

Ireland's national submission
in response to General Assembly decision 78/558
and the invitation of the Secretary-General
to inform his report on:
Challenges related to sea level rise and on ways and approaches to address
sea level rise

1. Ireland is grateful for the opportunity to make a submission to the Secretary-General's report on challenges related to sea level rise and on ways and approaches to address sea level rise.

Introduction

2. Ireland's coastline is a valuable natural resource, which needs careful and sensitive management. About 40% of people in Ireland live within 5km of the coast and about 40,000 live within 100 metres of the coast. Ireland's coastline is relatively long compared to other European countries spanning approximately 5,800km.
3. Ireland's coastal zone is characterised by considerable diversity, both in natural terms and in the range and extent of human activity, including:
 - urban, rural and island coastal communities;
 - the location of all of our major cities and the most densely populated parts of the country;
 - much of the country's industry is concentrated on or near the coast,
 - critical infrastructural and utility services including transport networks of road, rail, ports and harbours; water supply and waste disposal; power, energy and communications; and military infrastructures;
 - important economic resources for many sectors, e.g. the agricultural and tourism sectors;
 - many areas of conservation value, due in part to the high ratio of coast to land area, including designated areas of special conservation, geology and structures and sites of cultural heritage significance, and
 - access to a vast marine resource including fisheries, aquaculture and energy.
4. However, Ireland's coast faces many challenges. The negative impacts of climate change are being experienced in Ireland and will continue and intensify. This is particularly the case with respect to rising sea levels, which, coupled with an increase in the frequency and duration of severe weather events, will have long-term implications for the shape and location of our coastline.
5. Ireland's [Climate Action Plan 2021](#) identifies that increases in sea levels and storm surge will result in increased frequency of coastal flooding and erosion, with significant impacts for coastal and heritage sites situated in proximity to the coast and on estuaries. The current

evidence points to a gradual sea level rise of up to 1 metre to the year 2100 due to climate change. This will further and significantly change our coastline and could adversely impact on our coastal economy, society, heritage, culture and environment, if such change is not managed appropriately.

National reports on Climate Change and Sea level rise

6. In early 2024, Ireland's Environmental Protection Agency (EPA) published [Ireland's Climate Change Assessment Volume 1](#). This assessment, which presented the up to date physical science, including that on sea level rise, aims to support Ireland's national response to climate change, ensuring that it is informed by the best available science. One study highlighted in the assessment found that there were higher rates of sea level rise since the late 20th century in Cork and Dublin than the global average, although the reasons for this are unclear and are currently under investigation. Larger relative contributions from Greenland would result in smaller increases for Ireland and vice versa due to the gravitational effects of the two ice sheets.
7. The Assessment also noted that global sea level increases will be modified locally around the island of Ireland by ongoing isostatic rebound – the north-east of the island is slowly rising and the south-west slowly sinking (<0.2mm per year in most regions); multi-decadal ocean basin variability (order of several centimetres in a decade); and the relative contributions to sea level change arising from the Greenland and Antarctic Ice Sheets over time. In addition, Storm surges and extreme waves pose an ever-increasing threat to Ireland as sea levels continue to rise, including for many coastal cities such as Cork, Dublin, Galway and Limerick, and to critical infrastructure.
8. Later in 2024, [Ireland's Climate Change Assessment Volume 3](#) was published by the EPA. This Assessment is also relevant, as it presents up to date evidence for the management of and adaptation to the impacts of sea level rise for Ireland. Ireland is highly exposed to climate change impacts on coastal environments, with all major cities and many regional population centres located by the sea. Sea level rise and changes in storm surge present large flood risks for urban areas. Superimposed on the current 100-year flood, mid-range estimates of sea level rise are estimated to quadruple the number of properties affected by flooding in coastal locations. For Limerick city alone, the cost of extreme floods under a high-end scenario of sea level rise may increase up to 12.5-fold, amounting to over €1 billion for a single event. Such estimates do not account for future urban expansion and emphasise the importance of adaptation to coastal flood risk.
9. For transport, sea level rise and flooding are key climate change risks. Approximately 98% of trade by volume comes through our ports, and they are key gateways for tourism. Climate hazards for Irish ports include sea level rise and changes in wind, wave and tidal extremes and storminess, with risks differing by port location. Currently there is little guidance on how adaptation in ports should be managed.
10. In addition, in June 2025, the EPA published Ireland's first [National Climate Change Risk Assessment](#) (NCCRA). The NCCRA examined, amongst other risks, the potential impacts of sea level rise, including cascading impacts for two emissions scenarios on three time horizons. These interconnected risks can trigger a chain reaction of adverse effects, where

disruptions in one system can lead to significant consequences in others. Two of the priority risks identified as needing more action are: (i) Risk of disruption, damage, and loss of transport infrastructure due to sea level rise, coastal erosion, and coastal flood, and (ii) Risk of damage and loss of buildings due to sea level rise, coastal erosion, and coastal flooding.

11. In this regard, the Risk Assessment found that Ireland's coastline is already experiencing impacts of coastal erosion and flooding with projections indicating a further increase in potential impacts due to projected sea level rise. Transport infrastructure is concentrated in coastal areas, with Dublin and the south-east particularly exposed to the impacts of coastal erosion and flooding. By mid-century, the changes in precipitation patterns and increasing sea levels, will result in an increase in the frequency and severity of coastal hazards (coastal flooding and coastal erosion) and flooding (river, surface water, and groundwater). The Built Environment is particularly exposed to these risks, with transport infrastructure, buildings and people highly exposed, with the consequence of these risks increasing to critical by mid-century, with potential to reach catastrophic levels of consequence by the end of the century.

Legal Dimensions

12. Sea level rise also raises complex law of the sea issues. As an island state itself, Ireland is acutely conscious of the potential impact of sea level rise on its maritime zones. The starting point for Ireland is to recognise that all states - quite reasonably- wish to preserve their existing maritime limits delineated in accordance with international law. The challenge we face is to develop a legal solution that preserves those limits while maintaining the integrity of the existing legal framework, in particular the UN Convention on the Law of the Sea.
13. As is now widely acknowledged, that Convention assumed stable sea levels. Such an assumption is no longer valid. Ireland agrees with others that we now need to make arrangements to ensure that baselines established in accordance with the Convention are to be regarded as permanently settled. Only such an arrangement can achieve the legal stability necessary to avoid conflict in the future while properly reflecting the principle of a state's permanent sovereignty over its natural resources, including the natural resources located within its duly delineated maritime limits.
14. In Ireland's view the absence from the Law of the Sea Convention of an express obligation on states to regularly resurvey *straight baselines*, or to deposit with the Secretary-General of the United Nations revised charts or lists of coordinates, is helpful in developing a pragmatic legal solution. The question of how to fix *baselines formed by the low-water line* along the coast is more challenging, but even here Ireland believes that a pragmatic solution can be found through engagement by states at the Sixth Committee, where the ILC's Study Group Report on Sea Level Rise is currently under consideration, at the meetings of the State Parties to the Law of the Sea Convention, and/or in other relevant fora.

Government response

15. In response to the coastal challenges faced by Ireland arising from climate change, in 2020 the Government established an Interdepartmental Group (IDG) on Coastal Change to scope out an approach for the development of a national co-ordinated and integrated strategy to manage the projected impact of coastal change to our coastal communities. The IDG on

Coastal Change was also tasked to provide a framework for key decisions to be taken on how Ireland can best manage its coast, being aware of the future risks and the associated planning requirements.

16. The [Report of the Inter-Departmental Group on National Coastal Change Management Strategy](#), which was published in October 2023, set out a road map for responding to the challenges faced by Irish coasts in a structured and planned way, in order to provide the basis for a long-term strategy for an integrated and co-ordinated approach to coastal change management. While responding to the impact of climate change on Ireland's coast requires, broadly, a dual approach of both mitigation (tackling the cause) and adaptation measures (reduce the impacts and adaptive capacity and resilience), this report focused on adaptation to coastal change.
17. The Report noted that at the heart of the challenge of integrated coastal management is the issue of timescale. Regardless of reduction in greenhouse gas emissions, sea levels will continue to rise for a significant length of time, certainly much longer than 'normal' planning horizons.
18. Obtaining reliable data and relevant research are a critical underpinning to develop future policy, its evolution and implementation to address sea level rise. The data types considered to be of most relevance are Aerial Imagery, Bathymetry Data, Coastal Features / Infrastructure, Elevation Data, Erosion Data, Flood Data, Geological Data, Meteorological Data, Oceanographic Data, Risk Receptors and Spatial Planning. While there is significant data available with respect to coastal change in Ireland, there are gaps both in the extent and type of data being gathered. There is a need for a co-ordinated approach to data gathering in terms of its focus, effective resolution (spatial extent) and how often the data is gathered.
19. The Report sets out 15 recommendations centred on developing responses to coastal change and developing a comprehensive whole of Government approach to the development of policy response to the challenge of coastal change. In summary, these recommendations consisted of or related to:
 - Governance;
 - Capacity development;
 - Coastal Monitoring and Data Collection;
 - Coastal Defence Asset Database;
 - Coastal Change Research Programme;
 - National Assessment of Coastal Change Risk;
 - Assessment of Technical Risk Management Options;
 - Short-term measures;
 - Coastal Change Management Planning;
 - Coastal Change Management Delivery;
 - Promotion of Nature-based Solution;
 - Planning Guidelines;
 - Consider legislative options;

- Coastal State's Maritime Area, and
- Developing Managed Retreat Options.

20. The 15 recommendations made were accepted by the Government.
21. These recommendations included assigning the Department of Housing, Local Government and Heritage as the policy lead, in coordinating the work across Government in responding to the challenge of coastal change and developing an evidence based coastal change management strategy to facilitate key decisions to be taken to address and manage the impacts of coastal change over the short, medium and longer terms. That Department has established a Steering Group in this regard.
22. The work of the Steering Group will ultimately inform Government policy and lead to the development of Coastal Change Management Plans, but there is a significant programme of work required to develop such plans. This work encompasses policy development, consideration of legislative requirements, technical assessment of coastal change hazards and risks and options and constraints.

Coastal Flooding

23. The Government also designated the Office of Public Works (OPW) as the national lead coordinating body for the assessment of coastal change hazards and risks and the assessment of technical options and constraints. The OPW is progressing its work in this area.
24. The OPW has developed a new Climate Change Sectoral Adaptation Plan for Flood Risk Management 2025-2029 under the second statutory National Adaptation Framework (NAF, 2024). The Plan is due to be considered by the Government shortly with a view to its publication. The new Plan will build on the [2019-2024 Flood Risk Management Adaptation Plan](#).
25. It is important to note that coastal change is distinct from coastal flooding, though both are related hazards, with both often intensified by sea level rise. One can exacerbate the other and they can combine to create more impactful hazards. Coastal change is considered to consist of long-term physical alternations along the shoreline, while coastal flooding is considered to arise from short-term storm surges or extreme tides.
26. In Ireland, coastal flooding is assessed and dealt with separately through Ireland's Flood Risk Management Plans developed under the [National Catchment Flood Risk Assessment and Management \(CFRAM\) programme](#). The CFRAM Programme undertook a detailed assessment of the flood risk for 300 communities, including 90 communities on the coast and produced the 29 Flood Risk Management Plans (FRMPs).
27. The CFRAM programme studied 80% of Ireland's primary flood risk and identified measures to protect over 95% of that risk. The 29 Flood Risk Management Plans were a key output of CFRAM, identifying proposed flood relief measures nationwide. The Government is committed to funding these projects through the €1.3bn available under the National Development Plan. Nationally, 56 schemes have been completed to date, at a cost of some

€580m, which are providing protection to over 13,500 properties and an economic benefit to the State in damages and losses avoided estimated to be in the region of €2bn.

28. The OPW has developed further national indicative flood mapping since the completion of the FRMPs to provide national fluvial and coastal flood mapping, including for areas not covered by the CFRAM Programme, for current conditions as well as possible future conditions taking into account the potential impacts of climate change. In this regard, the OPW now has comprehensive national information of potential future flooding from rivers and the sea for all areas across the country. These include the possible impacts of a range of possible scenarios for mid-range to higher-end projections, such as for a mean sea level rise of up to 2 metres.
29. The CFRAM Programme also produced a range of detailed flood maps for potential future as well as present-day conditions, which are published on the OPW flood portal - www.floodinfo.ie.
30. The OPW is also working with the Department of Housing, Local Government and Heritage to develop further guidance on the consideration of the potential impacts of climate change on flooding and flood risk as part of the planning and development management processes, and the application of the Guidelines on the Planning System and Flood Risk Management (2009).
31. All new and ongoing flood relief projects require the preparation of Scheme Adaptation Plans such that the design and implementation of the scheme takes the potential impacts of climate change into account with a view to ensuring that the scheme will provide for, or can be adapted to manage, the likely increases in future flood risk from changes in rainfall patterns and rising sea levels.
32. A programme of work is in-hand and due for completion in 2027 to prepare Scheme Adaptation Plans for previously constructed flood relief schemes to determine what adaptation measures may be required in the future to maintain the required standard of protection. This programme will also include assessments of the need for tidal barrages to determine if or when work should commence on such large scale projects, noting that such infrastructure may only be required in the latter part of the century.

Permanent Mission of Ireland to the United Nations, New York