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AFP/GETTY

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“Many animals, of course, are equipped with highly developed sensory apparatus that **can read an array of natural signals on which their lives may depend** – so it seems perfectly possible that some animals may be able to pick up any earthquake precursors. Unpleasant chemicals could be sniffed out, low frequency waves picked up, and ionised air sensed by sensations in fur or feathers.”

<https://www.bbc.com/future/article/20220211-the-animals-that-predict-disasters>

“Survivors also reported seeing animals, such as cows, goats, cats and birds, deliberately moving inland shortly after the earthquake and before the tsunami came,” says Irina Rafliana, previously part of an advisory group for the United Nations International Strategy for Disaster Risk (UNISDR) and now a researcher at the German Development Institute in Bonn. **Many of those who survived ran along with these animals or immediately after.”**

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“In the countries in the path of the tsunami, the response was disorganised and lethargic. The few who were aware of the dangers were hampered by lack of preparation, bureaucratism and inadequate infrastructure. Others either did not know how to interpret the warning signs, or were indifferent to them. None of the countries surrounding the Bay of Bengal issued an official warning, leaving millions of people completely at the mercy of the approaching waves.”

<https://www.wsws.org/en/articles/2005/01/warn-j03.html>

“Even with advanced technology it can be difficult to detect many kinds of impending natural disasters. In the case of earthquakes, for example, seismic sensors lurch into jolted squiggles only as the earth-juddering shocks are actually happening. **Making reliable predictions requires precursor signals** – and, as yet, scientists haven't found any signals that seem to occur consistently before big quakes.”

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“Text messages to the country's five top emergency coordinators failed to reach their targets or were delayed for hours, an official said, adding that greater use of two-way radios would be needed in future. But evacuation drills involving a total of 4,000 people in two seaside districts went well.”

<https://www.theguardian.com/environment/2006/may/18/indianoceansunamidecember2004.naturaldisasters>

## Food for thought

- Disaster precursor signal exist in nature.
- Detecting this precursor signal is work in progress.
- Alert system without working communication channel is not complete solution.
- Alert system without good impact and risk management is not complete solution.