Case Study

Working with Nature: The Rosmurrevagh Dunes Conservation Project

Rosmurrevagh Dunes: Community-led conservation working with nature for coastal resilience.























Status

Completed (core works 1996–2008); ongoing stewardship, access and interpretation.

Overview (Key Info)

Section Key Info

Start Date 1996

Mulranny Tidy Towns and Mulranny Environmental Group,

working with local farmers (commonage).

Location Mulranny, Co. Mayo

Focus Areas

Dune restoration, biodiversity, coastal resilience, nature-based

solutions

Key Actions

Destocking, marram grass planting, biodiversity surveys, public

interpretation, adaptive management

Recognitions First Tidy Towns Notice Nature Award (2007), Notice Nature

Award (National Parks and Wildlife Service)

Local authority: Mayo County Council (small grants and capital

works).

Heritage & conservation: The Heritage Council (surveys, interpretation); National Parks and Wildlife Service — NPWS

(technical input, habitat mapping).

Rural development & programmes: South West Mayo

Development Company — LEADER rural development

Funding & Partnerships programme; Rural Social Scheme — RSS; FÁS (state training

agency).

Government departments: Department of the Environment, Heritage and Local Government — DEHLG; Department of the Marine and Natural Resources; Department of Community, Rural

and Gaeltacht Affairs.

Sector bodies & NGOs: BirdWatch Ireland; Irish Sports Council.

Technical/consulting: Allen Mellon Environmental.

Policy Impact Reframed erosion as a positive ecological process; informed

national discourse on nature-based solutions



Objectives

- Restore the dune system using nature-based and low-impact methods
- Reduce tidal breaches and improve the dunes' resilience to storms
- Protect rare habitats and species unique to the Machair
- Build long-term **community ownership** over conservation
- Promote awareness of coastal biodiversity and dynamic natural processes



Key Actions

- 1. **Destocking and Controlled Grazing.** Farmers reduced livestock pressure on the dunes to allow natural recovery.
- 2. **Marram Grass Planting.** Used to stabilise sand and support natural dune formation processes.
- 3. **Biodiversity Surveys.** Independent studies (2003–2007) revealed the presence of rare fungi and invertebrates, including the rediscovery of the Belted Beauty Moth.
- 4. Public Interpretation and Access. The community developed looped walks, interpretive panels, and access routes connecting the village and restored dunes.
- 5. Ongoing Monitoring and Adaptive Management. The project embraced a dynamic view of nature, adapting interventions based on emerging ecological understanding.



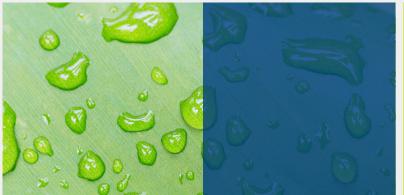
Results & Impact

- Environmental resilience & biodiversity. Foredunes stabilised and proven to
 withstand multiple storms; habitats for rare species protected/recovering.
 Surveys confirm rare invertebrates and internationally important grassland
 fungi; habitat mapping is in place.
- Social ownership & recognition. Strong local stewardship with national recognition (e.g., 2007 Tidy Towns Notice Nature Award).
- **Education & awareness.** The site operates as a learning hub on coastal dynamics (natural erosion/accumulation) and nature-based restoration, supported by fixed-point photo monitoring and on-site interpretation.
- Access & tourism. Integrated into the Mulranny Causeway Loop Walk, linking the village, hotel and Blue Flag beach to the Machair/saltmarsh landscape and enabling low-impact, wellness-oriented visitation.
- Partnership model. Long-term collaboration across Tidy Towns, local farmers, NPWS, The Heritage Council, Mayo County Council, SW Mayo LEADER and other partners.



Scale & replication (how others can do it)

- 1. Organise the commonage/landholders and agree a simple restoration aim (close breaches; stabilise foredunes).
- 2. **Partner early** with the Heritage Officer/NPWS for surveys, **fixed-point photos** and habitat mapping.
- 3. **Implement nature-based works:** foredune "parks", fencing to rest the dune, **marram planting**; phase by phase.
- 4. Enable low-impact access: link to existing paths (e.g., loop walks), then add on-site interpretation once recovery is visible.
- 5. **Recognise & share:** enter national schemes (e.g., Tidy Towns biodiversity awards) to build profile and sustain partnership funding.





Challenges / risks

- **Site sensitivity vs. access:** remoteness and sensitivity limit where/when interpretation and paths can be provided.
- Ongoing maintenance: marram and access infrastructure require periodic upkeep; storm damage contingency needed.

Lessons Learned

- Erosion is not always the enemy. Allowing natural processes to shape the dunes created richer, more resilient habitats.
- Low-cost, citizen-led conservation can be highly effective. Strong networks and long-term commitment make a difference.
- Community partnerships build durability. Coordination among local groups and external agencies made the project sustainable.
- Monitoring changes perception. Scientific and field-based observations challenged assumptions and informed adaptive strategies.
- Recognition supports momentum. Awards and visibility strengthened public support and policy engagement.

A Systems Thinking Story

"When we started the Rosmurrevagh Dunes Project, we **thought erosion** was the problem. It was tearing apart the dunes and leaving the area exposed to storms. Our plan seemed clear—stabilise the dunes and stop the erosion. But as the project progressed, we discovered something surprising.

The Belted Beauty Moth, a rare species, depended entirely on the shifting, sandy landscape we were trying to stabilise. Its larvae thrived on Bird's-Foot Trefoil, a plant that only grew in eroded areas, and loose sand provided critical shelter during hot days. This realisation changed our perspective. Erosion wasn't just destructive—it was essential for the ecosystem's health. Over-stabilising the dunes could have caused more harm than good. We had to rethink our approach and focus on working with nature instead of against it, allowing the dunes to function as a living, dynamic system. This shift was a turning point. It showed us the importance of supporting natural processes rather than trying to control them—a lesson that continues to shape how we approach conservation."

Seán Carolan, Mulranny Community Futures

Legacy and Future Relevance

Approaching its 30th anniversary, the Rosmurrevagh Dunes Project continues to serve as a model for community-driven conservation rooted in deep respect for natural systems. Its legacy offers valuable insights into working with — not against — nature, and its lessons are increasingly relevant in the face of rising sea levels, biodiversity loss, and the urgent need for place-based climate adaptation strategies.

Climate Action and SDG Alignment

The project contributes to climate resilience through nature-based solutions that restore coastal ecosystems and buffer against extreme weather. By recognising erosion as a functional part of dune ecology, the community has pioneered a sustainable approach to land and habitat management.

SDG Links:

- SDG 13: Climate Action Natural coastal defenses mitigate climate impacts.
- SDG 15: Life on Land Protects rare habitats and native biodiversity.
- **SDG 11:** Sustainable Cities and Communities Strengthens rural resilience through inclusive action.
- **SDG 17:** Partnerships for the Goals Demonstrates effective cross-sector collaboration in conservation.











Endnotes / Sources

 ATU Landscape Report — Rosmurrevagh Dunes & Mulranny Causeway (1996–2008)



Get Involved. Take action.

If you're inspired to contribute to this initiative—or to start something similar—use the contacts below to get started:

- Mulranny Community Futures Mulranny, Co. Mayo
- mulrannycommunityfutures@gmail.com
- mulrannycommunityfutures.com

This case study, highlighting Irish community-driven solutions to environmental challenges, was developed through Connected—a project funded by the Community Climate Action Programme: Climate Education, Capacity Building and Learning by Doing (CCAP – Strand 2), supported by the Government of Ireland through the Department of the Environment, Climate and Communications, and coordinated by the University of Galway.

For more details, visit **climateconnected.ie** or contact **a.alexandrov1@universityofgalway.ie**