عنوان مقاله:
Environmental Impact Assessment of Fish Breeding Center

محل انتشار:
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خلاصه مقاله:
Background & Aims of the Study: Environmental impact assessment is the identification and systematic evaluation of the consequences of projects and programs on physical-chemical, biological, cultural, and socio-economic components of the environment. Changes caused by urban and rural effluents in the environment can directly affect the downstream part of the river. The goal of this study was to evaluate the environmental effects of the fish farming center of Miandoab and analyze the implementation and not implementation of the project at the two phases of construction and operation, which was conducted using the Saratoga Matrix. In addition to this goal, the physicochemical parameters of water and dissolved oxygen, Biochemical Oxygen Demand (BOD), nitrate, phosphate, alkalinity, ammonia, temperature, and Chemical Oxygen Demand (COD) were measured every ۳۰ days in summer ۲۰۲۰. Materials and Methods: Miandoab Fish Breeding Center on a land area of ۲۰۰۰ hectares is designed for breeding hydrothermal fish. The Saratoga matrix was used to evaluate the environmental effects and analyze the two options of implementation and non-implementation of the project in the two phases of construction and operation. In the present study, four stations were determined to investigate the effect of the Miandoab Fish Breeding Center on physicochemical parameters of water in different parts of the Siminehrood river in Miandoab city. Based on the results of physicochemical parameters, the Water Quality Index (WQINSF) was calculated. Results: The result of the effects at the construction phase (-۸۳) and operation phase (+۱۳۷) indicated that implementation and operation of the fish farming center of Miandoab have positive effects. The results of the water evaluation showed that there was no significant difference in temperature between study stations (P>۰.۰۵). The parameters of nitrate, phosphate, alkalinity, ammonia, dissolved oxygen, pH, and BOD۵ were significantly affected by different stations (P<۰.۰۵). The highest and lowest levels of BOD۵ in stations three and one were ۱۲±۰.۰۰۱ and ۵.۵±۰.۷۰۷ mg/L, respectively and also the highest and lowest ammonia levels were observed at ۱.۱۶±۰.۱۵۶ and ۰.۰۱±۰.۰۰۱ mg/l in stations one and four, respectively. Conclusion: With the implementation of the project, some difficulties, such as lack of water caused by wasting it in soil channels, overall condition of fish farming activity in the region, immigration from villages to urban areas, lack of employment and lower-income and welfare of the people will be improve ...

کلمات کلیدی:
Ecosystem, Environmental policy, Public health, Health impact assessment, Iran