, 'Ireland's Climate Action Catalyst', Peatlands and People, 10 2023, <https://peatlandsandpeople.ie/news/peatlands-and-people-commences-sphagnum-planting-on-raised-bogs/>. I have witnessed firsthand these measures being enacted on my research sites, though with slow success. More information about BeadaMoss can be found here: <https://beadamoss.com/>.

32 Department of the Environment, Climate and Communications, 'Hundreds of Projects Right across the Country to Receive Community Climate Action Funding', gov.ie, 16 April 2025, <https://gov.ie/en/departments-of-the-environment-climate-and-communications/press-releases/hundreds-of-projects-right-across-the-country-to-receive-community-climate-action-funding/>. Examples of awards from DAERA's end in the UK are listed in the following community blog: Paul Meade, 'Funding Granted to Peatlands Restoration Projects as Part of Shared Island Cooperation Programme', iCommunity (blog), 26 November 2024, <https://www.icommunityhub.org/funding-granted-to-peatlands-restoration-projects-as-part-of-shared-island-cooperation-programme/>.

33 Paludiculture defined as 'the productive land use of wet and rewetted peatlands that preserves the peat soil and thereby minimizes CO2 emissions and subsidence.' Wetlands International Europe, 'A Definition of Paludiculture in the CAP', *Wetlands International Europe* (blog), 18 October 2023, <https://europe.wetlands.org/publication/what-does-paludiculture-mean-a-definition/>.

34 See a summary of the law provided by Wetlands International, which also explains the specific implications for peatlands: Amélie Tagu, 'Historic Step for Wetlands: Nature Restoration Law Is Adopted!', *Wetlands International Europe* (blog), 17 June 2024, <https://europe.wetlands.org/historic-step-for-wetlands-nature-restoration-law-is-adopted/>.

35 Mark Usher, 'Restoration as World-Making and Repair: A Pragmatist Agenda', *Environment and Planning E: Nature and Space* 6, no. 2 (June 2023): 1252–77, <https://doi.org/10.1177/25148486221107221> Because agricultural land that has not been true bog for hundreds of years can only be "restored" relative to a historic baseline we set. Perhaps we simply wish to restore the hydrologic integrity of the soil rather than restoring the historically "wild" nature of the area which would make it incompatible with modern farming interests. no. 2 (June 2023)

36 An example of this is the Winmarleigh Carbon Farm in Manchester. To nitpick on terminology, however, I'd like to clarify that the Carbon Farm will not actively grow carbon stores (in the form of peat soil) but simply allow for harvests on the land while retaining its current carbon store. See more information about Winmarleigh here: The Wildlife Trust for Lancashire Manchester and North Merseyside, 'Winmarleigh Carbon Farm', LANCOSWT, 07 2022, <https://www.lancoswt.org.uk/our-work/projects/peatland-restoration/winmarleigh-carbon-farm>.

37 See their manifesto on their website here: RE-PEAT, 'Manifesto', RE-PEAT, 2024, <https://www.re-peat.earth/manifesto>.

38 For example, a post from a graphic artist poking fun at the slang phrase "I got that dawg in me": @breezycreations5. 2024. "Look out I'm full of bog..." Instagram, May 5, 2024. https://www.instagram.com/plC6lyhJMuPtg/?img_index=1

39 Fr. Gary Chamberland, C.S.C., of the Notre Dame-Newman Centre for Faith and Reason asked me this directly after an address I gave about bogs, wetland restoration, and ecological theology. 'How, actually, tangibly, is "restoration" done at scale?' See the recording here: *Bogs Are Beautiful: Reflections on the Past and Future of Irish Peatlands* (Dublin, 2024), <https://www.youtube.com/watch?v=Qy1SuWQs9q4>.

INTACT, DRAINED, AND PALUDICULTURED PEATLANDS

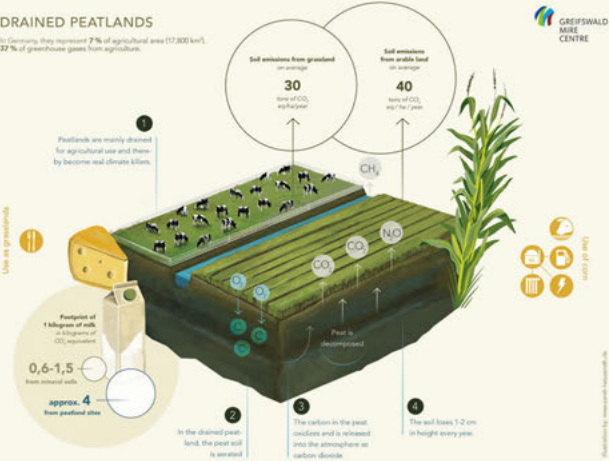
INTACT PEATLANDS

Only 2 % of German peatlands are still pristine.



DRAINED PEATLANDS

In Germany, they represent 7 % of agricultural area (17,000 km²). 37 % of greenhouse gases from agriculture.



PEATLANDS WITH PALUDICULTURE

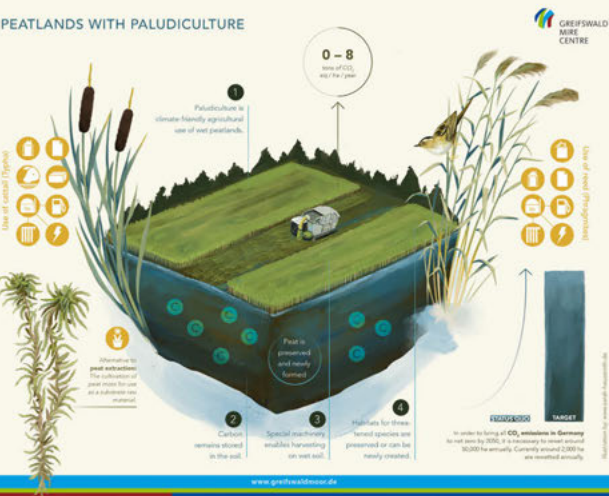


Figure 3. Representations of peatlands in various conditions, including after paludiculture. (Credit: Greifswald Mire Centre: <https://www.greifswaldmoor.de/home.html>)

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I’d like to put forward a simple policy proposal: fund “bog rehabilitation stewards” or “restoration rangers” to maintain restoring areas, in close partnership with local groups, beyond the actions employed by Bord na Móna through their PCAS funding or academic research groups. Equip them with actionable guides such as the *Blanket Bog Restoration Toolkit* from WaterLANDS. Let stewardship be local, embodied, and sustained.

least conceptually) by *inaction*, by holding back, rather than the responsible action involved with restoration.

But true restoration is relational: blocking drains, planting moss, building leaky dams. It is action rooted in care. Local initiatives like the Community Wetlands Forum and ReWild Wicklow demonstrate the power of communities to lead in monitoring, maintaining, and celebrating restored sites.⁴⁰

Yet institutional structures often fail to support this work. Research projects may expire with their funding cycles. Maintenance phases are too rarely planned or resourced. I’d like to put forward a simple policy proposal: fund “bog rehabilitation stewards” or “restoration rangers” to maintain restoring areas, in close partnership with local groups, beyond the actions employed by Bord na Móna through their PCAS funding or academic research groups. Equip them with actionable guides such as the *Blanket Bog Restoration Toolkit* from WaterLANDS.⁴¹ Let stewardship be local, embodied, and sustained.

⁴⁰ See their websites: Community Wetlands Forum, ‘Inspiring Communities to Enjoy, Manage and Protect Their Wetlands for Present and Future Generations’, Community Wetlands Forum, 2023, <https://communitywetlandsforum.ie/> and ReWild Wicklow, ‘Peatland Restoration’, ReWild Wicklow, 2022, <https://rewildwicklow.ie/projects/peatland-restoration>.
⁴¹ View the resource online here: Guaduneth Chico et al., ‘Blanket Bog Restoration Toolkit’ (University College Dublin: WaterLANDS, 2024).

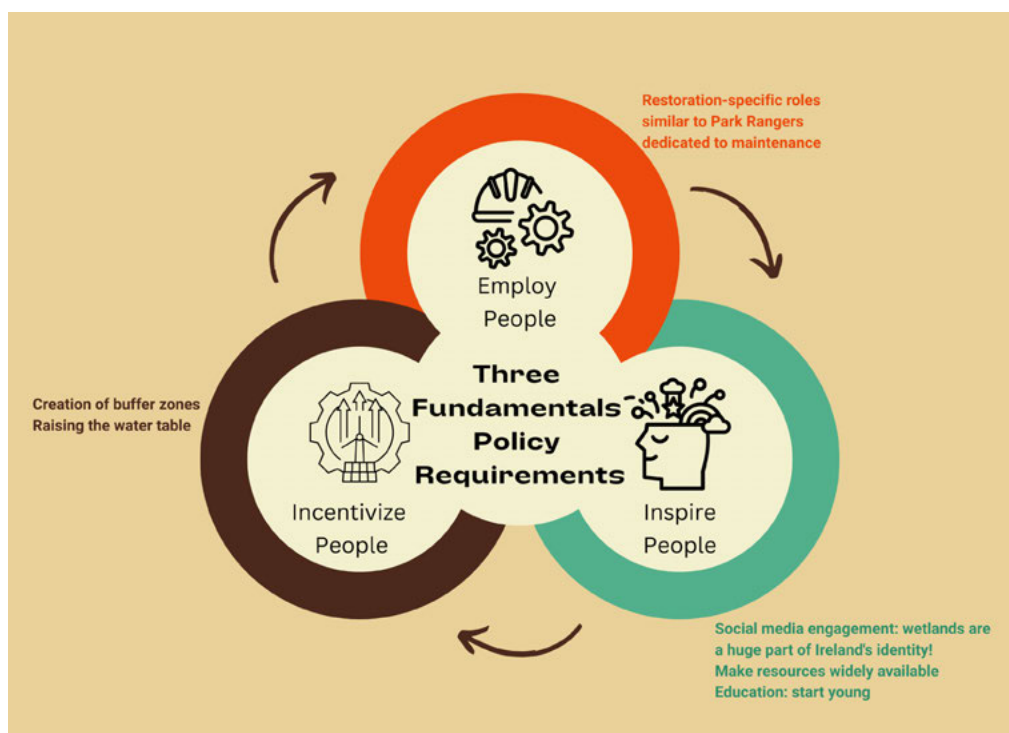


Figure 4. Suggestions for policy actions, broken down by theme. Peatlands need people! (Credit: JCFI)

Faith communities are uniquely positioned to support this cultural shift. Environmental service is not a distraction from the Gospel, but its extension. That patch of bog on your land? Steward it as you would your cattle. Crouch down with muddy knees and examine which mosses are thriving. Service to land is service to life.

CONCLUSION: REFRAMING POLICY THROUGH A MORAL LENS

As an early-career scientist I don't have experience drawing up policy. I may present ideas here that are radical and difficult to roll out quickly or seamlessly. As a researcher, I am biased towards the conclusion that we need more research in the intersection of industry and peatland conservation activity – not about its feasibility but under the assumption that it is necessary.

There are some in my field who would say the minute humans tread their boots into a peatland site, conservation becomes instantly hindered, stunted, or even impossible. But the soul of Ireland is too closely linked to

using peatlands to be able to transition simply to dropping one's *sleán* or oftentimes one's livelihood without seeing some new form of active participation in the land.

Instead, why don't we consider simpler alternatives like encouraging buffer zones at the edges of private or public properties. We let people contribute in their own way, scattered across the whole country, and innumerable good could be done – especially for water quality. Legislation could encourage this activity. Or, it could be financially incentivised. Or, it could be achieved through an appeal to the already-growing masses of volunteers in registered charities ready and willing to work for the benefit of the environment.

It is one thing to claim the rights of nature entirely apart from human interaction, and blame ourselves for inevitably spoiling any perfection displayed by pristine peatlands. It is yet another thing to acknowledge the inextricable association between humanity and Irish bogs.⁴² Bogs are fundamentally entangled

⁴² And much more Catholic!

with human activity and human culture. They contain and preserve humans, they support human infrastructure, they represent human history, and they may either aid or weaken the chances of human survival in the face of climate change.

If the artist, Catriona Leahy, were God, she might deign to gift rural Ireland a limited-edition, unfixed photo print – one that deteriorates each time you look at it, and which you cannot refuse to own.⁴³ This, perhaps, is the moral position we now occupy: bound to the land, unable to look away, responsible for what fades under our gaze. The chief virtue we must cultivate is self-control – to treasure the gift, while minimising harm to it whenever possible.

Even if these peatlands may not actually remain *bogs* as they are scientifically defined, I can only hope to humbly present the science with integrity, explain to the public the *latent truth* of what we will be losing, and predict to the best of my ability what sort of world, what sort of peatlands, Irish people will come to tolerate, tend, and perhaps even love.

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This, perhaps, is the moral position we now occupy: bound to the land, unable to look away, responsible for what fades under our gaze. The chief virtue we must cultivate is self-control – to treasure the gift, while minimising harm to it whenever possible.

43 Caitriona Leahy, 'Catrionaleahy.Com', catrionaleahy.com, 2014, <https://catrionaleahy.com/>.

The Importance of a Healthy Ecology of Protest

Judith Russenberger

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INTRODUCTION: THE ECOLOGY OF PROTEST

Ecology is the branch of biology that studies how organisms interact with their environment and with other organisms. From the initial colonisation of a blank canvas – a rock surface or pool of water – by living organisms that multiply and provide the elements that attract more and different organisms, the ecology of the space develops.

As successive organisms, plants and creatures reside in a habitat, the vitality and diversity of that environment expands and becomes more complex. Between the different species there will be interdependent relationships; in the typical imagination, some will be predator, some prey. More commonly, however, others will exist in more cooperative relationships. We can think of worms that digest fallen leaves allowing key nutrients to be made available once more for the local plant life, or zebras and ostriches that graze together relying on each other’s particular skills: zebras enhanced sense of smell and hearing and the ostriches’ enhanced visual skills, giving early warning of predators. Some of these will be keystone species whose presence keeps the different competing parties in sustainable balance; think of the interrelationship between rabbits and foxes. Over time, every possible niche in the ecosystem is filled, every opportunity embraced and every advantage achieved. The net result is a highly complex, rich and diverse community of species. Ultimately, the ecosystem attains a peak status – that of a

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climax community – and typically the greater the biodiversity, the greater the stability.

The development of an ecological system involves the creative coexistence or co-habitation of various organisms, forming a hierarchy with a few apex predators (tertiary consumers) at the top, a greater number of non-apex carnivores (secondary consumers), then an even greater number of herbivores (primary consumers) and below them photosynthesizers (primary producers). The right balance between the different groups ensures the stability of the ecosystem. Whilst apex predators are often seen as the keystone species, critical species may be found at different levels in the hierarchy. If democracy is imagined as a huge ecosystem of human interaction, we can think of protest as a critical species of speech and action – an essential element of what it means to live in a society that stably and seriously pursues justice.

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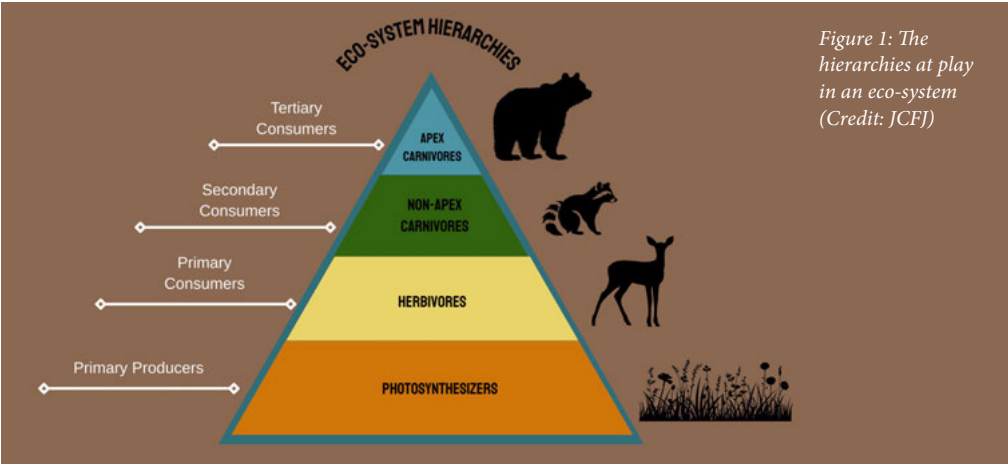


Figure 1: The hierarchies at play in an eco-system (Credit: JCFI)

As a result of human greed and over-consumption, an inability to share and be generous, and an aptitude for perversely ignoring scientific evidence, we live in a world threatened by a climate crisis, a biodiversity crisis and a social justice crisis.

community as one that echoes the Kingdom of God. Sadly, it is not a state of being that we currently see in the world. As a result of human greed and over-consumption, an inability to share and be generous, and an aptitude for perversely ignoring scientific evidence, we live in a world threatened by a climate crisis, a biodiversity crisis and a social justice crisis.¹ As Christians – and indeed surely as human beings – we are called to seek a mutually better way of living together on this Earth.

I have, over the last five years, become increasingly involved as an activist with Christian Climate Action.² Our campaigns seek an end to all three crises covered by Pope Francis’ formulation of “integral ecology”: climate, biodiversity, and global social justice. Our actions are varied in size and scale from solo prayer vigils to the occupation of the offices of financial institutions. They are always peaceful.

Just as the world is not populated by one species but by an interconnected and interdependent ecosystem encompassing a diversity of species, so the world of protest is an interconnected and interdependent ecosystem. Just as diversity enables a rich and flourishing environment in the world of flora and fauna, so diversity ensures a rich and flourishing environment in the world of protest. And this environment is essential for a properly functioning democracy.

WORDS AND ACTIONS OF PEACE: WHAT PROTEST SHOULD BE

A peaceful protest has two components: it promotes or achieves a peaceful outcome, and it is carried out in a peaceful manner. Peace is more than an absence of violence; it is a place or process dependent on justice and wholeness. Peaceful outcomes are therefore those that focus on achieving justice and wholeness. So, for example, in our campaign asking Christian Aid to drop Barclays as its bank, we sought to ensure that fundraising given to Christian Aid was not indirectly financing activities that were aggravating the climate crisis and directly damaging the vulnerable communities being supported by Christian Aid.³ We wanted to achieve an outcome that was just and coherent.



The Climate Choir Protest Movement inside St Paul's Cathedral (Credit: XR UK)

¹ Pope Francis, *Laudato Si'* (London: Catholic Truth Society, 2015), §139.

² CCA, 'Christian Climate Action', Christian Climate Action, May 2025, <https://christianclimateaction.org/>.

³ Hattie Williams, 'Christian Aid to Stop Banking with Barclays after Climate Campaign', *Church Times*, 25 July 2023, <https://www.churchtimes.co.uk/articles/2023/28-july/news/uk/christian-aid-to-stop-banking-with-barclays-after-climate-campaign>.

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it is a place or process dependent on
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To protest is to challenge, to take action –
verbal or physical – in order to achieve change.
What, then, is peaceful protest? What words
or actions can be encompassed?

Words of peace are truthful. Lies and
misdirections do not promote justice. Nor do
words of slander or hate. But equally, half-
truths and greenwashing are destructive. As
Christians, we are called to speak truth to
power even when the truth is uncomfortable
to hear. What about the tone? Shouting can
effectively attract attention but can also create
a response of fear or anger. Discernment is
needed. Singing, on the other hand, can both
attract attention and be calming and engaging.
Sometimes, the most effective mode is silence.
Silence in our world can be unexpected and
arresting, challenging and powerful.

I have, whilst engaged in silent vigils outside
Parliament, been witness to several protests
which have been loud with noisy shouting,
trumpeting, and horn blowing, and where the
words have been inflammatory. The overall
atmosphere was intimidating and aggressive.
This may be the traditional mode of protest,
but perhaps it is time to explore alternatives.

What of actions? Carrying a banner or a
placard is an extension of words and the same
judgments apply. What of posture? Kneeling
or sitting is probably the least intimidating,
although kneeling, because it is counter-
cultural, can be forceful in engaging attention.
Walking, as in a pilgrimage, likewise has its
own positive strength. Marching can also be
forceful but depending on the manner of the
banners, placards, and spoken words, can be
either peaceful or aggressive. Marching may

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also be accompanied by musical sounds. I think
the noise of a samba band, although loud and
therefore disruptive, is a powerful statement of
presence that is both challenging and peaceful.

Actions may involve street theatre such as a
“die-in” where participants lie down on the
street (sometimes shrouded under sheets) to
demonstrate the impact of the climate crisis. Or
where a dead tree is presented to an organisation
as a metaphor for the destruction their activities
are causing. Or actions might include song
and dance. With a particularly Christian slant,
actions have also included acts of street worship:
prayers and laments, washing of feet or cutting
off of hair, and celebrating the Eucharist.⁴

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WHY PROTESTING ABOUT PROTEST IS IMPORTANT

On January 29th and 30th this year, over a
thousand people sat in the road outside the
Royal Courts of Justice to protest at the
deliberate diminution of the right to protest in
the UK. Inside the Courts an appeal brought
by 16 climate protesters challenging the
severity of the sentences they had been given
was being heard.⁵

As we sat back-to-back silently on the road
in three orderly lines, police officers walked
up and down the lines, stopping to address
individuals asking them to move.

*“We recognise your right to protest, but
this is a live road.”*

“What can we do to make you move?”

*“Please move to the designated protest
area, in between the church and the
courthouse.”*

⁴ For a remarkable account of the potency and effectiveness of worship in
public space as subversive protest, consider: William T. Cavanaugh, *Torture
and Eucharist* (Oxford: Blackwell, 1998).

⁵ The Canary, ‘Met Police Already Threatening Peaceful Protesters at the
“Lord Walney” 16 Appeal Hearing’, *The Canary*, 29 January 2025, [https://
www.thecanary.co.uk/news/2025/01/29/just-stop-oil-lord-walney-16-
appeal/](https://www.thecanary.co.uk/news/2025/01/29/just-stop-oil-lord-walney-16-appeal/).

“A Section 14 notice may be imposed on this section of road, and then we may arrest you.”

“You might spend hours in a police cell.”

This was a silent vigil, so most chose not to respond to the police. Instead, maintaining the silence with eyes downcast, we resolutely continued to sit in the road.



Christian Climate Action protesting investment strategies in the Church of England (Credit: Christian Climate Action)

Yes, we were blocking the road. Yes, we were preventing vehicles from using that section. Why? Because – yes! – this was a protest. And what is a protest if it does not cause some degree of disruption?

The reason for any protest is to raise awareness – to draw people’s attention – to an issue in order to effect change. This protest was about the failure of the system to allow justifiable and reasonable protest.

Over the last few years, the right to protest has been crushed and demonised by the British government through new laws, by judges through punitive interpretation of laws and sentencing guidelines, and by corporate interests through their ability to drop quiet words into significant ears, and their ability to afford the cost of legal actions and injunctions.

Where once walking peacefully along a street was considered a valid means of protest, it is now designated as a “public nuisance.” Where

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Protest is meant to disrupt. It is meant to irritate. It is there to draw attention to a situation that needs to change.

once sitting and blocking a road was considered a valid means of protest, it is now designated as a “disruption of national infrastructure.” Have we reached a situation where you can only protest by staying quietly on the pavement, well away from anyone or anything you might possibly disrupt?

Protest is meant to disrupt. It is meant to irritate. It is there to draw attention to a situation that needs to change. Yes, protest has to be proportionate. Yes, protest has to target the appropriate audiences. Yes, protest has to be based on valid claims. What more valid claim is there than the climate and biodiversity crisis accelerating all around us?

DEVASTATING THE ENVIRONMENT OF PROTEST

The climate crisis is the biggest existential crisis that we humans have ever faced. A delayed car journey diminishes into insignificance compared with the potential loss of life of millions of people.

The climate crisis has no favourites; it can and will continue to affect us all. There is no audience that can argue that it doesn’t threaten them.

The climate crisis is a scientifically hypothesised, modelled and proven crisis. There is no valid data that proves otherwise.

And yet since the rise of Extinction Rebellion in 2018, and of subsequent groups such as Insulate Britain and Just Stop Oil, governments, judges and the UK Criminal Prosecution Service have gone out of their way to silence the reasonable and peaceful protest of citizens concerned by the reality facing us.

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Christians at prayer (and protest) (Credit: Judith Russenberger)

Initially, peaceful protesters could rely on the defence of “necessity,” meaning that their violation of the law (such as obstructing the road) was necessary to prevent even greater harm from occurring. However, in February 2021, the UK Court of Appeal quashed the convictions of the Stansted 15 and ruled that activists could not rely on the defence of necessity.⁶

In 2022, following the action of the Colston Four (who tipped a statue of Edward Colston, a prosperous 17th-century slave-trader and benefactor to the city of Bristol, into the harbour), the Court of Appeal ruled that the defence of lawful excuse under Article 10 and 11 rights under the European Convention of Human Rights could not be presented to a jury in the future.⁷

In April 2023, Judge Colliery, in the case of Marcus Decker and Morgan Trowland, ruled that the defence of reasonable excuse did not include the mass loss of life caused by the

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climate crisis.⁸ Some judges, including Judge Silas Reid, have banned the use of words such as “climate change” and “fuel poverty” in their courtrooms.⁹ When judges direct jurors to ignore the motivation of the defendants when determining their guilt or innocence, and rather to follow solely a narrow interpretation of evidence, a significant alteration to our understanding of justice has occurred. This is contrary to the principle of “jury equity” which permits a jury to find innocent someone they know to have broken the law, when their conscience so dictates.¹⁰

6 Brian Doherty, Graeme Hayes, and Steven Cammiss, ‘The Stansted 15 Appeal: A Hollow Victory for the Right to Protest?’, *The Conversation*, 10 February 2021, <http://theconversation.com/the-stansted-15-appeal-a-hollow-victory-for-the-right-to-protest-154694>.

7 Haroon Siddique and Damien Gayle, ‘Colston Four: Protesters Cannot Rely on “Human Rights” Defence, Top Judge Rules’, *The Guardian*, 28 September 2022, sec. Law, <https://www.theguardian.com/law/2022/sep/28/colston-four-protesters-cannot-rely-on-human-rights-defence-top-judge-rules>.

8 BBC News, ‘Just Stop Oil: Dartford Crossing Protesters Jailed’, *BBC News*, 21 April 2023, <https://www.bbc.com/news/uk-england-essex-65263650>.

9 Anita Mureithi, ‘Insulate Britain Activists Jailed for Seven Weeks’, *openDemocracy*, 3 March 2023, <https://www.opendemocracy.net/en/activists-jailed-for-seven-weeks-for-defying-ban-on-mentioning-climate-crisis/>.

10 Defend our Juries, ‘Trudi Warner - Taking a Stand’, *Defend Our Juries* (blog), 22 September 2024, <https://defendourjuries.org/trudi-warner-taking-a-stand/>.

In March 2024, the Court of Appeal ruled that evidence of the effects of climate change would not be admissible in future cases. Such evidence had been used to support the defence of consent. This excludes, *a priori*, any argument that affected people and organisations would have to tolerate the disruptive action had they known about the danger they were facing (e.g. the impact of the climate crisis). It is straightforward to imagine that they could come to the conclusion that the contested actions were justifiable – necessary even – considering the significance of the warning that must be communicated.¹¹

The Public Order Act of 2023 introduced a number of new criminal offences, including locking-on, causing disruption by tunnelling, obstructing major transport works, and interfering with key national infrastructure. The latter clause includes “A” and “B” roads such as The Strand, that runs in front of the Royal Courts of Justice. The Act aims to increase the police’s ability to restrict and criminalise protest activity, and specifically names Extinction Rebellion, Just Stop Oil, and Insulate Britain. The Act redefines serious disruption as hindering day-to-day activities such as a journey to work and causing delays to a more than minor degree.¹²

Protestors are not only being challenged by the processes of the criminal courts, but also by organisations and companies rich enough to pursue them through the civil courts. Bodies such as Shell and the National Highways Agency have taken out injunctions against both specific people and “persons unknown”, preventing them from carrying out certain activities – e.g. blocking a road, entering particular locations, or associating with certain people. Dwell for a moment with the realisation that corporate entities can now legally force British citizens to stay away from their friends. Any breach of an injunction can incur up to two years in prison or an unlimited fine. “Persons unknown” (not specifically named in the injunction) can be charged if they breach said injunction. In

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some cases, a protester can be tried twice for the same offence; once in the civil courts for breach of an injunction and again in the criminal courts. Persons named in the injunction can also be charged with the legal costs incurred by the company/organisation in issuing the injunction!¹³

Sentencing practice has seen longer prison sentences being imposed. Previously, the so-called “Hoffman’s bargain” applied, whereby if protesters were peaceful and did not cause excessive damage or inconvenience, the State would show proportionate leniency to reflect their conscientious motives.¹⁴ However, this is no longer the norm and sentences are now being designed to be both punitive and to act as a deterrent to further “legal” protest.¹⁵

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THE BOUNDARIES OF FAITH AND PROTEST

The appeal case heard at the Royal Courts of Justice on 29th and 30th January involved 16 peaceful protestors involved in four different cases. They had received a combined prison sentence of 41 years. In response to the

11 Sandra Laville, ‘Court Ruling Erodes Climate Activists’ Ability to Defend Themselves – as the Planet Heats Up’, *The Guardian*, 19 March 2024, sec. Environment, <https://www.theguardian.com/environment/2024/mar/19/ruling-erodes-climate-activists-right-protest-england-wales>.

12 I.Liberty, ‘Public Order Act: New Protest Offences & “Serious Disruption”’, I.Liberty, 11 May 2023, https://www.libertyhumanrights.org.uk/advice_information/public-order-act-new-protest-offences/.

13 See also: Tom Wall and Josephine Casserly, ‘Civil Injunctions Restrict Protests at 1,200 Locations, BBC Finds’, *BBC News*, 2 July 2024, <https://www.bbc.com/news/articles/cjeegzv0913o>. See also: Campaign against Climate Change, ‘Defend the Right to Protest’, Campaign against Climate Change, 20 March 2021, <https://campaigncc.gn.apc.org/resist-police-bill>.

14 J. Jones, ‘The JSO Five and the Breaking of Hoffman’s Bargain - Wildlife in Peril’, *Wildlife in Peril* (blog), 19 July 2024, <https://wildlifeinperil.com/the-jso-five-and-the-breaking-of-hoffmans-bargain/>.

15 Róisín Finnegan, ‘The Recent Sentencing of Climate Protestors’, *Six Pump Court*, 9 August 2024, <https://6pumpcourt.co.uk/the-recent-sentencing-of-climate-protestors/>.

sentencing of Daniel Shaw to four years in prison, the UN Rapporteur on Environmental Defenders under the Aarhus Convention, Michel Forst, wrote “[t]oday marks a dark day for peaceful environmental protest, the protection of environmental defenders and indeed anyone concerned with the exercise of their fundamental freedoms in the United Kingdom of Great Britain and Northern Ireland.”¹⁶

At the time of writing, six of those appeals were successful, though the fact that others failed underlines that there has been no “improvement in the law for the sentencing of peaceful protestors.”¹⁷

One of the 16 prisoners, Gaie Delap, is a 78-year-old Irish Quaker who was sentenced to 20 months for her part in disrupting traffic on the M25 when protestors unfurled banners from gantries over the motorway. She was released on a home curfew licence to complete her sentence at home (like Ireland, UK prisons are suffering from intense overcrowding). However, as an appropriate electronic tag could not be found that would fit her wrist, she was arrested and imprisoned.¹⁸ Such is the response of the justice system in the United Kingdom to those who, in good conscience, protest on behalf of all those who are living under the existential threat of climate change.

Ms Delap is not a household name in our church communities. But maybe she should be?

It is understandable that Christians do not want to associate with organisations that disrupt the peace. But what if peace can only be achieved if there is some disruption? What if what is required is exactly that people of faith block a road, meaning traffic has to take an alternative route? What if they decide to



78-year old retired teacher, Irish citizen, and environmental activist Gaie Delap, who was sentenced to 20 months in prison for climbing a gantry over the M25 (Credit: PA Images/Alamy Stock)

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As Christians, we might draw parallels with Jesus’s disruptive actions in the temple, or the road-blocking effect of his entry into Jerusalem riding on a donkey.

raise awareness about the crises unfolding within the semi-public space of an art gallery or the lobby of an office building?

As Christians, we might draw parallels with Jesus’s disruptive actions in the temple, or the road-blocking effect of his entry into Jerusalem riding on a donkey. We might look to the examples of the prophets who broke pots, bought up pieces of land, dug holes in walls, or buried items in the ground. If the action focuses on a just and coherent outcome – such as raising awareness of climate change – and it encourages the audience (the public, the art gallery’s leadership, a company’s board, a government department, etc.) to make appropriate changes, then such actions seem to fall within the definition of peaceful.

¹⁶ Michel Forst, ‘Statement Regarding the Four-Year Prison Sentence Imposed on Mr. Daniel Shaw for His Involvement in Peaceful Environmental Protest in the United Kingdom’ (United Nations Economic Commission for Europe, 18 July 2024), https://unece.org/sites/default/files/2024-07/ACSR.C.2024_26_UK_SR_EnvDefenders_public_statement_18.07.2024.pdf.

¹⁷ Friends of the Earth UK, ‘Green Groups to Intervene in Just Stop Oil Court Appeal’, Friends of the Earth, 17 December 2024, <https://friendsoftheearth.uk/system-change/green-groups-intervene-just-stop-oil-court-appeal>.

¹⁸ Anne Lucey, ‘Irish Passport Holder (77) Held in UK Prison over Christmas as Electronic Tag Too Large for Wrist’, *The Irish Times*, 5 January 2025, <https://www.irishtimes.com/world/uk/2025/01/05/irish-passport-holder-77-held-in-uk-prison-over-christmas-as-electronic-tag-too-large-for-wrist/>.

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They certainly appear to be legitimate and serious witnesses to the good news Christianity proclaims.¹⁹



Judith Russenberger protesting outside the House of Lords, November 22, 2023. (Photo-credit: Judith Russenberger)

¹⁹ How else would people who believe “That the Earth is the Lord’s, and everything in it: the world, and all who live in it” be expected to behave? (Psalm 24:1).

But what if the action involves causing physical damage such as symbolically breaking a glass door, defacing a petrol pump, or throwing paint on a building? The objective could still be to raise awareness of climate change and to encourage a change in behaviour by the audience. And still, the level of disruption and damage to goods and property is not above what the prophets did. Maybe the circumstances – the scale of the risk being highlighted, the value of the damage versus the profits of the business – allow such actions to be seen as peaceful. If the damage became personal – breaking a house or car window, damaging someone’s clothes – or if the action involved violence to an individual or any other sentient being, then that would go beyond what is peaceful. There is a real question of discernment here. Jesus commands his followers not to harm those who came to arrest him – and heals the ear cut off one of the assailants.

CONCLUSION: SUSTAINING THE ECOLOGY OF PROTEST

In a just society, the function of a protest is disruption. Peaceful protest can be seen as a critical part of the ecology of a democratic society, the key species that ensures that injustices are addressed, that inequalities are levelled out, the biases are highlighted, and power imbalances readjusted. Where peaceful protest is quashed or suppressed, autocracy and dictatorship follow, as we have so often seen across history and across the globe.

One form of protest that I haven’t touched on is lifestyle change. Choosing to live in line with the change you wish to see – walking the talk – is a form of protest. It is saying I am challenging the assumption that, for example, flying is an acceptable means of transport, and I am, by choosing not to fly, articulating my protest. If enough people share this same form of protest, the effect can be significant and can precipitate change. A related form of protest is to sign petitions and write letters/ emails. In fact, the two work well together. You can both give up flying –thus reducing the commercial demand for air flights, even if only by a marginal amount – and sign petitions seeking to reduce or tax or eliminate air travel.



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While such forms of protest may seem basic, I would suggest they actually represent the bottom layer of the protest pyramid. Such protests are the primary producers of change. Without individuals wanting and being willing to change their lifestyles, there is no real basis for other forms of protest. At the other end of the spectrum, the apex equivalent are the “spicy” actions which do cause deliberate disruption. Any ecosystem can only support a limited number of apex individuals; otherwise, there will be overkill, and the system will collapse. But that limited number keeps the rest of the cohabitants on their toes, keeps them alert and healthy. Disruptive actions make people stop and think. They encourage people to ask existential questions.

Interestingly, though people do not need to approve of or like the spicy actions for them to be effective. Just Stop Oil’s actions in closing motorways and throwing paint over glassed-in pictures have not been widely approved but have led to the issue of climate change and our reliance on destructive fossil fuels being far more widely talked about. And indeed, the current UK government has pledged not to license any more new oil or gas.²⁰

In between these two extremes of the ecological pyramid coexist the majority of peaceful protests – the vigils, the marches, street theatre, and prayer. These thrive because they are underpinned by the individual protest of lifestyle change, letter-writing, and petition-signing. They thrive because their significance is highlighted by a few disruptive actions. And they, in their turn, encourage the continued persistence of personal protest and give impetus to the disruptive ones. Together they maintain the thriving of a healthy democracy. Together they work to achieve the just and flourishing world that we wish to live in. Together they work to welcome in the Kingdom of God.

20 Rob Davies, ‘Ban on New Drilling Confirmed as Ministers Consult on North Sea’s “Clean Energy Future”’, *The Guardian*, 5 March 2025, sec. Business, <https://www.theguardian.com/business/2025/mar/05/ban-on-new-drilling-confirmed-as-ministers-consult-on-north-sea-clean-energy-future>.

Laudato Si', Ten Years On: Reflections from An Animal Theologian

Ruby R. Alemu

Ruby R. Alemu holds a PhD in Theological Ethics from Aberdeen University. Her recent thesis *The Cries of the Animals: Integral Ecology After Laudato Si'*, explores missing nonhuman animals in the encyclical through the perspective of 'anthropocentrism' and the Thomistic and Franciscan influences of *Laudato Si'* and Catholic Social Teaching. She has worked with Catholic Concern for Animals and Christians for Animals International in respective campaigns to advocate for nonhuman animals in *Laudato Si'* initiatives.

INTRODUCTION

The publication of *Laudate Deum* in October 2023 cemented the environmental and ecological legacy of Pope Francis' papacy. Eight years after *Laudato Si'*, the apostolic exhortation restates the urgency of climate change as a "global social issue and one intimately related to the dignity of human life" (LD §3). Rather than stating anything theologically new, the exhortation continues the spiritual, powerful message of *Laudato Si'*: it "reads as a manifesto outlining policy recommendations"¹ in the run-up to COP28, as *Laudato Si'* likewise – and deliberately – preceded COP21.

At a private reception for the launch of *Laudate Deum* in the Vatican Gardens, the author, Jonathan Safran Foer, commended the exhortation for championing individual action and emphasising the need for policy change, particularly within the global food production system:

*Choosing a form of transportation with lower carbon emissions, or reducing the consumption of animal products, especially meat, are actions that can matter at the individual and the policy level. The power of food system change to alter the climate is particularly noteworthy and only just beginning to be realized.*²

Safran Foer's discussion of animal agriculture hinted at the glaring omission from previous COP Summits of the global food production emergency and the lack of policy recommendations surrounding animal agriculture before COP28.³ At a theological level, however, Safran Foer's recommendation for the serious consideration of food system change

highlights the lack of discussion in *Laudate Deum* of global food production and animal agriculture. His remarks also highlight the omission of animal agriculture and global food production from *Laudato Si'*. Specific to this conversation is the necessary reduction in meat consumption, as "without a major and urgent transformation in global meat consumption, and even if zero [greenhouse gas global emissions] in all other sectors are achieved, agriculture alone will consume the entire world's carbon budget",⁴ which is needed to keep global temperature rise under 2°C by 2050. The food that we eat and the food choices that we make are one of the – or even *the most* – significant actions for individuals and communities to combat the ecological crisis. Yet, both *Laudato Si'* and *Laudate Deum* lack a single reference to meat consumption.⁵ This omission is glaring because of the regular appeals to scientific evidence in *Laudato Si'* regarding global climate change.



Credit: Ruby Clare Marino at Unsplash

- 1 Martino Mazzoleni, "Pope Francis and the Environment, Act 2: Time for Decisive Climate Action," *Environmental Politics* 34, No. 1 (2025), 196.
- 2 Jonathan Safran Foer, 'Farm Forward Board Member, Jonathan Safran Foer, Encourages Meat Reduction at the Vatican', *Farm Forward*, 5 October 2023, <https://www.farmforward.com/news/farm-forward-board-member-jonathan-safran-foer-encourages-meat-reduction-at-the-vatican/>.
- 3 Whitney Bauck, "'Food Is Finally on the Table': Cop28 Addressed Agriculture in a Real Way", *The Guardian*, 17 December 2023, sec. Environment, <https://www.theguardian.com/environment/2023/dec/17/cop28-sustainable-agriculture-food-greenhouse-gases>.

- 4 Nelson Iván Agudelo Higuaita, Regina LaRocque, and Alice McGushin, 'Climate Change, Industrial Animal Agriculture, and the Role of Physicians – Time to Act', *The Journal of Climate Change and Health* 13 (September 2023): 1, <https://doi.org/10.1016/j.jocl.2023.100260>.
- 5 Matthew Eaton and Timothy Harvie, 'Laudato Si' and Animal Well-Being: Food Ethics in a Throwaway Culture', *Journal of Catholic Social Thought* 17, no. 2 (2020): 241–60.

BETWEEN THE CRIES: THE OMISSION OF ANIMALS IN CATHOLIC SOCIAL TEACHING

Embedded as his environmental writing is within the long, systematic tradition of Catholic Social Teaching (CST), Pope Francis could not have been expected to revolutionise ecological thought and responsibilities with a single encyclical. The modern body of social teaching is guided by contingency, continuity, change and development in order for the Church to approach socio-economic and political issues in the global context.⁶ In the wake of World War II, Popes such as John XXIII, John Paul II, Benedict XVI, and Francis all faced an increased frequency of new social dilemmas which the Church had to address.⁷ Each papal document was not an instance for revolutionary thought, but an opportunity to update the Church's message to the modern world. The task at hand for Pope Francis – to bring the global climate crisis into the Church's moral concern – introduced a new methodology to CST, by beginning from a social problem and returning to principles of CST. The significance of *Laudato Si'* for Catholic ecological responsibility deserves celebration and praise 10 years on, despite the noted shortcomings in relation to individual, ethical actions.

In the lead-up to *Laudate Deum* in October 2023, many anticipated that it might spark a much-needed conversation about animal agriculture and the Catholic Church's responsibility to inspire change in global food policy. The exhortation serves to remind, repeat, and update the message of integral ecology which has so characterised Pope Francis' papacy. Whilst *Laudate Deum* could not propose substantially new material, the stage was set for a cursory reference to animal agriculture, or the need

6 Gerard V. Bradley and E. Christian Brugger, 'Contingency, Continuity, Development, and Change in Modern Catholic Social Teaching', in *Catholic Social Teaching: A Volume of Scholarly Essays*, ed. Gerard V. Bradley and E. Christian Brugger (Cambridge: Cambridge University Press, 2019), 1.

7 Robert A. Sirico, C.S.P., 'A Teacher Who Learns: Mater et Magistra (1961)', in *Building the Free Society: Democracy, Capitalism, and Catholic Social Teaching*, ed. George Weigel and Robert Royal (Grand Rapids, MI: Eerdmans, 1993), 50.

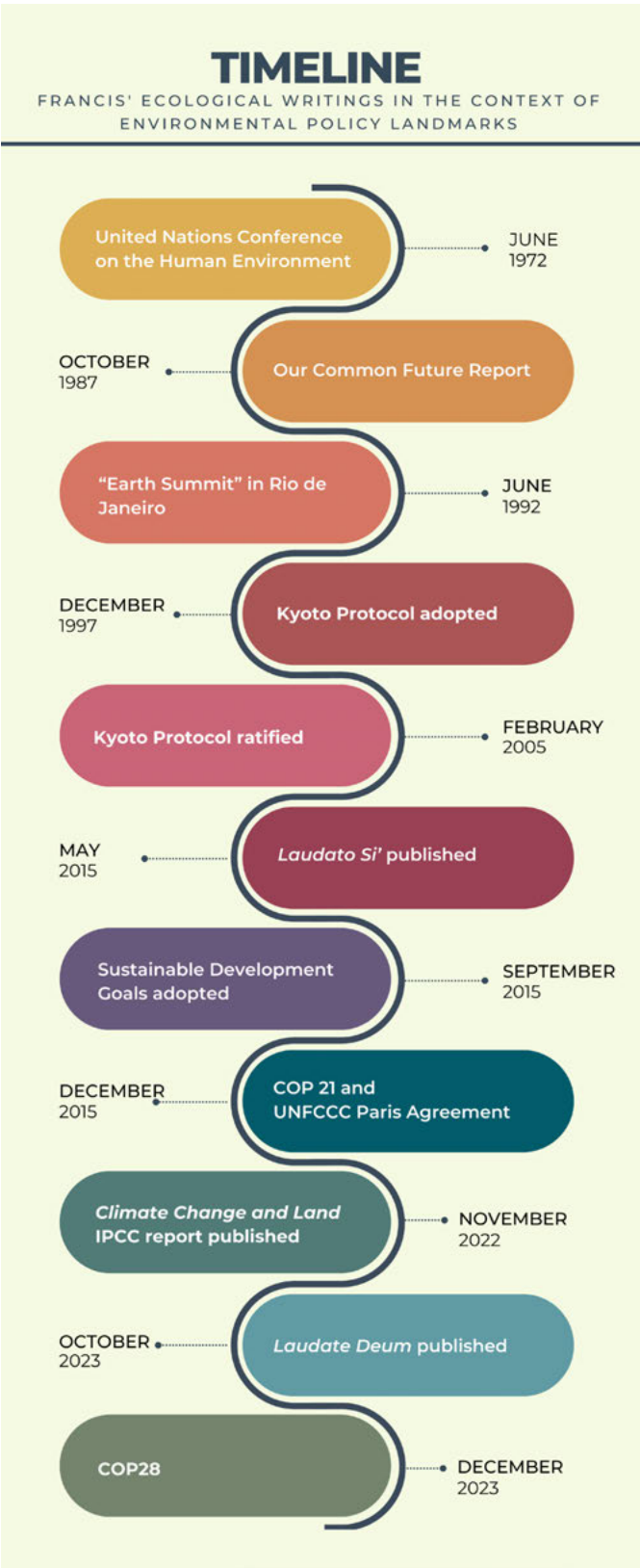


Figure 1: Timeline of major environmental events alongside ecclesial interventions (Credit: JCFJ)

to assess food production and consumption behaviours. In the UK alone, two million more people in the period between *Laudato Si'* and *Laudate Deum* adopted a vegan lifestyle. That population now represents 4.7 percent of the population.⁸ The gap between *Laudato Si'* in 2015 and *Laudate Deum* in 2023 saw a significant increase in scientific research surrounding the impact of animal agriculture on global climate change,⁹ including the 2019 and 2023 Intergovernmental Panel on Climate Change reports which Pope Francis references in *Laudate Deum*.¹⁰

As the 10th anniversary of *Laudato Si'* approaches, campaigners, policy makers, theologians, and ethicists still maintain hope for the integration of animal agriculture into the integral ecology conversation. The U.S. Conference of Catholic Bishops in November last year discussed ideas for marking the 10th anniversary of *Laudato Si'*, and in doing so proposed a return to fasting and abstinence practices – such as meat abstinence on Fridays, a requirement which was lifted in 1966.¹¹ The spiritual practice of fasting and abstinence is an individual and community action which reminds human beings of their deep connections to fellow human beings, Mother Earth, and God's creatures.

THEOLOGICAL SILENCE: ANIMALS IN CATHOLIC SOCIAL TEACHING

Two significant questions arise from these observations of missing links in Pope Francis' papal documents: *why* animal agriculture has so far been omitted, and *how* it could be realistically incorporated at any point in the future. It seems to me that these two

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How can the Church address the ethical implications of animal agriculture, and its impact of the Cry of the Earth and the Poor, without first addressing the Church's response to the very creatures at the centre of animal agriculture?

questions are inherently tied to a deeper issue within the body of Catholic Social Teaching: the status – and ethical treatment – of *animals themselves*. How can the Church address the ethical implications of animal agriculture, and its impact on the Cry of the Earth and the Poor, without first addressing the Church's response to the very creatures at the centre of animal agriculture?

On a surface level, nonhuman animals are present in *Laudato Si'* and *Laudate Deum*. Pope Francis draws on the influence of his namesake to recognise that the sun, moon, or any nonhuman animal is more than “an object simply to be used and controlled” (LS' §11). Different species have “value in themselves” (§33); different creatures are valuable in God's eyes (§69); each creature is willed, valuable, and significant (§76). Charles Camosy therefore uses the affirmation of nonhuman animal value to assess that *Laudato Si'* “firmly rejects the peculiar (post) Vatican II's emphasis on the special moral status of human beings – an emphasis which excluded moral consideration of non-human animals.”¹²

Yet, intrinsic worth in nonhuman creation is not a revolutionary feature of *Laudato Si'*: the Catechism reminds us that “animals are God's creatures... [b]y their mere existence they bless him and give him glory.”¹³ The recognition of nonhuman animal value in *Laudato Si'* and further back in the body of CST occurs in the context of a commitment to human priority. Where Pope Francis laments the loss of biodiversity and the intrinsic value of plants and animals (§33), this biodiversity loss “may constitute extremely important resources in the future, not only for food but

8 Daniel Clark, 'UK Vegan Population Increased By 1 Million In A Year, Study Finds', *Plant Based News* (blog), 26 January 2024, <https://plantbasednews.org/lifestyle/food/million-new-vegans-one-year/>.

9 Şenol Çelik, 'Bibliometric Analysis of Publications on the Effect of Animal Production on Climate Change from Past to Present', *Frontiers in Earth Science* 12 (24 May 2024): 1402407, <https://doi.org/10.3389/feart.2024.1402407>.

10 Mbow, C. et al., 'Food Security', in *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*, ed. P.R. Shukla, et al, 1st ed. (Cambridge: Cambridge University Press, 2022), <https://doi.org/10.1017/9781009157988>.

11 Brian Roewe, 'US Bishops Discuss *Laudato Si'* for First Time in Nearly a Decade', *National Catholic Reporter*, 15 November 2024, <https://www.ncronline.org/earthbeat/faith/us-bishops-discuss-laudato-si-first-time-nearly-decade>.

12 Charles Camosy, 'Locating *Laudato Si'* Along a Catholic Trajectory of Concern for Animals', *Lex Naturalis* 2, no. 1 (2016): 8.

13 Catechism of the Catholic Church, §2416.



Credit: AP/Alamy

also for curing disease and other uses” (§32). The loss of biodiversity is regrettable because of the effects on human beings, therefore presenting a moral concern for nonhuman animals and nonhuman creation in the context of a priority for human exceptionalism: “[t]he disappearance of a culture can be just as serious, or even more serious, than the disappearance of a species of plant or animal” (§145).

Pope Francis consistently treats animals as groups, sharing commonalities. Nonhuman animals together with human beings are all God’s creatures. Yet, nonhuman animals also belong to the wider entity of nonhuman creation, which encompasses individual creatures, ecosystems, the natural elements, and plants. The relationships which exist between human beings and nonhuman animals; between nonhuman animals and wider nonhuman creation; and between human beings and nonhuman creation are as intrinsically valuable as the value in individual beings and creation itself. The premise of *Laudato Si’* in which all people of good will are called to recognise the interconnected nature of integral ecology threatens to overshadow the recognition of intrinsic value in nonhuman animals, but does *not* simultaneously threaten the intrinsic value of human beings because of a prior human exceptionalism.

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Nonhuman animals occupy a grey space in Pope Francis’ thought. On one hand, creatures are intrinsically valuable. But the ecological tone of the encyclical which prioritises systems, entities, groups, and the relationships which exist within them, coupled with the priority of human beings in CST, places nonhuman animals at a moral disadvantage. The implicit existence of nonhuman animals under the umbrella term of the Cry of the Earth negates their particular, ontological existence as nonhuman animals. When nonhuman animals are grouped together with human animals as creatures, their differentiated ontological existence as *nonhuman* animals is overshadowed. Pope Francis draws on the priority of human beings “to recognize that other living beings have a value of their own in God’s eyes” (§69), yet

there is a missing animal ethic from *Laudato Si'* which draws on the rich Thomistic and Franciscan influences available to Pope Francis.

Whilst there are pertinent theological arguments for re-examining the place of nonhuman animals in Thomistic thought,¹⁴ it strikes me that Pope Francis displays a strong desire to be associated with not only his namesake, St Francis of Assisi, but also with the Franciscan spirituality which guides integral ecology. It was not a coincidence that the publication of *Laudate Deum* fell on the Feast Day of St Francis of Assisi. Both papal documents open with St Francis' praise of creation, from the *Canticle of the Sun*. However, this text by itself does not explicate a concern for nonhuman animals. Instead, nonhuman animals are grouped together with human beings as creatures. Within the *Canticle*, all of creation is called to praise God, presenting the idea that each creature, each plant, each human being, and the totality of God's creation is divinely willed and called back to God.

SAINT FRANCIS AND THE SHADOWS OF THE CANTICLE

The stories of St Francis' encounters with nonhuman animals illuminate and strengthen the *Canticle's* call to praise God. The earliest accounts of St Francis' life demonstrate how "Francis offers an unprecedented and now timely image of human-animal relationships."¹⁵ He encountered other animals in his life as brothers and sisters, just as he did human beings. He encounters groups of birds and fish, as well as individual animals, such as Brother Wolf. Within each encounter, there exists an allegorical and literal value. These stories teach human beings about themselves, their place, responsibility within, and relationship to God's creation. The allegorical value which encircles hagiographical accounts of St Francis'

significance for animals, however, exists at the same time at which he himself "shows concern for animals *in themselves*, in their embodied presence."¹⁶ The first Francis valued each animal as an intrinsically valuable creature of God, which happens to be conveying figurative meaning, rather than valuing the figurative meaning itself.¹⁷

When we turn back to *Laudato Si'*, the significance of St Francis' encounters with nonhuman animals is overshadowed by a reliance upon the *Canticle* and its focus on the deep connections between all of creation. The *Canticle* inspires the ecological method of the encyclical, to recognise the embodied fraternal and sororal (brotherly and sisterly) bonds which exist amongst creation. The "bonds of affection" which unite all creatures as brothers and sisters suggests the inclusion of animals to integral ecology. In Chapter One, Pope Francis explores the effects of climate change and global warming on biodiversity, water, land, pollution, and human beings. The section on biodiversity naturally includes nonhuman creatures who must not be viewed as mere resources, but as intrinsically valuable creatures who "give glory to God by their very existence" and convey a meaning to human beings (§33). The effects upon these nonhuman animals relate to their species survival and the consequences of extinction for other living beings. The value of nonhuman animals is therefore not primarily intrinsic, but instrumental: climactic effects on nonhuman animals impact the harmony of the created order. The value of particular nonhuman animals is secondary to the intrinsic value of relationships which connect human beings with nonhuman creation. On closer inspection, it is less than clear whether Pope Francis extends an authentic fraternity and sorority to nonhuman animals.

Pope Francis speaks of St Francis as the one who invited all of creation to enter into relationship with God: he chooses the example of St Francis preaching to the flowers, "as if they were endowed with reason," to illustrate this (§11). Whilst this demonstrates the depths to which St Francis entered into

14 See: Ryan Patrick McLaughlin, 'Thomas Aquinas' Eco-Theological Ethics of Anthropocentric Conservation', *Horizons* 39, no. 1 (2012); Ryan Patrick McLaughlin, *Christian Theology and the Status of Animals* (London: Palgrave Macmillan, 2014); Judith Barad, *Aquinas on the Nature and Treatment of Animals* (London: International Scholars Publications, 1995); John Berkman, 'Must We Love Non-Human Animals? A Post-Laudato Si Thomistic Perspective', *New Blackfriars* 102, no. 1099 (2020).

15 Susan Crane, 'Francis of Assisi on Protecting, Obeying, and Worshiping with Animals', *Exemplaria* 33, no. 4 (2021): 371.

16 Crane, 377.

17 Crane, 380.



Credit: AP/Alamy

St Francis of Assisi addressing the birds. Credit: [Darren McLoughlin](#) / Alamy Stock Photo
PhotoDarren McLoughlin/Alamy Stock Photo

creation, this is a remarkable oversight of St Francis' multiple encounters with preaching to nonhuman animals: an embodied example of fraternity and sorority which depicts "a special care for and gentleness towards God's sentient animals."¹⁸ Where fraternal and sororal language implicitly includes nonhuman animals, explicit fraternal and sororal language does not mention animals in *Laudato Si'*. Pope Francis speaks about a "universal fraternity," which is an extension of the command to love thy neighbour (§228), yet uses fraternal and sororal language to speak about exclusively human-human relationships. Human beings are united as brothers and sisters because "we have God as our common Father," neglecting the Franciscan recognition that all things originate from God. This shared, exclusively human origin "inspires us to love and accept the wind, the sun and the clouds, even though we cannot control them" (§228). The "universal fraternity" moves from human beings directly to earthly elements: a concerning oversight of St Francis' encounters with animals. The way in which human beings embody fraternal and sororal relationships with nature, earthly elements, or

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St Francis saw in each animal a living being, freely capable of engaging with God, and his life offers an allegory for Catholics worldwide:

immaterial beings differs significantly from an encounter with another intrinsically valuable creature of God.

The lack of explicit engagement with nonhuman animals as brothers and sisters points towards their omission from integral ecology. Referencing the relationships which exist between human beings and nonhuman animals does not sufficiently attend to the literal, intrinsic value which drives St Francis' lived experience of fraternal and sororal bonds with all creatures. St Francis saw in each animal a living being, freely capable of engaging with God, and his life offers an allegory for Catholics worldwide: the particular relationships which can exist between human beings and nonhuman animals do not just teach human beings about God's creation and their place therein, but that each encounter with an animal is an encounter with an intrinsically valuable creature, capable of praising God.

¹⁸ Clair Linzey, *Developing Animal Theology: An Engagement with Leonardo Boff* (New York, NY: Routledge, 2022), 67.

A FUTURE FOR INTEGRAL ECOLOGY: NAMING THE CREATURES

The commemoration of *Laudato Si's* 10-year anniversary is an opportunity for Catholic communities to strengthen their commitment to integral ecology. One way to do this would be to encourage conversations about reducing meat consumption, as mentioned at the outset of this article. Every aspect of integral ecology – animals included – suffers as a result of industrialised food production. The future of integral ecology, however, has the potential to strengthen and deepen its roots within a Franciscan (and Thomistic) theological commitment by advocating a specific moral concern for nonhuman animals. This allows human beings to deeply understand their connections within creation, but to cement the theological relationality that guides integral ecology itself. As a tradition built upon gradual change, future Catholic engagement

could begin to name nonhuman animals and therefore attend to nonhuman creatures in fraternal or sororal bonds by firstly naming the injustice and violence as a consequence of human diet and animal food production systems. Instigating these conversations is a logical – and imperative – stepping stone towards furthering Catholic awareness of the global climate crisis.

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Future Catholic engagement could begin to name nonhuman animals and therefore attend to nonhuman creatures in fraternal or sororal bonds by firstly naming the injustice and violence as a consequence of human diet and animal food production systems.

Ón Talamh Aníos / From the Ground Up

*An interview by Kevin Hargaden with
Frank Brady, SJ on the Irish language
and renewing ecosystems*

“When I was in the Gaeltacht in West Cork,” Frank Brady recalls, “many, many people spoke English. But any time I spoke Irish, I was always answered in Irish.” That simple act of response – of being met where one is, i.e. in your own words – is, in Frank’s telling, not just a memory but a sign of something deeper. “It’s like there are shoots coming up,” he says, gesturing to a fragile but persistent resurgence of the Irish language in Ireland’s cultural soil.

Now in his eighties, Frank has spent decades weaving his Jesuit vocation with grassroots language work, often in the most unexpected corners. He has worked among the burgeoning Irish-language scene in West Belfast, and he has edited *An Timire*, the world’s longest-running Irish-language magazine.¹ Yet for all his institutional involvement, Frank is adamant

that the future of the Irish language – and its spiritual and social meaning – does not lie *just* in top-down policy but in grassroots gathering, joy, and mutual nourishment.



Frank Brady SJ, at the Galway Jesuit Community, April 2025. (Credit: JCFI)

¹ An Timire/FS: <https://www.timire.ie/>

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The ecosystem is weak, but it's also alive.
It finds its way back into existence.

“I've always loved being among ordinary people,” Frank says. “And if you like, because I had the language, that's the way I went. Many of them have chosen the riches of that language for their children. And I think they're right to do so.”

He describes a layered “ecosystem” – a term he returns to often – where Irish is not merely a tool for communication but a medium for connection, culture, and shared value. There are urban *Gaelscoileanna* started by working-class parents in Belfast, summer language camps where teenagers take their first steps away from home and toward self-expression, and pub sessions where twenty people gather to sing songs in Irish and English, laugh, and remember. These aren't grand projects. But they are enough to nourish a language.

“The ecosystem is weak,” Frank admits, “but it's also alive. It finds its way back into existence.”

That language, he insists, carries a distinct way of seeing the world – a “richness” that speaks of human life, dignity, and community. It is, in his words, “part of the good things of the world,” something passed on through generations, something that resists both erasure and commodification. Frank sees this not as nostalgia, but as a justice issue: “Most of the world is multilingual,” he notes, “and in a democracy, if the people want it, the politicians must listen. We will continue to promote it.”

He sees hope not as wishful thinking but as a grounded response to reality: “There is reason to think that people value goodness and nourishment and richness. And the Irish language gives that.”

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It is, in his words, “part of the good things of the world,” something passed on through generations, something that resists both erasure and commodification.

As we spoke, the conversation moved again and again to people gathering – around songs, in classrooms, at wakes, in churches. Frank has no interest in language simply as a heritage item. He wants to see it lived. “If people have no opportunity to gather, the language fades. But if you give people a reason to gather – something joyful, something rooted – then the language comes with it.”

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In *Laudato Si'*, Pope Francis introduces the concept of cultural ecology as a critical part of integral ecology.² Just as biodiversity sustains the planet's resilience, cultural diversity sustains our human capacity to relate meaningfully to the world. Language, in particular, is a vessel of memory, worldview, and moral insight. When languages are lost, we lose entire ways of seeing.

In this context, minority and indigenous languages are not luxuries but vital assets – entrusted to specific communities and traditions, yet held for the common good. Irish, as Frank testifies, is one such language. It encodes a relational, communal, place-based imagination, shaped by land, history, and struggle. Supporting its cultivation is not only a matter of national pride, but of ecological and social justice.

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Minority and indigenous languages are not luxuries but vital assets.

Frank often references the work of translator and academic, Michael Cronin, whose classic book *An Ghaeilge agus an Éiceolaíocht / Irish and Ecology* he was instrumental in seeing

2 Pope Francis, *Laudato Si'* (Vatican City: Vatican, 2015), §143–46.



A road sign encouraging the use of Irish in An Daingean (Credit: Clearpixmap/Alamy Stock Photo)

published.³ “He connects the language in a novel way with the whole question of ecology,” Frank says. “It opened up something.” For Frank, Cronin’s work names what he has long felt – that Irish offers a distinctive way of being in the world, rooted in place, rhythm, and relation. The book, now in its third printing, has helped reframe the language revival not simply as cultural preservation, but as ecological imagination.

Here, the Jesuit commitment to a “faith that does justice”⁴ meets the call of *Laudato Si’*: to protect not only species and habitats, but also the human cultures that help us understand and care for them. In a time of ecological collapse and linguistic homogenisation, Frank Brady’s witness points us to a deeper solidarity – from the ground up.

It is this incarnational instinct – to go where people are, to speak in the language of their hearts – that Frank sees as central to both his Jesuit vocation and his love for Irish. And just as Pope Francis insists that “everything is connected,” Frank has come to see that the

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If we don’t look after the planet, there’ll be no place to live,” he says. “And the first people to suffer are the poor. It’s the same with language. The people who send their kids to *Gaelscoileanna* – they’re often normal working families. They want their children to have what Irish has to offer them. And that includes a value system.

movement to protect minority languages is inseparable from ecological and social justice.⁵

“If we don’t look after the planet, there’ll be no place to live,” he says. “And the first people to suffer are the poor. It’s the same with language. The people who send their kids to *Gaelscoileanna* – they’re often normal working families. They want their children to have what Irish has to offer them. And that includes a value system.”

In this sense, cultivating the ecosystem around the speaking of Irish goes deeper than the language itself. That “deeper” is difficult to define, but Frank gestures toward it through memory and place: the “something different”

3 Michael Cronin, *Irish and Ecology/An Ghaeilge Agus an Éiceolaíocht* (Dublin: Foilseacháin Ábhair Spioradálta, 2019).

4 John W. Padberg, ed., ‘Our Mission Today: The Service of Faith and the Promotion of Justice,’ in *Jesuit Life & Mission Today: The Decrees & Accompanying Documents of the 31st–35th General Congregations of the Society of Jesus* (St. Louis, MO: Institute of Jesuit Sources, 2009), 298–316.

5 Pope Francis, *Fratelli Tutti* (Assisi: Vatican, 2020), §34.

he first found in the homes of neighbours in rural Wicklow; the “treasure” he sensed in Irish-language primary schools during decades of chaplaincy; the particular joy of children preparing for sacraments through songs and stories “half in Irish and half in English.”

In a culture obsessed with scale and speed, Frank’s witness reminds us that transformation often begins in the slow work of tending – language, land, relationship, community. *Laudato Si’* calls this an “integral ecology”: a worldview that sees no separation between the cry of the earth and the cry of the poor, between endangered ecosystems and endangered cultures.⁶

Franc Mac Brádaigh SJ, quietly and faithfully, has lived this ecology. Not through grand strategies, but through presence, through speech, through a love that lingers where others might pass by. The language lives on – not because it is mandated, but because it is loved. And because, from the ground up, people still believe it matters.

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In a culture obsessed with scale and speed, Frank’s witness reminds us that transformation often begins in the slow work of tending

Tending to the Irish language, like tending to our environment, is a way of honouring the fragile, the local, and the inherited – reminding us, as *Laudato Si’* teaches, that true ecological renewal begins with learning to love what is already around us.

6 Pope Francis, *Laudato Si’*, §139.



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