

## A spatial hedonic analysis of trade-offs between benefits and hazard risks

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In Japan, which suffered a serious Tsunami damage in the 2011 Great Eastern Japan Earthquake, it is an urgent task to increase resilience of bayside areas, which are typically in flood prone areas. However, in bayside areas, their attractiveness (e.g., their own scenic ocean views and other factors from oceans) is likely to be emphasized, and their flood risks might not be perceived as negative factors appropriately. Thus, this study performs a spatial hedonic analysis in Yokohama city, and quantifies influences of both positive factors from the ocean (e.g., ocean view and access to the ocean) and flood risks. The result reveals that, while ocean view and access to the ocean have significant positive influences as expected, any significant influence is found from flood risks. Also, joint influence of these variables shows that, in Yokohama, bayside flood prone areas are as perceived as attractive areas; in other words, flood risks are not perceived as negative factors appropriately. Based on these results, we discuss possible urban policies to decrease flood hazard risks while holding attractiveness of bayside areas.

Keywords: flood hazard, view, hedonic analysis, Yokohama city, remote sensing