Department of Environmental Science and Policy Seminar Series

Mangrove Forests as a Model for Human – Environment Interactions

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DATE: Wednesday, 03/23/2022 Time: 10:00 am Location: Zoom

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Abstract: Mangroves are an important component of coastlines across the tropics and sub-tropics, and support the livelihoods and wellbeing of hundreds of millions of people. However, they are threatened by human actions across much of their range. Conserving mangroves while supporting the communities that rely on them requires a nuanced understanding of the human-mangrove relationship. This seminar will present research we have been undertaking to better understand this relationship, using the lens of ecosystem services. This includes quantifying key services such as blue carbon, coastal protection, and cultural ecosystem services; understanding how ecosystem services are impacted by anthropogenic land use change, community use, and climate change; and using ecosystem services to reconcile mangroves and people, by incentivising conservation and restoration through mechanisms such as carbon credits. This seminar will also discuss plans to expand these research topics geographically, so that we can begin to draw a more global picture of human-mangrove interactions. Ultimately, human-mangroves interactions are multi-faceted, occur across scales, and require applied and translational research to answer. However, unpacking these complex interactions is crucial if we are to secure the future of the world's mangrove forests.

Bio: Dan is an Associate Professor and Dean's Chair in the Department of Geography at the National University of Singapore, and the Deputy Director for the NUS Centre for Nature-based Climate Solutions. Dan's research area is broadly around human-environment interactions in mangroves and seagrasses, using ecosystem services to understand values, threats and conservation. Blue carbon is a strong theme that runs across all these research areas. Dan uses an interdisciplinary mixed methods approach, using environmental modelling, big data and remote sensing at regional-global scales, underpinned by qualitative and quantitative field work in Southeast Asia, South Asia, East Africa and the Pacific. Dan is particularly interested in applied and translational research; his research is used in government and corporate decision making, he is an advisor to several NGOs and Foundations, and he has established a community group to implement mangrove restoration in Singapore. Prior to joining NUS, Dan completed his PhD in wetland geography at the University of Cambridge, UK. For more information please visit www.themangrovelab.com.

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