

## **PhD Research Scope and Goals**

Applications are sought for a 4-year PhD scholarship position on the research topic of 'Development of a Cumulative Effects Assessment Framework for Ireland's Marine Planning Process'. The research scholarship is funded by the Marine Institute (MI), under the Cullen Scholarship Programme, and will be co-supervised by the School of Geography, University College Dublin (UCD) and the MI. The research has two main goals:

- To understand the principal human-environment interactions in Irish coastal and marine waters to inform evidence-based marine planning and decision-making; and
- To develop and test a suitable GIS-based methodology for Cumulative Effects Assessment (CEA) to support Marine Spatial Planning in Ireland using existing spatial data sources.

The achievement of these goals comprises five principal tasks, which will be carried out in consultation with stakeholders (e.g. representatives from government, industry, etc.):

- Identify key natural resources/receptors and development stressors/pressures/threats in the Irish marine environment and examine their interlinkages.
- Develop an understanding of cumulative effects assessment in marine ecosystems, including interlinkages between and effects on associated ecosystem services.
- Review and utilize existing marine spatial data to determine their fitness for use and purpose in support of cumulative effects assessments in the marine environment.
- Develop a GIS-based CEA methodology and, ideally, deploy it through an online platform.
- Test the applicability of the methodology and the validity of the results through case studies.

The PhD candidate will work in close collaboration with UCD academics and MI staff to undertake research, investigations, literature reviews and other work necessary to fulfil the requirements of the scholarship and of a pre-defined work plan, and commit to the timely delivery of the various research deliverables, including interim reports and scientific publications. The PhD candidate will divide her/his research time between UCD in Dublin and the MI headquarters in Oranmore, Galway.

## **Requirements**

Applicants must have:

- A 2:1 Honours and a Master's degree, or international equivalent, in Marine or Environmental Science, Environmental Assessment, Geography or related subject areas.
- Geographic Information Systems (GIS) and spatial data management skills.
- Excellent writing standards as evidenced through recognition of written work as part of undergraduate and Master's degrees.
- Ability to work to deadlines and produce effective timelines that achieve key aims.
- Ability to communicate with stakeholders efficiently and in a positive manner.
- Ability to work effectively within a team.
- Experience, or willingness to upskill, to use GitHub and/or a programming language (e.g. Python, R).
- Willingness to attend relevant CEA workshops, and to present research at national and international conferences.

## Funding

The PhD scholarship comprises a maintenance award of €18,500 per annum, as well as payment of PhD fees to a maximum of €6,000 per annum. The scholarship award also includes a budget of up to €3,000 per annum for eligible research costs (travel & subsistence, publication costs, consumables).

The scholarship will run for a maximum of 4 years from the date the student commences (expected to be 1st September 2022).

Teaching and other research assistant roles can be applied for, if and when appropriate, and will be remunerated accordingly.

## Applications

For further information, or to informally discuss the position via email, please contact Assoc. Professor Ainhoa González at: [ainhoa.gonzalez@ucd.ie](mailto:ainhoa.gonzalez@ucd.ie)

To apply, include copies of the following documents: 1) CV, 2) Masters/Undergraduate academic transcripts, and 3) A Cover Letter outlining your motivation for applying and what you believe that you would bring to the role. Please submit these documents as one pdf or word file, titled with "LastName\_MSP-Cullen2022". Shortlisted candidates will be invited for interview.

Application submission deadline: 28<sup>th</sup> January 2022.

Submit your application to Assoc. Professor Ainhoa González at: [ainhoa.gonzalez@ucd.ie](mailto:ainhoa.gonzalez@ucd.ie)



*Foras na Mara*  
*Marine Institute*