## Investigating of various cage structures with the aim of increasing adaptability and environmental efficiency Kamyar Gharra<sup>1\*</sup>

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## **Abstract:**

Following major challenges, such as environmental degradation and reduced water resources, we will see a shortage of food supplies, especially protein. According to the United Nations Food and Agriculture Organization (FAO), the global aquaculture catch has reached a level that can not be expected to increase with current stockpile management methods. These factors have led aquaculture producers to use offshore resources instead of fresh water sources. In this regard, the use of aquaculture methods in cages due to the advantages of high production capacity due to the size of the sea, high self-purification in marine environments, good water conditioning in the breeding environment, lack of oxygenation, reduction of depreciation costs, Maintenance and maintenance of natural environment have provided good conditions for aquaculture. It is important to choose cage structures compatible with each geographic region. In this paper, we intend to examine and select suitable cages in the northern and southern coasts of the country and identify the driving and limiting factors in each case.

**Keywords:** Aquaculture, Cage, Caspian Sea coast