



Foreign, Commonwealth
& Development Office

COAST Evidence Review 1

Linking poverty alleviation and nature-based solutions in coastal systems

This brief presents key findings on the links between poverty alleviation and nature-based solutions across sustainable aquaculture, small-scale fisheries, and critical marine habitat protection, management and restoration. It draws on an evidence review conducted by COAST's MEL Services team, a structured analysis of 79 academic and grey literature sources. Findings have been shared with the COAST programme to inform COAST's approach to strengthening climate resilience and prosperity in coastal communities.

About the Climate and Ocean Adaptation and Sustainable Transition programme (COAST)

Funded through the UK's International Climate Finance, COAST is a multi-year programme under the UK government Blue Planet Fund.

COAST aims to strengthen and sustain adaptive capacities, climate resilience and prosperity for vulnerable coastal communities through the equitable and sustainable management of coastal resources in selected low- and middle-income countries.

FINDING 1

Nature-based solutions can contribute to poverty alleviation, but impacts vary by solution, project features and context

The evidence shows generally positive links between nature-based solutions and poverty alleviation across marine habitat restoration, aquaculture and small-scale fisheries. These links operate through multiple pathways, including income generation, employment, food security, ecosystem services and disaster risk reduction. The evidence highlights that nature-based solutions do not generate uniform benefits; but that benefits are dependent on how interventions are designed, implemented and integrated within local systems.

Evidence on critical marine habitats demonstrates that conservation and restoration can support livelihoods through coastal protection, fisheries enhancement, and provisioning services. Mangrove restoration, in particular, shows strong benefit-cost ratios and positive economic impacts in some contexts. However, impacts are highly dependent on habitat type, environmental conditions and socio-economic context. In aquaculture, poverty alleviation is primarily linked to value chain development, particularly through commercialisation, technological development and scaling, generating employment and income. Small-scale fisheries contribute through diversified incomes, economic opportunities and improved food and nutrition security, although the link is complex and impacts differ across regions and household types.

What this means in practice: Design interventions with explicit attention to local ecological and socio-economic conditions. Poverty outcomes cannot be assumed and must be monitored alongside environmental results.

FINDING 2

Links to poverty alleviation depend on how benefits are distributed, and poor distribution weakens engagement and sustainability

Across all three sectors, the review finds that increased production or ecosystem recovery does not automatically translate into poverty reduction. Access to resources, affordability, distribution mechanisms and utilisation of benefits are all important. Unequal distribution weakens stakeholder engagement and limits long-term sustainability. Evidence from the blue economy highlights persistent distribution challenges, with uneven returns and gender disparities. Women's contributions, particularly in processing and marketing, are often informal, unpaid or poorly documented, limiting recognition and policy support. The review also identifies limited gender- and disability-disaggregated data, constraining understanding of how interventions affect vulnerable groups and weakening effective design.

In marine conservation, well-designed MPAs, spatial planning processes, payment for ecosystem services and community-based management improve outcomes when implemented inclusively. In aquaculture, commercial development often benefits better-resourced producers due to its 'technocentric focus', while poorer households face barriers related to limited access to finance, education and governance platforms. Women are especially impacted as they make up a significant share of aquaculture workforces. In fisheries, inclusive governance and social capital strengthen outcomes, but vulnerable actors face risks from post-harvest losses, market constraints and labour exploitation. Social protection frameworks are needed to protect small-scale actors but are often weak in contexts with limited infrastructure and regulation.

What this means for practice: Prioritise equitable access to resources, markets and services within the design. Then assess distributional impacts explicitly, including gender and disability dimensions, and include targeted measures to address social barriers.

FINDING 3

Inclusive and participatory approaches strengthen poverty and environmental outcomes, but require long-term livelihood benefits and institutional support for sustained, meaningful engagement

The evidence shows that participatory, community-based and co-management approaches are associated with stronger social, economic and ecological outcomes. Participatory approaches support learning, capacity building and empowerment, which contribute indirectly to poverty reduction. While inclusive governance approaches improve compliance, strengthens social capital and enhances local ownership. This produces long-term engagement, linked to improved governance, monitoring and social cohesion. However, these approaches are often driven initially by short-term incentives, and sustained engagement depends on longer-term livelihood benefits and institutional support.

In habitat restoration, community-based management has improved biodiversity and local incomes. In aquaculture, cooperative structures and extension services enhance access to technology and finance. In fisheries, co-management supports collective action, community engagement and livelihood resilience to external threats.

What this means in practice: Embed participatory governance and co-management in programme design to support equitable access. Capacity building, representation and shared decision-making should be treated as core intervention components.

Conclusion

The evidence review indicates generally positive but highly variable links between poverty alleviation and nature-based solutions in aquaculture, small-scale fisheries and critical marine habitats. Outcomes depend on context, governance arrangements, benefit distribution and meaningful inclusion. The likelihood of achieving poverty reduction is increased where interventions are participatory, equitable and integrated across environmental and socio-economic systems. This means that poverty reduction objectives need to be designed into nature-based solutions whilst explicitly addressing distributional equity, strengthen local capacities. Continued investment in context-specific evidence and monitoring will be critical to refining these approaches over time.

The [full evidence review](#) is available for more detail on the evidence behind the brief.



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