



# DISASTERS IN HOLLYWOOD

Since the advent of movies, directors have been fascinated by disasters. But box office success and special effects do not make for accurate and informative portrayals of natural hazards. BY IAN DAVIS

Movie directors have always understood that the public loves to be scared without suffering. Disaster movies are thus among the most popular and financially successful types of films. In a list of disaster movies produced by Hollywood since 1928 there are eight volcanic eruptions, seven earthquakes, six hurricanes, four tornadoes, four floods, two tsunamis and an avalanche. The remainder are a rich mix of virus infections, cave or tunnel collapses, killer bee attacks, fires, terrorism, nuclear power station explosions, sinking ships, giant creature appearances and—in an example that must have brought particular pleasure to the special effects industry—global destruction. All too often, however, these movies depict events in a manner that is very much at odds with the reality of natural hazards.

Despite the best efforts of special effects departments, the hazards portrayed can look decidedly unconvincing or outright inaccurate. The cascading snow in *Avalanche* must have been especially low budget, with great chunks of white polystyrene flying about in all directions. Equally unreal is the lava flow down the streets of Los Angeles in *Volcano*, resembling red-hot treacle engulfing an architectural model of cardboard and balsa wood. Earthquakes in *San Francisco* and *The Rains Came* showed vast cracks opening in the ground, swallowing up all and sundry—something that is mercifully uncharacteristic of the actual seismic process. Another exceedingly misleading image occurs in *Dante's Peak*, where Pierce Brosnan lives up to his James Bond image by driving his pickup truck at breakneck speed toward a conveniently positioned tunnel in the mountainside, somehow outstripping an oncoming pyroclastic blast that, in the Mount St. Helen's eruption, traveled at 540 kilometers per hour.

But is the information provided about natural hazards deliberately misleading? Generally scriptwriters and directors seem to do their homework and have a broad understanding of the hazard characteristics they wish to portray, but their problem is one of overkill. All the freak physical and social events that can happen in multiple disasters are crammed together, often compressed into a single sequence. For example, in *Hurricane*, boats are wrecked, a convicted man tries to escape, trees are uprooted, buildings collapse and people tie themselves to trees. And that's just for starters: a coral reef breaks up, the island is totally submerged, a woman gives birth in the height of the storm, the church where people have gone for sanctuary is destroyed. It is just possible that such things may have been reported in hurricanes, but it would be exceedingly rare for them all to occur in the same event.



Are the underlying causes of disaster vulnerability ever described? A key theme in *Avalanche* is that cutting down trees to make way for tourist development increases the risk of avalanches. A developer, played by Rock Hudson, strongly denies this in the pre-avalanche section of the film whenever he is challenged by an ecologically minded opponent. However, after the avalanche has descended to cause widespread havoc and loss of life to punish him for his sins, he belatedly admits full responsibility in the closing sequence of the film. "I caused all this; I am responsible," he laments.

Are conflicts between economic realities and public safety factors ever covered? An early scene in *Dante's Peak* contains a meeting of the town council, presided over by the mayor, played by Linda Hamilton. The meeting is called to consider the wisdom of a full-scale evacuation. One of the members ruefully considers the message such a step would have on the financier who has been courted by the town to invest in its future: "He is going to take his \$18 million and he is going to evacuate." Council members nod their heads in agreement. The conflict between safety and the local economy is also the dominant concern of the town council in *Flood*. Here the issue is whether to release water in the dam as water levels rise. The mayor is not the only member who believes that the future of the town is its good fishing and that the release of water will kill large numbers of fish and thus damage this vital tourist revenue. It is to the credit of the makers of these films that they highlighted these dilemmas, since all too often disasters are portrayed in documentary films or screened on the news as "Acts of God," without any recognition of underlying causal factors producing vulnerable conditions.

Is emergency management accurately portrayed? All of the members of the emergency management staff in *Volcano* stare at a giant TV screen and their computers instead of making any attempt to get on with managing the eruption on their doorstep. Meanwhile, their heroic disaster coordinator, played by Tommy Lee



### Filmed disasters

"VOLCANO," OPPOSITE,  
"HURRICANE," TOP, AND  
"SAN FRANCISCO," ABOVE.

Director John Ford focuses on community strategies in *Hurricane*. The community observes birds flying away from their island in anticipation of the impending storm—a well-documented community early warning system. A family ties itself to a tree in order to resist the wind force and remain above the level of a surge tide. During the 1977 cyclone in Andhra Pradesh, many inhabitants of coastal villages survived through this effective coping strategy. Families in the film also seek shelter in the church, the only solid building on the island. For minor storms, this may be an effective approach, but the strategy failed as the building collapsed on them. In many Caribbean hurricanes, apparently well-built solid churches have provided shelter for homeless victims, only to collapse and become their graves. Thus a perceived safety strategy turns out to be the exact opposite. In another film, recent arrivals neglect to close their shutters before a storm, a reminder that community coping response is often dependent on hazard frequency.

Hollywood can certainly be relied upon to trivialize and distort the reality of disasters or their management. But by scaring the public via the big screen these films also convey some sense of the terrible consequences that a real life disaster can bring.

Ian Davis is professor of development and disaster management, Disaster Management Centre, Cranfield University, United Kingdom.

Jones, is at the scene of the disaster as it unfolds. He organizes a dam of concrete road blocks to contain the lava flow, then mobilizes a demolition team to blow up a new building to form another unlikely dam. But the failures in emergency management in *Volcano* are dwarfed when compared to a truly unbelievable scene in *Flood*, when a city council member gathers a group of school kids, randomly found in the town street, and dispatches them to tell anyone they might come across to evacuate immediately. Not surprisingly, this ill-conceived warning strategy was not particularly effective.

## THE DISASTER IS COMING AND THE CAST IS READY

How typical is the average cast of a disaster movie? Disaster film directors have the advantage that their cast list is ready and waiting before the screenplay is even written. There is a veritable stack of predictable characters clamoring to get in front of the camera:

- The stranded dog or cat
- The developer who exploits the environment to create vulnerable conditions, all for quick money
- The corrupt official who suppresses an engineer's report that predicts technological failure
- The dying grandmother who, Eskimo-style, insists on being left to "meet her maker" rather than hold back the fleeing family
- Hyped-up experts behaving like over-excited school kids at their first summer camp
- The life-saving, good-looking hero
- The pregnant woman whose labor pains coincide with the disaster impact
- The lost or trapped child
- The brave expert (in the guise of a latter-day Noah) whose warning of impending disaster, initially rejected out of hand, is ultimately vindicated when "all hell breaks loose"

Is this cast list typical of real life? Yes and no. Such characters do occasionally figure in the vivid accounts I have heard from the survivors of the 30-odd disaster sites I have visited. But, more often than not, these highly colorful characters are not discernible at the actual disaster scene among the vast mass of ordinary, unheroic people who cope, or sometimes fail to do so, when extreme disasters affect them.