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Sociological study of the challenge of surface water management and its impact on the daily life of the citizens of Ahvaz (Case study: urban flood and overflow of sewage in the cities of Ahvaz and Karun from 2018 to 2014)

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EXTENDED ABSTRACT

INTRODUCTION

Khuzestan province has been continuously exposed to disasters and natural events such as floods and floods, even though it has not seen droughts and micro dusts in these years. After the massive flood of April 2019 in Khuzestan province, the last case of related incidents was flooding and the occurrence of intra-urban floods in January 2019 in the cities of Mahshahr, Ahvaz, Sarbandar, Shahr Jarrahi and some other cities of Khuzestan, which, like the previous cases, caused losses. imposed on some citizens and infrastructure. In the last decade, the experience of flooding and water flow has become bitter and annoying for the people and officials of the province in some urban areas. Submergence of belongings inside the houses and the difficulty of people's commuting when the water holes and small and large lakes are formed in the streets and alleys, and water and electricity interruptions have become a part of this repeated experience. Beyond a climatic phenomenon, this event brought with it wide social consequences. Based on this, in this article, the dimensions and social consequences of this incident have been identified and analyzed. In this regard, by reviewing the incident analysis literature, Lindel's incident evaluation framework was chosen as the basic conceptual framework. The findings of the research showed that the social contexts of Khuzestan province include the rhetoric of urban management programs from the perspective of citizens, the climatic fragility of the province, and general sensitivity to the government's

performance in the field of water resources management in the province. The most important consequences of which are: the formation of an emotional atmosphere around the province's water issues, dissatisfaction with the performance of the province's water resources management, damage to infrastructure and houses, needing rain, worrying about floods.

METHODOLOGY

One of the prominent frameworks in incident analysis, which specifically evaluates the social effects of the incident, was introduced by Lindel in 2011. In Lindell's model, various demographic, historical, organizational, and social dimensions are based in order to obtain their relationship with the effects of the disaster and the post-disaster recovery process, feelings of deprivation, and social dissatisfaction (Lindell, 2011). Among the various models available in the analysis and evaluation of incidents, a hybrid model (Lindell and Prater, 2003; Lindell and Perry, 2013) was used, in which, in addition to paying attention to the physical effects and characteristics of the phenomenon, they also pay attention to social contexts. The place where the phenomenon occurred is also noted. The reason for preferring this hybrid model in studies of urban flooding in Ahvaz is the same, and in this article, the focus is on the social dimension of the phenomenon. Lindel (2013) emphasizes that by using this model, a comprehensive understanding of the phenomenon can be obtained because the contexts and conditions in which the incident occurred are also taken into consideration. In addition, the study of the social effects of the studied phenomenon from the perspective of previous preparations, characteristics of the phenomenon, and recovery measures is also of interest.

According to Lindel (2013), physical effects include two parts: losses and damages. According to Lindel, the importance of this section is that there is a noticeable difference between different regions of the world in terms of the amount of casualties in disasters, such that Asia experiences 54% of earthquakes, but 71% of the casualties are caused by this. Incidents, 41% of floods but 98% of casualties, and 41% of storms but 92% of casualties caused by it. In contrast, the Americas experienced 22% of earthquakes but only 17% of fatalities from these events, 24% of floods but less than 2% of fatalities, and 33% of hurricanes and 8% of fatalities. experienced In the damage section, damage to infrastructure, animals and products are

highlighted in Lindel's model. In the social dimension, Lindel and Perry's model emphasizes the political, demographic, economic and psychological consequences of the incident. Considering these three parts, it is possible to analyze the social consequences of the Ahvaz urban flood incident.

The conceptual framework used in this research can be seen in the framework of the grounded theory qualitative method. In this way, the grounded method is used with the purpose of analyzing the conducted interviews and descriptive statistics in a small part to explain the phenomenon under study. In the qualitative section, data was collected and analyzed using the interview technique (semi-structured interview and group interview). Data analysis has been done with the help of grounded theory method and Corbin-Strauss approach.

FINDINGS

The author shall summarize and briefly discuss any findings in this section. The author can use a combination of tables, figures, and text to provide the summary. The number of tables and figures are limited to no more than two each for the entire extended abstract.

CONCLUSION

Characteristics of urban floods in Ahvaz

Occurrence of urban flooding with an average rain: moderate and even small rains between 10 and 20 mm in recent years in autumn and winter have caused extensive flooding in the city of Ahvaz, while according to the citizens, this amount of rain has such consequences in other metropolises. does not follow

The people of Khuzestan have widely experienced various incidents such as earthquakes, dust storms, and power outages, but the results of this study showed that the people considered this incident different from previous experiences. The participants of the research have admitted that even a small amount of precipitation shows itself in the form of surface water in Ahvaz city, so the mentality of the citizens is not very positive towards the rainfall and in its generalized form in autumn and winter.

According to the citizens of Ahvazi, the flooding of roads and the difficulty of traffic, the remaining water in the low areas of the streets, the subsidence and destruction of asphalt, the difficulty of crossing important roads and squares, and finally the intersection with sewage are the most annoying aspects of the accident compared to other accidents. .

The spread of flowing water in all parts of the city: according to the participants, this incident has disturbed a wide area of the urban

environment and it has been visible in all urban areas with varying degrees of intensity.

The participants believe that all these conditions occur in areas with a relatively favorable situation, for people who live in Koi Alavi, Farhang Shahr, Camplou, Meshali, Shekara and many other areas, the situation is different because they are collecting carpets from night to morning. And their living things are suspended in the combination of rain water and sewage in the house. The analysis of the findings in this section shows that the intersection of flooding after rain with sewage has allocated a greater volume of dissatisfaction to itself, and if the challenges related to sewage are resolved and the ongoing projects are completed, a significant part of the concerns of the citizens. It will be fixed in this context.

City roads with unpleasant smell: The backflow and rise of sewage shows itself more during torrential rains, and for a few days after the rain and until the water infiltrates again and the sewage routes are opened, the bad smell in city roads causes suffering to the citizens.

Result

According to the findings of the research, it is clear that as a result of the frequent occurrence of urban floods, the participants consider the proposed plans of urban management in this field to be slogans and the reason for this is the ineffectiveness of these measures in controlling and controlling floods and urban water runoff. they know. They emphasize that although based on their personal observations, they have witnessed the digging of streets, passages and around squares to install sewage lines, but in practice, these measures have not had an impact on the state of urban management. The participants also admit that in a fair assessment, the climatic fragility of the province is one of the areas of problems related to urban flooding. On the other hand, the accumulation of issues and problems and damages imposed by the war on the infrastructure of the province has caused an increase in public sensitivity to the performance of the government in the field of water resources management in the province, which is linked to the issue of fine particles and also the transfer of river water, this sensitivity of public opinion. has doubled and formed an atmosphere where it is no longer possible to talk about resilience and other perspectives in this regard.

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