

## Public Perception of Aquatic Environmental Hazards and Sustainability Awareness

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### Abstract:

Plastic-associated pollutants and climate-related environmental hazards increasingly threaten aquatic ecosystems, coastal regions, and environmental sustainability worldwide. Strengthening public awareness and environmental engagement is essential for supporting sustainable responses to ecological and aquatic challenges. This study examines how visual representations of environmental hazards influence public perceptions of environmental risks, sustainability awareness, and willingness to support environmental action. The study also evaluated participants' prior knowledge regarding sustainability and environmental issues. A representative sample (N = 402) viewed four short visual scenarios depicting aquatic and climate-related hazards, including tsunami events and wildfires, presented in both local and geographically distant contexts. Participants evaluated the perceived impact of each scenario in terms of concern, personal relevance, and willingness to support sustainability-related action. The findings demonstrate a significant locality effect across all measured variables. Environmental hazards presented in a local context were consistently perceived as more impactful than equivalent events framed as occurring in distant regions. Participants reported stronger concern and greater willingness to support environmental and sustainability-oriented action when threats were presented as geographically closer. Higher engagement levels were also observed among participants with stronger prior sustainability awareness. The study highlights the importance of locally relevant environmental communication in strengthening public engagement with aquatic environmental risks and sustainability challenges. The findings contribute to current discussions regarding environmental resilience, aquatic ecosystem protection, and societal responses to pollution and climate-related threats.