Marine fish Cage culture- mitigation of effects and environmental management

Simin Dehghan Madiseh[1*], Mansour Khalfeh Nilsaz[2], Farahnaz Kianersi[3], Seyed Reza Seyd Mortezai[4]

1, 2, 3, 4- South Iran Aquaculture Research Institute, Iranian Fisheries Science Research Institute (IFSRI), Agricultural Research, Education and Extension Organization (AREEO), Ahvaz

*Corresponding Author e-mail: s_dehghan2002@yahoo.com

Abstract

The environmental impact assessment for development cage farming in the Bahrekan area (Khuzestan coastal waters), was studied in 2015. The effects of projects on physico – Chemical, biological and ecological and also the economic - social and cultural environments in the area were evaluated and the effects of the project have been discussed. In the operation phase, all 15 impacts on physico-chemical environment were negative and among 48 effects on ecology and biology environment, of which 19 positive and 29 negative effects were diagnosed. In economic and social environment also, from all of 32 predicted impacts, only two negative effects were identified and other effects were positive. Regarding the activities of this project, major negative impacts on the physico-chemical environment caused by the accumulation of food waste and followed by the changing the sediment quality and ultimately changing the water quality. According to results of different environments respectively, effect of project on fauna (34.13 %) , benthic organisms and benthoses (27.14 %) , sediment quality (10 %) and health and safety of workers (8 %) were obtained which reflects activity impacts on the environment from moderate to weak, that can be compensated by mitigation and elimination methods .The value of Severity point (sp) also categorized. According to SP values, only the effect on benthic organisms, SP (27), was classified in the lower-middle category and other effects were in the low impact group.
Keywords: Khuzestan, Bahrekan coastal waters, marine cage culture, environmental impact assessment