
Development of a Mathematical Model to Assess and Enhance Tourism Sustainability in Wetland Regions

Oumar DIOP

Université Numérique Cheikh Hamidou KANE, Sénégal, oumar.diop@unchk.edu.sn.

we propose a mathematical model to better monitor, assess and manage tourism policy in wetlands. The model describe the dynamics of fish, migratory waterbirds, tourists and the capital intended for tourism activities. Due to seasonal variation of parameters, we investigate the existence of positive periodic solution using the Gaines and Mahwin theorem. We compare attractiveness due to migratory waterbirds and investment to mean value of attractiveness of others tourist sites. This work shows how to formulate policies for the protection of the environment, migratory birds and the sustainability of tourism in wetlands.