

Ways of managing the resources of the ‘reefs of tomorrow’ through active reef restoration

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Nearly all coral reefs bordering nations have experienced net losses in reef biodiversity, goods and services, even without considering the ever-developing global change impacts. It is also revealed that most of the services provided by any specific reef ecosystem are usually not deliberated when employing conventional macro-economic indicators, since many of the goods/services are not traded in markets. In response, I wish to reveal here, through prospects of active reef-restoration, the currently non-marketed or poorly marketed reef services, focusing on a single coral species (*Stylophora pistillata*). It is implied that the integration of equity capitals and other commodification with reef-restoration practices will improve total reef services. Two tiers of market-related activities are defined, the traditional first-tier instruments (valuating costs/gains for extracting tradable goods and services) and novel second-tier instruments (new/expanded monetary tools developed as by-products of reef restoration measures). The emerging new suite of economic mechanisms based on restoration methodologies could be served as an incentive for ecosystem conservation, enhancing the sum values of all services generated by coral reefs, where the same stocks of farmed/transplanted coral colonies will be used as market instruments. I found that active restoration measures disclose 12 classes of second-tier goods and services, which may partly/wholly finance restoration acts, bringing to light reef capitalizations that allow the expansion of markets with products that have not been considered before. The degree to which the second tier of market-related services could buffer coral-reef degradation is still unclear and would vary with different reef types and in various reef restoration scenarios; however, reducing the uncertainty associated with restoration. It is expected that the expansion of markets with the new products and the enhancement of those already existing will be materialized even if reef ecosystems will recover into different statuses.