

Ecosystem health report cards are science communication tools that can raise stakeholder awareness and influence behavior

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Ecosystem health report cards are emerging tools used in science communication and environmental management. The process brings together decision-makers, managers, scientists, stakeholders, and citizens to develop a shared vision, assess present conditions and come up with adaptive management plans for a particular ecosystem. It involves five basic steps: creating a conceptual framework; choosing indicators that can be measured; defining thresholds; calculating scores; and communicating results. Report cards provide readily accessible, synthesized and interpreted information to a wide audience. Unlike traditional scientific publications that generally have restricted access, report cards allow for the delivery of accurate information in a timely manner to broad audiences.

There is already a growing trend in using report cards to assess ecosystem health but they have not been empirically studied and management implications and behavioral impacts have not been evaluated. We surveyed forty report cards users and found that report cards from the same region (North America, Australia, and Asia) share similarities in their objectives, processes, utility, and perceived impacts. Results show that report cards affect stakeholder awareness and action and behavior, can influence decision-making, and can contribute to ecosystem improvement. Additionally, we use the Chesapeake Bay (USA), Laguna de Bay (Phillipines), Great Barrier Reef (Australia) report cards as case studies and analyze them for current trends and future directions.

The use of ecosystem health report cards, and more importantly the developmental process, is very effective in communicating science to different audiences and engaging stakeholders. This process leads to more adaptive and dynamic assessments that consider issues relevant to the community in addition to the health of the ecosystem.