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Industrial losses caused by floods:
is it worthwhile to stay in risk?

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Abstract

Disasters are harmful events that damage natural and anthropogenic environments. Urban floods are a type of natural disaster with high negative impact to society. The economic effects of urban floods are under-researched within the Brazilian industrial sector. Esteio municipality, in the Metropolitan Region of Porto Alegre, Rio Grande do Sul State, Brazil, is rated in 18th place in terms of Gross Domestic Product (GDP) among 497 State municipalities, and it has the highest demographic density in Rio Grande do Sul, with almost 3,000 inhabitants per square kilometer. It is also highly vulnerable to floods, given its low topography and the presence of a main river and two tributary streams that run along its 32.5 square kilometers. This study employs open interviews with six private, two governmental, and four non-governmental agents based in Esteio. It has the aim to clarify their understanding of resilience to floods, and to unveil experiences of industrial losses in the main flood events, recorded in 2013 and in 2015. Private firms avoid talking about losses, and prefer instead to emphasize their mitigation actions, thereby taking risks regarding the high probability of future floods. The perception of resilience by firms is disguised or shallow, focused on palliative measures. Local firms, mainly small ones, usually accept the risk of keep their business in the municipality, because they have roots in Esteio. Further research is necessary to better classify and quantify industrial losses caused by floods. Such data would enable business owners to get better prepared for future natural disasters.

Keywords: Industrial losses. Supply chain disruption. Floods. Resilience.