



How the 2015-2016 El Niño

Triggered Outbreaks Across the Globe

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00:00:01,220 --> 00:00:05,640

In 2015, a prolific outbreak of mosquito-borne Dengue Fever

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00:00:05,640 --> 00:00:12,960

struck Southeast Asia. In fact, something was causing outbreaks to pop up all over the world.

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00:00:12,960 --> 00:00:15,270

So, what happened?

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00:00:15,270 --> 00:00:18,520

Two to three months earlier, the ocean water in the equatorial

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00:00:18,520 --> 00:00:22,490

Pacific began to dramatically warm-up resulting in a cascading series

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00:00:22,490 --> 00:00:26,560

of events that eventually lead to disease outbreaks worldwide.

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00:00:26,560 --> 00:00:30,750

This warming event is commonly known as El Nino.

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00:00:32,080 --> 00:00:35,550

The same El Nino that causes heavy rainfall in some parts of the world

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00:00:35,550 --> 00:00:44,040

and droughts in others, the 2015-2016 El Nino was the strongest seen in the last 50 years.

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00:00:44,040 --> 00:00:45,350

Here's what happened:

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00:00:45,350 --> 00:00:50,790

The El Nino-Southern Oscillation began showing signs of warming in early 2015.

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00:00:50,790 --> 00:00:59,310

That led to changes in rainfall worldwide which directly impacted land surface temperatures across all continents.

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00:00:59,310 --> 00:01:04,250

In the case of Southeast Asia, the region actually got less than average rain

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00:01:04,250 --> 00:01:09,630

which caused the surface of the land to heat up and therefore produce drier conditions.

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00:01:09,630 --> 00:01:15,860

That drew mosquitoes into populated, urban areas containing open water they needed for laying eggs.

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00:01:15,860 --> 00:01:21,730

As the air warmed, mosquitoes grew hungrier and reached sexual maturity faster

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00:01:21,730 --> 00:01:24,430

...which meant more mosquito bites.

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00:01:28,000 --> 00:01:31,560

The purple columns represent reported incidents of Dengue Fever.

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00:01:31,560 --> 00:01:37,050

Mosquito-borne epidemics have a lag time of two to three months following these weather changes

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00:01:37,050 --> 00:01:43,260

which is why the Dengue Amplification Period kicks in several months after land temperature begins heating up

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00:01:43,260 --> 00:01:45,350

The good news?

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00:01:45,350 --> 00:01:51,000

Seasonal forecasts are an early warning system with the real potential to save lives.