

Introduction of Exotic Species for Chilean Aquaculture : An EIA Study

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The first major efforts to develop the cultivation of abalone in Chile were initiated at the beginning of the 1980s. Fundación Chile (FCH) along with Chilean Universities and fishery research institutions, were the pioneers convinced that the country's environmental conditions and natural food availability were favorable for rearing commercial species like the California red abalone (*Haliotis rufescens*) and the Japanese abalone (*Haliotis discus*).

After a period of coordinated experimental work, which demonstrated that the project was biologically and technically viable, FCH continued alone to develop the full commercial scale project. For that purpose, FCH initiated pilot ongrowing operations in northern and southern Chile to compare the results in both environments. Because the technology applied considered ongrowing barrels set in the ocean waters, the Chilean Fishery Authority required an EIA study before authorizing full scale operations.

The Fishery Authority's concern was focused on the risks that successful larvae settlement and colonization could have on to the environment, on disease transmission and on the potential impact on seaweeds used as food. FCH coordinated and supported the EIA which was developed by Chilean Universities. This study was centered in the northern part of the Canal Zone, where environmental conditions were more appropriate for the cultivation requirements.

In the absence of regulations in this area, the terms EIA's of reference were discussed and agreed upon at the start by the Fishery Authority and FCH. The study took almost four years during which there were some points of dispute such as the value and feasibility of experimental work, new requirements which affected the duration of the study, opinions from the scientific community, among others. Finally in 1992, the study was approved and as a consequence red abalone cultivation in the sea under captivity conditions was authorized for a specific zoogeographic zone.

This paper reviews the process mentioned above, discussing and stressing aspects whose consideration should be beneficial for the realistic and effective management of activities in enclosed coastal areas where the "in situ" ongrowing of this species has proven suitable.