NUS National University of Singapore | Department of Geography

Seminar Series
AY2018-2019 Semester 2

The Tropical Peat Swamps of Southeast Asia – Carbon, Conflict and Compromise

Speaker: **Professor Sue Page**
School of Geography, Geology & the Environment,
University of Leicester

Chair: **Dr Max Lupascu**
Department of Geography, NUS

Date/Time: Friday 29 March, 3.30pm
Place: Earth Lab (AS2 #02-03), Department of Geography, NUS

Abstract

Peatlands are important terrestrial carbon stores and vital components of global carbon soil-atmosphere exchange processes. In this regard, tropical peatlands are important because they are some of the planet's most carbon-dense ecosystems. While knowledge of the extent of tropical peatlands across the globe is still uncertain, there is growing recognition of their significance for carbon storage, climate mitigation and other ecosystem services, and of the ecological and biogeochemical consequences of land use change. In SE Asia, where the largest area of tropical peatland is located, there is almost no intact peat swamp forest remaining. Over the last two decades, rapid socio-economic development has been accompanied by the transformation of vast areas into large-scale plantations and smallholder agriculture, while remnant forest fragments have been degraded by logging, drainage and fire. Simultaneous with these developments, scientific knowledge of the consequences of peatland development has strengthened, providing a narrative linking deforestation and drainage to loss of carbon storage potential, high emissions of greenhouse gases, increased risk of fire, increased risk of flooding, loss of biodiversity and reduced human livelihood opportunities. Yet at the same time as our scientific understanding has improved, those advocating for more responsible peatland management often find themselves in conflict with the agents of peatland development. I review the scientific narrative using examples from my own research journey to explore the carbon costs of land use change and the disjunct between those promoting the benefits of short-term socio-economic development against those advocating for longer-term maintenance of ecosystem resilience. I conclude by outlining recent opportunities for improved peatland management practices.

About the Speaker

Sue Page holds a personal chair in the School of Geography, Geology & the Environment, University of Leicester. For the last 25 years, her research has focused on the ecology and carbon dynamics of tropical peatlands, with a focus in SE Asia. She has undertaken research investigating the ecology and carbon dynamics of these under-studied ecosystems. When she commenced her research, most tropical peatlands were still in a pristine, forested condition, but over the last two decades she has seen significant changes in land use and extensive damage from wildfires. These events have provided Prof Page with a rapidly changing backdrop for her research activities that, in turn, have led to advisory roles to government bodies and NGOs, consultancy work with businesses, and a Lead Author role for the Intergovernmental Panel on Climate Change. She has authored more than 100 journal papers, books and book chapters and supervised more than 20 PhD students. She is the recipient of the Busk Medal 2013 awarded by the Royal Geographical Society and the 2015 Theodore Sperry Award of the Society for Ecological Restoration.

ADMISSION IS FREE – ALL ARE WELCOME

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