☐ **Disaster Management & Impact Response**

Teaching Risk Management Through the Lens of Asteroids and Disaster Strategies

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Since implementing the warning network systems for near-earth objects and bolide events, everything has changed for the safety of the planet [1, 2]. However, this has not been the case in the past, as in the case in 1908 in Tunguska, Siberia, when an extraterrestrial object burned around 2150 km^2 without any injury. Nowadays, the IAWN (International Asteroid Warning Network) is tasked with developing a strategy using well-defined communication plans and protocols to assist governments in analyzing asteroid impact consequences and in planning mitigation responses.

In disaster management and impact response, there is a crucial fact to remark: More than a thousand people were injured because the sonic wave during the Chelyabinsk event collapsed the city's hospital system [3]. Today, in the world, there are around 50 cities with a population of more than 500,000.

This work offers a training and education program for cities with populations exceeding 5,000,000 to cope with the likely repercussions of such catastrophes in heavily populated metropolitan areas. Community awareness and avoidance of asteroid-related dangers are the aims of this program, which is based on earthquake preparedness standards. The risk of an impact is still low, but it's not zero, just like with earthquakes. Both catastrophes can seriously damage or destroy structures and people. For example, a region's tectonic setting affects the yearly risk of earthquakes, which may range from 0.01% to 1%. Similarly, bolide impacts cannot be foreseen, but we need to be prepared for the worst because of how dreadful they may be. The training program focuses on teaching people to detect early warning signals of an explosion or atmospheric impact, such as a blinding flash of light, and to take timely action to reduce injury. Important things to remember include staying away from windows to avoid being harmed by broken glass, finding a safe place to hide to decrease the risks of hearing loss and debris hits, and following evacuation instructions to the letter. Like in earthquake-prone countries, this project attempts to educate citizens to establish a resilience culture that will help minimize the impacts of these uncommon but high-impact events. In calling attention to the parallels between NEO impacts and earthquakes: low probability, high impact hazards, this research underlines the necessity to integrate asteroid impact preparation into urban disaster response strategies. Through education, metropolitan centers may greatly strengthen public safety and raise their ability to respond effectively to foreign hazards, and therefore not generate dread in society.

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