Title: Developing Artificial Reefs as a Possible Solution to Ameliorate Small-Scale Fishing Community Livelihoods: Some Case-Studies

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Abstract:

In southeast Portugal, some coastal fishing communities have experienced intensified competition for harvestable stocks, and this impacted with some severity on small-scale fishermen who are especially dependent on fishing for their livelihoods. In the last decade or so, various "structural instruments" have been created in order to address this particular socio-economic problem. One of these instruments is financing the construction and deployment of artificial reefs (ARs), and the other is licensing marine areas near ARs to develop off-shore aquaculture projects. It is postulated that the deployment of ARs in a flat sandy bottom area enhance fish stocks, which subsequently will improve the local economy. The rationale for that is that fishermen will enjoy higher catches and easier access to the resource, saving time and costs to find fish that would otherwise be scattered elsewhere. For their part, dive and charter boat operators will have more spot options to offer to their clientele, and concomitantly will earn more money. Off-shore aquaculture firms will be created if some rights are given to them in the open waters. The challenges here are: (1) On the supply side - to integrate ARs as a management instrument promoting "business & biodiversity", and (2) On the demand side - encouraging self-employed individuals and small-scale companies to take advantage of the different economic benefits offered by ARs. The present paper presents evidence on whether the development of ARs has contributed to the generation of alternative incomes in a "business & biodiversity" scope in such fishing communities.