Economic valuation of coastal ecosystem: balancing sustainable use and conservation

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Coastal ecosystem is one of the most valuable ecosystems on Earth; however, the ecosystem faces various threats from environmental changes due to anthropogenic activities and natural events including climate change. To conduct the sustainable management, the recognition of benefits from the ecosystem has become increasingly essential.

The objectives of this paper are to provide a review of the environmental valuation studies concerning coastal ecosystem and introduce some contributions of the economic analysis to sustainable coastal management and the associated policies. Furthermore, this paper illustrates two empirical environmental valuation studies of coastal ecosystem in Amami Islands, Japan. One addresses recreational values of the ecosystem; the other shows residents' preference for climate change adaptation in the coastal areas. The review and the findings of empirical studies point out that integrating economic values into decision-making is still challenging. Further work is required to establish integrated approaches considering local ecosystem management.

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