

NEWS

## Essex coastal defence project team invited to COP27 in Egypt

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A team of academics working with Colchester Borough Council on the use of natural resources in coastal defence development have been invited to host a session at the COP27 UN climate talks in November.

The team is leading a project titled *Building with Nature for Ecosystem-Based Coastal Defence and Economic Resiliency in Colchester* and will stage an event in the Cryosphere Pavilion at the 27th United Nations Climate Change Conference, (COP27) to be held from 6 to 18 November 2022, in Sharm El Sheikh, Egypt.

The cryosphere – the parts of our planet covered by frozen water – is at particular risk from climate change. The melting of the earth’s ice threatens large parts of the world – including coastal communities such as ours in Essex – through sea level rise. Coastal erosion is a major local effect of climate change. This project has been designed to combat this problem in a way that also supports local jobs.

Project lead, [Dr Boroka Bo](#), from the Department of Sociology, said: “While many of us knew that our coast is home to the UK’s largest protected area for native oysters, with oyster farming sustaining our communities since the Roman times, what most oyster consumers don’t realize is that oysters also protect our community from coastal erosion and floods.

“In addition to being ecosystem engineers by creating natural storm barriers, an adult oyster can filter almost 190 litres of water per day. By doing this, oysters remove pollutants from our water and protect us from harmful algal blooms.

“We are thrilled that our session at COP27 will give our team the chance to share our local collaboration with Colchester Borough Council to build a circular economy around oyster shells. Together, we can mitigate coastal erosion, improve the economic lives of our residents, while also employing nature-based solutions to adapt to climate change.

“COP27 will give our team the opportunity to learn from and network with other policymakers facing the same challenges from around the world.”

The project aim is that shells from restaurants will be recycled to provide the hard substrate that oyster larvae need to settle on, forming oyster reefs to protect against coastal erosion. This ‘green infrastructure’ saves the public money by reducing the need for manufactured concrete sea defences. Recycling oyster shells also saves oyster farmers a considerable amount of money.

Cllr Steph Nissen, Colchester Borough Council Portfolio Holder for Environment & Sustainability, said: “This is a ground-breaking collaborative project and will be showcased at COP27, highlighting the urgent need for joined-up work to arrest the impact of the climate emergency on coastal communities.”

The project has been funded with £15,000 each from the University of Essex Impact Acceleration Account (IAA). This Account is a grant from the Economic and Social Research Council (ESRC) to speed up social science research having a positive impact on the world beyond the University. The project team is made up of [Dr Boroka Bo](#), Department of Sociology, [Dr Maged Ali](#), Essex Business School, and [Dr Michael Steinke](#), School of Life Sciences, who will work with Colchester Borough Council to identify and develop “microhabitats” for oyster fishing in the region.