

Can nature-based carbon projects support conservation?

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Rm 221, Chen Kou Bun
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Nature-based carbon projects are widely viewed as one of the most viable market-based mechanisms for scaling up global conservation efforts. In principle, such projects can help local land managers and conservationist cover the substantial costs of area-based conservation. Yet recent controversies have exposed significant limitations in how these projects function in practice. In this talk, I present four studies that examine both the potential and the limits of nature-based carbon projects in supporting conservation outcomes. The first quantifies the current conservation gap in Southeast Asia, identifying where action is most urgently needed and estimating the financial resources required to protect these priority areas. The second assesses the extent to which nature-based carbon projects could realistically offset these costs. The third evaluates whether existing carbon projects have succeeded in maintaining ecological conditions in forest habitats. The fourth explores how the design of market-based mechanisms imposes inherent constraints on their conservation potential. Collectively, these studies suggest that, despite their promise, nature-based carbon projects have structural and operational shortcomings that must be addressed before they can fully contribute to broader conservation goals.



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Yiwen Zeng is an Assistant Professor at Nanyang Technological University, Singapore, jointly appointed at the Asian School of the Environment and the School of Social Science. Trained as an applied ecologist and geospatial modeler, his research sits at the intersection of conservation, climate change, and communities. His group works on topics such as the potential and limits of market-based conservation mechanisms, the effectiveness of land-management strategies, and human-wildlife conflict. Focusing largely on terrestrial and coastal ecosystems in the Asia-Pacific, his work aims to identify ecologically sound, socially responsible, and financially viable solutions to addressing climate change and biodiversity loss.

