

# MARINE ECOSYSTEMS & NATURE RESTORATION LEADERS' FORUM: EXECUTIVE SUMMARY

## Restoring Marine Biodiversity: Stakeholder Engagement and System Transformation

Achieving the objectives of the Nature Restoration Law in Ireland's marine environment will require transformative change in how we engage stakeholders, manage resources, and coordinate action across sectors. This summary synthesises insights from 57 participants representing 49 organisations who participated in the Marine Ecosystems Leaders' Forum in September 2025. Stakeholder engagement and ownership were identified as the primary drivers of successful marine biodiversity restoration, enabled through systemic changes that create the conditions for collective action. Essential elements of this include adequate financing, coherent policy, robust monitoring, reliable data, and effective spatial planning, all supported by inter-agency collaboration. The vision that emerged from participants is one of shared ecological goals, where marine restoration supports thriving coastal communities, sustainable livelihoods, and resilient ecosystems that benefit everyone.

## Stakeholder Engagement and Ownership Drive Success

Genuine stakeholder engagement and shared ownership of the Nature Restoration Plan (NRP) is essential for outcomes to be achieved. This necessitates collaborative models that respect local knowledge and involve stakeholders in decision-making.

- An engagement plan is needed to underpin the NRP. Stakeholders should be involved in consultation and decision-making in a way that values lived experience and historical knowledge. The approach should foster inclusive decision-making, building trust and shared direction between fishermen and women, authorities, conservationists, and EU institutions.
- Stakeholders should then be meaningfully involved in implementation, specifically: co-management of waters and fisheries, site selection, management of targets, monitoring of actions, and shared stewardship of Marine Protected Areas.
- Enablers of engagement include facilitation support, testing of ideas at local level, locally coordinated data collection, and ongoing dialogue. Practical tools include consultations in coastal communities rather than inland locations, open town hall style meetings, funded positions within communities, and developing champions to prevent stakeholder fatigue, as well as representative forums such as a Marine and Seafood Forum similar to Ireland's national water forum, An Fóram Uisce.
- Relevant stakeholders include but are not limited to: commercial operators (especially fishermen and women), local communities and businesses, young people, government agencies, local authorities and planners, researchers, management authorities, NGOs, offshore renewable energy companies, agriculture, transport and tourism sectors, the Defence Forces, EU institutions, and the International Maritime Organisation.

## Public Awareness and Education Enables Action

Broad and co-ordinated action must be underpinned by awareness, knowledge, and skills. Marine literacy must extend from traditional education systems in order to reach the general public, tourists, and industry professionals.

- A campaign should support the public to develop an understanding of Irish marine species and habitats, the threats and pressures they face, and how people can support restoration. Specific actions include educational signage and visual aids at coastal sites that explain local ecosystems, ocean-friendly media programming that reaches broad audiences, observatories and arts-based initiatives that make marine conservation engaging and accessible.
- Training to develop and enhance key skills and expertise should be provided for civil and public servants who oversee marine restoration to support them in ensuring timely, effective decision-making. In addition, recruitment of new staff should be targeted towards addressing skills gaps.
- A new workforce who are equipped to support marine restoration is needed. Third level institutions have an important role to play in developing this pipeline of skilled professionals .
- Marine literacy should extend across all education levels including primary and secondary. Learning should include experiential elements and engage a range of stakeholders.

## Appropriate and Accessible Resourcing

Adequate and sustained resourcing emerged as a critical enabler for restoration. Current funding mechanisms presented barriers, but significant opportunities to improve systems were highlighted.

- Sufficient financial resources must be allocated to nature restoration, with sustained funding to support long-term restoration goals. Funds must be ring-fenced for restoration purposes.
- Current funding mechanisms can be available in small quantities and are difficult to access, with high barriers to entry. Funding structures should be reviewed, with a focus on community-level funding being accessible and easy to administer.
- The NRP must be ambitious with strong political commitment. Planning must be flexible and adaptable to respond to changing environmental conditions, underpinned by long-term resourcing, so decisions outlive individual political terms and shifting priorities.

## Coherent and Relevant Policy and Legislation

Marine restoration requires policy and legislative frameworks that are coherent across government departments, responsive to local contexts, and underpinned by strong political commitment. Current policy fragmentation and jurisdictional complexity create barriers to effective action.

- Long-term commitment is essential to ensure decisions and funding commitments outlive political terms, government changes, and shifting priorities.
- Achieving policy coherence will require a comprehensive review of existing policies and the creation of new frameworks. Current legislation needs assessment to identify gaps, conflicts, and opportunities for better alignment. New policies must be developed where existing frameworks are inadequate to support restoration goals.

- Require a Nature Inclusive Design plan as part of seabed licensing to ensure restoration and ecosystem compatibility are embedded.
- Systems should be established to support learning and sharing of good practice; drawing lessons from international and national programmes with strategies to scale and replicate what works.
- Food security policy should promote short supply chains for all food products, including seafood.

## Robust Data, Monitoring, and Enforcement

Effective marine restoration depends on comprehensive data systems, systematic monitoring, and credible enforcement. Current gaps in baseline data, fragmented information systems, and limited enforcement capacity undermine both decision-making and stakeholder confidence in the process.

- On some issues there is a lack of adequate baseline data. A centralised, accessible federated data space is needed to collate marine and fisheries data from diverse sources including citizen science, industry, and research institutions. Fishing vessels should be used as a research resource. Data collection must be systematic and sustained rather than project based.
- Action should not be delayed by data gaps — restoration must proceed with imperfect knowledge and be refined through adaptive management. Pilot programmes must aid learning, with good data collection and sharing of best practice both nationally and internationally.
- Monitoring systems must track both ecological outcomes and socio-economic impacts on fishing communities and coastal populations. Success metrics should encompass environmental restoration, community wellbeing, and livelihood viability. Transparent reporting systems are needed to enable the public to report on and follow environmental incidents, including inland and terrestrial actions that affect water quality. Community-based monitoring should engage local knowledge-holders as partners in data collection, building capacity and providing valuable ground-truthing.
- Enforcement requires adequate capacity, consistency, and public trust. Strong enforcement mechanisms are essential including sufficient staffing for enforcement agencies, patrol vessels, and new detection technologies. Enforcement must be fair, consistent, and transparently applied to maintain stakeholder cooperation. Authorities should be accountable for restoration progress, with results publicly disseminated.
- Economic metrics should be used to make the case for investment, highlighting links between nature restoration, ecosystem services, and local job creation, and clarifying the costs of inaction using environmental accounting methods.

## Supporting Sustainable Use of Marine Resources for Food and Leisure

Marine restoration success requires coordinated approaches to managing competing uses of the marine environment, including tourism/leisure use, transport, aquaculture, and fishing. All stakeholders depend on healthy, functional marine ecosystems. Fishing communities, tourism operators, coastal residents, and industry all benefit from abundant fish stocks, resilient habitats, clean waters, and thriving marine biodiversity.

- Integrated marine spatial planning is fundamental for balancing competing uses while ensuring adequate biodiversity protection. A well-resourced Marine Spatial Planning Advisory Group should coordinate planning across offshore renewable energy, biodiversity, fisheries, and maritime development. Designated zones could include no-take areas to support fish, shellfish, and seabird recovery (recognising spawning zones); Marine Protected Areas (MPAs) and Highly Protected Areas (HPAs) potentially co-located with offshore renewable energy; areas for local fishing using least invasive methods; and zones that accommodate commercial and leisure activities sustainably while protecting key habitats.
- Sustainable aquaculture and fishing industries should be supported to protect income and food security. This means supporting businesses to pivot to the most sustainable methods and industries: prioritising a move to non-invasive fishing and sea-farming methods and developing low-impact fishing gear and selective technologies that reduce seabed pressure and bycatch (e.g. off-bottom trawl doors and footropes). Accidental bycatch should be traded rather than discarded. Industrial fishing of sprat for national and international markets and bottom trawling should be eliminated. Restrictions on inshore vessel size should be implemented. Examples of lower impact practices include diving, pots, and lights to reduce dredging, v-notching of lobsters and release of females, diversification into lower-impact species such as anchovy and sardine, introduction of extended producer responsibility schemes for fishing gear to reduce abandoned gear. Rotational use of marine areas, with recovery/fallow periods like agriculture, seaweed farming, and environmentally positive aquaculture. Implement higher quotas for environmentally friendly fishing methods.
- The consultation raised the need for diverse supporting measures, including better management of shipping pollution and preparation for the upcoming EU Directive on ship pollution and ballast water management, as well as ensuring offshore renewable energy planning incorporates environmental safeguards.
- It was suggested that protection measures should be implemented for carbon sequestration initiatives and sub-sea cable infrastructure, as well as for marine forms that cause tensions with fishing activities (such as Angel Sharks) and consider wildlife movement in any sitting infrastructure.
- Restoration of fish stocks and functional ecosystems is key, and innovations in monitoring technologies are required to support this (i.e. drone-based habitat mapping and remote sensing, including eDNA monitoring of habitat health).
- Regenerative tourism benefits employment and local economies in coastal communities while fostering engagement with natural heritage. However, unmanaged tourism disturbs

wildlife and overwhelms infrastructure during peak season. Sustainable tourism requires appropriate infrastructure, biodiversity-friendly ecotourism approaches, codes of conduct for responsible behaviour, and mechanisms such as tourist levies that directly fund restoration.

- Professionals whose incomes are negatively affected as a result of restoration activities should be supported to retrain or utilise their skills in support of restoration efforts. Explore multi-use licenses allowing fishermen and women to use their boats as guard vessels for Marine Protected Areas while continuing fishing activities.
- Energy consumption in marine industries should be monitored and aligned with national targets.

The ultimate vision outlined at the Marine Ecosystems Leaders' Forum was to create a marine environment where restoration and sustainable use coexist, where coastal communities thrive through their connection to healthy seas, and where diverse stakeholders collaborate toward shared ecological goals. This requires moving beyond fragmented, sector-specific approaches toward integrated systems thinking that recognises the interdependence of ecological, social, and economic wellbeing. Success depends on sustained stakeholder engagement, adequate resourcing, coherent policy, robust monitoring, reliable data, regenerative tourism, and effective spatial planning working together as a coordinated system. With strong leadership, genuine collaboration, and commitment to these enabling conditions, Ireland can position itself as a leader in marine restoration, demonstrating that environmental stewardship and thriving coastal communities are not competing priorities, but complementary goals achieved through collective action.