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A Thesis Submitted in Partial Fulfillment of the Requirements for

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Developing a bio-economic model for Ferydunkenar wetland managemen

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Abstract

The Fereydunkenar area has a local management system. Considering the high level of hunting and the threat of migratory species in the Fereydunkenar wetland, a biomonitoring model was used to estimate the optimal social interest rate for birds hunting. Also, the choice experiment was used to estimate the non-market values of the wetland. The results of the estimation of the Logit model showed that the total payment of each hunter in the region was calculated for Sorkhrood, Ezbaran and Fereydunkenar 2386217, 2547214 and 3542100 tomans, respectively. The variable coefficient of the shared habitat and the cost of payment for all three areas are at a one percent significant and positive. This means that there is a positive and significant impact on the willingness to accept of the predators. In other words, by improving or increasing the habitat status as a result of a decrease in hunting level, willingness to accept of hunters to avoid hunting increases. But improving or reducing of the hunting season, the marginal utility of the hunters is reduced, which has a negative impact on the willingness of people to hunt in the Fereydunknar area of Mazandaran province. Also, the marketable value of wetlands in this study was added to the bioeconomic model to determine the impact of both types of wetland use and non-use values on policies. According to the results of the bioeconomic model, if the amenity values are given in the optimal calculation of the hunting, the optimal number of wetlands and birds are higher than the usual values. But by increasing the cost of preparing hunting grounds, these values are reduced. Reducing the cost of restoration of wetlands increases the optimal of all variables significantly. The results of the above model show that when the value of wetland ecosystem services and other compatible values are included in the calculations, the number of wetlands increases with respect to the optimal social level.

Keywords: choice experiment, Fereydunknar wetland, willingness to accept, Bioeconomic Model