

Marine Protected Areas: benefits to people and nature

Economic Benefits

MPAs are important investments in both environmental conservation and local economies. Although MPAs can have varied impacts, overall, well-designed and well-managed MPAs tend to yield more positive economic outcomes and show considerable returns on investment^{1,2}. When designed and implemented through co-management and meaningful community involvement, MPAs can effectively reflect local values and priorities while ensuring that economic returns are channeled back to the community.

A major concern expressed by fishers is the potential loss of finishing areas and yields, along with increased costs associated with compensating for these losses³. However, MPAs can be an effective tool to help rebuild fisheries, especially when coupled with sustainable fisheries management practices. Fishers and conservationists share a common goal: maintaining healthy and abundant oceans to support sustainable fisheries, not only for the next decade but future generations. While MPAs may trigger initial short-term losses for the fishing industry, they can provide significant long-term benefits⁴. A literature review of 51 MPAs found that 90% showed benefits to adjacent fisheries and generated high tourism revenues (primarily in tropical and sub-tropical regions). Importantly, none of the reviewed case studies reported losses to fisheries nor evidence in increased and sustained fishing catches in adjacent areas because of displaced fishing efforts¹.

One of the most recognized benefits of MPAs to fisheries is the rebuilding of fish populations. When an MPA is established, fish and invertebrate populations can migrate from within MPAs to adjacent fishing areas. This occurs either through increased reproductive output (larval export) or as adult individuals moving beyond MPA boundaries due to increased competition or natural movements. While empirical evidence of larval dispersal replenishing surrounding fisheries remains limited⁵, emerging case studies worldwide have demonstrated the spillover benefits of MPAs across diverse ecosystems and taxa^{6,7,8,9}. These studies and perceived benefits highlight how MPAs can contribute to fisheries recovery, stability, and enhanced catch rates. For example, a study from a MPA network in California reported a 225% increase in total lobster catch within six years in fishing areas adjacent to MPAs, compared to those without MPAs^{Error! Bookmark not defined.}. Research also indicates that higher spillover is associated with larger and older fully protected areas, emphasizing the importance of strong MPA design⁵.

Spillover is a direct co-benefit of MPAs, advancing both conservation and fisheries goals. For example, in the UK's Lyme Bay MPA, fishers reported increases in fish and shellfish abundance following protection measures¹⁰. Additionally, fishers are collaborating with researchers and MPA managers to test sustainable fishing practices within and around the MPA, demonstrating how MPAs can foster cooperative marine stewardship. While there may be short-term trade-offs to fisheries, particularly in heavily exploited areas, long-term studies highlight the potential of MPAs to support higher total fish yields and sustainable fisheries for future generations.

A healthy and thriving marine ecosystem underpins the viability of "blue economy" sectors. This includes fisheries, tourism, aquaculture, and many more. British Columbia's blue economy, for instance, contributes more than \$21 billion to provincial GDP and employs over 196,000 people full time¹¹. These industries significantly benefit from thriving ecosystems and abundant wildlife and the conservation of marine life within and around MPA can greatly help to preserve the integrity of these natural ecosystems and experiences.

Conservation initiatives can attract investments in local capacity-building, community-based research and programming, and stewardship opportunities, many of which directly benefit local communities. MPAs require adequate staffing for monitoring, enforcement, research and education. These roles become increasingly available for local communities to fill, supporting the development of a long-term conservation-based economy¹². Globally, MPAs also increase local revenue through conservation-based grants, tourism infrastructure, and biodiversity credits or offsets⁴. Research suggests that well-managed MPAs can produce financial returns of up to 10:1 on every dollar invested¹³. Through these mechanisms, long-term funding streams evolve and support community development.

Citations

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