

Investigation the effect of wind, current, and wave forces on the cage structure design

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Abstract

Aquaculture production is on the rise, and cage breeding is now playing an important role in meeting the demand for aquatic food in the world. Biological, engineering, and socioeconomic issues are among the three main categories in the development of cages. In the meantime, attention to engineering issues is of paramount importance, since things such as choosing the location and design of the cage are appropriate to the conditions of the region. Today, due to controversy such as pollution, the approach of many countries is to use cages in open seas. However, this method also has some problems, such that the structure of the cage should be able to withstand atmospheric conditions such as waves and wind. In line with global advancement, this paper examines the design of the cage by taking into account parameters such as current, waves and wind. The results of the study showed that the current flow is dominant in comparison with other factors and will play a decisive role in the design of the cage

Keywords: Aquaculture, Cage design, wind, wave, current force