A RESTORATION TECHNIQUE FOR ENCLOSED COASTAL SEAS: CREATION OF ARTIFICAL RIGS, FISH SHELTERS AND RECREATION CENTERS THROUGH UTILIZING OIL RIGS

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Enclosed coastal seas are special type of water bodies, which are almost entirely surrounded by land. This enclosed nature creates a more captive ecosystem than open seas. This type of natural enclosure gives some advantages and disadvantages in managing these especial coastal water bodies. As a surrounded area, enclosed coastal seas will be more convenient to plan, manage, and regulate within a distinct boundary as a whole ecosystem. In the absence of proper planning, and management techniques the whole enclosed seas will be deteriorated, and ecosystem balance will be broken down. By developing appropriate management techniques based on the current operations and future development, these water bodies can be turned into valuable productive systems.

Some of the coastal enclosed seas have extensive reserves of petroleum hydrocarbons, which attracts huge amounts of oil and gas exploration and production activities, however can result in numerous environmental consequences. One of the major issues of the offshore oil and gas operations is the abandoned platforms that are also known as rigs. This presentation addresses the utilization of that huge sized platform as artificial reefs, fish shelters, and recreational centers. In this study, the rigs utilization is identified as a great significant technique for the production of fisheries, restoration biodiversity, and development of ecological integrity. This technique is especially designed to target the enclosed coast seas. This presentation also describes the socio-economic and environmental impacts of the rigs utilization.

The proposed restoration technique could be applied in the enclosed coastal seas where offshore oil and gas activities are exists, or in the other areas where no hydrocarbon operation is going on, but it needs to restore the fisheries production and biodiversity. This technique not only improves the fisheries production, but also restores the ecological integrity, and increases the revenue earnings through attracting ecotourism.