MARINE PROTECTED AREAS AND THEIR ROLE IN ECOSYSTEM SERVICE PROVISION, SUSTAINABLE FISHERIES AND TOURISM

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- Current and projected pressures
- The role of Marine Protected Areas (MPAs)
- How MPAs contribute to sustainable fishing and tourism
- The need for effective policy mixes

Pressures on marine ecosystem services and biodiversity

➢ Over-fishing

➢ Pollution

➢ Habitat degradation

Climate change



Invasive alien species



The future of the Ocean Economy... Total ocean industry value-added expected to double by 2030

USD billion

Overview of industry-specific value-added in 2010 and 2030



Source: OECD (2016) The Ocean Economy to 2030

Policy instruments for marine biodiversity conservation and sustainable use

| Regulatory (command-and- control) instruments | Economic instruments | Information and voluntary approaches |
|--|---|--|
| Marine protected areas | Taxes, charges, user fees (e.g. entrance fees to marine parks) | Certification, eco-labelling (e.g. MSC) |
| Marine spatial planning | Individually Transferable Quotas (ITQ) for fishing | |
| Spatial and temporal fishing closures; limits on number and size of vessels (input controls); other restrictions or prohibitions on use (e.g. CITES) | Reform of harmful subsidies - and use of subsidies to promote marine conservation and sustainable use | Voluntary agreements, such as public-private partnerships (which can include e.g., voluntary biodiversity offset schemes) |
| Catch limits or quotas (output controls) | Payments for Ecosystem Services (PES) | |
| Standards (e.g. MARPOL for ships); bans (e.g. dynamite fishing) | Marine biodiversity offsets | |
| Licenses e.g. aquaculture and offshore windfarms | Non-compliance penalties | |
| Planning requirements e.g. EIA and SEA | Fines on damages | |

Trends in Marine Protected Areas



Source: Adapted from UNEP-WCMC (2016)



- MPAs, especially no-take marine reserves, have helped to address overfishing
- Stocks recover, catch and catch-per-uniteffort (CPUE) increases

- Meta-analysis by Starr et al. (2015), Mesnildrey et al (2013), amongst others

• Responses vary depending on taxonomic groups, size of reserve, protection level, enforcement, time.



- MPAs also being used as tools for sustainable tourism (e.g. Galapagos marine reserve, MPA network Pacific Coast Canada)
- Natural and cultural resources in MPAs attract visitors. Sustainable tourism generates revenue and supports local communities
- Examples from Sweden, Tanzania, United States, Vietnam...





• Better understanding of costs and benefits

• Effective siting of MPAs to address pressures

- More robust monitoring and reporting
- Enhanced compliance and enforcement





OECD work on biodiversity and ecosystems:

Biodiversity Indicators, Valuation and Assessment
Economic Instruments, Incentives and Policies for Biodiversity
Biodiversity Finance, Development and Distributional Issues

Visit: www.oecd.org/env/biodiversity

www.oecd.org/environment/resources/mainstream-biodiversity/

Selected OECD reports:

- Marine Protected Areas: Economics, Management and Effective Policy Mixes (OECD, forthcoming 2017)
- Overcoming Barriers to Effective Biodiversity Policy Reform (OECD, forthcoming 2017)
- The Ocean Economy in 2030 (OECD, 2016)
- Green Growth in Fisheries and Aquaculture (OECD, 2015)
- Biodiversity Policy Response Indicators (OECD ENV WP No. 90, 2015)
- Scaling Up Finance Mechanisms for Biodiversity (OECD, 2013)



