

## **Property Rights as a Platform for Marine Conservation**

Christopher Costello, University of California, Santa Barbara

### **Abstract**

Recent studies find increasing collapse, homogenization, and vulnerability of marine ecosystems; these are largely understood to be consequences of human activity. This observation raises a fundamental question in marine conservation planning: What policies can be implemented to efficiently conserve marine ecosystems? While many approaches have been attempted, two dominant paradigms have emerged. The first is to protect large swaths of ocean with marine reserves. The philosophy behind this approach is that even if everything outside the reserve deteriorates, a well-designed reserve can still protect the relevant habitats. The second paradigm is to regulate for conservation. For example, we can require fishermen to use only clean fishing gear, or ships to divert their trajectories to avoid encounters with whales. I argue that while these approaches can be partially effective in some circumstances, they are unlikely to achieve a range of social objectives. Simply put, command-and-control regulations are likely to be either ineffective or extremely inefficient in achieving marine conservation objectives. I propose a philosophically-distinct alternative: To design and allocate property rights in the ocean. If properly designed, I show that property rights provide a platform for a suite of investments that could rapidly accelerate marine conservation with the willing participation of incumbent resource users. I illustrate several types of property rights (e.g. defined over space, fish catch, or shipping lanes), discuss shortcomings of property rights, and highlight conservation policies that become possible only when the property rights approach is followed. I conclude by discussing how adaptive various delineations of property rights will be in the face of impending environmental change.