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**Title**

A new narrative for the ocean

**Permalink**

<https://escholarship.org/uc/item/5gf1v29v>

**Journal**

Science, 364(6444)

**ISSN**

0036-8075

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**Publication Date**

2019-06-07

**DOI**

10.1126/science.aay2241

Peer reviewed

# A new narrative for the ocean

**N**arratives help frame our thinking and action. On the eve of World Oceans Day and in anticipation of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030), a new narrative for the ocean is warranted—one that reflects current scientific knowledge and inspires new science and effective action.

For most of human history, people considered the ocean so immense, bountiful, and resilient that it was impossible to deplete or disrupt it. The overarching narrative was, “The ocean is so vast, it is simply too big to fail.” This mindset persists today, bringing even more intense, unsustainable uses of the ocean that reflect ignorance; the allure of new economic opportunity; or the need for food, resources, and development. However, the folly of this too-big-to-fail narrative has become glaringly obvious through overpowering scientific evidence of depletion, disruption, and pollution. Climate change, ocean acidification, habitat destruction, overfishing, and nutrient, plastic, and toxic pollution are insidious. These changes threaten the most vulnerable people; the economic prosperity, quality of life, and opportunities for everyone; and the well-being of the ocean’s amazing life forms. Problems appear

too complex, vested interests too powerful, and system inertia too great, especially as demands on the ocean escalate. A new narrative has arisen: “The ocean is massively and fatally depleted and disrupted. The ocean is simply too big to fix.” The result? Depression and lack of engagement and motivation.

Yet despite the undeniable challenges, hints of a new ocean mindset are emerging. Many powerful solutions already exist and could be scaled up. Opportunities abound to develop new solutions that are based on efficiency, incentives, technology, biotechnology, and regenerative and holistic approaches. Moreover, because the ocean is central to the functioning of the planet and human well-being, many ocean solutions could bring substantial co-benefits to address poverty, hunger, economic development, inequity, peace, security, coastal resilience, and climate mitigation and adaptation. For example, reform-

ing fisheries to “fish smarter, not harder” can help restore ocean ecosystems; reduce impacts of climate change; and enhance food security, job creation, and poverty alleviation. Combining remote sensing, artificial intelligence, big data, machine learning, transparency, and new policies can minimize illegal fishing. Enabling sustainable aquaculture—especially of low trophic species—could contribute substantially to food security, with a much smaller environmental footprint than that of terrestrial animal production. Creating fully and highly protected, well-designed marine protected areas will safeguard biodiversity, replenish the ocean, and help mitigate and

adapt to climate change and ocean acidification. Incorporating ocean actions into the climate agenda is essential to reducing greenhouse gas emissions and adapting to climate disruption. Expanding the range of effective solutions and scaling them globally requires scientists to engage actively with communities, fishers, businesses, nongovernmental organizations, managers, and policy-makers so that solutions are complementary, integrated, effective, and rapid.

A new narrative does not automatically change the status quo but, if widely adopted, can reset expectations and liberate ingenuity. Yes, the challenges are fierce, and the future is

unpredictable. But here is an opportunity to replicate, accelerate, and escalate existing successes while driving innovative and transformative changes. Key players in the policy and business communities are open to innovation. Now is the moment for more scientists to pivot from simply documenting the tragedy underway to also creating scalable solutions.

It is time for a new ocean narrative that says, “The ocean is so central to our future. It’s too important to neglect.” In creating a new solution space for the ocean, we can also address broader global problems. In healing the ocean, we can heal ourselves. The ocean sustains and feeds us. It connects us. It is our past and our future. The ocean is not too big to fail, nor is it too big to fix. It is too big to ignore.

– Jane Lubchenco and Steven D. Gaines



*“In healing the ocean,  
we can heal ourselves.”*

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# Science

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*Science* **364** (6444), 911.

DOI: 10.1126/science.aay2241

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