Physical resilience against floods with emphasis on wetland villages (Case study: Sarakhieh village of Shadegan wetland)

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Received date: 2021.7.06
Reception date: 2022.10.22

Abstract

Rural houses are more at risk of disaster damage due to poor infrastructure and socio-cultural inequalities, as well as due to less attention from governmental organizations, so the issue of disaster resilience is an important issue in rural communities. In this article, an attempt has been made to deal with the effects of disaster such as water floods on rural houses adjacent to the wetland. Sarakhieh village located in Shadegan wetland, Khuzestan province, which due to the local architecture of village houses and their livelihood, which depends on the wetland, has become a tourist village that has suffered a lot of damage in the flood of 2018-2019. It has affected the livelihood and way of life of the villagers. Therefore, in this research, the authors try to investigate the factors promoting resilience in Sarakhieh tourist village by relying on the field method and also to simulate floods using "Flow 3D software" with "LES turbulence model". By field survey and surveys of village maps, eight types of houses were harvested in this village, which were simulated with different angles to the wetland and different distances from each other. Also, Tecplot 360 software was used to analyze the simulation and the results showed that the most suitable body What is the texture of the village against the flood? In addition, the authors believe that by improving the texture and quality of roads and also creating a center for natural crisis management, providing solutions appropriate to the conditions of the village can return the village to normal immediately after the crisis and thus facilitate the flow of tourism.

Keywords: wetland, resilience, Rural settlements, Flood simulation.