

Higher Education and Sustainable Development of Marine Resources

ABSTRACT

Marine park is a designated area of the sea where national regulatory authorities place limits on certain human activities. Marine parks usually allow multiple uses. Certain zones are protected for preserving specific habitats for marine biodiversity to achieve ecological sustainability while in others activities such as recreational fishing, ecotourism, snorkeling, and diving are allowed. Large marine parks have open zones for fishing and no-take zones where extractive activities such as fishing, sand mining, and drilling are prohibited. Generally, marine parks are considered suitable places for gaining scientific understanding and promoting environmental awareness while safeguarding the benefits of indigenous coastal communities. Sea ranching is a type of marine farming in which juveniles are released into the ocean where they grow without containment structures. The juveniles are generally produced in the hatcheries. In some cases, wild-caught juveniles from one area are also released into another area for stock enhancement or creating a fishery resource. They grow unprotected and without any assistance such as feed from outside. The marine environment provides the juveniles all the resources to grow to be subsequently harvested. Sea ranching is unlike mariculture where stocked species are held in captivity, in cages, sea pens, or other types of enclosures, and provided feed and other requirements from external sources. Nature-based solutions are human actions aimed at sustainably managing the natural or modified ecosystems. Such solutions include measures to protect and restore the ecosystems and are inspired by nature. In the context of oceans, the nature-based solutions are systematic and informed interventions that are resource-efficient and help in building resilience. This concept is based on the understanding that healthy ocean provides more ecosystem services that benefit the humanity.