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Vulnerability in Bahía Blanca. Estimating technology-related risks[☆]

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ABSTRACT

Since the 1980's Bahía Blanca has become a center for important agro-industrial and petrochemical companies. Toxic leaks or spills, fires and explosions are the main threats related to the industrial activities. Due to its closeness to populated areas, risk management is essential to develop integral actions to address disaster scenarios. In order to assess economic, social and technical vulnerability, variables from the most recent census data were selected through the REDATAM database. A multivariate analysis methodology based on the standardization of variables was applied. Thematic cartography was developed, which summarized situations of vulnerability for each spatial unit analyzed. Likewise, a qualitative approach was used to study the institutional vulnerability as a dimension of technological risk in the city of Bahía Blanca. Vulnerable areas surrounding industrial activities were identified. From the institutional perspective, the lack of an adequate sanction enforcement policy is one of the most extreme vulnerabilities existing related to risk in Bahía Blanca.

Keywords: Vulnerability, Risk Management, GIS, Bahía Blanca

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