



Introduction

It is acknowledged on a global level that traditional methods of fisheries management, for example, limiting the quantity of fishing gear used, restrictions in the use of nets with small mesh size and regulation of minimum landing size of fish, did not bring about the expected solutions to the problem of overexploitation of fishery resources. At the same time, fisheries management in the Mediterranean Sea is complex in comparison to other seas, due to the multispecies character of fishing gear and high biodiversity.

Especially in Cyprus, fish stocks are significantly reduced. As a result, fishing efforts demand higher investment in terms of time and money, making it difficult for a professional fisherman to earn a living.

As a result, there is need to take innovative measures and seek alternative methods to manage the fishery sector in order to safeguard a healthy marine environment for future generations.

The creation of Marine Protected Areas (MPA) with the use of Artificial Reefs (AR), through specific planning and design, enhances marine biodiversity and consequently fish stocks. The creation and management of MPA can be successful with the collaboration of different stakeholders (National and Local Competent Authorities, fishermen, divers, etc).



Strategy

Having recognized the importance of AR, the Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Natural Resources and Environment (MANRE) has formulated and is implementing a respective Strategy. The Strategy explains what AR are and indicates the areas where they will be deployed. Furthermore, it defines the overall goal and objectives, general principles, criteria, management and legal framework.

What are AR

AR are constructions that have the same characteristics as natural reefs and act as nursery grounds by providing space for reproduction, growth, feeding and refuge for marine organisms. The materials used for AR vary from marine cement, steel, limestone and clay. Once appropriate shapes, sizes and design are selected, the different modules, including vessels, are deployed on the seabed in accordance to specific spatial planning.



Goals

The overall goal through the establishment of AR is the creation of fish refugia, the enhancement of fish stocks and the long term increase of fish production. Other goals to be achieved are:

- a) protection of marine biodiversity,
- b) recovery of marine ecosystems,
- c) implementation of conservation oriented research,
- d) environmental public awareness,
- e) environmental education, and
- f) promotion of diving tourism (i.e. snorkeling and diving).



Site selection

The areas where AR are deployed must fulfill a number of criteria related to suitability, accessibility, biology and oceanography. A number of specific technical studies (environmental impact studies, design of the reefs, spatial planning, etc) are implemented as well. According to the Strategy, the MPA where AR are deployed extend from shore to the 35-40 meters isobaths so that the entire life span of many coastal marine organisms is protected.

Marking of boundaries

The boundaries of the areas with the AR will be marked with specific buoys according to international standards. Furthermore, designated mooring facilities will be placed at specific locations to facilitate the access of authorized visiting vessels.





Operation and Management of MPA with AR

It is expected that for every MPA with AR a Management Body (MB) will be established. The MB will be coordinated by the DFMR and will be in charge to formulate and implement a management plan and regulations concerning the human activities within the protected area.

Legal Framework

The establishment of MPA with AR is based on Article 5A of Fisheries Law (106 (I) 2004).

Funding

Funding of AR is mainly achieved through the Operational Fisheries Programme, for the period 2007-2013. The continuation of the projects is expected to be included in the next programming period 2014-2020.



For further information:

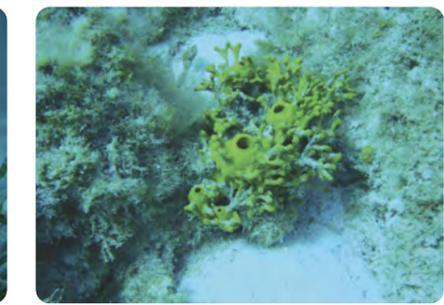
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REPUBLIC OF CYPRUS

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