Abstract

Future Studies have long been the subject of exploration, so this phenomenon can be regarded as a new science in the world. Along with the more complicated societal issues, the fast, paced song of crises has increased the interest in future research. Now, humans must not only move toward conscious awareness of the future, but also attempt to make it. The issue of environmental pollution is among the problems encountered by most countries. One type of this pollution is the dust issue. The historic phenomenon of atmospheric dust has greatly affected the inhabitants of different regions in naturally since ancient times, and in turn, people have adapted their lives; yet, in the last two decades, the severity of the effects of wind-borne dust and contaminations has been so great that they can be regarded as the beginning days of reduced horizontal visibility and higher rates of respiratory diseases and other diseases caused by the invasion of such microorganisms. Zabol, a city located in the south-east of Iran, has recently confronted the escalating process of desertification, mainly because of the climate change and the precipitation decline. The purpose of this study was to investigate the condition of the city in terms of the density of the Aeolian dust, to predicting its future status using the ANN model, and to use the Future Studies approach, and to determine the most effective indicators in Zabol's silt-sized material management using MICMAC software. It also presents the most likely scenarios to improve the current situation through the Scenario wizard software. The results of the research showed that the combination of the Artificial Neural Network (ANN) model and the Future Study software is a proper structure for predicting and optimizing the problem of the storms and particulate matter of the city.

Key words: Zabol, particulate matter, Artificial Neural Network (ANN), Future Studies, Scenario Planning

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Supervisors:
Dr. Gh. Khammar

Advisors:
Dr. A. Kiani

By:
M. Sadeghi Bonjar

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