Key messages from chapters

Introduction

1. A national policy position for Ireland's environment is critical to addressing complex and interrelated challenges on climate, biodiversity and pollution and prevent damaging lock-ins.

2. Our growing economy and population are increasing the pressure on our environment. We need to invest in our infrastructure to prevent this growth impacting on our natural environment.

Air

1. While air pollution has reduced over recent decades, our understanding of the level at which it impacts health has grown. The World Health Organization (WHO) says that there is no safe level of air pollution.

2. Currently, Ireland is not meeting the guidelines set by WHO for multiple pollutants including fine particulate matter and nitrogen dioxide. We can actively improve our local air quality by changing to more sustainable forms of transport and heating.

3. Achieving Ireland's ambition, set out in the Clean Air Strategy, to move towards meeting the health-based WHO air quality guideline limits will be challenging but will have a significant and positive impact on health. A road map of actions is required to deliver on the overall ambition and the 2026 and 2030 interim targets.

4. Ireland is non-compliant with the EU reduction target for ammonia and will remain so in the short term. Meeting the 2030 emission reduction commitment is dependent on fully executing all known ammonia abatement measures at the farm level.

Environmental Noise

1. Environmental noise is the second biggest environmental cause of health problems in the EU. In Ireland, over 1 million people are likely to be exposed to noise levels above the mandatory reporting thresholds.

2. National policy for environmental noise is not as well advanced as in other environmental areas. There is a need for coordinated national policy and actions around planning, health and transport infrastructure to reduce noise exposure.

3. Local authorities, in collaboration with transport infrastructure bodies, need to focus implementation of noise action plans on the priority areas identified using strategic noise mapping.

Climate Change

1. The science is clear – climate change is already having an impact on people, animals and plants in Ireland. The evidence is unequivocable, Ireland is being affected by climate change now, and the severity of the impacts is likely to increase significantly in the coming years.

2. Ireland needs to be resilient to ongoing and future climate change impacts. The implementation of climate adaptation measures is currently too slow and fragmented. More cross-sectoral and integrated adaptation actions can deliver multiple benefits. Doing better requires more financing, working with people and nature, monitoring and evaluating outcomes and increasing public and private sector involvement.

3. Ireland is not currently projected to achieve its 2030 emissions reduction targets or to meet national or EU reduction targets. Despite Irish climate action ambitions, significantly faster progress is needed to decarbonise all sectors of Ireland's economy and implement adaptation actions to deliver a resilient and sustainable future for the benefit of all society.

4. It is critical that people and communities are supported to achieve the changes required to address climate change. To overcome the practical barriers to climate action, and to ensure that objectives are both achievable and equitable, understanding the beliefs, attitudes and challenges facing people in Ireland is crucial. Policy should be designed and implemented so that the desirable action becomes the default action.

Land

1. Ireland's land is in demand. Our current land use is a net source of greenhouse gas emissions. Some of our current land use practices such as agriculture, forestry and urbanisation are exerting pressures on water quality and nature that show no immediate signs of abating.

2. We cannot make more land, so must use our land wisely. Part of this challenge is to understand how best to use our land for social and economic benefit in a way that supports, rather than damages, the environment. The national land use review has a vital role to play in identifying land use opportunities and constraints.

3. Land use offers natural, social and economic benefits. We can use our land in ways that support climate action, nature restoration, protection of water quality and a sustainable economy through implementing a multiple benefits approach. To do this we must reframe how we approach national land use decisions. We must take a holistic and integrated view across all the demands there are on Ireland's land. Emerging evidence shows that we can implement solutions that deliver natural, social and economic capital together.

4. Land use is about using land to benefit people. Landowners and other stakeholders need to be engaged in decisions that impact them. Evidence shows that to reframe how we use our land will require engaging people in the process and providing positive supports to incentivise change.

Soil

1. Ireland's soils play important roles in storing carbon, in regulating both water flow and water quality and in growing food and raw materials. Soils are under threat from excess nutrients, compaction, soil sealing and loss of soil biodiversity, in Ireland and across the EU. Soil health must be prioritised to ensure food security, protect the soil biome, and safeguard the important environmental services that soil provides.

2. The protection of soils lacked a legal and policy framework until recently and the publication of the EU Soil Strategy in 2021 and the proposed soil monitoring law in 2023 are significant. Ireland faces challenges in achieving the objectives of the EU Soil Strategy and in implementing the proposed soil monitoring law. However, getting this right would significantly advance the protection of Ireland's soil health.

3. To support the proposed soil monitoring law and soil health assessment, Ireland should advance soil mapping and modelling, through a cross-public sector approach, which would rapidly improve our knowledge of soil health at a national level.

Nature

1. The Irish landscape is heavily modified by humans. Many of the few remaining natural and semi-natural habitats are in a poor or bad state. Research in Ireland highlights that 85% of our protected habitats and almost one-third of our protected species of flora and fauna are in unfavourable status, over half our native plant species are in decline and more than 50 bird species are of high conservation concern. The leading causes of these declines are changes in agricultural practices, including intensification; pollution; the increasing spread of invasive species; and our changing climate.

2. Our natural habitats and biodiversity have been squeezed to the margins of our landscape and policies, while food production and economic development have been prioritised. However, nature underpins our food production, food security and economic development. We risk our future if we continue to marginalise nature, and its protection, and fail to deliver adequate, achievable, impactful, evidence-based and coordinated action to protect and restore it.

3. Biodiversity loss affects everyone. It is essential that nature protection, enforcement, management and restoration are mainstreamed across government, social and economic sectors and are fully considered at all levels of national, regional and local decision-making.

4. Nature can recover if given the opportunity. For example, Ireland's corncrake population has risen by more than 35% in recent years, reflecting the outcome of a multi-million euro conservation investment that began in 2019. Positive actions to halt declines and to restore the key elements of our natural world must be implemented.

Water

1. There needs to be immediate, substantial and sustained reductions in nitrogen pollution, especially in catchments of concern in the south and south-east, to prevent any further deterioration in the quality of our estuaries and coastal waters. Targeted measures to reduce phosphate run-off could deliver significant improvements in inland waters and offer multiple benefits for climate and biodiversity.

2. We need to see full implementation of existing environmental legislation and high compliance rates across all regulated activities. A regulatory regime to address activities that impact hydromorphology is also required. All measures must be sufficiently targeted to the water quality issue and location to ensure that they deliver improvements.

3. Water governance structures need to be reviewed to ensure that they operate effectively. Detailed tracking and reporting of measures in Ireland's Water Action Plan 2024 is required to improve accountability among implementing bodies, public access to information and, ultimately, Ireland's water quality.

4. It is essential to build climate resilience into water quality management and into water services. Plans – such as the Water Action Plan, the Water Quality and Water Services Climate Adaptation Plan, and Uisce Éireann's National Water Resources Plan – are key to identifying risks and adaptation measures.

The Marine Environment

1. Our wider marine environment is generally clean and healthy, but legislation to maintain this needs to be enforced more rigorously and new priorities addressed more quickly. For example, the delayed marine protected areas legislation is an essential part of the marine spatial planning approach that will ensure that marine developments do not occur at the expense of the wider marine environment.

2. Key pressures are still causing impacts on the biodiversity and productivity of marine ecosystems. Fishing at unsustainable levels is impacting both habitats and the food chain. Nearshore nutrient enrichment has the potential to affect coastal amenity. Measures to combat these issues need to be implemented and enforced, as current trends are indicating that environmental status is not moving in the right direction.

3. There have been many recent changes in marine policy. Policy coherence and coordination needs to be improved to avoid damaging our marine environment and to maximise the benefits of protecting it.

Environment and Agriculture

1. Agriculture is an integral part of the fabric of Irish society. It has a key role in delivering, and depends on, a healthy environment. However, our food systems are not currently meeting our sustainability targets and need urgent transformational change.

2. There are many plans and programmes in place, with positive actions being implemented at farm scale, but there is no clear evidence that the current measures will collectively achieve the scale of environmental outcomes that are needed.

3. A shared vision for 2050 for land use and the food system is urgently required. A clear pathway for the agriculture and land use sector, and adequate supports to achieve it, must be put in place. Implementation and an evidence base for assessing progress must be a priority.

Environment and Transport

1. The transport sector is a major consumer of energy and material resources and is a source of environmental pollution, particularly greenhouse gases, air pollutants and noise.

2. A sustainable, accessible and efficient transport system is not only important for the environment and wellbeing but is also a key enabler for the economy.

3. High-level integration between land use planning and transport planning is needed to achieve more compact development, incentivise a move away from private cars, and move trips to rail, bus, cycling and walking. Shifting to these modes is an essential part of a sustainable and climate-neutral transition for the transport sector.

Environment and Industry

1. Industrial pollution in Ireland is decreasing, thanks to a blend of regulation, developments in manufacturing, control technology and environmental initiatives. Continued investment and change are needed to ensure compliance with tighter environmental standards and to achieve the targets and reductions that are required under industry's climate requirements.

2. Compliance with environmental regulation across industry in Ireland is high overall. Many sectors have advanced environmental systems in place that demonstrate a maturity in their approach to environmental compliance. However, a disproportionate number of sites in the food and drink sector, in particular dairy processing sites, and in the waste sector are not performing optimally and are regularly cited on the EPA's list of national priority sites for not complying with their licence conditions.

3. The unauthorised harvesting and extraction of peat on an industrial scale is causing destruction of Ireland's natural habitats and compromising the vital role of peatlands in helping society mitigate the impacts of and adapt to climate change. It is essential that planning policy clearly prioritises the regulation and control of these operations. The EPA will continue to exercise its authority over operators and other regulators to ensure the cessation of such unauthorised activities.

Environment and Energy

1. Established technologies, such as wind energy, solar photovoltaics and bioenergy, will be key in meeting short-term emission reduction targets (i.e. 2030), whereas significant growth in offshore wind infrastructure is expected to be the key essential element of future energy systems. Enhanced regulatory and planning frameworks, and support schemes, are required to accelerate the deployment of renewables, realise co-benefits and manage trade-offs.

2. Growing demand for electricity is an anticipated by-product of the expected electrification of the heat and transport sectors. However, additional and rapidly increasing electricity demand growth from large energy users is putting pressure on energy systems.

3. World class infrastructure takes significant time and investment from conception to implementation. The time horizon for achieving national and EU commitments is getting ever shorter. Planning in the broadest sense needs to be fast tracked to achieve the ambitious national renewable energy targets.

4. Substantial challenges remain for high-intensity hard-to-decarbonise sectors, e.g. high temperature users, and the development of low or zero carbon fuels to meet these applications are needed. Negative emissions technologies and solutions will also be required to deliver a climate-neutral Ireland.

Environment, Health and Wellbeing

1. Our health and wellbeing is inextricably linked to our surrounding environment. The health benefits of a vibrant natural world are countless, providing us with breathable air, drinkable water, productive soils and spaces for us to spend time in and enjoy, enhancing both our physical and mental health and wellbeing.

2. The harmful environmental exposures causing disease and early death are modifiable. Reducing pollution, adapting to and mitigating climate impacts, and restoring ecosystems can have enormous benefits for our health and wellbeing. Solutions that can help tackle one issue can have multiple co-benefits for others. Implementation of solutions that can maximise benefits across multiple domains should be prioritised.

3. The impacts of environmental hazards and exposures are not equal across society. More efforts are required to assess inequalities in both levels of exposure and impact at a finer geographical scale to determine whether measures implemented are helping to bridge the gap.

Circular Economy and Waste

1. Ireland has a damaging linear economy characterised by the overconsumption of materials and goods and the growing volumes of waste and greenhouse gas emissions. While recycling tonnages are increasing, these increases are being cancelled out by the growing amount of waste generated. Current trends pose a high risk of not meeting mandatory recycling targets. The challenge for Ireland is to reverse these trends and significantly reduce waste production.

2. Ireland's capacity to collect and treat waste is vulnerable and underperforming, with an over-reliance on other countries to treat our recycling materials, general municipal and hazardous wastes.

3. Systemic change is needed to accelerate the transition to an accessible, fair and affordable circular economy. Effective regulation, incentives and enforcement are required to influence businesses and consumers to adopt best practices in production, supply, purchasing, use and reuse of goods, products and services.

Environmental Policy Implementation and Performance

1. Serious deficits remain in Ireland's implementation of environmental legislation and related plans and programmes. We need to scale up and speed up the implementation of measures and critical infrastructure in energy, transport, waste and water to protect our environment and human health.

2. Environmental policy responses to date have been insufficient to halt or reverse environmental decline. A national policy position on protecting Ireland's environment is urgently required to provide a shared whole-of-government vision for protecting our environment to guide decision-making, support policy coherence and improve the coordination of environmental protection efforts nationally.

3. Looking ahead to 2050, more ambitious and transformative policy responses are needed that set out a roadmap for achieving the transitions required across our food, energy, mobility, and production and consumption systems. These policies need to be supported by clear governance structures and the necessary investment plans to implement them.