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Rising Seas: The Impact of a Changing Climate on Coastal Communities

Climate change offers many obstacles for us to overcome. The effects of rising sea levels on coastal communities is one that needs our attention but is often overlooked. Tonight we heard from five expert speakers about what this challenge looks like and how we can try to adapt to it.

David Booth, Head of Public Affairs at the National Oceanography Centre, and Dr Angela Hibbert, Head of the Sea Level and Ocean Climate group at the National Oceanography Centre's Liverpool Laboratory, gave a brief overview of the sea level monitoring in the UK, as well as how we predict sea levels to rise over the coming decades and the effects this may have. Mike Dobson, associate at ARUP, spoke on the EuroSea project and how its working to improve the decision making process around rising sea level risks. Carl Green, Head of Engineering at Wyre Council, and Paul Wisse, Team Leader Development of Green Sefton at Sefton Council, talked about working with and informing local communities in order to best protect them from rising sea levels. We had a diverse Q&A session at the end, with many questions focusing on the extent of potential damage to London and how we can help people financially we live in at-risk areas.

The National Oceanography Centre is an independent research organisation, and one of the six major oceanographic institutions in the world. These organisations monitor how the seas are changing creating important predictions for coastal communities. Dr Hibbert explained to us that sea level rise isn't uniform due to a variety of factors, including heat uptake and water density, and we saw the distribution of the rate of rising across the UK. The southeast of England was rising at a higher rate than the global average and this is predicted to continue over the coming decades. This rising

greatly increases the chance of flooding through storm surges, and means highly damaging rare flooding events will become more common.

Mr Dobson explained to us how the EuroSea programme was vital for dealing with the threats from sea level rise. The programme aims to improve the scientific analysis of data collected in order to make faster, more accurate risk assessments. The calculations involved in modelling this threat are very large, but by simplifying the risk assessment process the programme aims to achieve this more effective decision-making process.

Mr Wisse and Mr Green discussed how at-risk regions will need to adapt. Coastal erosion, flooding, drainage, and a rising water table all threaten these regions to different degrees, and so the adaptation has to be local. The Shoreline Management Plans Refresh is collecting data on how to protect and manage different coastal areas. Mr Green spoke about how they work with charities to build up local knowledge and trust in order to implement plans.

Overall, rising sea levels pose a serious challenge to many areas of the UK. The speakers all said about the need for quick, informed policy decisions to protect these regions and help those effected by flooding. During the Q&A sessions Dr Hibbert and Mr Dobson both spoke of the need to upgrade the Thames Barrier, but this may take many decades to complete. Policies of adaptation and protection are needed if we are to overcome this challenge.

Alfie Hoar

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