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Natural capital and ecosystem services informing decisions: From promise to practice

Anne D. Guerry, Stephen Polasky, Jane Lubchenco, +19, and Bhaskar Vira Authors Info & Affiliations

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Abstract

The central challenge of the 21st century is to develop economic, social, and governance systems capable of ending poverty and achieving sustainable levels of population and consumption while securing the life-support systems underpinning current and future human well-being. Essential to meeting this challenge is the incorporation of natural capital and the ecosystem services it provides into decision-making. We explore progress and crucial gaps at this frontier, reflecting upon the 10 y since the Millennium Ecosystem Assessment. We focus on three key dimensions of progress and ongoing challenges: raising awareness of the interdependence of ecosystems and human well-being, advancing the fundamental interdisciplinary science of ecosystem services, and implementing this science in decisions to restore natural capital and use it sustainably. Awareness of human dependence on nature is at an all-time high, the science of ecosystem services is rapidly advancing, and talk of natural capital is now common from governments to corporate boardrooms. However, successful implementation is still in early stages. We explore why ecosystem service information has yet to fundamentally change decision-making and suggest a path forward that emphasizes: (*i*) developing solid evidence linking decisions to impacts on natural capital and ecosystem services, and then to human well-being; (*ii*) working closely with leaders in government, business, and civil society to develop the knowledge, tools, and practices necessary to integrate natural capital and ecosystem services into everyday decision-making; and (*iii*) reforming institutions to change policy and practices to better align private short-term goals with societal long-term goals.

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