El Nino is Coming

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Although nobody knows how strong or long it will last, Asia's weather will change

Thousands of meters into the atmosphere, the great trade winds over Southeast Asia are starting to slow, as they have done 14 times in the last century. The oceans surrounding Indonesia, Malaysia, the Philippines and Australia are beginning to grow warmer. And thousands of miles away, in Ecuador and Peru and the west coast of the United States, the weather could be in for drastic change.

Nobody knows for sure yet if El Nino, as the weather phenomenon is known, is on its way, or how serious it will be if it does arrive. NASA has warned of the possibility of the emergence of an El Nino starting as early as May. The Australian Meteorology Bureau announced last week that the equatorial Pacific Ocean surface had warmed through March and trade winds have begun to ease – the climactic conditions that ultimately will produce the weather phenomenon called in Spanish "the child," so named because sharply warming ocean temperatures arrive off the coast of Ecuador every seven or eight years around Christmas, the birthday of Christ.

Weather researchers are monitoring Pacific Ocean temperatures, with some remaining unconvinced. However, commodity traders, instantly alert to suggestions of changes in weather conditions, almost instantaneously drove up the price of palm oil temporarily on world markets when the Australian Meteorological Bureau issued its alarm. Indonesia, Malaysia and Australia are expected to be hit by hotter, drier conditions at the same time regions in the west start to drown. At the same time, colder, wetter winters can be expected in the southern United States along the Gulf Coast.

In the three most previous El Nino events, palm oil prices skyrocketed as yields fell in Indonesia by as much as 15 percent and in Malaysia by more than 10 percent. Between them, the two countries produce 90 percent of the world's palm oil, one of the world's most important edible oils. In one of the three weather changes, palm oil prices rose by more than 200 percent. Wheat, rice, coconut oil, coffee and rubber are all vulnerable to crop disruptions.

The flip side of El Nino is La Nina, whose conditions are almost the exact opposite. "One of the longest and strongest recent La Nina events is now waning," said the US-based private weather consulting firm Dynamic Predictables. "While much of 2008 will see Nada Nina [near typical] sea surface temperature in the tropical Pacific, 2009 will be dominated by a warm water event."

Given the world's fragile food balance, major weather occurrences such as those that hit in late 2007 and early 2008 with tropical cyclones in Bangladesh and Burma can cause prices to spike sharply. For instance, from November 2007 to April 2008, the world price of rice skyrocketed from about US\$350 per tonne to as much as US\$1,100 although some governments couldn't buy it at any price. The Philippines had to withdraw a rice tender in April 2008 because of high prices and lack of supply. Food riots occurred in Cairo and other cities and brought down the always fragile government in Haiti.

Soetanto, the chief of the climatological and agro-climate weather quality analysis section of Indonesia's Meteorological, Climatological and Geophysical agency, said Tuesday that there has

been no sign yet of El Nino yet.

"There are several analyses including by the Australian researchers that there is a possibility that El Nino could arrive in August," Soetanto said. "But several reports also say otherwise. To say that there will be an El Nino is a bit premature because it is still April. It will probably be around the end of May before more accurate predictions can be made."

Derom Bangun, vice chairman of the Indonesian Palm Oil Council, which covers both palm oil farmers and processors, said that so far he has received no official reports and has not provided warnings to produces. Some preventive action can help to avoid major production losses, he said although he added that the council will wait for weather warnings from the council.

"We'll be very selective in receiving weather forecasts and we will wait to avoid a possible rush and panic," he said. "In 1998, CPO output dropped because of very dry and hot weather, some plantations even burned. At that time, we didn't have proper equipment to reduce fires at palm oil plantation because of the lack of preparation," he said.

Trade winds had begun to weaken across almost the entire breadth of the tropical Pacific Ocean by the end of March, according to weather researchers. When trade winds slow, the vast tide of sea water across the thousands of kilometers of the Pacific Ocean slows as well and begins to heat up in the sun. Eventually this enormous body of warmer water reaches the west coast of South America, particularly Peru and Equador, and the United States, and begins to upwell with increased rainfall in the gulf coast states, although Atlantic hurricanes are expected to diminish.

In the worst recorded El Nino in 1982 and 1983, weather-related disasters hit Australia, Africa and Indonesia, which suffered droughts, dust storms and brush fires, according to the San Francisco State University Department of Geosciences. Australia suffered its worst droughts ever coinciding with El Ninos in 1982-1983 and 1997-1997.

In just 24 hours, according to the department's analysis, sea surface temperatures rose 7.2 degrees Fahrenheit at one Peruvian village site. In an area where rainfall averaged only 150 millimeters per year, one part of Peru received 3,352 millimeters – more than 20 times as much rainfall. As far away as Sri Lanka, according to the International Journal of Climatology, "climactic fluctuations have a profound influence on the cultivation of crops such as rice, which is the staple food."

On the west coast of the United States, as the trade winds slacken, nutrient rich water within the Peru Current along the west coast of South America is prevented from moving up from the depths to replace warm surface water. With that, plankton, a major source of nutrients for the fish population, begin to die off, resulting in a drastically altered ecosystem for fish, according to Dynamic Predictables.

Despite concerns that global warming from greenhouse gases may be producing stronger El Nino conditions, a computer modeling study quoted by Reuters News Service in March said that one such occurrence in 1918 was far stronger than previously thought, coinciding with one of the worst droughts in India's history, an indication that the weather phenomenon isn't getting any worse.

La Nina is no picnic. The 1998 model resulted in floods in Bangladesh and China that displaced 230 million people according to the David Suzuki Foundation, a science-based Canadian environmental organization.

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