APPENDIX 10-1

CLIMATE POLICY

Rialtas na hÉireann
Government of Ireland

Arna chomhchistiú ag an Aontas Eorpach

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Tionól Reigiúnach Oirthir agus Lár-Tíre
Eastern and Midland Regional Assembly

Fáilte Ireland

ROSCOMMON

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1. CLIMATE CHANGE LEGISLATION, POLICY, AND GUIDANCE

Although variation in climate is thought to be a natural process, the rate at which the climate is changing has been accelerated rapidly by human activities. Climate change is one of the most challenging global issues facing the world today and is primarily the result of increased levels of greenhouse gases in the atmosphere. Increasing human emissions of carbon dioxide and other greenhouse gases cause a positive radiative imbalance at the top of the atmosphere, meaning energy is being trapped within the climate system. The imbalance leads to an accumulation of energy in the Earth system in the form of heat that is driving global warming.[1,2] Greenhouse gases come primarily from the combustion of fossil fuels in energy use.

In March 2024 the European Environment Agency (EEA) published the European Climate Risk Assessment.[3] This assessment states that Europe is the fastest warming continent on the planet and is warming at about twice the global rate. The average global temperature in the 12-month period between February 2023 and January 2024 exceeding pre-industrial levels by 1.5˚C. 2023 was the warmest year on record over more than 100,000 years globally, at 1.48˚C above pre-industrial levels, with the world's ocean temperature also reaching new heights.

The Intergovernmental Panel on Climate Change (IPCC), in their AR6 Synthesis Report: Climate Change 2023[4], state that widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. This has led to widespread adverse impacts and related losses and damages to people and nature due to the pressures of climate change and the inability to adapt to a rapidly changing environment. Moving away from our reliance on coal, oil and other fossil fuel-driven power plants is essential to reduce emissions of greenhouse gases and combat climate change.

1.1 International Greenhouse Gas Emission and Climate Targets

Globally, governance relating to climate change has changed significantly since 1994 when the United Nations Framework Convention on Climate Change (UNFCCC) entered into force. Greenhouse gas emissions have been a primary focus of climate related international agreements for almost two decades.

International greenhouse gas emission and climate targets play an important role in stimulating and enabling action for developed and developing nations. The following sections provide an overview of the international agreements that have played key roles in establishing climate governance.

1.1.1 Kyoto Protocol

The Kyoto Protocol was adopted on 11th December 1997; this Protocol operationalised the UNFCCC and was the first international agreement that committed countries to reduce their greenhouse gas emissions. It set limitations and reduction targets for greenhouse gases for developed countries (Annex I countries) and set a special obligation for certain countries to provide financial resources and facilitate

[1] *Hansen, J.; Sato, M.; Kharecha, P. et al. Earth's Energy Imbalance and Implications. Atmospheric Chemistry and Physics 2011, 11 (24), 13421–13449.* https://doi.org/10.5194/acp-11-13421-2011
[2] *von Schuckmann, K.; Palmer, M. D.; Trenberth, K. E. et al. An Imperative to Monitor Earth's Energy Imbalance. Nature Clim Change 2016, 6 (2), 138–144.* https://doi.org/10.1038/nclimate2876.
[3] *European Environment Agency (2023) European Climate Risk Assessment* <https://climate-adapt.eea.europa.eu/en/eu-adaptation-policy/key-eu-actions/climate_risk_assessment/index_html/>
[4] *IPCC AR6 Synthesis Report: Climate Change 2023.* https://www.ipcc.ch/report/sixth-assessment-report-cycle/

technology transfer to developing countries (Annex II countries). The EU, and therefore Ireland, was both an Annex I and Annex II country.

The Kyoto Protocol came into effect in 2005, as a result of which, emission reduction targets agreed by developed countries, including Ireland, became binding for the first time.

Under the Kyoto Protocol, the EU agreed to achieve a significant reduction in total greenhouse gas emissions in the period 2008 to 2012. These EU emission targets are legally binding in Ireland. Ireland's contribution to the EU commitment for the period 2008 – 2012 (the first commitment period) was to limit its greenhouse gas emissions to no more than 13% above 1990 levels. Ireland achieved its Kyoto Protocol targets under the EU burden-sharing agreement.

1.1.1.1 Doha Amendment to the Kyoto Protocol

In Doha, Qatar, on 8th December 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period starting in 2013 and lasting until 2020.

- The amendment entered into force on 31st December 2020.

A revised list of greenhouse gases to be reported on by Parties in the second commitment period; and

Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

During the first commitment period, 37 industrialised countries and the European Community committed to reduce greenhouse gas emissions to an average of 5% below 1990 levels. During the second commitment period, Parties committed to reduce greenhouse gas emissions by at least 18% below 1990 levels in the eight-year period from 2013 to 2020. The composition of Parties in the second commitment period is different from the first; however, Ireland and the EU signed up to both the first and second commitment periods. Under the protocol, countries must meet their targets primarily through national measures, although market-based mechanisms (such as international emissions trading) can also be utilised.

Although the 1997 Kyoto Protocol and 2012 Doha Amendment were in force in 2020, the 2015 Paris Agreement superseded the Kyoto Protocol as the principle regulatory instrument governing the global response to climate change.

1.1.2 Conference of the Parties

Every year since 1995, the Conference of the Parties (COP) has gathered the 196 Parties (195 countries and the European Union) that have ratified the Convention in a different country, to evaluate its implementation and negotiate new commitments, and is the supreme decision-making body of the UNFCCC.

The following details the most significant COPs in terms of impact on climate action as well as a summary of the most recent COP, COP30, which took place in Belém, Brazil.

1.1.2.1 COP21 Paris Agreement

COP21 was the 21st session of the COP to the UNFCCC. COP21 was organised by the United Nations in Paris and held from 30th November to 12th December 2015.

COP21 closed on 12th December 2015 with the adoption of the first international climate agreement (concluded by 195 countries and applicable to all). The twelve-page text, made up of a preamble and 29 articles, provides for a limitation of the temperature rise to below 2°C above pre-industrial levels and even to tend towards 1.5°C. It is flexible and takes into account the needs and capacities of each country. It is balanced as regards adaptation and mitigation, and durable, with a periodical ratcheting-up of ambitions.

1.1.2.2 COP25 Climate Change Conference – Madrid

The 25th United Nations Climate Change conference, COP25, was held in Madrid and ran from December 2nd to December 13th, 2019. While largely regarded as an unsuccessful conference, the European Union launched its most ambitious plan, 'The European Green Deal' which aims to lower CO_2 emissions to zero by 2050. The deal includes proposals to reduce emissions from the transport, agriculture and energy sectors and will affect the technology chemicals, textiles, cement, and steel industries. Measures such as fines and pay-outs by member states who rely on coal power will be in place to encourage the switch to renewable clean energies such as wind. On the 4th of March 2020, the European Commission put forward the proposal for a European climate law. This aims to establish the framework for achieving EU climate neutrality. It aims to provide a direction by setting a pathway to climate neutrality and to this end, aims to set in legislation the EU's 2050 climate-neutrality objective.

1.1.2.3 COP28 Climate Change Conference – Dubai

The 28th COP for the UNFCCC (COP28) took place in Dubai from the 30th of November 2023 to the 13th of December 2023.

COP28 resulted in a landmark deal to 'transition away' from fossil fuels, the United Arab Emirates (UAE) Consensus. The agreement calls for 'transitioning away from fossil fuels in energy systems, in a just, orderly, and equitable manner.' This is the first time in 28 years that fossil fuels have been mentioned in a COP outcome. However, it is noted that the text of 'phase out as soon as possible inefficient fossil fuel subsidies' does not address energy poverty or the just transition. The UAE Consensus also calls for more explicit near-term goals in the lead up to 2050, calling for the world to cut greenhouse gas emissions by 43% by 2030 as compared to 2019 levels. However, many island states have criticised that despite the text being an improvement over previous agreements, there is a litany of loopholes that will enable destructive environmental practices to continue and do not assuage their concerns over rising sea levels and other climate change impacts.

COP28 concluded the first ever Global Stocktake under the Paris Agreement. The Global Stocktake recognises that the world is not on track to meet 1.5°C and will require Parties to align their national targets and measures with the Paris Agreement. Parties have two years to submit their Nationally Determined Contributions for 2035, these need to be aligned with the best available science and the outcomes of the Global Stocktake.

An unusual aspect that came out of COP28 in the final hours of discussion was the quantity of decisions and documents which remain unfinished and not signed off. Notably, discussions on carbon markets collapsed in the final days of COP28 as no consensus could be reached on the country-to-country trading regimes or rules for the market in relation to Article 6 of the Paris Agreement. Negotiations will be continued at COP29 in Azerbaijan.

1.1.2.4 COP29 Climate Change Conference – Baku

The 29th COP of the UNFCCC, (COP29), held in Baku, Azerbaijan, from November 11th 2024 to November 22nd 2024.

COP29 focused on accelerating global efforts to address climate change, in particular global efforts related to climate finance. The New Collective Quantified Goal on Climate Finance (NCQG) was agreed in the final days of COP; while developing countries advocated for at least USD 1 trillion annually by 2035, developed nations agreed to triples finance to developing countries, with commitments increasing from USD 100 billion annually to USD 300 billion annually by 2035. The NCQG has already drawn criticism for being inadequate given the global financial need of developing nations to mitigate and adapt to climate change effects and due to its lack of strong terminology in relation to the requirements of developed nations and detailed implementation strategies.

At COP29, significant progress was made in the discussions surrounding carbon markets, with nearly 200 nations agreeing on critical rules under Article 6 of the Paris Agreement. These rules aim to establish an UN-backed international carbon market. The adoption of these rules is seen as a crucial step towards operationalising a robust and credible carbon market. Despite the advances, concerns were expressed about the potential for weak governance and risks of exploitation in the system; these issues must be addressed to ensure the market's full functionality.

Energy transition discussions focused on accelerating the global shift toward sustainable energy systems, aligned with the Paris Agreement goals of limiting warming to 1.5°C. The conference emphasized the need for robust policies to phase out coal, expand renewable energy infrastructure, and develop green hydrogen as a low-carbon alternative for hard-to-electrify sectors.

COP29 operationalized the Fund for responding to Loss and Damage ('the Fund') with $50 billion in initial pledges aimed at assisting vulnerable countries. The Fund is expected to begin financing initiatives by 2025, focusing on the most vulnerable populations facing extreme weather events and slow-onset climate impacts. Despite these advancements, ongoing discussions are required to define the Fund's vision, scope, and integration with existing climate finance mechanisms.

1.1.2.5 COP30 Climate Change Conference – Belém, Brazil

The 30th COP of the UNFCCC, (COP30), held in Belém, Brazil, from November 10th 2025, to November 21st 2025.

At COP30 Parties adopted a comprehensive Belém Package, comprising 29 decisions by consensus, which underscored an emphasis on implementation and equity. A key achievement was the commitment to triple adaptation finance by 2035, to approximately USD 120 billion per annum, aimed at bolstering resilience in the world's most vulnerable nations. To monitor this, Parties agreed a set of 59 voluntary indicators under the Global Goal on Adaptation, covering cross-sectoral dimensions such as water, health, ecosystems, infrastructure, and livelihoods. In parallel, actions were initiated to scale adaptation in practice; among these, the:

- FINI (Fostering Investible National Implementation): seeking to mobilise private and public capital into national adaptation plans;
- Belém Health Action Plan, backed by the World Health Organisation (WHO) and philanthropies, seeks to strengthen climate-resilient health systems.

COP30 remained in line with preceding COPs and did not yield a binding phase-out commitment for fossil fuels, despite more than 80 countries pushing for explicit fossil fuel phase-down language. Instead, the Brazilian Presidency announced two voluntary roadmaps outside the formal treaty text: one to transition away from fossil-fuel-dependent economies in a "just, orderly and equitable" manner, and another to halt and reverse deforestation. Civil society groups have characterised this omission as a significant shortfall, noting that without time-bound fossil fuel targets, the package lacks credibility in meeting scientific thresholds.

Nature-based solutions and deforestation were also a critical focus. COP30 launched the Tropical Forests Forever Facility (TFFF), a landmark payment mechanism to reward tropical-forest countries for conserving standing forests. The first phase of the TFFF has mobilised over USD 6.7 billion, endorsed by more than 60 countries. Nonetheless, the conference did not embed a binding global deforestation-end roadmap in its formal decisions.

With respect to the 1.5°C temperature goal, COP30 reaffirmed the urgency of limiting warming in line with the Paris Agreement, but many observers argued that the summit's final package lacked the ambition and enforceable mechanisms required to close the emissions-gap. In response, Parties established a Global Implementation Accelerator, intended to scale high-impact climate actions (such as renewable energy, methane reductions, and nature-based carbon removal) that can deliver rapid, systemic transformation.

1.1.3 United Nations Sustainable Development Goals

Transforming our World: the 2030 Agenda for Sustainable Development which includes 17 Sustainable Development Goals (SDGs), and 169 targets was adopted by all UN Member States at a UN summit held in New York in 2015. The agenda is universally applicable with all countries having a shared responsibility to achieve the goals and targets which came into effect on January 1st, 2016. The goals and targets are to be actions over the 15-year period, are integrated and indivisible i.e., all must be implemented together by each Member State.

In June 2026, the United Nations published '*The Sustainable Development Goals Report 2026*[5]' (hereafter referred to as the UN SDG 2026 Report), highlighting how serious headwinds, including the collapse in development assistance, growing debt burdens in developing countries, rising conflicts, slowing global economic growth, and climate chaos, have hindered the achievement of the SDGs. The UN SDG 2026 Report finds that, following an assessment of 139 targets for which trend data is available, only 15% of the SDG targets are on track, 21% are showing moderate progress, 32% show marginal progress, 17% have stagnated, and 15% have regressed from their 2015 baselines. The UN SDG 2026 Report highlights the urgent need for decisive action and stronger international cooperation, including reforming the international financial architecture and defending multilateralism, avoid letting geopolitical tensions derail cooperation, to correct this trajectory with immediate effect

In June 2026, the Dublin University Press published the 'Sustainable Development Report 2026'[6]. The report highlights the following key messages:

- Global commitment to the SDGs remains strong: 190 out of 193 UN member states have participated in the Voluntary National Review (VNR) process to present their national action plans and progress on sustainable development.
- On average globally, the SDGs are far off-track: Based on current rates of progress, none of the 17 goals are currently on course to be achieved by the 2030 deadline.
    - While only 16.5% of the targets are on track to be achieved globally, the five targets most on track globally include mobile broadband subscriptions (SDG 9), adolescent fertility rate (SDG 3), new HIV infections (SDG 3), Internet use (SDG 9), and electricity access (SDG 7).
    - At the global level, Sustainable Cities and Communities (SDG 11), Life Below Water (SDG 14), Life on Land (SDG 15), and Peace, Justice and Strong Institutions (SDG 16) are particularly off-track, facing major challenges (indicated in red on the dashboards) and showing stagnation in progress since 2015. Zero Hunger (SDG 2) is also significantly off-track, specifically regarding indicators for obesity and sustainable agriculture.
- European countries continue to top the SDG Index: Finland ranks first globally this year, followed by Sweden and Denmark. Furthermore, 19 of the top 20 countries in the Index are located in Europe.
  - Figure 1-1 Ireland SDG Dashboard and Trends. Source: Sustainable Development Report 2026 pg. 249-250

[5] *United Nations (2026) The Sustainable Development Goals Report 2026. Available at: https://unstats.un.org/sdgs/report/2026/The-Sustainable-Development-Goals-Report-2026.pdf*
[6] *Dublin University Press (2026) Sustainable Development Report 2026. Available at: https://sdgtransformationcenter.org/reports/sustainable-development-report-2026*

Figure 1-2 Ireland SDG Dashboard and Trends. Source: Sustainable Development Report 2026 pg. 249-250

In October 2022 the Department of Communications, Climate Action & Environment in partnerships with all Government Departments, key stakeholders, and based on input from two public consultation processes published the Sustainable Development Goals National Implementation Plan 2022-2024 ('the SDG Plan').[7] The SDG Plan identifies that, overall, the world is not on track to achieve the global Goals by 2030. The SDG Plan sets out how Ireland will work to achieve the goals and targets of the Agenda for Sustainable Development both domestically and internationally. Irelands first National Implementation Plan provided a framework for Ireland to work towards the implementation of the SDGs; the SDG Plan aims to build on the structures and mechanisms from the first National Implementation Plan and to develop and integrate additional approaches in areas identified as requiring further action.

In September 2023, the UN Summit on the SDGs took place in New York and was co-facilitated by Ireland and Qatar. Representing the halfway mark to achieving the SDGs by 2030, it marked the beginning of a new phase of accelerated progress towards the SDGs with high-level political guidance on transformative and accelerated actions. The Global Sustainable Development Report 2023[8] was published in September 2023. The previous Global Sustainable Development Report (2019[9]) found that for some targets the global community was on track, but for many others the world would need to quicken the pace. In 2023, the situation is much more worrisome owing to slow implementation and a confluence of crises. The 2023 Report goes on to highlight the current standing of each SDG and its relevant indicators. A 2023 UN Special Report[10] found that over 30% of the SDGs have seen either no improvement or reverse trends in progress. The push for transformation to achieve the SDGs will come through shifts in six key entry points:

1. *Human Well Being and Capabilities*
2. *Sustainable and Just Economies*
3. *Food Systems and Healthy Nutrition*
4. *Energy Decarbonisation with Universal Access*
5. *Urban and Peri-Urban Development*
6. *Global Environmental Commons*

The Proposed Development will contribute to Entry Point 1 by providing multifaceted socio-economic benefits such as the promotion of tourism and enhancement of recreational opportunities.

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[7] *National Implementation Plan for the Sustainable Development Goals 2022-2024. Available at: <https://www.gov.ie/en/publication/e950f-national-implementation-plan-for-the-sustainable-development-goals-2022-2024/>*
[8] *Global Sustainable Development Report 2023 <https://sdgs.un.org/sites/default/files/2023-09/FINAL%20GSDR%202023-Digital%20-110923_1.pdf>*
[9] *Global Sustainable Development Report 2019 <https://sdgs.un.org/sites/default/files/2020-07/24797GSDR_report_2019.pdf>*
[10] *The Sustainable Development Goals Report 2023: Special Edition <https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf>*

Relevant SDGs to the Proposed Development and how they are implemented into Irish National plans and policies can be found in Table 1-1.

Table 1-1 Sustainable Development Goals Report 2023, Relevant SDGs to the Proposed Development, and Implementation into Irish National Plans

SDG	Targets	International Progress/Downfalls to Date (2026)[11]	Irish National Relevant Policy
SDG 3: Good Health and Well-Being *Ensure healthy lives and promote well-being for all at all ages*	› By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births › By 2030, end preventable deaths of newborns and children under 5 years of age › By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat other communicable diseases › By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being › Achieve universal health coverage, including financial risk protection and access to quality essential health-care services › By 2030, substantially reduce deaths and illnesses from hazardous chemicals and pollution. › Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control. › Support research and development of vaccines and medicines and provide access to affordable essential medicines. › Substantially increase health financing and the recruitment and training of the health workforce in developing countries. › Strengthen the capacity for early warning and risk management of health risks	Progress towards Goal 3 has been notable: from 2015 to 2023, the global maternal mortality ratio fell from 228 to 197 per 100,000 live births, and the share of births attended by skilled health personnel rose from 80 to 87 per cent between 2015 and 2025, putting the world on track to meet the 90 per cent target by 2030. Under-5 mortality fell to 37.4 deaths per 1,000 live births by 2024, a 51 per cent decline since 2000, while neonatal mortality dropped to 17.2 deaths per 1,000 live births, down 43 per cent over the same period; 134 countries have now met the SDG target for under-5 mortality. New HIV infections and AIDS-related deaths have each fallen by around a third since 2015, tuberculosis cases and deaths declined in 2024 for the first time since the pandemic-driven spike began, and the number of people requiring treatment for neglected tropical diseases fell by 36 per cent between 2010 and 2024. However, progress is slowing and remains deeply uneven – the annual rate of reduction in under-5 mortality fell from 3.9 per cent in 2000–2015 to just 1.5 per cent in 2015–2024, and maternal mortality remains nearly three times the global target, with sub-Saharan Africa and South Asia together still accounting for 87 per cent of global maternal deaths. Moreover, funding cuts are placing hard-won gains at risk: official development assistance for basic health fell 12.4 per cent between 2023 and 2024, returning to 2015 levels, with a further decline of up to 29 per cent projected for 2025, and a 2025 assessment found around 70 per cent of surveyed WHO country offices were already reporting disruptions to health services. Achieving Goal 3 will require a significant boost in investment in primary healthcare, prevention and immunisation, directed at the countries and populations furthest behind, in particular fragile and conflict-affected settings and sub-Saharan Africa, where nearly half of all under-5 deaths and the majority of maternal deaths continue to occur. In 2024, an estimated 10.7 million people fell ill with tuberculosis, and malaria incidence rose to 64 cases per 1,000 population at risk, up from 59 in	*Healthy Ireland Strategic Action Plan 2021-2025;* *Sláintecare Implementation Strategy and Action Plan;* *National Physical Activity Plan;* *National Sports Policy 2018-2027;* *Tobacco Free Ireland*

[11] *United Nations, the 17 Goals – Sustainable Development* <https://sdgs.un.org/goals>

		2015 – meaning the world remains off track to end malaria by 2030, with incidence running at nearly three times the level required to meet global targets. Universal health coverage (UHC) is also stalling: the UHC service coverage index rose only three points between 2015 and 2023, from 68 to 71, leaving 4.6 billion people without access to essential health services in 2023, while out-of-pocket health spending pushed 2.1 billion people into financial difficulty in 2022. Achieving universal health coverage and closing these gaps will require sustained political commitment and international financing directed at the countries and populations furthest behind.	
SDG 7: Affordable and Clean Energy *Ensure access to affordable, reliable, sustainable and modern energy for all*	- By 2030, ensure universal access to affordable, reliable and modern energy services - By 2030, increase substantially the share of renewable energy in the global energy mix - By 2030, double the global rate of improvement in energy efficiency - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	Progress towards Goal 7 has been notable: from 2015 to 2023, global electricity access rose from 87 to 92 per cent, access to clean cooking fuels increased by 16 per cent, and renewable electricity continued to grow. However, progress is slowing –renewables lag in the transport and heating sectors, and energy efficiency gains have stalled. Moreover, only a small portion of global energy investment reaches the areas most in need. Achieving Goal 7 will require a significant boost in investment in emerging and developing economies, in particular in sub-Saharan Africa, to expand access to electricity and clean cooking, scale up renewable energy, improve energy efficiency and strengthen policy and regulatory frameworks. In 2023, the global electricity access rate reached 92%, reducing the number of people without access to 666 million – 18.8 million fewer than in 2022. Despite 73 million new connections annually, population growth is outpacing progress, and 645 million may remain unserved by 2030. Achieving universal access requires increasing the annual access rate to 1.2%. In 2022, renewable energy accounted for 17.9% of total final energy consumption. Excluding traditional biomass, modern renewables grew from 10 per cent in 2015 to 13% in 2022. The electricity sector leads, with renewables at 30 per cent of total final electricity consumption in 2022. While biofuels dominate renewable transport energy, making up for	*Ireland's Transition to a Low Carbon Energy Future 2015-2030;* *Energy Poverty Action Plan;* *Ireland's Transition to a Low Carbon Energy Future 2015- 2030;* *National Mitigation Plan;* *National Energy Efficiency Action Plan;* *One World, One Future;* *The Global Island* *Economic Recovery Plan* *Project Ireland 2040: National Planning Framework;* *Project 2040;* *National Development Plan 2021-2030;* *Climate Action Plan 2025*

		almost 90% of the total, overall progress in the heat and transport sectors remains limited. Global renewable energy capacity per capita hit a record 478 watts in 2023, up 13% from 2022, with developed countries reaching 1,162 watts and developing countries reaching 341 watts. While developing countries showed stronger growth at 17%, compared with 8.1% in developed countries, significant expansion of modern energy infrastructure and technology remains necessary in developing countries.	
SDG 8: Decent Work and Economic Growth *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*	- Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries - Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead - By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value - Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Over the past decade, progress on Goal 8 has been mixed. While there have been important gains, in particular in reducing unemployment and expanding financial access, setbacks from the coronavirus disease (COVID-19) pandemic and ongoing structural challenges have slowed or reversed gains in productivity, employment and worker protections – in particular for vulnerable groups and in the least developed countries and small island developing States. Labour productivity, measured as GDP per worker, rebounded to 1.5 per cent growth in 2024 after near stagnation in the 2022–2023 period. The pandemic severely impacted productivity in 2020, when output fell faster than employment rates. Despite a rebound in 2021, growth has struggled to return to pre-pandemic levels. The global unemployment rate reached a record low of 5.0 per cent in 2024, down from 6.0 per cent in 2015. However, despite improvements since 2015, women and youth continue to face higher unemployment rates, with youth still three times more likely to be unemployed than adults.	*National Planning Framework to 2040;* *National Development Plan (NDP) 2021-2030;* *National Economic Recovery Plan;* *Climate Action Plan 2025;* *Circular Economy and Miscellaneous Provisions Act 2022;* *Enterprise 2025 Renewed.*
SDG 9: Industry, Innovation and Infrastructure *Build resilient infrastructure,*	- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-	Since 2015, notable progress has been made in expanding infrastructure, fostering industrial growth and boosting innovation. However, stark regional disparities persist, and many developing countries continue to face systemic barriers to inclusive and sustainable industrialization.	*National Development Plan 2021-2030;* *National Economic Recovery Plan;* *Climate Action Plan 2025;* *National Implementation Plan on Persistent Organic Pollutants;*

promote inclusive and sustainable industrialization and foster innovation	being, with a focus on affordable and equitable access for all. - Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries - Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities	Global manufacturing annual growth rebounded sharply by 9.2 per cent in 2021, stabilized at 2.2% in 2022, then lowered to 1.7% in 2023 owing to geopolitical and economic volatility. In 2024, growth rose to 7.%, Global manufacturing value added per capita increased by 17.3%, from USD1,649 in 2015 to USD1,934 in 2024. The global manufacturing employment share held steady at 14.3% from 2015 until 2020, dipping to 14.1% in 2023, owing to pandemic disruptions, geopolitical tensions and sanctions. In 2024, global CO2 emissions from fuel combustion and industrial processes reached a record 37.6 gigatons, a 0.8% increase from 2023. Rising natural gas and coal consumption drove emissions, while record temperatures increased electricity demand for cooling. However, the expansion of clean energy technologies such as solar, wind and nuclear power mitigated what could have been a threefold larger emissions increase.	*Waste Action Plan for a Circular Economy;* *National Waste Prevention Programme;* *A Better World.* *Impact 2030: Ireland's Research and Innovation Strategy.*
SDG 11: Sustainable Cities and Communities *Make cities and human settlements inclusive, safe, resilient and sustainable*	- By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums - By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons - Strengthen efforts to protect and safeguard the world's cultural and natural heritage - By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management - By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change,	Urbanization continues to accelerate, with more than half the global population now living in cities, projected to be nearly 70% by 2050. However, cities face mounting challenges, including rising urban poverty, growing slum populations, inadequate public transport and threats to infrastructure from disasters. Housing affordability is a pressing issue, affecting 1.6 billion to 3 billion people globally, encompassing challenges from homelessness to overcrowding and lack of basic services. In 2023, the national urban policies of 68 countries addressed key development issues as follows: - Respond to population dynamics (59 countries, up from 54 in 2021); - Ensure balanced territorial development (55 countries, unchanged since 2021); and - Increase local fiscal space (33 countries, up from 26 in 2021).	*Rebuilding Ireland Action Plan for Housing and Homelessness;* *Housing for All;* *EU Regulation 1370/2007 on Public Passenger Transport Services by Rail and by Road;* *Project Ireland 2040* *National Planning Framework;* *National Clean Air Strategy;* *Rural Development Programme 2014-2022;* *National Implementation Plan on Persistent Organic Pollutants;* *Waste Action Plan for a Circular Economy;* *National Waste Prevention Programme;* *A Better World.*

	resilience to disasters, and develop and implement holistic disaster risk management at all levels	In 2024, local-level disaster risk reduction governance improved, with 110 countries reporting local disaster risk reduction strategies and approximately 73% of local governments having such strategies in place.	
SDG 13: Climate Action *Take urgent action to combat climate change and its impacts*	- Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. - Integrate climate change measures into national policies, strategies and planning. - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. - Promote mechanisms for raising capacity for effective climate change-related planning in least developed countries.	Human-induced climate change reached alarming new levels in 2024, with some impacts already irreversible for centuries. Global temperatures broke records and temporarily exceeded the 1.5°C threshold, highlighting the urgent need to curb greenhouse gas emissions. Extreme weather events – including tropical cyclones, floods and droughts – led to the highest number of new displacements in 16 years, worsening food crises and bringing massive economic losses and social instability. Nonetheless, with bold action, limiting long-term global warming to 1.5°C is still possible. Every fraction of a degree matters in reducing risks, lowering costs and preventing catastrophic and irreversible damage to people and the planet. At the twenty-ninth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP29), States set a new collective quantified goal on climate finance and completed guidance to fully operationalize article 6 of the Paris Agreement on carbon markets, along with making additional commitments on mitigation, adaptation and the operationalization of the Fund for Responding to Loss and Damage. Disaster-related deaths and missing persons dropped from 1.61 per 100,000 population in the period 2005–2014 to 0.79 in the period 2014–2023. Nonetheless, disasters claimed 41,647 lives annually over the past decade. The number of people affected by disasters surged by more than two thirds, from 1,158 per 100,000 population in the period 2005–2014 to 2,028 in the period 2014–2023, with an average of 124 million people affected every year over the past decade. By 2024, 131 countries reported the adoption and implementation of national disaster risk reduction strategies, up from 57 in 2015. 2024 likely marked the first year when global temperatures surpassed the 1.5°C threshold, reaching 1.55°C above the pre-industrial level – making it the hottest year in 175 years. This was driven by rising greenhouse gas emissions, El Niño and other factors. In 2023, atmospheric concentrations	*National Biodiversity Action Plan 2023-2030;* *National Policy Position on Climate Action and Low Carbon Development;* *Project 2040: National Development Plan 2021-2030;* *Climate Action and Low Carbon Development (Amendment) Act (2021);* *Climate Action Plan 2025;* *National Dialogue on Climate Action;* *Agriculture, Forest, and Seafood Climate Change Sectoral Adaptation Plan;* *The National Strategy on Education for Sustainable Development in Ireland*

		of CO_2 levels remained at their highest in more than 2 million years and were 151 per cent above pre-industrial levels.	
SDG 15 Life on Land: *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.*	- By 2030, combat desertification and restore degraded land and soil. - By 2030, ensure the conservation of mountain ecosystems. - Promote fair and equitable sharing of benefits from the utilization of genetic resources. - Take urgent action to end poaching and trafficking of protected species. - Mobilize and increase financial resources to conserve biodiversity and ecosystems. - Mobilize resources to finance sustainable forest management. - Enhance global support for efforts to combat poaching and trafficking.	Global forest cover is shrinking, conservation of key biodiversity areas has stalled, and species extinction is accelerating. Desertification, land and soil degradation, drought and deforestation are further threatening ecosystems and development prospects. While more countries are adopting legal frameworks for biodiversity and environmental protection, overall progress on Goal 15 remains slow, with significant gaps in safeguarding healthy land and ecosystems vital to humanity. Globally, average protection of key biodiversity areas increased from approximately 25 per cent in 2000 to approximately 44 per cent in 2024 across marine, terrestrial, freshwater and mountain biomes. However, progress has largely stagnated since 2015. As of 2024, 76 countries (up from 5 countries in 2015) and 97 countries (up from 12 countries in 2015) reported about their legislative, administrative or policy measures under the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture, respectively. Country implementation of the international statistical standard to measure the environment and ecosystems and their connection to the economy increased by 36 per cent from 2017 to 2024. Although growth has slowed in recent years, adoption is expected to rise, as the standard supports key indicators in the Kunming-Montreal Global Biodiversity Framework.	*Climate Action Plan 2025;* *Enhanced Decommissioning, Rehabilitation and Restoration Scheme (2020);* *National Biodiversity Action Plan.*

1.1.4 Climate Change Performance Index

Established in 2005, the Climate Change Performance Index (CCPI)[12] is an independent monitoring tool which tracks countries climate protection performance. It assesses individual countries based on climate policies, energy usage per capita, renewable energy implementation and greenhouse gas emissions and ranks their performance in each category and overall. The 2026 CCPI was published in November 2025. While the CCPI 2026 indicates signs of potential reductions in global emissions, no country achieved its Paris Climate targets and therefore the first three places of the ranking system remain unoccupied.

Ireland, ranked 29th in 2025, has fallen 4 places to 33rd in 2026, and remains a 'medium' performer in international performance. The CCPI states that Ireland's policies are missing a long-term strategy for phasing out fossil fuel infrastructure and shifting investments from natural gas towards an emissions-neutral energy supply. Coupled with low levels of battery storage and ongoing gas connections, the state is set to remain greatly dependent on fossil fuel generation. Ireland has remained in the 'low' category in 2025 on the Greenhouse Gas Emissions ratings.

In 2022, Ireland's government introduced legally binding five-year carbon budgets and sectoral emissions ceilings. It also resolved a legislative framework with annually revised Climate Action Plans to align with the country's 2030 net emissions reduction target of 51% (compared with 2018 levels) and net zero by 2050. In 2025, the CCPI national experts note that, despite these legal requirements, progress on climate action is slowing and actions in Ireland are nowhere near sufficient for ensuring compliance with national and EU commitments. The latest projections (July 2025) from the Environmental Protection Agency (EPA)[13] highlight that the greenhouse gas emissions decline rate has slowed to 2% compared with last year's 6.8%. This lack of substantial progress makes it unlikely that Ireland will satisfy its first carbon budget for 2021–2025. The data indicates that, in 2021–2024, Ireland used 82.5% of that budget. As a result, an extremely challenging annual 10.3% reduction is required in 2025 if Ireland is to remain within its legally binding budget.

Furthermore, Ireland's policies are missing a long-term strategy for phasing out fossil fuel infrastructure and shifting investments from natural gas towards an emissions-neutral energy supply. Coupled with low levels of battery storage and ongoing gas connections, the state is set to remain greatly dependent on fossil fuel generation.[14]

Ireland has remained in the 'low' category in 2025 on the Greenhouse Gas Emissions ratings and remains in 40th in in 2026. Ireland remains in the 'Medium' category in the Renewable Energy rating table and has risen from 21st in 2025 to 19th in 2026.

1.1.5 State of the Global Climate 2025

In March 2026, the World Meteorological Organisation (WMO) published a report entitled the '*State of the Global Climate 2025*.[15] This report provided a summary on the state of the climate system in 2025, with updates on key observed climate indicators and high-impact weather and climate events. The key messages in the report include:

- Greenhouse gases reached record observed levels in 2024. Atmospheric concentrations of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) reached their highest observed levels in 2024.
- The annually averaged global mean near-surface temperature in 2025 was 1.43 °C ± 0.13 °C above the 1850 - 1900 average. While 2025 was within the three warmest years on record, 2024 remains the warmest year with an anomaly of 1.55 °C ± 0.13 °C.

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[12] *Climate Change Performance Index (2026) Climate Change Performance Index 2026. Available at: https://ccpi.org/*
[13] *EPA (2025) Ireland's Greenhouse Gas Emissions Projections. Available at: https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/07875-EPA-GHG-Projections-Report-FINAL.pdf*
[14] *CCPI (2025). Available at: https://ccpi.org/country/irl/*
[15] *WMO (2026) State of the Global Climate 2025 < State of the Global Climate 2025>*

The State of the Global Climate 2025 report underscores the increasing vulnerability of built infrastructure and natural systems to climate change. Severe droughts – such as those observed in the Amazon and South-west Asia – exacerbated by rising temperatures, can lead to significant disruptions, including record low river levels that impact inland transport. The report emphasizes the growing strain that climate variability places on existing infrastructure, noting that sea-level rise and extreme events like floods and droughts result in cascading impacts such as damage to coastal infrastructure and degradation of built systems.

1.1.6 European Green Deal

The European Green Deal was introduced by the European Commission in December 2019 as the EUs response to the Paris Agreement ambitions (COP21 (please see section 1.1.2.1 above)). The European Green Deal is a comprehensive package of policy initiatives aimed at achieving climate neutrality across the EU by 2050. It features a wide range of actions and targets in different sectors such as energy, transport, industry, environment and agriculture. The goal is to transform the EU into a resource-efficient, competitive circular economy that is fair and inclusive for every individual and region.

Key aspects of the European Green Deal include the adoption of the European Climate Law, which legally binds the EU to achieve net-zero emissions by 2050, and the establishment of a Carbon Border Adjustment Mechanism to prevent carbon leakage. Additionally, the Deal focuses on boosting green technologies, fostering clean energy, improving energy efficiency, and promoting biodiversity and sustainable agriculture.

To finance these ambitious goals, the European Green Deal is supported by the EU's Green Deal Investment Plan, also known as the "Just Transition Mechanism," which aims to mobilize at least €1 trillion in investments over the next decade. This funding will be used to help EU regions and industries transition to greener alternatives while mitigating social and economic impacts on communities and workers. The European Green Deal also emphasizes the importance of international collaboration in tackling climate change and aims to align European policies with the global agenda of the Paris Agreement.

In its approach to decarbonisation, the EU has split greenhouse gas emissions into two categories, the Emissions Trading System (ETS) and the non-ETS. Under the European Green Deal, the targets for the ETS and non-ETS sectors will be revised upwards in order to achieve the commitment, at EU level, to reach an economy-wide 2030 reduction in emissions of at least 55%, compared to 1990 levels.

1.1.7 EU Nature Restoration Law

The Nature Restoration Law is the first continent-wide, comprehensive law of its kind. It is a key element of the EU Biodiversity Strategy, which sets binding targets to restore degraded ecosystems, in particular those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters.

The law aims to restore ecosystems, habitats and species across the EU's land and sea areas in order to

- Enable the long-term and sustained recovery of biodiverse and resilient nature.
- Contribute to achieving the EU's climate mitigation and climate adaptation objectives.
- Meet international commitments.

The EU Nature Restoration Law was approved on June 17th 2024; EU countries are expected to submit National Restoration Plans to the Commission within two years of the Regulation coming into force (by mid-2026), showing how they will deliver on the targets. They will also be required to monitor and report on their progress.

1.1.8 EU Effort Sharing Regulation

The EU Effort Sharing Regulation (ESR[16]) was adopted in 2018 and establishes annual binding greenhouse gas emissions targets from 2020 to 2030 for each Member State. In its approach to decarbonisation, the EU has split greenhouse gas emissions into two categories, the Emissions Trading System (ETS) and the non-ETS. Emissions from electricity generation and large industry in the ETS are subject to EU-wide targets which require that emissions from these sectors be reduced by 43% by 2030, relative to 2005 levels. Within the ETS, participants are required to purchase allowances for every tonne of emissions, with the amount of these allowances declining over time to ensure the required reduction of 43% in greenhouse gas emissions is achieved at EU-level[17]. Emissions from all other sectors, including buildings, agriculture, waste, small industry, and transport, which account for around 60% of EU emission, are covered by the EU ESR.

The EU ESR focus on national accountability helps drive climate action at the local level while maintaining flexibility to account for economic disparities across Member States.

Considerable progress has been made in the decarbonisation of the electricity sector, with emissions falling by 45% between 2001 and 2022.[18] The decarbonisation of the Electricity Sector has been made possible through the deployment of renewables and their successful integration into the national grid, further facilitating the decarbonisation other sectors, such as transport, heating and industry as they look towards electrification.

The transport sector is not on track to meet its 2025 sectoral emissions ceiling, having required a 12.4% reduction in emissions in both 2024 and 2025 to remain within budget. [19] For commercial and public sector buildings, the corresponding required emissions reduction is 2.9% per annum to stay within the 2025 sectoral emissions ceiling. [20]. The first carbon budget allocates 61 $MtCO_2eq$. for the two sectoral emissions ceilings referenced here (54 MtCO2eq. for transport and 7 $MtCO_2eq$. for commercial and public sector buildings) over the five-year period of 2021–2025. 64% of the transport sectoral carbon budget and 61.4% of the commercial and public sector sectoral carbon budget have been expended during the period 2021-2023. The transport sector has exceeded its 2021–2025 sectoral emissions ceiling, with the overshoot estimated at 4.4 $MtCO_2eq$., while the commercial and public sector also faces challenges in meeting its sectoral emissions ceiling. [21]

1.2 National Greenhouse Gas Emission and Climate Targets

1.2.1 Ireland

1.2.1.1 Programme for Government

The Programme for Government 2025 – Securing Ireland's Future (January 2025) places specific emphasis on climate change, recognising that time is critical in addressing the climate crisis. The Programme states that the Irish Government is committed to taking "decisive action to radically reduce our reliance on fossil fuels and to achieve a 51% reduction in emissions from 2018 to 2030, and to achieving net-zero emissions no later than 2050".

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[16] Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (Text with EEA relevance)

[17] Department of the Environment, Climate and Communications (2023) - Climate Action Plan 2024 https://www.gov.ie/en/publication/79659-climate-action-plan-2024/

[18] Department of the Environment, Climate and Communications (2023) - Climate Action Plan 2024 https://www.gov.ie/en/publication/79659-climate-action-plan-2024/

[19] Department of the Environment Climate and Communications (2025) – Climate Action Plan 2025

[20] Ibid.

[21] Climate Change Advisory Council (2026) – Annual Review 2026: Transport, https://www.climatecouncil.ie/councilpublications/annualreviewandreport/AR26-Transport-final.pdf; *EPA State of the Environment Report 2024,* https://epawebapp.epa.ie/ebooks/soe2024/319/

The Programme states that the next ten years are a critical period in addressing the climate crisis, and therefore, a deliberate and swift approach to reducing more than half of Ireland's carbon emissions over the course of the decade (2020-2030) must be implemented. The Programme states that the Government is committed to reducing greenhouse gas emissions by an average 7% per annum over the next decade in a push to achieve a net zero emissions by the year 2050.

1.2.1.2 Climate Action and Low Carbon Development Act 2015

The Climate Action and Low Carbon Development Act 2015 established Ireland's first statutory framework for tackling climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy. The 2015 Act Defined the national climate objective as 'transitioning to a climate-resilient, biodiversity-rich, environmentally sustainable, and climate-neutral economy by 2050'. To achieve this, the 2015 Act requires the Minister to develop and submit for government approval a suite of plans: carbon budgets, sectoral emission ceilings, a climate action plan, a national long-term climate strategy, and a national adaptation framework. It also established the Climate Change Advisory Council (CCAC) to provide independent oversight and annual progress reviews. Local authorities and public bodies were mandated to align policies and plans with these objectives, ensuring climate considerations are integrated throughout national and local governance structures.

1.2.1.3 Climate Action and Low Carbon Development (Amendment) Act 2021

The Climate Action and Low Carbon (Amendment) Act 2021 is a piece of legislation which commits the country to move to a climate resilient and climate neutral economy by 2050. This passed into law in July 2021.

The Programme for Government has committed to a 7% average yearly reduction in overall greenhouse gas emissions over the next decade, and to achieve net zero emissions by 2050. This Act will manage the implementation of a suite of policies to assist in achieving these annual targets.

The Act includes the following key elements, among others:

- Places on a statutory basis a 'national climate objective', which commits to pursue and achieve no later than 2050, the transition to a climate resilient, biodiversity-rich, environmentally sustainable and climate-neutral economy.
- Embeds the process of carbon budgeting into law, the Government are required to adopt a series of economy-wide five-year carbon budgets, including sectoral targets for each relevant sector, on a rolling 15-year basis, starting in 2021.
- Actions for each sector will be detailed in the Climate Action Plan, updated annually.
- A National Long Term Climate Action Strategy will be prepared every five years.
- Government Ministers will be responsible for achieving the legally binding targets for their own sectoral area with each Minister accounting for their performance towards sectoral targets and actions before an Oireachtas Committee each year.
- Strengthens the role of the CCAC, tasking it with proposing carbon budgets to the Minister.

Provides that the first two five-year carbon budgets proposed by the CCAC should equate to a total reduction of 51% emissions over the period to 2030, in line with the Programme for Government commitment.

On a local level, the Climate Action and Low Carbon Development (Amendment) Act 2021 requires each local authority in Ireland to prepare a Local Area Climate Action Plan for its respective administrative areas. Please see Section 10.2.3.1 of Chapter 10 of the EIAR for details on the Roscommon Local Authority Climate Action Plan.

1.2.1.4 Climate Change Advisory Council

The CCAC was established on 18th January 2016 under the Climate Action and Low Carbon Development Act 2015. The CCAC aims to provide independent evidence-based advice and recommendations on policy to support Ireland's Just Transition to a biodiversity-rich, environmentally sustainable, climate-neutral, and resilient society.

In July 2023, the CCAC published the *'Annual Review 2023'*[22], this is the seventh annual review carried out by CCAC and details the CCAC concerns that the necessary national actions are not taking place or being enabled at the required speed, going on to state that 'at the current rate of policy implementation, Ireland will not meet the targets set in the first and second carbon budget periods unless urgent action is taken immediately, and emissions begin to fall much more rapidly.'

In 2024 the CCAC has changed it approach to produce sector specific annual reviews in order to emphasise the requirement for greater effort across all sectors to remain within their sectoral emission ceiling. In a statement released on 9th July 2024 the CCAC state that while '*the provisional greenhouse gas emissions data published today by the EPA shows some positive results across the sectors but overall, it is increasingly unlikely that the first carbon budget will be achieved. Much more urgent action is required from Government if Ireland is to achieve its climate change objectives.*'[23]

In 2025, the CCAC released the '*Annual Review 2025: Preparing for Ireland's Changing Climate*'[24]. The Council observes that while developments such as the publication of Ireland's first National Climate Change Risk Assessment (NCCRA) are positive, the "*urgent priority now is to move from planning to implementation*" across all national, sectoral, and local climate action plans. In its 2025 assessment, the Council emphasizes that achieving the National Climate Objective of resilience by 2050 will require "*effective adaptation measures, stronger leadership and coordinated action across all levels of Government*" to address the growing impacts of climate change.

The Annual Review 2026: Transport[25] report has been released by the CCAC and focuses specifically on key findings and recommendations for the Transport sector. Based on the Sustainable Energy Authority of Ireland's (SEAI) Interim Energy Balance[26], Transport sector emissions in the first half of 2025 are estimated to have decreased by 2.0%, following a 1.3% decrease in 2024. This means that by the end of 2024, approximately 46.8 Mt CO2 eq, or 86.7% of the first sectoral emissions ceiling, had been used. The latest EPA projections indicate that the sector will exceed its 2021–2025 sectoral ceiling by 4.4 Mt CO2 eq. Furthermore, the 2026–2030 sectoral ceiling is projected to be exceeded by 17.7 Mt CO2 eq under the 'with existing measures' (WEM) scenario and by 12.5 Mt CO2 eq under the 'with additional measures' (WAM) scenario.

The CCAC has made several key recommendations for the Government to transform the Transport sector, which include:

- By Q2 2027, the Government should complete a comprehensive review of the current range of transport taxes (including VRT, motor tax, excise, carbon tax, tolls, and VAT) to ensure that fiscal policy is aligned with emission reduction targets and climate objectives.
- The Government should ensure that the Critical Infrastructure Bill, due for adoption in 2026, designates public transport infrastructure projects as critical for prioritisation to minimize delays and accelerate the delivery of major projects like DART+ South West and Luas Finglas.

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[22] *Climate Change Advisory Council (2023) Climate Change Advisory Council 2023 Review <https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR-2023-FINAL%20Compressed%20web.pdf>*
[23] *Climate Change Advisory Council (2024) < https://www.climatecouncil.ie/news/2024/chairs-statement-irelands-provisional-greenhouse-gas-emissions-1990-2023.html>*
[24] *Climate Change Advisory Council (2025) Annual Review 2025: Preparing for Ireland's Changing Climate. Available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2025-Adaptation-final.pdf*
[25] *Climate Change Advisory Council (2026) Annual Report 2026: Transport < https://www.climatecouncil.ie/councilpublications/annualreviewandreport/AR26-Transport-final.pdf>*
[26] *SEAI (2026) Interim National Energy Balance for 2025 <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/national-energy-balance>*

- The Government needs to implement effective demand management measures to disincentivise the use of private cars and internal combustion engine vehicles, such as locally tailored strategies and road space reallocations for sustainable modes. The Council also continues to advocate for legislation to enable congestion charging, noting its potential to reduce transport demand while providing fiscal resilience.

The Annual Review 2025: Built Environment, Industry and Waste[27] report has been released by the CCAC and focuses specifically on key findings and recommendations for the key findings and recommendations for the commercial and public buildings sector. Based on the EPA provisional greenhouse gas emissions inventory, emissions from this sector were estimated at 1.5 Mt CO2 eq in 2024, representing a 7.9% increase compared with 2023. This increase was primarily driven by an 8.9% rise in natural gas use and a 6.8% rise in oil use.

This trend means that by the end of 2024, the sector had already consumed 5.7 Mt CO2 eq, or 82.0% of its first sectoral emissions ceiling (SEC) for the 2021–2025 period. The latest projections indicate that the sector will exceed its first SEC by 0.2 Mt CO2 eq (3.2%). Furthermore, the 2026–2030 sectoral ceiling is projected to be exceeded by 1.8 Mt CO2 eq (26.8%) under the WAM scenario.

The CCAC has made several key recommendations for the Government to decarbonise the commercial built environment, which include:

- By 2025, the Department of Enterprise, Trade and Employment must publish a clear policy and roadmap for the decarbonisation of commercial buildings, including specific targets for building upgrades and the deployment of low-carbon technologies.
- The Government should accelerate the implementation of the EU's Solar Rooftop Standard (part of the Energy Performance of Buildings Directive), which mandates solar readiness and the deployment of solar energy installations in new non-residential and public buildings.
- The Government must urgently finalise the Heat Bill in 2025 to provide the necessary legislative and regulatory certainty for the district heating sector, enabling priority funding for early projects and mandating the supply of waste heat from large industrial facilities.
- In line with the Energy Performance of Buildings Directive (EPBD), the Government must ensure the worst-performing 16% of non-residential buildings are improved by 2030, rising to 26% by 2033.

1.2.1.5 Carbon Budgets

The first national carbon budget programme proposed by the CCAC, approved by Government and adopted by both Houses of the Oireachtas in April 2022 comprises three successive 5-year carbon budgets. The total emissions allowed under each budget are shown in Table 1-2.

Table 1-2 Proposed Carbon Budgets of the Climate Change Advisory Council

	2021 – 2025 Carbon Budget 1	2026 – 2030 Carbon Budget 2	2031 – 2035 Provisional Carbon Budget 3
	All Gases		
Carbon Budget ($Mt CO_2eq$)	295	200	151
Annual Average Percentage Change in Emissions	-4.8%	-8.3%	-3.5%
The figures are consistent with emissions in 2018 of 68.3 Mt CO_2eq reducing to 33.5 Mt CO_2eq in 2030 thus allowing compliance with the 51% emissions reduction target by 2030			

[27] *Climate Change Advisory Council (2025) Annual Report 2025: Built Environment, Industry and Waste.* <https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2025-Built%20Environment,%20Industry%20and%20Waste-final.pdf>

The EPA has identified that Ireland is projected to achieve a reduction of up to 29% in total greenhouse gas emissions by 2030, compared to a target of 51%, when the impact of the majority of actions outlined in Climate Action Plan 2024 is included.[28]

To achieve a reduction of 29% would require full implementation of a wide range of policies and plans across all sectors and for these to deliver the anticipated carbon savings. Almost all sectors are on a trajectory to exceed their national sectoral emissions ceilings for 2025 and 2030, including Agriculture, Electricity and Transport; therefore, the first two carbon budgets (2021-2030) will not be met, and by a significant margin of between 17 and 2%.[29]

1.2.1.6 Sectoral Emissions Ceilings

The Sectoral Emissions Ceilings were launched in September 2022. The objective of the initiative is to inform on the total amount of permitted greenhouse gas emissions that each sector of the Irish economy can produce during a specific time period. The Sectoral Emissions Ceilings alongside the annual published Climate Action Plan provide a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030.

Section C of the Climate Action and Low Carbon Development (Amendment) Act 2021 provides the minister with a method of preparing the Sectoral Emissions Ceiling within the bounds of the carbon budget. The Sectoral Emission Ceilings for each 5-year carbon budget period was approved by the government on the 28th of July 2022 and are shown in Table 1-3 below.

Table 1-3 Sectoral Emission Ceilings 2022

	Sectoral Emission Ceilings for each 5-year carbon budget period ($MtCO_2eq.$)	
Sector	**2021 – 2025 Carbon Budget 1**	**2026 – 2030 Carbon Budget 2**
Electricity	40	20
Transport	**54**	**37**
Built Environment-Residential	29	23
Built Environment-Commercial	**7**	**5**
Industry	30	24
Agriculture	106	96
LULUCF[1]	Yet to be determined	Yet to be determined
Other (F-Gases, Waste & Petroleum refining)	9	8
Unallocated Savings		*-26*
Total[2]	Yet to be determined	Yet to be determined
Legally binding Carbon budgets and 2030 Emission Reduction Targets	295	200

[1] Finalising the Sectoral Emissions Ceiling for the land-use, Land-use Change and Forestry (LULUCF) sector has been deferred for up to 18 months to allow for the completion of the Land-use Strategy
[2] Once LULUCF sector figures are finalised, total figures will be available.

The active travel works, marina extension, parking extension works fall into the 'Transport sector' when discussing emissions associated with these activities in the context of the sectoral emission ceilings. The main source of emissions from the 'Transport sector, as defined in the sectoral emission ceilings, is from road

[28] *EPA (2024). Available at: https://www.epa.ie/news-releases/news-releases-2024/ireland-is-projected-to-exceed-its-national-and-eu-climate-targets.php*
[29] *Ibid.*

transport. The Transport sector has been set a sectoral emission ceiling of 54MtCO_2eq for the first carbon budget period (2021–2025) and 37MtCO_2eq for the second carbon budget period (2026–2030).

The Annual Review 2026: Transport report states that the Transport sector is the second-largest source of greenhouse gas emissions in Ireland, accounting for 21.8% of total national emissions in 2024. In 2024, sectoral emissions were 11.8 Mt CO2 eq, representing a 1.3% decrease from the previous year.

Regarding road transport emissions in 2024:

- Passenger cars were responsible for 51%.
- Heavy-duty vehicles (HGVs and buses) accounted for 31%.
- Light goods vehicles (LGVs) accounted for 18%.

Based on current trends, the Transport sector has likely exceeded its first sectoral emissions ceiling (2021–2025) by an estimated 4.4 Mt CO2 eq. Furthermore, it is projected to overshoot its second emissions ceiling (2026–2030) by 17.7 Mt CO2 eq under a "with existing measures" scenario, or 12.5 Mt CO2 eq even if additional measures are implemented. Significant reductions remain necessary to align with these legally binding targets.

The water sports facility and public realm works fall into the 'Built environment - commercial sector' when discussing emissions associated with these activities in the context of the sectoral emission ceilings. The Commercial sector has been set a sectoral emission ceiling of 7MtCO_2eq for the first carbon budget period (2021–2025) and 5MtCO_2eq for the second carbon budget period (2026–2030).

The Annual Review 2025: Built Environment, Industry and Waste report states that emissions from the commercial and public buildings sector were estimated at 1.5 Mt CO2 eq in 2024. This represents a 7.9% increase compared with 2023, driven by a rise in natural gas use (+8.9%) and oil use (+6.8%). As of the end of 2024, the sector has already consumed 82% of its first carbon budget (2021–2025).

Based on current trends, the commercial and public buildings sector is projected to exceed its first sectoral emissions ceiling (SEC) by 0.2 Mt CO2 eq (3.2%) and its second SEC (2026–2030) by 1.8 Mt CO2 eq (26.8%). To counter this, there is an urgent requirement in 2025 for a clear decarbonisation roadmap from the Department of Enterprise, Trade and Employment, which must include specific targets for building upgrades and the accelerated implementation of the EU's Solar Rooftop Standard. Furthermore, under the EPBD, the sector must improve the worst-performing 16% of non-residential buildings by 2030, increasing to 26% by 2033.

1.2.2 Climate Action Plan 2025

The National Climate Action Plan 2025 (CAP 2025)[30] was launched in April 2025. CAP 2025 marks the fourth update to the Climate Action Plan 2019, and the third to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and the introduction of the 2022 Sectoral Emissions Ceilings (SEC) and the establishment of economy-wide carbon budgets.

CAP 2025 seeks to build on the progress made under Climate Action Plan 2024 by delivering policies, measurements and actions that will support the achievement of Irelands carbon budgets, sectoral emission ceilings, and 2030 and 2050 climate targets; while further enabling the closure of identified emissions gaps and the allocation of unallocated emission savings associated with each carbon budget period.

Building on previous iterations, CAP25 offers a detailed sector-by-sector roadmap outlining the key actions required to transition Ireland to a low-carbon society and reaffirms the goals of a 51% reduction in greenhouse gas emissions by 2030 and reaching climate neutrality no later than 2050. Major measures include a significant scale-up of renewable energy, especially wind and solar power, extensive retrofitting of homes to improve energy efficiency, support for nearly one million electric vehicles by 2030, and reforms in agriculture and land use aimed at promoting sustainability. CAP25 also emphasises public engagement, a just transition, and effective

[30] *Department of the Environment, Climate and Communications (2025) Climate Action Plan 2025. Available at:* https://www.gov.ie/en/department-of-the-environment-climate-and-communications/publications/climate-action-plan-2025/

carbon pricing to ensure that the costs and benefits of climate action are distributed equitably across society. As with Climate Action Plan 2024, CAP 2025 provides an Annex of Actions[31], which only contain new, high-impact actions for delivery in 2025. The full set of measures for CAP 2025 (i.e., proposed new actions and existing actions) are still located within CAP 2025.

Six Vital High Impact Sectors were identified within Climate Action Plan 2023[32] relating to the sectoral emission ceilings. CAP 2025 has reaffirmed the following sectors and targets with no proposed changes:

Powering Renewables – 75% Reduction in emissions by 2030

We will facilitate a large-scale deployment of renewables that will be critical to decarbonising the power sector as well as enabling the electrification of other technologies.

- Accelerate the delivery of onshore wind, offshore wind, and solar.
- Dial up to 9 GW onshore wind, 8 GW solar, and at least 7 GW of offshore wind by 2030 (with 2 GW earmarked for green hydrogen production).
- Support at least 500 MW of local community-based renewable energy projects and increased levels of new micro-generation and small-scale generation.
- Phase out and end the use of coal and peat in electricity generation.

Achievement of the 75% reduction in emissions by 2030 and the decarbonisation of the grid in Ireland would assist in the achievement of the Electricity sectoral emission ceiling.

Building Better – 45% (Commercial/Public) and 40% (Residential) Reduction in Emissions by 2030

We will increase the energy efficiency of existing buildings, put in place policies to deliver zero-emissions new builds, and continue to ramp up our retrofitting programme.

- Ramp up retrofitting to 120,000 dwellings to BER B2 by 2025, jumping to 500,000 by 2030.
- Generation up to 0.8 TWh of district heating by 2025 and up to 2.5 TWh by 2030.

Achievement of the 45% (Commercial/Public) and 40% (Residential) reduction in emissions by 2030 would assist in the achievement of the Built Environment (Commercial/Residential) sectoral emission ceiling.

Turning Transport Around – 50% Reduction in Emissions by 2030

We will drive policies to reduce transport emissions by improving our town, cities, and rural planning, and by adopting the Avoid-Shift-Improve approach: reducing or avoiding the need for travel, shifting to public transport, walking, and cycling and improving the energy efficiency of vehicles.

- Change the way we use our road space.
- Reduce the total distance driven across all car journeys by 20%.
- Walking, cycling and public transport to account for 50% of our journeys.
- Nearly 1 in 3 private cars will be an Electric Vehicle.
- Increase walking and cycling networks.
- 70% of people in rural Ireland will have buses that provide at least 3 trips to the nearby town daily by 2030.

Achievement of the 50% reduction in emissions relating to transport by 2030 would assist in the achievement of the Transport sectoral emission ceiling.

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[31] https://assets.gov.ie/static/documents/Climate_Action_Plan_2025_-_Annex_of_Actions.pdf
[32] *Department of the Environment, Climate and Communications (2022) Climate Action Plan 2023 – Summary Document*

Making Family Farms More Sustainable – 25% Reduction in Emissions by 2030

We will support farmers to continue to produce world class, safe and nutritious food while also seeking to diversify income through tillage, energy generation and forestry.

- Significantly reduce our use of chemical nitrogen as a fertilizer.
- Increase uptake of protected urea on grassland farms to 90-100%.
- Increase organic farming to up to 450,000 hectares, the area of tillage to up to 400,000 ha.
- Expand the indigenous biomethane sector through anaerobic digestion, reaching up to 5.7TWh of biomethane.
- Contribute to delivery of the land use targets for afforestation and reduced management intensity of organic soils.

Achievement of a 25% reduction in emissions by 2030 in agriculture and farming practices would assist in the achievement of the agriculture sectoral emission ceiling.

Greening Business and Enterprise – 35% Reduction in Emissions by 2030

We're changing how we produce, consume, and design our goods and services by breaking the link between fossil fuels and economic progress. Decarbonising industry and enterprise are key to Ireland's economy and future competitiveness.

- Reduce clinker content in cement and substitute products with lower carbon content for construction materials, ensuring 35% reduction in emissions by 2030 (against 2018).
- Reduce fossil fuel use from 64% of final consumption (2021) to 45% by 2025 and further by 2030.
- Increase total share of heating to carbon neutral to 50-55% by 2025, up to 70-75% by 2030.
- Significantly grow the circular economy and bioeconomy.

Achievement of a 35% reduction in emissions by 2030 in relation to Irish production and consumption would enable a more circular economy and assist in the achievement of the Industry and Other sectoral emission ceilings.

Changing our land use

The first phase of the land use review will tell us how we are using our land now. Then, we can map, with evidence, how it can be used most effectively to capture and store carbon and to produce better, greener food and energy.

- Increase our annual afforestation rates to 8,000 hectares per annum from 2023 onwards.
- Promote forest management initiatives in both public and private forests to increase carbon sinks and stores.
- Improve carbon sequestration of 450,000 ha of grasslands on mineral soils and reduce the management intensity of grasslands on 80,000 ha of drained organic soils.
- Rehabilitate 77,600 hectares of peatlands.

Exact reduction target for this sector is yet to be determined. By improving the manner in which Ireland utilises its land use, Ireland can achieve emission reductions and mitigate the ongoing climate and biodiversity crisis's. The LULUCF sectoral emission ceiling will be set after completion of the Land-use Strategy.

Adaptation

CAP 2025 highlights the need for adaptation to climate change. Adaptation is the process of adjustment to actual or expected climate change and its effects. Observations show that Irelands climate is changing in terms of coastline, sea level rise, seasonal temperatures, and changes in typical weather patterns. Climate change is expected to have diverse and wide-ranging impacts on Ireland's environment, society, and economic development, including managed and natural ecosystems, water resources, agriculture and food security, the built environment, human health, and coastal zones.

Climate Sectoral Adaptation Planning[33] includes for 12 sectoral adaptation plans that describe and assess the extent of the risks presented by climate change to a sector, and present contingency plans to address these risks and ensure climate resilience. They include actions to mainstream adaptation into policy and administration at sectoral level to improve the resilience of existing and planned critical infrastructure, systems, and procedures, to the effects and variability of climate change, as well as to improve cooperation and coherence within and across sectors, as well as on a local and national level.

CAP 2025 acknowledges the current shortfalls towards interim (2025) targets and underscores the need for faster implementation, stronger governance, and more coordinated cross-sectoral action to close the gap between ambition and delivery.

1.2.2.1 Irelands Climate Change Assessment

In 2024 the EPA published Irelands Climate Change Assessment (ICCA).[34] This assessment provides a comprehensive overview and breakdown of the state of knowledge around key aspects of climate change with a focus on Ireland. The ICCA report is presented in four volumes.

- Volume 1: Climate Science – Ireland in a Changing World
- Volume 2: Achieving Climate Neutrality in 2050
- Volume 3: Being Prepared for Irelands Future
- Volume 4: Realising the Benefits of Transition and Transformation

The ICCA Synthesis Report states that, having peaked in 2001, Irelands greenhouse gas emissions have reduced in all sectors except agriculture. However, Ireland currently emits more greenhouse gases per person than the EU average. The report goes on to state that there has been an identified gap in policy that indicates that Ireland will not meet its statutory greenhouse gas emission targets. Already Ireland has seen significant and ongoing deterioration in environmental quality, including declines in water quality, biodiversity and ecosystem quality. Developing a climate-resilient Ireland will require sufficient public and private investment and financial support in ways that adequately recognise the value of ecosystem services and the importance of societal wellbeing.

There are well-established 'no-regret options' that need to happen now, which can get Ireland most of the way to net zero carbon dioxide emissions. Beyond that, there are 'future energy choices' relating to the scale and magnitude of technologies that will assist in achieving Ireland statutory climate targets. Ireland's no-regret options are demand reduction (e.g. through energy efficiency and reduced consumption), electrification (e.g. electric vehicles and heat pumps), deployment of market-ready renewables (e.g. wind energy and solar photovoltaics) and low-carbon heating options (e.g. district heating). Irelands future choices include hydrogen, carbon capture and storage, nuclear energy and electro-fuels.

Achieving net zero carbon dioxide emissions by 2050 requires significant and unprecedented changes to Ireland's energy system. Policies tailored to suit different stages of technology development are critical for achieving a net zero energy system. Established technologies, such as wind energy, solar photovoltaics and bioenergy, will be key in meeting short-term emission reduction targets (i.e. 2030), whereas offshore wind infrastructure is expected to be the backbone of future energy systems (i.e., 2050).

The ICCA serves as a stark warning: Ireland stands to face a myriad of challenges in efforts to mitigate and adapt to climate change at the almost halfway mark to 2030. Further decisive action is imperative to mitigate the escalating impacts of climate change on Irelands environment, economy, and society that are highlighted throughout the four volumes of the ICCA.

[33] *Department of the Environment, Climate and Communications (2020) Sectoral Adaptation Planning.* https://www.gov.ie/en/collection/51df3-sectoral-adaptation-planning/
[34] *Environmental Protection Agency (2023) Irelands Climate Change Assessment.* https://www.epa.ie/our-services/monitoring--assessment/climate-change/irelands-climate-change-assessment-icca/

1.2.2.2 Water Action Plan 2024

The Water Action Plan 2024, Ireland's third River Basin Management Plan, outlines comprehensive strategies to protect and restore the nation's water bodies, including rivers, lakes, estuaries, coastal waters, and groundwater. Building upon previous plans, it emphasizes an integrated catchment management approach to achieve 'good' status or better for these water bodies by 2027. The plan identifies key contributors to water quality decline, such as agricultural runoff rich in phosphorus and nitrogen, inadequately treated wastewater, and physical alterations to water bodies from barriers and drainage.

To tackle these challenges, the Water Action Plan 2024 introduces targeted measures aimed at reducing pollutants and restoring natural ecosystems. Notably, it proposes stricter controls on fertilizer usage and increased inspections to mitigate agricultural impacts on water quality. A national River Barriers Mitigation Programme is also included to address physical obstructions in waterways, enhancing ecological connectivity and habitat quality.

The Water Action Plan 2024 emphasizes the importance of public participation and improved governance in water management. It encourages community involvement through initiatives like the Community Water Development Fund, which supports local projects aimed at water conservation and quality improvement. By fostering collaboration among government agencies, local authorities, and communities, the plan seeks to implement effective, location-specific measures to protect and enhance Ireland's water resources.

1.2.2.3 Irelands 4th Biodiversity Action Plan 2023-2030

Ireland's 4th National Biodiversity Action Plan (NBAP) sets the national biodiversity agenda for the period 2023-2030 and aims to deliver the transformative changes required to the ways in which Ireland approaches biodiversity action.

Scientific assessment of the store of nature in Ireland found that 85% of Irish EU-protected habitats are in unfavourable status, with almost half (46%) demonstrating ongoing declines. The 4th NBAP strives for a "whole of government, whole of society" approach to the governance and conservation of biodiversity. The aim is to ensure that every citizen, community, business, local authority, semi-state and state agency has an awareness of biodiversity and its importance, and of the implications of its loss, while also understanding how they can act to address the biodiversity emergency as part of a renewed national effort to "act for nature".

It will continue to implement actions within the framework of five strategic objectives, while addressing new and emerging issues:

- Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity
- Objective 2 - Meet Urgent Conservation and Restoration Needs
- Objective 3 - Secure Nature's Contribution to People
- Objective 4 - Enhance the Evidence Base for Action on Biodiversity
- Objective 5 - Strengthen Ireland's Contribution to International Biodiversity Initiatives