

Call for Papers

The Singapore Economic Review

Special Issue on Natural Capital Management in the Era of Carbon Neutrality

Special Issue Guest Editors:

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Synopsis and subject coverage:

Based on the climate report released by the Intergovernmental Panel on Climate Change (IPCC) in 2022, limiting global warming temperature below 1.5 °C requires (i) reducing the global GHG emissions in 2030 by 43% from the 2010 level, and (ii) achieving carbon neutrality by 2050. To achieve this global target, over 100 countries have set their timelines for carbon neutrality (IPCC, 2022). Reducing carbon emissions and increasing carbon absorption are two important measures in the pursuit of carbon neutrality (Liu et al., 2022). However, artificial carbon sequestration technology is difficult to apply on a large scale due to the high cost (Bellamy, 2018). Instead, increasing ecological carbon sink based on natural resource is more feasible. Therefore, strengthening natural capital management plays an indispensable role in achieving carbon neutrality targets.

Natural capital is an asset which can generate income, goods or services through the use of natural resources. Theoretically, as a foundation of economic growth, natural capital plays a key role. The accounting of natural capital is beneficial to investigating the services and goods that a society can get from nature. What's more, it can present the contributions of natural capital to economy and can be used in policymaking (Hein et al., 2020).

In the context of carbon neutrality, international institutions have proposed nature-based solutions to response to climate changes (Hoyos-Santillan et al., 2021). Among them, accounting for the contribution of different biodiversity conservation measures to emission reduction and carbon sequestration is an important link between biodiversity conservation and the carbon neutrality target. Therefore, it is necessary to apply a more holistic accounting framework to estimate the potential of natural capital on reducing emissions and increasing carbon sinks in the new era.

Natural capital investment has played an essential role in dealing with ecosystem degradation (Ouyang et al., 2016). Investing in natural capital not only increases the resource supply capacity of natural capital, but may also improve the environmental regulation function of the economic and social system. The current mainstream economics still pays little attention to this field. Therefore, to accelerate the realization of carbon neutrality, more market measures should be taken to internalize the benefits of natural capital and establish a continuous incentive for market players to invest in natural capital. It is critical to find and invest in key natural capital based on natural capital accounting, which is sensitive to region's sustainable development and has a high marginal benefit, to maximize the overall potential of local economy, society and environment.



Many countries have begun to take actions to protect and restore natural capital, which has achieved remarkable results. Therefore, the national policy support is also crucial for the investment in natural capital. In the new era, investigating the effects of policies related to natural capital management on economy, energy consumption structure and environment may offer policy support for other countries and attract them to invest in natural capital, and thus promote the transition towards a low-carbon economy.

The main objective of this special issue is to explore strategies that can strengthen natural capital management in the pursuit of carbon neutrality target. Some potential topics are listed as follows:

- The measurement of natural capital value in the context of carbon neutrality
- Challenges faced by natural asset management under carbon neutrality
- The identification of key natural capital based on natural capital accounting
- The sustainability assessment of natural capital
- The relationship between natural capital investment and economic growth
- The effect of resource protection policy on natural capital investment
- How to use market forces to promote natural capital investment
- The effect of policies related to natural capital management on economic growth
- The barriers of natural capital investment and potential solutions
- Coordinated development path of natural resources and economic growth
- How to include the value of natural capital in decision-making process
- The potential of natural capital on reducing carbon emission and increasing carbon sinks in the context of carbon neutrality

Manuscript Submission Information

This special issue is accepting submission. To submit a manuscript, please register and submit your paper online at: <https://www.editorialmanager.com/ser>. When making your submission, please choose the Special Issue entitled "Special Issue on Natural Capital Management in the Era of Carbon Neutrality". A guide for authors and other relevant information for submission of manuscripts are available at <http://www.worldscientific.com/page/ser/submission-guidelines>. Submitted manuscripts should not have been published previously nor be under consideration for publication elsewhere. Submissions will undergo the same strict double-blind peer-review process that is generally applied for the journal. Accepted papers will be published online continuously in the journal (as soon as accepted).